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November 16, 2020

VIA HAND DELIVERY

Michele Lumbert, Clerk
Capital Judicial Center
Kennebec County Superior Court
1 Court Street – Suite 101
Augusta, Maine 04330

Re: *NextEra Energy Resources, LLC, et al. v. Maine Department of Environmental Protection, et al.*,
Consolidated Docket Nos. KEN-AP-2020-27, SOM-AP-2020-04

Dear Ms. Lumbert:

Enclosed for filing in the above-referenced matters are Respondents' Opposition to Natural Resource Council of Maine's Motion to Stay. Because the Court's August 11, 2020 Order consolidated the cases at dockets KEN-AP-2020-27 and SOM-AP-2020-04, I am filing these papers in Kennebec County only and am copying Ms. Furbush, the clerk in Somerset County, as a courtesy and to ensure both dockets reflect this filing.

If there are any questions please do not hesitate to contact me at 626-8578.

Thank you for your attention to this matter.

Sincerely,

Margaret A. Bensinger
Assistant Attorney General

Enclosures

cc: Susan Furbush, Clerk, Somerset County Superior Court
(via U.S. Mail)
Counsel of Record (via email only)
Acting Commissioner Melanie Loyzim, DEP (via email only)

STATE OF MAINE
KENNEBEC and SOMERSET, ss.

SUPERIOR COURT
CIVIL ACTION
DOCKET NOS. KEN-AP-20-27
and SOM-AP-20-04

NEXTERA ENERGY RESOURCES, LLC,
WEST FORKS PLANTATION, *et al.*

Petitioners,

v.

MAINE DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondent,

and

CENTRAL MAINE POWER COMPANY

Party-In-Interest

RESPONDENT'S OPPOSITION TO NATURAL RESOURCES COUNCIL OF MAINE'S MOTION TO STAY

Respondent (Department or DEP) hereby opposes the motion of the Natural Resources Council of Maine (NRCM) to stay the May 11, 2020 Order by the DEP Commissioner (Commissioner) conditionally approving the applications of Central Maine Power Company (CMP) to construct the New England Clean Energy Connect (NECEC Order, attached as Exhibit A). The NECEC Order is currently on administrative appeal before the Board of Environmental Protection (Board). The Department's positions with respect to NRCM's requested stay of the NECEC Order and each of the three stay criteria outlined in 5 M.R.S. § 11004 are set forth in the August 26, 2020 decision by the Commissioner denying prior requests for a stay made to the Department (Commissioner's Stay Denial, attached as Exhibit B).[1] The Department maintains these positions here, and by this filing also highlights and corrects various inaccuracies contained in the NRCM Motion.

[1] The Commissioner's Stay Denial is also attached to NRCM's November 2, 2020 Motion to Stay (NRCM Motion) as Exhibit 1.

BACKGROUND

The NECEC Order approved CMP permits for the construction of a transmission line project (NECEC) pursuant to the Site Location of Development Act, 38 M.R.S. §§ 481-489-E (Site Law), and the Natural Resources Protection Act, 38 M.R.S. §§ 480-A-480-JJ (NRPA).[2] This followed a 29-month Department application review process before the Commissioner, which included six days of evidentiary hearings spanning a six week period from April 1, 2019, to May 9, 2019. The Department's voluminous record of these NECEC proceedings consists of over 4600 documents. Throughout the Department's two and a half year application review process, neither NRCM nor any other party ever requested that the Board assume jurisdiction over CMP's Site Law and NRPA permit applications for the NECEC project.

Three appeals were taken of the Commissioner's NECEC Order issued on May 11, 2020. On June 8, 2020, NextEra Energy Resources, LLC (NextEra) filed a Superior Court appeal pursuant to 5 M.R.S. § 11001, *et seq.* (MAPA) and M.R. Civ. P. 80C in Docket No. KEN-AP-20-27; also on June 8, 2020, another group of intervenors in the underlying Department proceedings (West Forks) filed a Superior Court appeal pursuant to MAPA and Rule 80C in Docket No. SOM-AP-20-04; and on June 10, 2020, NRCM administratively appealed the NECEC Order to the Board pursuant to 38 M.R.S. § 341-D(4). In a combined order dated August 11, 2020, the Superior Court consolidated and remanded the NextEra and West Forks judicial appeals to the Board for consideration with NRCM's pending administrative appeal of

[2] The proposed NECEC project includes a 145.3-mile long, 320 kilovolt High Voltage Direct Current transmission line from Beattie Township to Lewiston; a converter station in Lewiston; a new substation in Pownal; and a new 26.5-mile, 345-kV Alternating Current transmission line from the existing Coopers Mills Substation in Windsor to the existing Maine Yankee Substation in Wiscasset.

the NECEC Order.[3] All three appeals are now currently pending before the Board, which may affirm, amend or reverse the Commissioner's NECEC Order, or remand it to the Commissioner for further proceedings. 38 M.R.S. § 341-D(4).

The Department initially received two separate requests to stay the Commissioner's NECEC Order: on June 5, 2020, West Forks filed a motion requesting that the Commissioner stay the NECEC Order,[4] and on June 10, 2020, NRCM filed a separate application for a stay with the Board in conjunction with its administrative appeal of the NECEC Order. On July 16, 2020, the Board Chair referred NRCM's stay request to the Commissioner to allow for a single, consolidated Departmental decision with respect to both the West Forks and NRCM motions. *See* attached Exhibit C. On August 26, 2020, the Commissioner issued the Commissioner's Stay Denial (Exhibit B), which concluded that West Forks and NRCM failed to establish the stay criteria set forth in 5 M.R.S. § 11004.

On September 25, 2020, NRCM and West Forks each filed renewed requests for a stay of the NECEC Order with the Board.[5] On October 23, 2020, the Board Chair, noting that the Commissioner's Stay Denial was made on behalf of the agency (the Department), declined to revisit and reconsider that agency decision and observed that the Commissioner's Stay Denial provided "a thorough discussion of both the applicable stay criteria and why the petitioners failed

[3] The Superior Court issued a subsequent clarifying order dated August 26, 2020.

[4] West Forks subsequently filed supplements to its motion to stay on June 15, 2020, and June 25, 2020.

[5] The September 25, 2020 requests were originally styled in varying degrees as Board appeals but were considered by the Board Chair (as reflected in his letter dated October 7, 2020) as renewed requests for a stay made in the context of the pending Board appeals of the NECEC Order rather than stand-alone appeals of the Commissioner's Stay Denial. On October 16, 2020, CMP, Industrial Energy Consumer Group, and the Maine State Chamber of Commerce and the City of Lewiston (jointly) filed oppositions to these renewed requests for a stay by NRCM and West Forks.

to make the showings necessary to justify a stay of the NECEC Order." NRCM Motion, Exhibit 2. NRCM filed its latest motion to stay with this Court on November 2, 2020.

STAY CRITERIA

MAPA governs applications for a stay of an agency decision and states, in part:

> Application for a stay of an agency decision shall ordinarily be made first to the agency, which may issue a stay upon a showing of irreparable injury to the petitioner, a strong likelihood of success on the merits, and no substantial harm to adverse parties or the general public. A motion for such relief may be made to the Superior Court, but the motion shall show that application to the agency for the relief sought is not practicable, or that application has been made to the agency and denied, with the reasons given by it for denial . . .

5 M.R.S. § 11004. Here, application was made to and denied by the Department for the reasons set forth in the Commissioner's Stay Denial. Exhibit A. The Board Chair declined to revisit or reconsider that agency decision, which represents the Department's position on the requested stay. NRCM Motion, Exhibit 2. Thus the burden before this Court is on NRCM as the petitioner to show each of the following: 1) irreparable injury to the petitioner; 2) a strong likelihood of success on the merits; and 3) no substantial harm to adverse parties or the general public. 5 M.R.S. § 11004; *Dep't of Envtl. Prot. v. Emerson*, 563 A.2d 762, 768 (Me. 1989) (party requesting injunctive relief has burden of demonstrating criteria).

DISCUSSION

The Department's position on NRCM's requested stay and each of the required criteria in 5 M.R.S. § 11004 is set forth in the Commissioner's Stay Denial, Exhibit B, which is incorporated herein by reference. For the reasons set forth in the Commissioner's Stay Denial, NRCM's request for a stay was properly denied. *Id.* By this filing, the Department also highlights and corrects the following inaccuracies in the NRCM Motion.

The NRCM Motion, at 2, incorrectly characterizes the Board Chair's October 23, 2020, letter (NRCM Motion, Exhibit 2), stating that the Chair "adopted the Commissioner's decision" denying NRCM's and West Forks' stay requests. The Board Chair did not adopt the Commissioner's Stay Denial, but rather declined to revisit it, stating: "I see no compelling grounds to revisit and reconsider the Commissioner's Stay Decision and decline to do so here." *Id.* The Board Chair further noted that NRCM's and West Forks' stay requests "were already made to the agency and the Commissioner's Stay Decision already addresses those requests on behalf of the Department." *Id.* The NRCM Motion also states, at 2 (and without citation), that the Board Chair denied NRCM the opportunity to have the full Board act on its stay request. In his October 23, 2020, letter declining to revisit the Commissioner's Stay Denial, the Board Chair merely said that full Board consideration was not "necessary to exhaust administrative remedies" for purposes of MAPA and 5 M.R.S. § 11004. *Id.*

Regarding the actual NECEC Order on the permit applications, the NRCM Motion, at 1 (referring to Segment 1 of the proposed transmission line), asserts that the NECEC project would, for 54 miles, "cut an entirely new 150-foot wide swath through a currently undeveloped section of Maine's North Woods." The NECEC Order, in conditionally approving the applications, very clearly does not permit the cutting of a 150' wide swath through undeveloped forest for Segment 1 of the NECEC Project. *See* Exhibit A at 77. Instead, to "substantially reduce the impacts on wildlife," and scenic impacts, the NECEC Order approves a reduced 54' wide corridor under the wires with tapered vegetation in the remaining right of way, through what is primarily a commercial working forest. *Id.*[6] Required wildlife areas, which have

[6] In particular, the NECEC Order provides that, in the 54' wide area under the wires, the vegetation may be kept up to10' tall, with tapered vegetation maintained on both sides of the wire zone, graduating from 15' to 35' in height through the remaining 150' right of way. Exhibit A, at 77.

additional cutting restrictions such as the maintenance of full canopy vegetation height or softwood vegetation managed for deer travel, provide for further vegetation protection for 14 miles of the 53.1 mile Segment 1. *Id.* at 79-80. In addition, the NECEC Order requires 100' vegetative buffers on all perennial streams in Segment 1 and all coldwater fisheries streams in all Segments of the proposed transmission line. *Id.* at 84-85.

