



**CENTRAL MAINE  
POWER**

October 19, 2018

Kristen Puryear, Ecologist  
Maine Natural Areas Program  
State House Station 93  
Augusta, ME 04333-0093

Mark McCollough, Endangered Species Specialist  
US Fish and Wildlife Service  
Maine Fish and Wildlife Service Complex  
306 Hatchery Road  
East Orland, Maine 04431

**RE: New England Clean Energy Connect (NECEC) Project  
Rare Plant and Unique Natural Community Avoidance, Minimization and Mitigation**

Dear Ms. Puryear and Mr. McCollough:

Central Maine Power Company (CMP) is pleased to provide a summary of proposed avoidance, minimization, and mitigation measures for rare plants and unique natural communities within the NECEC project. CMP, Maine Natural Areas Program (MNAP), Maine Department of Environmental Protection (MDEP), and United States Fish and Wildlife Service (USFWS) met on October 3, 2018 to discuss occurrences identified during surveys conducted by CMP in July 2018. Attachment A of this letter lists the rare plant species or unique natural communities identified in the NECEC project area and CMP's proposed avoidance, minimization, or mitigation measures, which were informed by the consultation meeting held on October 3, 2018. In addition, please find Attachment B (meeting minutes) for your reference and records.

If you have any questions or comments regarding the proposed avoidance, minimization, or mitigation measures, please call (207) 629-9717 or email me ([gerry.mirabile@cmpco.com](mailto:gerry.mirabile@cmpco.com)).

Sincerely,

Gerry J. Mirabile  
Manager – Environmental Projects  
Environmental Permitting  
AVANGRID Networks, Inc.

Enclosures

cc: Don Cameron, MNAP; Wende Mahaney, USFWS; MDEP Service List; LUPC Service List  
File: New England Clean Energy Connect

**ATTACHMENT A**  
**NECEC RARE PLANT OCCURENCES AND UNIQUE NATURAL COMMUNITY**  
**AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES**