The NRCM Motion also inaccurately states, at 7-8, that the Department "did not permit NRCM to present evidence about the greenhouse gas effects of the Corridor, and it erred by relying, without any independent assessment, on CMP's incorrect representations that the Corridor will result in climate benefits." NRCM was not prevented from presenting evidence on potential greenhouse gas impacts and climate change issues during the Department's licensing process. The Third Procedural Order from the Presiding Officer (attached as Exhibit D) specifically allowed the submission of such evidence for the Department's consideration, and NRCM and others submitted a large amount of evidence on these issues. The Third Procedural Order states, in relevant part (*id.* at paragraph 8(a)):

> 8. The Presiding Officer made the following determinations in response to the issues brought forward:
>
> a. ***
>
> Intervenor Group 4 submitted a timely written request that the issue of potential impacts on greenhouse gas emissions be included in topics to be addressed at the hearing.
>
> ***
>
> CMP submitted a timely written response, maintaining that net greenhouse gas emissions should not be considered as one of the hearing topics.
>
> ***
>
> The Presiding Officer has determined that net greenhouse gas emissions will not be added as a topic to be addressed at the hearing, however the parties may submit written evidence on this issue into the record. The issue can be adequately addressed through written submissions. The topics for the hearing have been set

since October 5, 2018, and the addition of a topic at this time would significantly delay the proceeding.

CMP stated in its application that the reduction of greenhouse gas emissions will be a benefit of the project and CMP presents such a reduction as a rationale for the construction of the project. The parties and the general public will be allowed to submit evidence with regard to these statements in the application, which may include, for example, comments, data, and reports, until the close of the record.

While these issues were not in the subset of issues that formed the focus of the Department's hearing, they were considered and discussed in the NECEC Order. *See* Exhibit A at 104-105. The NRCM Motion, at 8, also inaccurately states that the Department did not assess CMP's claim of a greenhouse gas benefit using any independent evidence. This is belied by the text of the NECEC Order. *See* Exhibit A at 104 & n. 43-44. For example, the London Economics International, LLC, Report, which was relied upon in the Public Utilities Commission's review process, assessed that CMP claim and was considered by the Department. *Id.* at n. 44.

NRCM's statement in its Motion, at 9, that "CMP did not consider whether burying the transmission line is a possible alternative that would allow the project to proceed while significantly decreasing the impact to the environment" is also not borne out by the record. A segment of the Department's hearing was devoted to testimony and cross-examination on that question, and it was analyzed by the Department in the NECEC Order. *See* Exhibit A at 66-67; 72-74.

Lastly, while making no assessment of its accuracy, the Respondent notes that footnote 14 of the NRCM Motion refers to material outside of the Department's record. Moreover, polling results regarding support for a proposed project are not relevant to any of the stay criteria in the Court's consideration nor to the licensing criteria in the Commissioner's decision on the applications.

CONCLUSION

For the reasons outlined above and in the Commissioner's Stay Denial, Exhibit A, the Department opposes NRCM's request for a stay of the Commissioner's NECEC Order, which should be denied.

Dated: November 16, 2020

Respectfully submitted,

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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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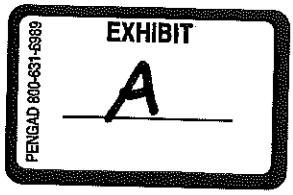
DEPARTMENT ORDER



IN THE MATTER OF

CENTRAL MAINE POWER COMPANY	) SITE LOCATION OF DEVELOPMENT ACT
See Appendix A for Location	) NATURAL RESOURCES PROTECTION ACT
NEW ENGLAND CLEAN	) FRESHWATER WETLAND ALTERATION
ENERGY CONNECT	) SIGNIFICANT WILDLIFE HABITAT
L-27625-26-A-N (approval)	) WATER QUALITY CERTIFICATION
L-27625-TG-B-N (approval)	)
L-27625-2C-C-N (approval)	)
L-27625-VP-D-N (approval)	)
L-27625-IW-E-N (approval)	) FINDINGS OF FACT AND ORDER

OVERVIEW

This Order conditionally approves Central Maine Power Company's applications for State land use permits for the New England Clean Energy Connect project. The record of this proceeding demonstrates that the project will satisfy the Department's permitting standards subject to the conditions in this Order. Issuance of this Order follows a 29-month regulatory review, which included six days of evidentiary hearings and two nights of public testimony. Twenty-two parties, consolidated into ten groups, participated in the evidentiary hearings by helping to shape the administrative review process, providing sworn testimony from dozens of witnesses, cross examining those witnesses, and submitting argument on the interpretation and application of relevant permitting criteria. Hundreds of Maine citizens testified during the public hearings and submitted written comment on the many issues the application presented. The hearing and public comment process provided the Department with critical information and analysis of the applicant's proposal, its impacts, whether and how those impacts can be mitigated, and the availability of alternatives.

The record shows the project as originally proposed would have had substantial impacts, particularly in the 53.1-mile portion of the corridor that extends from the Quebec border to The Forks, known as Segment 1. The record also shows that it is feasible to avoid or minimize those impacts through a variety of mitigation measures. This Order does so by imposing a set of conditions identified and developed through the public process. These conditions provide an unprecedented level of natural resource protection for transmission line construction in the State of Maine. They are also fully supported by the evidence. For example, the hearings highlighted the impacts the proposed project would have on fish and wildlife habitat, scenic character, and recreational uses of the Segment 1 area. The evidence shows that the width of the corridor, and the manner in which vegetation is managed within it, are key factors that drive the severity of those impacts. This Order limits the width of the cleared corridor in Segment 1 – originally proposed to be 150 feet – to 54 feet at its widest point. The Order requires the applicant to use poles in ecologically sensitive areas that are tall enough to preserve forest canopy. It requires that wildlife corridors be preserved in deer wintering area.

In all other portions of Segment 1, the Order requires that cutting of vegetation be limited and tapered tree growth be maintained within the corridor, significantly reducing the area cleared and minimizing visibility of the project. Herbicide use is prohibited throughout Segment 1. The combined effect of these conditions is to shrink the footprint of the project and reduce its overall impacts dramatically.

Some project impacts, however, will remain. The Order requires substantial measures to compensate for these impacts, including that the applicant conserve 40,000 acres in western Maine permanently. The conserved lands may be open to commercial forestry utilizing sustainable harvesting practices. The Order also requires the applicant to set aside $1,875,000 for culvert replacements in western Maine, which includes the Segment 1 area. The evidence shows this should be adequate to fund 25 culvert replacement projects, which will enhance fish habitat by facilitating passage, reducing erosion, and improving water quality.

The hearings also focused on whether a practicable alternative exists to the applicant's chosen route and proposed design that would be less damaging to the environment. The evidence shows that it does not. The alternative routes potentially available are each problematic for their own reasons, including the need to cross or go around conservation lands such as the Bigelow Preserve, greater impacts to the Appalachian Trail, and an increase in cleared corridor area. Nor is the undergrounding alternative preferable. Record evidence supports the conclusion that undergrounding in Segment 1 may be so technically challenging as to be impracticable. Even if technically practicable, the trenching that undergrounding entails would result in greater impacts to natural resources such as wetlands. Undergrounding also would require a permanent clearing in Segment 1 that is 75 feet in width, almost 50% wider than the corridor clearing approved in this Order.

The applicant's stated purpose for this project is to provide renewable electricity from Quebec to the New England grid. The Department applied the statutes and regulations it administers in this Order to approve the least environmentally damaging alternative available to achieve that purpose. The Order puts in place a comprehensive set of conditions designed to avoid and minimize the project's impacts to the extent possible, while also requiring substantial offsite compensation for those impacts that remain. So conditioned, the project fully satisfies the Department's permitting standards.

ANALYSIS, FINDINGS, & CONCLUSIONS

Pursuant to the provisions of the Natural Resources Protection Act (38 M.R.S. §§ 481–489-E) (NRPA), the Site Location of Development Act (38 M.R.S. §§ 480-A–480-JJ) (Site Law), Section 401 of the Federal Water Pollution Control Act (33 U.S.C. § 1341), and Chapters 310, 315, 335, 373, 375, 376, 500 and 502 of the Department of Environmental Protection (Department) rules, the Department has considered the application of CENTRAL MAINE POWER COMPANY(CMP or applicant) with the supportive data, agency review comments, party comments, public comments, hearing materials, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION AND ADMINISTRATIVE BACKGROUND

A. History

CMP has been developing its transmission corridors over a period of years. Much of this development pre-dated the Site Law and the NRPA, but there also have been Department Orders issued in the past that have approved the construction of new electrical transmission lines, upgrades of existing electrical transmission lines and the construction or expansion of new and existing substations. Previous Department Orders issued for projects located in the transmission corridor at issue in this proceeding include the Maine Power Reliability Program (MPRP) #L-24620-26-A-N/ L-24620-TG-B-N/ L-24620-VP-C-N/ L-24620-IW-D-N/ L-24620-L6-A-N, dated April 5, 2010. Previous Department Orders issued for substation projects located within the corridor under consideration in this Order include: #L-T00822-TB-A-N (Surowiec Substation expansion in Pownal), dated September 8, 1999; #L-17973-26-AJ-M and #L-17973-26-AK-T (Maine Yankee Substation expansion in Wiscasset), dated December 15, 2006; and the MPRP Order. CMP submitted an application summarized below on September 27, 2017 for the New England Clean Energy Connect (NECEC) project seeking both a Site Law and NRPA permit. Portions of the proposed NECEC project are located on or adjacent to the projects listed above.

B. Overview

The applicant proposes to construct a 145.3-mile long, 320 kilovolt (kV) High Voltage Direct Current (HVDC) transmission line from Beattie Township to Lewiston; a converter station to convert the Direct Current (DC) electricity to Alternating Current (AC) electricity on Merrill Road in Lewiston; a new substation on Fickett Road in Pownal; and a new 26.5-mile, 345-kV AC transmission line from the existing Coopers Mills Substation in Windsor to the existing Maine Yankee Substation in Wiscasset. The applicant also proposes to rebuild several existing transmission lines and upgrade three substations. The HVDC portion of the transmission line will be placed on single steel poles that will average approximately 100 feet tall and will be spaced approximately 1,000 feet apart. The new 345-kV lines and the reconstructed 115-kV lines will be constructed on a variety of different structures, including 125-foot tall steel structures, 80-foot tall single pole structures, 75-foot tall, wooden H-frames, and 45-foot tall, wooden, single pole structures. The applicant divided the project into five transmission line segments and construction or upgrades of substations.

(1) Transmission Lines

a. Segment 1

Segment 1 starts at the Maine/Quebec border in Beattie Township and continues within a 300-foot wide right-of-way (ROW) to The Forks Plantation. Segment 1 is an approximately 53.1-mile long, 320-kV DC transmission line. The applicant proposes to use the southernmost 150 feet of the ROW for the Segment 1 corridor.

This segment is located primarily in working forest. Segment 1 crosses 480 freshwater wetlands; 280 rivers, streams, or brooks, of which 237 contain coldwater fisheries habitat, including the Upper Kennebec River, which is an Outstanding River Segment; six Inland Waterfowl and Wading Bird Habitats (IWWH) with 8.23 acres of conversion; and six Significant Vernal Pools (SVP).[1] As originally proposed, a 150-foot wide cleared corridor would have been created except for areas within 25 feet of rivers, streams, or brooks. Within 25 feet of these resources, the applicant originally proposed to remove all woody vegetation during initial clearing and subsequently to allow non-capable woody vegetation to grow up to ten feet tall outside the wire zone.

During the course of the permit review process, the applicant modified its proposal to include: (a) tapered vegetation within the corridor near Rock Pond and Coburn Mountain, (b) full canopy height vegetation near Gold Brook, Mountain Brook, and the Upper Kennebec River, (c) 25- to 35-foot tall vegetation managed for deer habitat in eight areas in the Upper Kennebec River Deer Wintering Area, and (d) 100-foot wide riparian filter areas[2] on either side of all perennial streams in Segment 1.[3]

In areas where the corridor will be tapered, instead of clearing the entire width of the 150-foot corridor only a 54-foot side section, centered under the conductors, will be cleared. Non-capable species[4] of vegetation will be allowed to regrow in this area after construction, establishing scrub-shrub habitat with a height of approximately 10 feet. Taller, capable vegetation outside of this 54-foot wide area will be retained, with the height of the retained vegetation increasing from approximately 15 feet to 35 feet as the distance from the scrub-shrub area increases.[5]

On September 18, 2019, the applicant submitted a Petition to Reopen the Record to allow it to amend the pending application. The amendment modified the proposed route of a short section of the Segment 1 corridor in the area near Beattie Pond. This alternative, the Merrill Strip Alternative, as discussed below in Finding 7, initially was rejected by CMP due to the cost to obtain the land from the current landowner. The Merrill Strip Alternative is approximately 0.4 miles shorter than the originally proposed route, results in one less pole (also referred to as transmission line structure or structure), reduces the wetland impact by 12,286 square feet, and eliminates impacts to one SVP and one stream that contains brook trout.[6]

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[1] As used in this Order, unless context clearly indicates otherwise, the term Significant Vernal Pool or SVP is used to refer to significant vernal pool habitat, which includes the significant vernal pool depression and that portion of the critical terrestrial habitat within 250 feet of the depression. See 06-096 C.M.R. Ch. 335, § 9.

[2] Appendix C discusses riparian filter areas.

[3] This Order imposes substantial, additional conditions on the construction and maintenance of the Segment 1 corridor, for example, by requiring taller vegetation in 12 Wildlife Areas and tapering the entirety of Segment 1 outside of these areas.

[4] Capable species are species capable of growing tall enough to reach into the conductor safety zone. Non-capable species are not capable of growing that tall and typically grow no taller than 10 feet.

[5] Appendix C contains a discussion of different vegetation management along the corridor, including tapering and management for deer travel corridors.

[6] The ROW obtained by CMP for the Merrill Strip Alternative is 150-feet wide. The remainder of the ROW within Segment 1 is 300-feet wide.

b. Segment 2

Segment 2 extends from The Forks Plantation to the Wyman Substation in Moscow and is a 21.9-mile long, 320-kV DC transmission line. The applicant proposes to co-locate Segment 2 with the existing line that runs from Harris Dam to the Wyman Substation. The corridor within the existing utility ROW will be widened by an average of 75 feet to accommodate co-location of the proposed transmission line. Segment 2 is located primarily in working forest. Segment 2 crosses 146 freshwater wetlands; 68 rivers, streams, or brooks, 46 of which contain coldwater fisheries habitat; two IWWHs with 1.13 acres of conversion; and two SVPs. With the exception of areas within 100 feet of coldwater fisheries, the corridor will be widened an average of 75 feet and maintained as scrub/shrub vegetation following construction. Within 100 feet of coldwater fisheries and 75 feet of other rivers, streams and brooks, the applicant proposes to remove all woody vegetation during initial clearing for construction and subsequently allow non-capable woody vegetation to grow up to 10 feet tall outside the wire zone.

c. Segment 3

Segment 3 runs from the Wyman Substation in Moscow to the proposed Merrill Road Converter Station in Lewiston. This segment is 71.1 miles long and is co-located with transmission lines in an existing ROW. This segment also includes the rebuilding of 0.8 miles of 345-kV AC line outside the Larrabee Road Substation and constructing 1.2 miles of new 345-kV AC transmission line from the Merrill Road Converter Station to the Larrabee Road Substation. The utilized portion of the ROW will be widened by an average of 75 feet. Segment 3 crosses: 489 freshwater wetlands; 235 rivers, streams, or brooks, of which 138 contain coldwater fisheries habitat, including the Kennebec River, the Carrabassett River, and the Sandy River, which are Outstanding River Segments; eight IWWHs with 5.65 acres of conversion; and 40 SVPs. With the exception of areas within 100 feet of coldwater fisheries and 75 feet of other rivers, streams and brooks, the corridor will be widened an average of 75 feet and maintained as scrub/shrub vegetation following construction. Within 100 feet of coldwater fisheries and 75 feet of other rivers, streams, and brooks, the applicant proposes remove all woody vegetation during initial clearing for construction and subsequently allow non-capable woody vegetation to grow up to 10 feet tall within the wire zone.

d. Segment 4

Segment 4 consists of: rebuilding 16.1 miles of 115-kV AC transmission line between the Larrabee Road Substation and the Surowiec Substation; rebuilding 9.3 miles of 115-kV AC transmission line between the Crowley's Substation and the Surowiec Substation; and constructing a new 345-kV AC transmission line from the Surowiec Substation to a proposed substation on Fickett Road in Pownal. Segment 4 will not require any additional clearing but will result in 0.006 acres of SVP upland fill and 0.02 acres of wetland fill. Segment 4 crosses: 132 freshwater wetlands; 33 rivers, streams, or brooks, 23 of which contain coldwater fisheries habitat; no IWWHs; and 10 SVPs.

e. Segment 5

Segment 5 consists of a proposed 26.5-mile long 345-kV AC transmission line from the existing Coopers Mills Substation in Windsor to the Maine Yankee Substation in Wiscasset within an existing corridor; partial rebuilding of 0.3 miles of 345-kV AC line near the Coopers Mills Substation; rebuilding a 0.8-mile section of 345-kV AC line near the Coopers Mills Substation; and rebuilding a 0.8-mile section of 115-kV AC line outside the Coopers Mills Substation. Segment 5 will not require any additional clearing and will result in 0.03 acres of wetland fill and 3.6 acres of DWA conversion. Segment 5 crosses 157 freshwater wetlands; 104 rivers, streams, or brooks, including the West Branch of the Sheepscot River, which is an Outstanding River Segment, and all of which contain coldwater fisheries habitat; two IWWHs; and four SVPs.

(2) Substations

a. Merrill Road Converter Station

The Merrill Road Converter Station will convert DC electricity from Canada to AC electricity to be fed into the power grid. The converter station will be located immediately adjacent to the transmission corridor, and with the access road, will occupy 13.4 acres of the site. The proposed converter station will result in 3.16 acres of wetland fill and 0.273 acres of fill in a SVP.

b. Fickett Road Substation

The Fickett Road Substation will be constructed across Allen Road from the Surowiec Substation and will occupy 4.87 acres of the site. The site currently contains existing 345-kV and 115-kV transmission lines, which were permitted as part of the MPRP. The substation will result in 1.33 acres of direct impact to a freshwater wetland.

c. Coopers Mills Substation

The Coopers Mills Substation was originally permitted as part of MPRP. Proposed work on the Coopers Mills Substation includes 345-kV bus work, circuit breaker installations, and relocating 345-kV transmission lines from the Maine Yankee Substation and the Larrabee Road Substation. These improvements will not require the existing yard to be expanded. The proposed work will result in 0.275 acres of new impervious area. No new impacts to any protected natural resource are proposed for this portion of the project.

d. Crowley's Substation

Proposed modifications at Crowley's Substation include the replacement of a 115-kV switch and bus wire. No new impervious area is proposed. No new impacts to protected natural resources are proposed for this portion of the project.

e. Larrabee Road Substation

The Larrabee Road Substation originally was permitted as part of the MPRP. The Larrabee Road Substation upgrades include the addition of a 345-kV line termination structure, a 345-kV circuit breaker, disconnect switches, instrument transformers, surge arrestors, buswork modifications, support structures, foundation modifications to the existing protection and control system, and network upgrades. The upgrades also include the replacement of an existing transformer with three single-phase autotransformers. The Larrabee Road Substation currently occupies 15.44 acres. These upgrades will result in 0.08 acres of new impervious area. No impacts to protected natural resources are proposed for this portion of the project.

f. Maine Yankee Substation

Proposed modifications at the Maine Yankee Substation involve the addition of a 345-kV three-circuit breaker bay, the relocation of the existing Coopers Mills 345-kV line, the addition of a terminal for the new 345-kV line from Coopers Mills Substation, and the repositioning of the existing 345-kV line from the Surowiec Substation. The substation currently occupies 4.91 acres. All proposed work will be in the existing yard and will result in 0.02 acres of new impervious area. No new impacts to protected natural resources are proposed for this portion of the project.

g. Surowiec Substation

Proposed additions at the Surowiec Substation include a terminal for a new 345-kV transmission line from the proposed Fickett Road Substation, a new dead-end A-frame structure, and a new 345-kV circuit breaker. The existing substation occupies 9.41 acres and all of the additions will be located within the existing yard. There will be 0.01 acres of new impervious area. No new impacts to protected natural resources are proposed for this portion of the project.

h. Raven Farm Substation

The Raven Farm Substation originally was permitted as part of the MPRP, which approved the construction of a 15.5-acre substation yard. Currently, the entire yard has been brought up to subgrade, but only half of the substation has been built to date. This half contains electrical equipment that was part of the MPRP. The proposed additions will be placed on top of a layer of crushed stone and will be on the remaining half of the yard. The electrical equipment will include a new 345/115-kV autotransformer and three new 115-kV transmission line terminations with associated equipment and foundations. No new wetland impacts are proposed for this portion of the project.