**NECEC Rare Plant Occurrences and Unique Natural Communities**

Description	Common Name	FeatureID	Rank	Proposed Impact Based on Original Design	CMP Proposed Avoidance, Minimization, or Mitigation
Isotria medeoloides	Small whorled pogonia	ISME01AR	S1	Indirect Impact, clearing	CMP proposes to avoid impact by re-aligning the infrastructure within the existing corridor and eliminating tree clearing
Gentiana rubricaulis	Red stemmed gentian	GERU02AR	S1	No impact	Install and maintain flagging for avoidance throughout construction
Gentiana rubricaulis	Red stemmed gentian	GERU03AR	S1	Clearing	CMP will flag all populations prior to construction, clearing during frozen ground conditions or on matted travel lanes
Dryopteris goldiana	Goldie's wood fern	DRGO01AR	S2	Clearing, MNAP indicated existing wet conditions may mitigate impact of canopy removal	CMP will maintain riparian buffer adjacent to this occurrence and will plant non-capable species. Clearing will be performed by hand only to avoid heavy equipment disturbance.
Carex siccata	Dryspike sedge	CASI02AR	S2	No impact	Install and maintain flagging for avoidance throughout construction
Carex siccata	Dryspike sedge	CASI01AR	S2	No impact, Close to demo structure but likely not impact by activity. Hand cut and winch structure.	Install and maintain flagging for avoidance throughout construction
Houstonia longifolia	Long leaved bluet	HOLO01AR	S2/S3	No impact, clearing limits shown on map but no clearing will be needed here	Install and maintain flagging for avoidance throughout construction and verify the correct placement of the access road during access road installation.
Gentiana rubricaulis	Red stemmed gentian	GERU01AR	S1	Clearing (Minor impact, clips an edge of the polygon)	CMP will flag all populations prior to construction, clearing during frozen ground conditions or on matted travel lanes
Hardwood River Terrace Forest	NA	EA01AR	S3	Clearing	Avoidance/mitigation not needed, community does not meet minimum standards for this community type
Gentiana rubricaulis	Red stemmed gentian	GERU04AR	S1	Clearing (Minor impact, clips an edge of the polygon)	CMP will flag all populations prior to construction, clearing during frozen ground conditions or on matted travel lanes
Gentiana rubricaulis	Red stemmed gentian	GERU04AR	S1	Clearing (Minor impact, clips an edge of the polygon)	CMP will flag all populations prior to construction, clearing during frozen ground conditions or on matted travel lanes
Trichophorum clintonii	Clinton's bulrush	TRCL01AR	S3	No impact	Install and maintain flagging for avoidance throughout construction
Galium kamtschaticum	Boreal bedstraw	GALKAM002DMC	S2	No impact	Install and maintain flagging for avoidance throughout construction
Galium kamtschaticum	Boreal bedstraw	GALKAM003DMC	S2	No impact	Install and maintain flagging for avoidance throughout construction
Galium kamtschaticum	Boreal bedstraw	GALKAM001DMC	S2	No impact	Install and maintain flagging for avoidance throughout construction
Jack Pine Forest	NA	JackPineWood004DMC	S1	Unavoidable impact, clearing and access, spans entire corridor width	CMP proposes monetary compensation using in-lieu fee calculation or preservation for significant wildlife habitats if determined necessary and appropriate by MNAP (dependent on community rank)
Jack Pine Forest	NA	JackPineWood005DMC	S1	Unavoidable impact, clearing and access, spans entire corridor width	CMP proposes monetary compensation using in-lieu fee calculation or preservation for significant wildlife habitats if determined necessary and appropriate by MNAP (dependent on community rank)
Jack Pine Forest	NA	JackPineWood006DMC	S1	Unavoidable impact, clearing, 1 pole and access, spans entire corridor width	CMP proposes monetary compensation using in-lieu fee calculation or preservation for significant wildlife habitats if determined necessary and appropriate by MNAP (dependent on community rank)
Enriched Northern Hardwood Forest	NA	EA03AR	S3	Unavoidable impact, clearing, 1 pole and access, spans entire corridor width	CMP proposes monetary compensation using in-lieu fee calculation or preservation for significant wildlife habitats if determined necessary and appropriate by MNAP (dependent on community rank)
Hardwood River Terrace Forest	NA	EA02AR	S3	Unavoidable impact, clearing, 1 pole and access, impacting probably 30% of this resource.	CMP proposes monetary compensation using in-lieu fee calculation or preservation for significant wildlife habitats if determined necessary and appropriate by MNAP (dependent on community rank)
Lindernia dubia var. anagallidea	Yellowseed false pimpernel	LIDU01AG	SH	No impact	Install and maintain flagging for avoidance and hand cutting of vegetation only

**ATTACHMENT B**  
**OCTOBER 3, 2018 MEETING MINUTES**  
**RARE PLANT OCCURRENCES AND UNIQUE NATURAL COMMUNITIES**

MEETING MINUTES  
MNAP – Rare Plant Locations, Avoidance/Minimization

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**Contact:** Mark Goodwin  
**Title:** Environmental Manager – Burns & McDonnell  
**Date:** October 3, 2018  
**Time:** 10:00 am -12:15 pm  
**Location:** MNAP Office, 17 Elkins Drive, Augusta

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**Attendees:**

Gerry Mirabile (GM)- CMP  
Mark Goodwin (MG)- Burns & McDonnell  
James Morin (JM)- Burns & McDonnell  
Kristen Puryear (KP)- MNAP  
Molly Docherty (MD)- MNAP  
Don Cameron DC)- MNAP  
Jim Beyer (JB)- MDEP  
Mark McCollough (MM)- MDIFW

**Purpose:**

Meeting to discuss avoidance and mitigation measures for rare plants and unusual natural communities which may be impacted by CMP's NECEC Project.

**General Discussion:**

The meeting began with a quick review of the intended goals of the meeting which were to discuss the locations of rare plants and unusual natural communities identified within CMP's corridors as a result of the NECEC rare plant and exemplary natural community field survey; to discuss agency concerns regarding each species/community; and to determine the appropriate level of avoidance (if required), mitigation, or best construction practices for each occurrence.