(3) Overall

The project, in its entirety, is shown on a set of plans, the first of which is entitled "New England Clean Energy Connect Existing and Proposed ROW Segment 1," prepared by

Central Maine Power, and dated April 11, 2017, with a last revision date of September 18, 2019. The project site is located in 24 municipalities, 14 townships/plantations, and seven counties. (See Appendix A.)

C. Title, Right, or Interest

Applicants for Site Law and NRPA permits are required by 06-096 C.M.R. Chapter 2, § 11(D) to submit evidence demonstrating that they have sufficient title, right, or interest in all the property proposed for development. This can be in the form of deeds, leases, or easements, among other forms. The applicant submitted deeds or leases for the entire project. Several members of the public and Intervenor Groups 2 and 8 (see discussion of the public hearing below for a list of intervenor groups) contend that CMP does not have sufficient title, right, or interest in one portion of the corridor. Specifically, they question the legality of the lease CMP entered into with the Bureau of Parks and Lands for the corridor across West Forks Plantation and Johnson Mountain Township T2R6 BKP WKR. That lease decision was never appealed and is therefore final. The Department accepts the decision of its sister agency to enter into the leases and the fully executed leases as sufficient title, right, or interest in that portion of the proposed corridor to apply for permits for the project.

At the time of the initial submission of the application, CMP submitted a Letter of Understanding between CMP and the Passamaquoddy Tribe pertaining to a section of the corridor in Lowelltown Township. That Letter of Understanding stated that parties would negotiate in good faith the terms of a lease. The Letter of Understanding had an expiration date of January 31, 2018. At the request of Department staff, the applicant submitted a signed lease for the property, dated October 23, 2017. The lease term is 25 years and can be renewed. The lease has the signatures of representatives of the Passamaquoddy Tribe and CMP, but the copy submitted does not have a signature for a representative of the Bureau of Indian Affairs. These documents constitute sufficient showing of title, right, or interest in this portion of the proposed corridor for the Department to process the application. The Merrill Strip Alternative, which is described in more detail below, eliminates the portion of the line which was to be located on land owned by the Passamaquoddy Tribe.

D. Public Hearing

The Department accepted CMP's permit application for the NECEC project as complete for processing on October 13, 2017. On November 17, 2017, the Department's Commissioner determined that a public hearing would be held on this project pursuant to the Department's Rule Concerning the Processing of Applications and Other Administrative Matters, 06-096 C.M.R. Chapter 2, § 7(B). The Commissioner delegated the authority to conduct and preside over the hearing to Christina Hodgeman, an employee of the Department. The Presiding Officer's role was to conduct an adjudicatory hearing by administering governing procedural statutes and regulations and develop the administrative record.

The Presiding Officer's delegation did not include the ultimate decision-making authority, which was retained by the Commissioner.

On December 7, 2017, the Land Use Planning Commission (Commission) voted to hold a public hearing on the allowed use portion of the Certification process only, specifically with regard to whether the project is an allowed use within the Commission's Recreation Protection (P-RR) subdistrict. The Commission's role in the Department's proceeding would be to certify to the Department whether the project meets those land use standards administered by the Commission that are not duplicative of Department standards, and whether the project is an allowed use in the zoning subdistricts in which it is proposed. Utility facilities are allowed by special exception in the P-RR subdistrict. As originally proposed, the NECEC project crossed through three separate P-RR subdistricts, one around Beattie Pond, one near the upper Kennebec River crossing, and one near the crossing of the Appalachian Trail (AT). The Merrill Strip Alternative moved that portion of the project originally proposed in the P-RR Subdistrict around Beattie Pond outside of that subdistrict.

On June 27, 2018, the Department's Presiding Officer issued a notice setting July 19, 2018, as the deadline to submit petitions for leave to intervene. The Department received 23 petitions to intervene. On July 24, 2018, the Department requested more information from four of the petitioners and by July 31, 2018, three of those petitioners provided additional information, and one petitioner, the Sierra Club, withdrew its petition. On August 18, 2018, the Presiding Officer issued the First Procedural Order in the matter, and granted intervenor status to 22 parties. The parties granted intervenor status in the Department's proceeding were:

1. Old Canada Road National Scenic Byway (Old Canada Road)
2. Ed Buzzell
3. The City of Lewiston
4. Friends of the Boundary Mountains
5. The Appalachian Mountain Club (AMC)
6. Western Mountains and Rivers Corporation (WM&RC)
7. NextEra Energy Resources, LLC (Nextera)
8. Hawk's Nest Lodge
9. The Industrial Energy Consumer Group (IECG)
10. Natural Resources Council of Maine (NRCM)
11. The Town of Caratunk
12. The Maine State Chamber of Commerce
13. The International Brotherhood of Electrical Workers (IBEW)
14. Ashli Coleman
15. Maine Guide Services (MGS)
16. Brookfield White Pine Hydro, LLC (Brookfield)
17. Trout Unlimited (TU)
18. Chris Russell
19. The Nature Conservancy (TNC)
20. Maine Wilderness Guides Organization (MWGO)

21. The Conservation Law Foundation (CLF)
22. Mike Pilsbury

The first pre-hearing conference was held on September 7, 2018. At the conference the parties were notified that a consolidated hearing would be held by the Department and the Commission to make the two processes more efficient for the agencies, the applicant, the intervenors, and members of the public. In the Second Procedural Order, issued on October 5, 2018, the parties were notified of a new Presiding Officer. Presiding Officer Christina Hodgeman had left her position with the State of Maine and the Commissioner designated Susanne Miller, another employee of the Department, as the Presiding Officer. The Second Procedural Order granted intervenor status to Wagner Forest Management, Ltd. (Wagner), an entity that was not included in the Department's First Procedural Order. The Second Procedural Order also outlined how intervenor groups would be grouped together and consolidated for purposes of making the hearing more efficient.

These groupings are described below:

Group 1: Friends of Boundary Mountains, MWGO, and Old Canada Road. These intervenors were all opposed to the project and were intervenors for the Department proceeding only.

Group 2: West Forks Plantation, Town of Caratunk, Kennebec River Anglers, MGS, Peter Dostie (Hawk's Nest Lodge), and Mike Pilsbury. These intervenors were opposed to the project. With the exception of West Forks Plantation, all of the members of this group were intervenors in both the Department and Commission proceedings. West Forks Plantation was an intervenor in the Department proceeding only.

Group 3: IECG; City of Lewiston; IBEW; Maine Chamber of Commerce; and the Lewiston/Auburn Chamber of Commerce. These intervenors were in support of the project. With the exception of the Lewiston/Auburn Chamber of Commerce, all of the members of this group were intervenors in both the Department and Commission proceedings. The Lewiston/Auburn Chamber of Commerce was an intervenor in the Commission proceeding only.

Group 4: NRCM, AMC, and TU. These intervenors were opposed to the project, and were intervenors in both the Department and Commission proceedings.

Group 5: Brookfield and Wagner Forest Management, Ltd. These intervenors were neither for nor against the project. Both were intervenors in the Department's proceeding, but Wagner was also an intervenor in the Commission's proceeding.

Group 6: TNC and CLF. These intervenors were neither for nor against the project and were Department-only intervenors.

Group 7: WM&RC was in support of the project and was an intervenor in both the Department and Commission proceedings.

Group 8: NextEra. NextEra was opposed to the project and was an intervenor in both the Department and Commission proceedings.

Group 9: Office of the Public Advocate (OPA). The OPA was neither for nor against the project, was granted intervenor status in the Department[7] proceeding, and was granted status as a governmental entity in the Commission proceeding.

Group 10: Edwin Buzzell, and "Local Residents and Recreational Users," which included eleven individuals named in the Commission's Second Procedural Order. These intervenors were opposed to the project. Edwin Buzzell was an intervenor in both the Department and Commission proceedings. The remaining individuals were intervenors in the Commission proceeding only.

After consideration of input from the parties, the Department's Second Procedural Order identified the topics to be covered at the hearing. Those topics included:

A. Scenic Character and Existing Uses – 38 M.R.S. § 480-D(1), 38 M.R.S. § 484(3), Department Rules 06-096 C.M.R. Chapters 315 and 375, § 14: The applicant must demonstrate that the proposed activity would not unreasonably interfere with the scenic character, or existing scenic, aesthetic, recreational, or navigational uses, and that the development fits harmoniously into the natural environment.
   i. Visual Impact Assessment and Scenic/Aesthetic Uses
   ii. Buffering for Visual Impacts
   iii. Recreational and Navigational Uses

B. Wildlife Habitat and Fisheries – 38 M.R.S. § 480-D(3), 38 M.R.S. § 484(3), and Department Rules 06-096 C.M.R. Chapters 335 and 375, § 15: The applicant must demonstrate that the proposed activity would not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, or threatened or endangered plant habitat.
   i. Endangered Species – Roaring Brook Mayfly (RBM), Northern Spring Salamanders (NSS)
   ii. Brook Trout Habitat
   iii. Habitat Fragmentation
   iv. Buffer Strips around Coldwater Fisheries

C. Alternatives Analysis – 38 M.R.S. § 480-D (1) & (3), 38 M.R.S. § 484(3), Department Rules 06-096 C.M.R. Chapters 310, 315, and 335: The applicant must demonstrate that the proposed project would not unreasonably impact

[7] While not explicitly stated in any of the Department's Procedural Orders, the Office of the Public Advocate was granted intervenor status in the Department's proceedings by the Department in a letter dated and signed August 31, 2018 by Presiding Officer Hodgeman.

"protected natural resources" as defined by the NRPA, in light of practicable alternatives to the proposal that would be less damaging to the environment. Topics for the hearing also included evidence addressing 38 M.R.S. § 480-D (8): The applicant must demonstrate that, with regard to the crossing of the outstanding river segment, no reasonable alternative exists that would have less adverse impact upon the recreational and natural features of the river segment.

D. Compensation and Mitigation – 38 M.R.S. § 480-D, 38 M.R.S. § 484(3), Department Rules 06-096 C.M.R. Chapters 310 and 375, § 15. The applicant must demonstrate compensation for unavoidable impacts to certain resources.
   i. Coldwater Fisheries Habitats
   ii. Outstanding River Segments
   iii. Wetlands

On January 17, 2019, the Department and the Commission held a second pre-hearing conference to discuss logistics and planning for the hearing. At the conference, the Department and Commission stated that information in CMP's application was sufficient to move forward with the hearing process. Intervenors requested inclusion of greenhouse gas emissions as a topic to be considered at the hearing, maps listing the submissions on title, right, or interest for the project, clarification on the timing of the close of the record, and postponement of the hearing and the filing deadlines for pre-hearing filings. In response to the requests, the Presiding Officers:

1. Granted parties until January 24, 2019, to submit, in writing and with the statutory and regulatory basis, a request for greenhouse gas emissions to be one of the hearing topics. Other parties would be allowed to respond to those requests until January 31, 2019.
2. Reiterated that the Department and the Commission had determined that they had sufficient information from CMP to demonstrate title, right or interest.
3. Denied requests to postpone the hearing, but agreed to consider postponing the pre-hearing filing deadlines.
4. Clarified that the date the record would close had not yet been determined.

CMP stated at the pre-hearing conference that it would provide maps to all intervening parties regarding title, right or interest, and provided these updated maps on January 25, 2019.

On January 24, 2019, Intervenor Group 4 filed a written request to include greenhouse gas emissions as a hearing topic and Intervenor Groups 2 and 10 filed a letter in support of that request. In the February 5, 2019 Third Procedural Order, the Presiding Officer determined that greenhouse gas emissions would not be included as a hearing topic. However, intervenors and the general public would be allowed to submit evidence including comments, data, and reports on this topic until the close of the record.

On February 1, 2019, Intervenor Groups 2 and 10 submitted a Motion for Reconsideration, requesting to postpone the hearing and the deadlines for the pre-hearing

filings. On February 4, 2019, Intervenor Group 4 submitted a letter in support of this motion. The Presiding Officer denied the February 1, 2019 Motion for Reconsideration in the February 5, 2019, Third Procedural Order and confirmed the dates for the hearing to be April 1 through April 5, 2019, at the University of Maine at Farmington.
On March 19, 2019, a Motion to Delay the Hearing and Allow Additional Testimony was filed, based on information that was submitted on March 18, 2019 from the Maine Department of Inland Fisheries and Wildlife (MDIFW). On March 21, 2019, the Department and Commission issued a joint Sixth Procedural Order that denied the motion.

On March 25, 2019, CMP submitted 469 pages of exhibits and rebuttal testimony and included five new rebuttal witnesses. On March 26, 2019, the third pre-hearing conference was held, by telephone. During the call the establishment of a potential additional hearing date was discussed.

The Department and the Commission issued a Seventh Procedural Order on March 28, 2019. This Order confirmed that an additional hearing day would take place May 9, 2019. The Seventh Procedural Order also allowed the intervenors to file sur-rebuttal testimony in response to CMP's March 25, 2019, filings.

The Department conducted five days of public hearing from April 1 through April 5, 2019, with the Commission joining the hearing on April 2, 2019. Two evening sessions were devoted to receiving testimony from the general public. The testimony from both the parties and the public generally focused on the impacts of Segment 1. Many of the witnesses in opposition to the project testified that the applicant failed to meet the licensing criteria regarding impacts to scenic character, recreational impacts, impacts to brook trout habitat, and impacts to water quality from herbicide applications. Witnesses in support of the project testified that the proposed project meets the licensing criteria because it would not cause an unreasonable impact and the applicant has proposed adequate compensation for the wildlife, wetland and scenic impacts that will occur.

On April 3, 2019, during the April hearing week, Intervenor Groups 2 and 10 filed a motion requesting additional public hearing time be scheduled for cross-examination of the applicant's engineers on questions that were deferred the first few days of the hearing. Many of the questions that were deferred were deferred to the applicant's and Group 3's sur-rebuttal witnesses who were not present during the April hearing. This motion was denied in the Ninth Procedural Order issued April 10, 2019. The order stated that time would instead be allotted for this purpose on the May 9, 2019 hearing date.

On April 19, 2019, the Department issued a Tenth Procedural Order in which the Department requested specific supplemental information from the Applicant to assist the Department with its analysis of the application and in an attempt to make the hearing process on May 9, 2019 more efficient.

The hearing continued on May 9, 2019, and the majority of testimony pertained to habitat fragmentation and the alternatives analysis, including the underground alternative.

At the close of the May 9, 2019, hearing, the Presiding Officer allowed the record to remain open for specific limited evidence to be entered into the record by May 17, 2019, and responses from parties to that evidence until May 24, 2019. The record also remained open for written comments from the general public until May 20, 2019, and then the parties' responses to those written comments from the general public until May 27, 2019.

On June 27, 2019, the Department and Commission conducted separate site visits to sites of interest pertaining to the project.

On October 3, 2019, at the applicant's request, the Presiding Officers issued the 15th Procedural Order reopening the record to allow the applicant to amend its application to propose the Merrill Strip Alternative route around Beattie Pond. On October 7, 2019, the Presiding Officers issued the 16th Procedural Order outlining the process by which the agencies would gather evidence on the Merrill Strip Alternative and providing a deadline for the parties and the public to submit comments.

2. FINANCIAL CAPACITY

Pursuant to the financial capacity standard of Site Law, and Chapter 373, § 2, the applicant must demonstrate financial capacity to design, construct, operate, and maintain the proposed development in a manner consistent with state environmental standards and the provisions of Site Law. The applicant must have the financial capacity for all aspects of the development and not solely the environmental protection aspects. Evidence regarding financial capacity must be provided prior to a decision on an application, except, pursuant to 38 M.R.S. § 484(1), the Department may defer a final finding on financial capacity by placing a condition on a permit that requires the permittee to provide final evidence of financial capacity before the start of any site alterations.

The applicant submitted financial capacity materials and a capital cost estimate with the original September 2017 Site Law application materials.[8] During the application review process, the applicant submitted the following revised data relating to financial capacity:

A. On December 12, 2017, the applicant submitted a total revised project cost estimate of $949,745,330. Line items were included for various aspects of the design and construction of the project and included $73,405,592 for erosion control and access roads.
B. On July 31, 2018, the applicant submitted revised financial capacity documents, but did not change the total project cost estimate.
C. On August 13, 2018, a revised project construction schedule was submitted, but the total project cost estimate remained unchanged.

[8] The applicant requested that the original cost estimate data be protected from disclosure as a trade secret under Chapter 2, § 6(B) of the Department's rules, to which the Department agreed. In the December 2017 submission and further cost estimate submissions, the applicant stated that the revised cost estimates did not constitute a trade secret.

D. On October 19, 2018, the applicant submitted a Site Law amendment application to incorporate horizontal directional drilling (HDD) of the line beneath the upper Kennebec River to avoid an overhead crossing. The applicant stated that the HDD alternative would not affect the line items or capital cost total of $949,745,330.

The applicant proposed the project in response to a 2017 Request for Proposals for long-term contracts for clean energy projects issued by the Massachusetts Department of Energy Resources and the Electric Distribution Companies of Massachusetts. The proposed project was selected in 2018 as the winning bidder to deliver annually 9,450,000 megawatt-hours of clean energy generation. The applicant provided evidence demonstrating that the proposed project's costs will be recovered from Hydro-Quebec and Massachusetts electricity ratepayers in accordance with Federal Energy Regulatory Commission-approved transmission service agreements.

The applicant states that Central Maine Power Company and its parent companies, Avangrid, Inc. and Iberdrola, S.A., will finance the cost of the proposed project. This will be done using short-term and long-term debt financing and equity funding through retained earnings and capital contributions from Avangrid, Inc. The applicant submitted audited copies of Avangrid Networks, Inc. 2015 and 2016 Combined and Consolidated Financial Statements, and CMP's 2015 and 2016 Consolidated Financial Statement, as well as a letter of commitment to fund dated September 18, 2017, from Howard Coon, Vice President and Treasurer of Avangrid Management Company. These documents adequately demonstrate that the applicant will have adequate funds to construct, operate and maintain all aspects of the project.

In light of the significant cost associated with complying with the conditions of approval, prior to the start of construction, the applicant must submit additional information that confirms that it has the ability to finance the project at that time, including the ability to construct and operate the project in compliance with the terms and conditions of this Order. Prior to the start of construction, the applicant must submit evidence that it has been granted, to the extent necessary, a line of credit or a loan by a financial institution authorized to do business in this State or evidence of any other form of financial assurance consistent with Department Rules, Chapter 373, § 2(B), to the Department for review and approval.

Based on the information in the Department's administrative record, the Department finds that the applicant has demonstrated adequate financial capacity, provided the applicant:

- Submits evidence that it has been granted a line of credit or a loan by a financial institution authorized to do business in this State, or evidence of any other form of financial assurance consistent with Department Rules, Chapter 373, § 2(B), to the Department for review and approval prior to the start of construction.