**Rare Plant Occurrences:**

*Isotria medeoloides (Small Whorled Pogonia [SWP])*

- MG showed on Google Earth where the SWP was recently identified; within CMP corridor but outside the current project's clearing limits in Greene.
- MG estimated that the SWP location was about 12' outside the proposed clearing limits.
- MM had questions about the extent of the survey area, inside and outside the clearing limits, and the name of the abutter.
- GM asked about the shade tolerance of the SWP and the intrusion of additional sunlight.
- DC stated that any amount of tree clearing could potentially imperil the occurrence and that when the canopy is removed there is first the impact of additional light changing the

microclimate and second, dense early successional growth that would result could change the habitat conditions, altering the habitat so that it is unsuitable for SWP.

- JB asked if planting additional non-capable species along the edge of ROW would be appropriate.
- DC stated there was no guarantee that planting non-capables would be sufficient to protect the occurrence and that plantings to mitigate impacts to SWP is something that is not done.
- GM spoke about changing the wire configuration from horizontal to vertical in this area to minimize the amount of clearing.
- MM asked about the separation zone between the edge of ROW and the wire.
- GM spoke about the line clearance requirements and the potential for outages and fines (financial penalties) if the appropriate clearance is not maintained.
- GM spoke about reconfiguring the adjacent lines to make more room for the new line in a manner that would avoid tree clearing in this location.
- MM asked about managing trees to a mid-canopy height (topping) to provide shade.
- GM spoke about a maximum height of 10' under the wire zone, capable vs. non-capable, and that some species are better suited to top verse others. Managing the vegetation in this manner is doable but not preferred for a variety of safety, reliability, and environmental reasons.
- DC stated that managing the clearing limits as mid-canopy could not guarantee survival of the occurrence.
- GM asked the group about the possibility of transplanting.
- DC stated that was not practical (due to SWP's association with fungus and trees), MD concurred that transplanting was not an option.
- GM asked if construction of a shade pergola over the occurrence would sufficiently mitigate for clearing.
- MD and DC concurred that this was not a guaranteed or preferred method of preservation.
- MG said that discussions with project engineers was necessary to determine if re-aligning the wires and the adjacent (co-located) transmission lines was an option.
- GM asked if reconfiguring the line and the adjacent lines was not an option that what would be the next step.
- DC and MM agreed that conservation of an adjacent population if present on the abutters land could be a viable mitigation measure. Additional surveys on abutting land would be needed to determine whether or not that option was viable, but time is running out to do so in 2018.
- GM asked the group about additional mitigation measures.
- MM indicated that anything other than avoidance would trigger formal consultation under Section 7 of the Endangered Species Act, and that to authorize a take, USFWS would require a thorough vetting of alternatives, avoidance, and mitigation in the context of a Biological Assessment. USFWS would then issue a Biological Opinion within 130 days.
- GM spoke about the project timeline and that hearing would likely be 3<sup>rd</sup> week in January 2019.
- JB spoke about possible permits issued by Mar./Apr.
- GM spoke about a project construction start date of Nov/Dec 2019 with an in-service date of late 2022.

- Final thoughts included additional survey efforts outside CMP corridor on abutters property (with landowner permission), mitigation measures, fall back to mitigation measures, and engineering alternatives with re-alignment of adjacent lines to make room for the new line without additional clearing.

*Gentiana rubricaulis (Red-stemmed Gentian)*

- DC stated that this plant does well in open rights-of-way. Appropriate protection includes flagging all populations prior to construction, clearing during frozen ground conditions or on matted travel lanes.
- MG explained that all protected natural resources would be flagged/signed prior to construction, would be maintained throughout construction, and that environmental inspectors and third-party inspectors monitor the condition of flagging/signage throughout the project.