3. TECHNICAL ABILITY

The applicant has a long history of operating and maintaining an electrical grid and the associated infrastructure. CMP is the largest transmission and distribution utility in Maine and serves 615,000 customers in southern, western, and central Maine. CMP currently operates and maintains over 2,536 miles of transmission lines and 254 substations, 63 of which are administered by ISO-NE.

Over the last 10 years, CMP has constructed approximately 500 miles of new transmission facilities in Maine. The applicant provided resume information for key persons involved with the proposed project and a list of projects CMP has successfully constructed. The applicant also retained the services of the following companies to assist in the permitting of the project.

- Burns and McDonnell for environmental matters, including noise
- Boyle Associates and Power Engineers for wetlands and vernal pool assessments
- T.J. DeWan and Associates for visual impact assessment
- MCBER and Daymark for economic consulting
- Powers Engineers for transmission line and substation design
- Dirigo Partners, Ltd. for real estate services

The Department finds that the applicant, through the combination of its institutional knowledge and experience, and its retained consultant expertise, has demonstrated the technical ability to develop the proposed project in compliance with Department standards.

4. NOISE

The Department's noise standards are set forth in Chapter 375, § 10. Section 10(B)(1) states that "when a development is located in a municipality which has duly enacted by ordinance an applicable quantifiable noise standard, which ... (1) contains limits that are not higher than the sound level limits contained in this regulation by more than 5 decibels (dBA), and (2) limits or addresses the various types of noises contained in this regulation or all types of noise generated by the development, that local standard, rather than this regulation, shall be applied by the Department within that municipality for each of the types of sounds the ordinance regulates."

In those municipalities without a local noise standard meeting these criteria, the project is required to meet the Department's noise standards. Chapter 375, § 10 applies hourly sound pressure level limits (LAeq-Hr) at facility property boundaries and at nearby protected locations. Chapter 375, § 10(G)(16) defines a protected location as "any location accessible by foot, on a parcel of land containing a residence or approved subdivision ...." In addition to residential parcels, protected locations include, but are not limited to, schools, state parks, and designated wilderness areas.

The hourly equivalent level resulting from routine operation of a development is limited to 75 dBA at any development property boundary as outlined in Chapter 375, § 10(C)(1)(a)(i). The hourly equivalent sound level limits at any protected location varies depending on local zoning or surrounding land uses and existing (pre-development) ambient sound levels. At protected locations within commercially or industrially zoned areas, or where the predominant surrounding land use is non-residential, the hourly sound level limits for routine operation are 70 dBA daytime (7:00 a.m. to 7:00 p.m.) and 60 dBA nighttime (7:00 p.m. to 7:00 a.m.).

At protected locations within residentially zoned areas or where the predominant surrounding land use is residential, the hourly sound level limits for routine operation are 60 dBA daytime and 50 dBA nighttime. In addition, where the daytime pre-development ambient hourly sound level is equal to or less than 45 dBA and/or nighttime ambient hourly sound level is equal to or less than 35 dBA, "quiet location" limits apply. For such "quiet locations," the hourly sound level limits for routine operation are 55 dBA daytime and 45 dBA nighttime. At protected locations more than 500 feet from living and sleeping quarters, the daytime hourly sound level limits shall apply regardless of the time of day.

The Department finds that tonal sound exists if, at a protected location, one-third octave band sound pressure level in the band containing the tonal sound exceeds the arithmetic average of the sound pressure levels of two contiguous one-third octave bands by 5 dBA for center frequencies at or between 500 Hertz (Hz) and 10,000 Hz, by 8 dBA for center frequencies at or between 160 and 400 Hz, and by 15 dBA for center frequencies at or between 25 Hz and 125 Hz as outlined in Chapter 375, § 10(G)(24). For the purpose of determining compliance with the sound limits, 5 dBA shall be added to the observed levels of any tonal sounds that result from routine operation of the development, as outlined in Chapter 375, § 10(1)(d).

Several municipalities that the project passes through have their own noise regulations. The local regulations would be applied by the Department in place of the Department noise standards, provided that the local regulation meet the requirements of Chapter 375, § 10(B)(1), as described above. The municipalities with local regulations are: Lewiston, Greene, Leeds, New Sharon, and Pownal.[9] None of these municipal ordinances contain provisions more restrictive than the Department's nighttime standard for quiet areas – 45 dBA. As a result, if the proposed transmission lines satisfy the nighttime quiet area standard in Chapter 375, § 10, they also will satisfy the ordinance requirements of these municipalities. (As described below, the proposed transmission lines satisfy the Department's nighttime quiet areas standard.)

[9] See City of Lewiston's Code of Ordinances, Appendix A, Section 19 (most restrictive standard is 50 dBA in residential areas); Town of Greene's Code of Ordinances, Section 6-501.1 (most restrictive standard is 45 dBA between 10:00pm and 7:00am in residential zone); Town of Leeds' Code of Ordinances, Section 5.F.14 (most restrictive standard is 45 dBA between 10:00pm and 7:00am in residential zone); Town of New Sharon's Site Plan Review Ordinance, Section IV; and Town of Pownal's Site Plan Review Ordinance, Article 4 (55 dBA).

Two municipalities in which the applicant proposes new or upgraded substations have their own noise standards, Pownal and Lewiston. Pownal's standard of 55 dBA, which is not limited to time of day, is more than 5dBA higher than the Department's quiet area nighttime standard of 45 dBA, which is the Department standard that applies to the project at the substation locations in Pownal. As a result, the Department does not apply Pownal's standard. Lewiston's ordinance establishes a 50-dBA limit in residential areas for all times of day. As discussed below, the substation locations in Lewiston are not located in quiet areas, so under the Department's rules the 60-dBA daytime and 50 dBA nighttime standards would apply. Even applying a 5-dBA penalty to account for potential tonal sound, Lewiston's standard is not more than 5 dBA less restrictive than the applicable Department nighttime standard. As a result, the Department must apply Lewiston's standard of 50 dBA pursuant to Chapter 375, § 10(B)(1).

A. Overview of Project Sound

The applicant hired Burns & McDonnell to study and model transmission line and substation sound levels for the project and to compare the model results to the applicable sound level standards. The Department retained the services Tech Environmental (TE) to conduct a peer review of the noise report.

(1) Construction Noise

Site Law, in 38 M.R.S. § 484(3)(A), exempts construction noise generated between the hours of 7 a.m. and 7 p.m. or during daylight hours, whichever is longer. The applicant has agreed to construct the project between 7 a.m. and 7 p.m., or during daylight hours with the exception of the HDD construction as the applicant proposed in its October 19,2018 application amendment.

(2) Transmission Lines

The applicant proposes to use conductors that, under dry conditions, are nearly noise free. In high humidity and storm conditions these conductors would produce a slight crackling sound. The applicant modeled sound levels for the operations of new 345-kV AC and 320-kV HVDC transmission lines, using the Bonneville Power Administration (BPA) Corona and Field Effects Program to calculate the expected sound from the transmission lines. Based on the BPA model results for the project, the applicant expects all sound levels produced by new and/or upgraded transmission lines associated with the project to remain within the levels allowed under Chapter 375, § 10. The applicant calculated the 320-kV HVDC and 345-kV transmission line conductor noise levels at the edges of the various rights-of-way (ROWs), in fair weather. The results showed the noise level at the closest ROW edge (75 feet) would be well below the applicable noise standards, with the maximum fair-weather level expected to be 28 dBA. During foul weather or when the moisture content in the air is higher, the applicant states that the expected maximum sound produced by a conductor that is part of the project is expected to be 41 dBA at the edge of the ROW. This sound level would be produced by a 345-kV line.

The applicant notes this maximum is below the most stringent Department standard – a nighttime hourly sound level limit of 45 dBA.

The applicant's assessment and modeling results were reviewed by TE. In June 13, 2018 comments TE stated there was no supporting data in the reviewed materials for the acoustic modeling. TE further commented that the transmission line noise assessment should be updated to include tonal noise and discussion of the 5-dBA tonal sound penalty.

The applicant provided additional information on July 3, 2018. This information included the modeling assumptions and the amplitude of tonal noise.

The additional information demonstrated that under worst-case conditions, the maximum predicted sound level of 41 dBA at the transmission corridor ROW edge is not tonal in character and, thus, is below the Department's most restrictive limit. TE reviewed this information and, in its July 9, 2018 review memo, stated that the applicant's transmission line sound assessment was technically correct and complete.

(3) Substations

There are three existing substations that would be associated with the project – Maine Yankee Substation in Wiscasset, Surowiec Substation in Pownal, and Crowley's Substation in Lewiston – that do not require noise studies since the proposed modifications do not include the installation of significant noise emitting equipment or increase noise. The proposed project includes the construction of two new substations, the Merrill Road Converter Station in Lewiston and the Fickett Road Substation in Pownal; both include noise producing equipment. The proposed project also includes expansions at three existing substations at which the applicant does propose to install new noise producing equipment: the Larrabee Road Substation in Lewiston, Coopers Mills Substation in Windsor, and Raven Farm Substation in Cumberland.

At the two new substations, Burns & McDonnell personnel recorded ambient noise throughout the day and night to determine whether the areas would be considered quiet areas as defined in Chapter 375, § 10(C)(1)(v). The area around the Merrill Road Converter Station was determined not to be a quiet area. The area around the Fickett Road Substation qualified as quiet area. Additionally, short-term measurements were performed as part of the noise survey to establish operational sound levels of the existing substations. Burns & McDonnell took measurements at the fence lines of the existing substations in the directions of the nearest protected areas.

a. Merrill Road Converter Station

The proposed Merrill Road Converter Station consists of converter transformers, valves, reactors, capacitors, and switches. The substation converts DC power to AC power. The applicant monitored ambient sound levels and stated that the area around the proposed converter station is not a quiet area, since the ambient daytime and nighttime hourly

averages were 47 dBA and 39 dBA, respectively. The most restrictive Department standard, which applies to residential areas, would be a daytime limit of 60 dBA and a nighttime limit of 50 dBA. The City of Lewiston Code of Ordinances limits noise to 50 dBA during the day and night at the nearest residential property lines. Burns & McDonnell modeled the noise for this substation using CadnaA. The applicant's results showed that sound levels from the converter station would not exceed the applicable noise level standard, Lewiston's 50 dBA standard, at any of the adjacent residential property lines. The highest modeled result at any property line was 48.3 dBA.

TE reviewed the information and commented that the analysis did not include information on any possible tonal noise produced by the substation.

TE also stated that the analysis still needed the ground factor "G" used in the CadnaA modeling; octave band sound power levels for all noise sources used in the acoustic modeling; the CadnaA-predicted octave band sound levels, by source and the total, for receptor PL-5; and a discussion of tonal sound.

Burn & McDonnell responded to these data requests on July 3, 2018, providing the requested information and discussing Lewiston's ordinance. They reaffirmed the original modeling that showed the equipment selected will have sound levels no higher than 48.3 dBA at the nearest property line. This is under the City of Lewiston Ordinance standard of 50 dBA. TE reviewed this information and determined that the sound assessment was technically correct and complete and recommended that any new equipment installed at the Merrill Road Substation meet the sound power limits listed in Table 5-8 of the application.

b. Larrabee Road Substation

The applicant proposes to add a 345-kV line termination structure, a 345-kV circuit breaker, disconnect switches, instrument transformers, surge arrestors, buswork modifications, support structures, foundations, and modifications to the existing protection and control systems at the Larrabee Road Substation in Lewiston. According to the Burns & McDonnell noise study, the highest predicted sound level at a residential property line pertinent to this substation is 43.1 dBA. Lewiston's ordinance sound level limit for this portion of the project is 50 dBA at the nearest residential property line.

TE reviewed this information and requested that the applicant provide the ground factor "G" used in the CadnaA modeling. Burns & McDonnell provided the requested information on July 3, 2018. TE reviewed this information and application materials and determined that the sound assessment is technically correct and complete. TE recommended that any permit issued by the Department require that new equipment installed at the Larrabee Road Substation meet the sound power limits listed in application Table 5-11.

c. Fickett Road Substation and Surowiec Substation

Given space constraints at the Surowiec Substation in Pownal, the applicant proposes to construct the Fickett Road substation, which is across Allen Road from the Surowiec Substation. The Fickett Road Substation would house a static synchronous condenser (STATCOM) device, which does produce sound. The expansion at the Surowiec Substation would not generate any additional sound. The applicant proposes to expand the existing Surowiec Substation to facilitate the STATCOM at the Fickett Road Substation. The applicant proposes to add a 345-kV line terminal, 345-kV circuit breakers, disconnect switches, instrument transformers, surge arrestors, buswork modifications, support structures, foundations, and modifications to the existing protection and control system. All existing Surowiec Substation equipment is excluded from the analysis since the substation was constructed prior to 1970, and therefore is not subject to the Site Law.

Burns & McDonnell took measurements at the fence line and surrounding areas of the Surowiec Substation where the Fickett Road Substation would be constructed. A long-term noise meter was installed near the proposed substation to monitor ambient noise. The data showed that the area surrounding the substation would be considered a quiet area according to Department criteria since the daytime sound levels are below 45 dBA. As a result, the Department's sound level limits would be 55 dBA during the day and 45 dBA during the night at the property lines. The nearest residential receiver is located 500 feet from the substation. The noise impacts were modeled using a CadnaA noise model. The noise sources were determined not to have a tonal component. The applicant determined that the substation would not exceed noise level standards at the adjacent property lines.

TE reviewed the information and requested additional information on June 13, 2018. This information included providing the ground factor "G" used in the modeling, providing the octave band sound power levels used for modeling, and explaining whether the 5-dB penalty was added or not added to the results.

Burns & McDonnell responded on July 3, 2018 to this request. Burns & McDonnell summarized in this response that the highest predicted sound level, without a tonal penalty, would be 41.9 dBA. TE determined that the sound assessment was technically correct and complete and recommended that any new equipment installed at the Fickett Road Substation meets the sound power limits listed in Table 5-15 of the application.

d. Coopers Mills Substation

The applicant proposes to expand the existing Coopers Mills Substation located in Windsor. The expansion would require the addition of a 345-kV line termination structure, 345-kV circuit breakers, disconnect switches, instrument transformers, surge arrestors, buswork modifications, support structures, foundations, and modifications to the existing protection and control system. In addition, the substation work would require reconfiguration of the existing 345-kV lines.

The project also requires the addition of a +/-200 MVAR STATCOM to provided dynamic reactive support. The addition of the STATCOM would include multiple noise sources, which would increase sound levels at the property line and beyond.

Burns & McDonnell took short-term measurements at the fence line and surrounding the area of the substation. A long-term noise monitor was installed near the substation to monitor ambient noise. The measurements confirmed that the substation area would be considered a quiet area. Therefore, sound level limits would be 55 dBA during the day and 45 dBA during the night at residential property lines. The noise was modeled using CadnaA. The sound level was assessed using the 5-dBA penalty for tonal noise. The applicant determined that the sound levels from the substation would need to be mitigated to meet the applicable noise level standards at two of the adjacent residential property lines. The applicant proposes to mitigate with two sound walls, a 20-foot tall wall next to the main transformer and a 10-foot tall wall next to the STATCOM cooling fans, to lower the predicted sound levels below 45 dBA, assuming new sources produce tonal sound. TE reviewed this information and requested the applicant provide the ground factor "G" used in the CadnaA modeling, verify that the three existing transformers were included in the CadnaA model, and provide a firm commitment to construct the two sound walls described in the response to Information Request #8.

The applicant responded to these requests on July 3, 2018. TE reviewed the additional information and determined that the sound assessment for the Coopers Mills Substation is technically correct and complete. TE recommended that any permit issued require that new equipment installed at Coopers Mills Substation meet the sound power limits listed in the application Table 5-19, and the installation of the sound walls, as proposed by the applicant, with final design supported by additional acoustic modeling using vendor-supplied octave band sound power levels.

e. Raven Farm Substation

The applicant proposes to expand the terminal at the existing Raven Farm Substation in Cumberland. The applicant would add a 345-/115-kV, 448-MVA auto-transformer and a breaker, and one half 115-kV bus at the existing Raven Farm Substation.

Burns & McDonnell took measurements around the existing substation to establish the ambient sound level, as there is currently no noise emitting equipment on site. The measurements showed that the area surrounding the Raven Farm Substation would not be considered a quiet area. At five monitoring points daytime ambient sound levels ranged from 45.3 to 50.2 dBA, with nighttime levels ranging from 42.4 to 46.4 dBA. Therefore, sound level limits would be 60 dBA during the day and 50 dBA during the night at residential property lines. Since the substation will produce tonal noise, a 5-dBA penalty was applied by Burns & McDonnell. The modeling results included in the original application predicted the highest sound level at a property line, including a 5-dBA penalty, would be 49 dBA. The applicant later supplemented its application with The Raven Farm Substation Sound Study, prepared by Burns & McDonnell and dated May 17, 2018. This sound study contained updated modeling results that showed the highest

expected sound level, including a 5-dBA penalty, would be 44.6 dBA. This lower model estimate was the result of the applicant updating the transformer and associated sound pressure level. The transformer planned for in the sound study would emit less sound (75 dBA at 6 feet).

TE reviewed the Raven Farm Substation Sound Study and stated, in its July 9, 2018 review, that the study assessment is technically correct and complete. TE recommended that any permit by the Department require that the new transformer installed at the Raven Farm Substation meet the sound source limit for the base option listed in the study Table 6-1, a sound pressure level of 75 dBA at 6 feet.

B. Department Analysis and Findings

Based on the applicant's submissions, and with consideration of the comments provided by TE, the Department finds the applicant will construct the project between 7 a.m. and 7 p.m., or during daylight hours, with the exception of the HDD construction as the applicant proposed in its October 19,2018 application amendment, and, therefore, will comply with the controlling statutory standard regulating construction noise. The Department finds the maximum sound generated by the new transmission lines proposed as part of the project will be approximately 41 dBA at the nearest edge of the ROW. This sound level is below the Department's most restrictive nighttime standard of 45 dBA and is also below the municipal standards in Lewiston, Greene, Leeds, and New Sharon.

With regard to the new substations and substation modifications, the Department finds the supplemented application materials assessing expected sound levels were complete and technically sound. The Maine Yankee Substation in Wiscasset, Surowiec Substation in Pownal, and Crowley's Substation in Lewiston, while part of the project, will not be modified in a way that will have a material impact on the noise generated at these facilities. The Department finds the project work at the Merrill Road Converter Station in Lewiston, the Fickett Road Substation in Pownal, the Larrabee Road Substation in Lewiston, the Coopers Mills Substation in Windsor, and the Raven Farm Substation in Cumberland will satisfy the applicable standards of Chapter 375, § 10, including any applicable municipal ordinance provisions, provided the applicant:

- For any new equipment at Merrill Road, Larrabee Road, Fickett Road, and Coopers Mills, installs equipment that meets the sound power limits listed in Appendix D, Table D-1 (incorporating the limits from the Site Law application, Tables 5-8, 5-11, 5-15, and 5-19);
- For any new equipment at Raven Farm, installs equipment that meets the sound power limit listed in Appendix D, Table D-1 (incorporating the base option listed in the Table 6-1 of the Raven Farm Substation Sound Study); and
- Installs sound walls at the Coopers Mills Substation, as proposed, with the final design supported by additional acoustic modeling using vendor-supplied octave band sound power levels, and submits the final design and modeling results to the Department for review and approval prior to operation of the new equipment at the substation.

5. SCENIC CHARACTER

Site Law, 38 M.R.S. § 484(3), and NRPA, 38 M.R.S. § 480-D(1), both have standards pertaining to scenic impacts that must be satisfied in order to obtain a permit from the Department. Pursuant to section 484(3), an applicant must make adequate provision for fitting the proposed project into the existing natural environment and the development may not adversely affect scenic character in the surrounding area. Pursuant to section 480-D(1), an applicant must demonstrate that the proposed project will not unreasonably interfere with scenic or aesthetic uses of protected natural resources.

A. Overview – Visual Impact Assessment

To address the scenic impact criteria, the applicant submitted a Visual Impact Assessment (VIA) prepared by Terrence J. DeWan & Associates. The VIA examined the potential scenic impacts of the transmission line and related substation upgrades by describing in both narrative and graphic forms the changes to the visual environment that may result from the project. The initial VIA included photosimulations from 32 key observation points (KOP) and also noted efforts taken by the applicant to avoid, minimize, and mitigate visual impacts. Through the course of the review process, the applicant responded to questions and comments about the VIA and provided additional information, including 21[10] additional photosimulations. These photosimulations were submitted to provide additional evidence concerning the project's impacts when viewed from additional locations and at various times of the year.