*Dryopteris goldiana (Goldie's Wood Fern)*

- DC stated that this was a canopy dependent special concern species, and that it was important to maintain as much shrub growth in the vicinity as possible and that survey of existing undergrowth would be beneficial.
- Population is located approximately 20 feet from the outside edge of the clearing limits in a riparian area.
- MG stated that a riparian buffer with taller non-capable vegetation outside of the wire zone would be maintained and that hand cutting could be implemented within proximity to the occurrence to prevent heavy equipment impacts.
- DC indicated that being in a hydric regime (proximity to stream and wetlands) would likely mitigate the impacts of canopy disruption for this occurrence.

*Carex siccata (Dry-spike Sedge)*

- All agreed that these populations are likely to not be impacted by construction activities.
- DC stated that flagging and avoidance to the extent practical will be sufficient.
- MNAP noted that poles to be removed should be cut at ground level, soil added, and areas allowed to revegetate.
- DC requested that if disturbance occurs within this habitat, the disturbed area should be raked out (Note: CMP will mulch all disturbances within rare plant species habitat with weed-free straw).

*Houstonia longifolia (Long leaved Bluet)*

- DC stated that this population has been present for quite a while and that flagging the occurrence prior to construction for avoidance and to verify the correct placement of the access road will be sufficient to protect the species.

*Trichophorum clintonii* (Clinton's Bulrush)

- DC stated that this plant prefers open areas (e.g., ROWs) and that flagging and avoidance of the population will be sufficient.

*Galium kamtschaticum* (Boreal Bedstraw)

- Occurrences are outside of the project ROW and will not be impacted by construction.

*Lindernia dubia* var. *anagallidea* (Yellowseed False Pimpernel)

- DC stated that this plant prefers open areas. All agreed that flagging, hand cutting of vegetation and protection of basin where this occurrence is, would be enough to protect the species.

**Natural Community Occurrences:**

*Jack Pine Forest*

- KP stated that this forest is a very rare natural community in the context of its location in northwest Maine and questioned how big the population may be, and how far outside the CMP ROW the community can be found. KP stated that it appeared that 18 acres of the community was mapped in the 300-foot-wide corridor. The extent of the impact may be mitigated by the overall size of the community (Note: clearing within Jack Pine community is approximately 5.5 acres).
- MNAP noted that the purple lesser fritillary, a rare butterfly, may be present here.
- KP stated that clearing impacts may reduce the condition/quality of the community, may lower the rank.
- DC spoke about the need to know the extent of the stand (complete polygon size) and that MNAP needed to and would gather more ground information.

*Hardwood River Terrace Forest (Basswood/Ash/Red Maple Forest) – Livermore Falls*

- KP stated that there is not much knowledge about this specific forest stand and that it appears it does not meet the minimum standards for the Hardwood River Terrace Forest natural community type because it is degraded and below MNAP mapping size criteria.
- MNAP noted that this may be wood turtle habitat.
- MNAP indicated that avoidance/mitigation was not necessary.

*Hardwood River Terrace Forest – Anson*

- KP questioned if there was minimal clearing compared to the larger mapped polygon.
- KP stated that it appears to be a young forest with significant invasive plant species based on the recent Gilman and Briggs survey.
- MD asked about the current rank.
- DC stated that to determine rank MNAP would have to do a more comprehensive ground survey to see the extent of the forest community.



- No avoidance or minimization measures were recommended.

*Enriched Northern Hardwood Forest – Moxie Gore*

- KP stated that it would be beneficial for MNAP to do a more comprehensive ground survey to see the extent and quality of the forest community.
- DC spoke about the need for more ground survey information to put the project clearing in context to the larger mapped community.
- MD spoke about the need for landowner permission.

General Note: MNAP commented that one of the minimization measures for all rare plant and natural community occurrences should be the implementation of an invasive species control plan. MG indicated that CMP intended to develop a pre-construction survey and post-construction monitoring and treatment plan like that implemented on the Maine Power Reliability Program. MNAP noted that if RTE plant surveyors did not observe invasives in greenfield, pre-construction invasives survey was not necessary.