As explained in the VIA and outlined in the applicant's witnesses' testimony, preparing the VIA involved the following steps:

- Develop project understanding
- Determine viewshed study area of potential effect (APE or study area) based on viewing distances
- Research, inventory, and identify scenic resources
- Prepare viewshed analysis to determine potential project visibility
- Perform fieldwork to document regional and local landscape character and site context
- Determine project visibility from identified scenic resources
- Prepare photosimulations from key observation points and other identified locations
- Rate potential visual impacts based on evaluation of photosimulations and other analysis
- Determine sensitivity levels of user groups
- Determine visual impact
- Develop mitigation recommendations

[10] At several KOP multiple photosimulations were created depicting views of the project from different directions.

With regard to the identification of potentially impacted scenic resources, the applicant focused its assessment and inventory development on the area within three miles of the project, and within five miles if it would be viewed from an elevated area. These three/five-mile radius areas served as the APE. Within these areas the applicant identified scenic resources within the categories identified in Chapter 315, § 10.

The VIA also included a viewshed analysis. This consisted of both a topographic analysis and a landcover analysis. In the topographic viewshed analysis the areas from where the project would be visible were identified assuming no obstructions other than topography. Trees, buildings, and other obstructions were assumed not to exist. The landcover viewshed analysis incorporated structures and assumed 40-foot tall vegetation in forested areas.

Based on identified scenic resources and important public vantage points, the viewshed analysis, additional desktop analysis and GIS review, and on-the-ground field work, the applicant identified KOPs. The KOPs were intended to capture areas where the visual impact could be greatest, as well as reflect the project as a whole along the entire corridor and at the related substations. The applicant developed photosimulations for the KOPs. As noted above, through the course of the Department's review process additional photosimulations were produced, beyond the original 32. In total, 53 photosimulations were submitted, including photosimulations for the following locations[11]:

Segment 1

- Beattie Pond, Lowelltown Township
- Wing Pond, Lowelltown Township
- Rock Pond, T5 R6 BKP WKR
- Fish Pond, Hobbstown Township
- No. 5 Mountain, T5 R7 BKP WKR
- Parlin Pond, Parlin Pond Township
- Coburn Mountain, Upper Enchanted Township
- Route 201, Johnson Mountain Township
- Attean View Rest Area, Jackman
- Kennebec Gorge, Moxie Gore (two locations with six different photosimulations)
- Moxie Stream, Moxie Gore

Segment 2

- Moxie Pond, East Moxie Township (three locations)
- Mosquito Mountain, The Forks Plantation (two locations)
- Troutdale Road, The Forks Plantation
- AT, Pleasant Pond Mountain, The Forks Plantation
- AT, Troutdale Road, Bald Mountain Township
- AT, Bald Mountain, Bald Mountain Township

[11]The photosimulations for the Brookfield Alternative at Harris Dam are not included in this list.

Segment 3

- Wyman Lake Recreation Area, Pleasant Ridge Plantation
- Route 201, Moscow
- Route 8, Anson
- Route 2, Farmington
- Androscoggin Riverlands State Park, Leeds
- Merrill Road, Lewiston
- Sandy River, Farmington
- Carrabassett River, Anson

Segment 4

- Riverside Drive, Auburn
- Fickett Road Substation, Pownal

Segment 5

- Route 194, Whitefield
- Route 27, Wiscasset
- Route 1, Wiscasset
- West Branch Sheepscot River, Windsor (two locations)

Using the Department's Basic Visual Impact Assessment Form, the applicant rated impacts to the following resources as Minimal, Moderate, or Strong. This assessment was part of the VIA included in its initial application. Summaries of the applicant's descriptions of the impacts to each of these resources and the applicant's ratings are set forth below. Design changes made in the course of the review process that modified some ratings are also noted below.

Segment 1

A. Beattie Pond – Beattie Pond is a remote pond with one camp located at the southeast end. Initially, the applicant proposed a transmission structure to be located 1,300 feet away, which would have been visible from the pond. At the request of the Commission and prior to the hearing, the applicant reduced the height of that one structure. The applicant subsequently, on September 18, 2019, proposed a different route called the Merrill Strip Alternative, which would further reduce the project's visibility from Beattie Pond. With the Merrill Strip Alternative route, existing vegetation and topography will screen structures, conductors, and shield wires from view from all but approximately 8 percent of the pond. Where visible, the tops of two structures, conductors, and shield wires could be seen in between the tops of trees at a distance ranging from approximately 0.75 to 1 mile. (Minimal, as revised)

B. Wing Pond – Wing Pond is located in Lowelltown and Skinner townships and is recognized as a remote pond. The pond does not have a scenic resource rating, as

identified in the *Maine Wildlands Lake Assessment*[12]. Views of the project from Wing Pond would include two structures and conductors within 1.75 miles. The visible portions of the project are within a recently harvested area visible from the pond. The contrast with the surrounding vegetation would be minimal since the structures would be self-weathering steel. (Minimal/Moderate)

C. Rock Pond – Rock Pond is a 124-acre pond with a boat launch and campsites. The pond is rated as a Significant scenic resource by the *Maine Wildlands Lake Assessment.* Project structures and the corridor would be visible approximately 3,100 feet away from the Pond. A portion of the corridor visible from Rock Pond crosses Gold Brook, which contains Roaring Brook Mayflies (RBM) (see Finding 7 for a discussion of RBM).

At the request of the MDIFW several structures near Gold Brook were elevated to allow for full canopy vegetation within 250 feet of the brook.

This increased the visibility of those structures from Rock Pond. To minimize the visual impacts, the applicant proposed to taper vegetation in a portion of the corridor and use non-specular conductors[13] in the areas where they would be visible from Rock Pond. (Moderate)

D. Fish Pond – Fish Pond is located in Hobbstown Township and is rated a Significant scenic resource by the *Maine Wildlands Lake Assessment.* A boat launch is located on the northwestern end of the pond adjacent to a small campground; overall, the shoreline appears undeveloped. Project visibility would be very limited to the tips of up to four structures above the tree line at a distance of three to four miles. The corridor clearing will not be visible. (Minimal)

E. No. 5 Mountain – No. 5 Mountain is located in T5 R7 BKP WKR and within the Leuthold Forest Preserve. The summit can be reached via an existing trail that is open to the public. The VIA states the project structures and corridor would be visible approximately 3.9 miles away. (Minimal/Moderate)

F. Parlin Pond – Parlin Pond is a 543-acre pond with a boat launch, numerous camps, and a rest area. The pond is rated as a Significant scenic resource by the *Maine Wildlands Lake Assessment.* Project structures and the corridor would be visible at a distance of 1.8 miles or more from the pond. (Minimal/Moderate)

G. Coburn Mountain – Also known as the Upper Enchanted Township Unit, the viewpoints from Coburn Mountain were designated as Scenic Viewpoints of State or National Significance in 2010. This designation was established for the purposes of evaluating impacts from grid-scale wind energy projects.

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[12] The *Maine Wildlands Lake Assessment* is a report prepared by the Land Use Regulation Commission on June 1, 1987 that evaluated, among other things, the scenic quality of 1,500 lakes in the unorganized areas of the State.
[13] Segal explained in her testimony on April 1, 2019 that non-specular conductors are pre-treated so they reduce potential reflectivity from sunlight.

The project corridor and numerous structures would be visible from the summit, which is accessible via a multi-use trail maintained by the Bureau of Parks and Lands. A small building, communications infrastructure, and a solar array are located at the top of the mountain. From the summit, the corridor will be visible in the midground looking toward the west side of the mountain at distances of 1.2 to 3.0 miles, and in the background (4+ miles) to the southeast. During the application review process, to address concerns and minimize the visual impact of the project, the applicant proposed tapering the vegetation in the corridor within the viewshed of Coburn Mountain and using non-specular conductors[14] in this same area. (Moderate)

H. Route 201 – Also known as the Old Canada Road Scenic Byway, Route 201 is designated as both a State and a National scenic byway. The 78.2-mile long byway will be impacted by both Segments 1 and 2. The VIA states that the project poles and conductors will be visible to motorists traveling on the byway. The applicant proposed to plant a vegetative, visual buffer along both sides of Route 201 at both crossing locations. (Moderate)

I. Attean View Rest Area – From the rest area located on Route 201 the project will be visible at a distance of 7+ miles. (Minimal)

J. Upper Kennebec River – The applicant modified the application, which originally included an overhead crossing, to incorporate an underground crossing using HDD technology. In the initial VIA with an overhead crossing the applicant rated the visual impact as Strong. Utilizing HDD to run the transmission line under the river results in no project visibility from the Kennebec River. (No visibility, as revised)

K. Moxie Stream – This stream has been designated as scenic in the *Maine River Study*. The corridor and conductors would be visible at approximately 760 feet on the upstream side and approximately 1,000 feet on the downstream side. The line is proposed to be sited to avoid an adjacent open wetland which minimizes visibility from upstream. The structures would be set back more than 400 feet from the stream on the north side and more than 550 feet on the south side. Riparian vegetation, consisting of non-capable species, along the stream bank is proposed to be maintained and would minimize views into the corridor.[15] The applicant also proposes to use non-specular conductors at this crossing. The VIA concludes the limited duration of exposure and screening effects of preserved vegetation result in minimal visual impact. (Minimal)

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[14] Use of non-specular conductors in the viewshed of Coburn Mountain was not discussed in the original VIA but is identified as part of the project in Exhibit CMP -5-C, pg. 7, included with Segal direct testimony for the hearing.
[15] This order requires taller vegetation at the Moxie Stream crossing. (See Section 7 and Appendix C, Table C-1.) This taller vegetation will increase buffering of the corridor beyond the riparian vegetation and screening evaluated by the applicant in the VIA.

Segment 2

A. Moxie Pond – Moxie Pond is a 2,370-acre pond rated as an Outstanding scenic resource by the *Maine Wildlands Lake Assessment*. The pond contains a boat launch and over 100 camps. The proposed project will be co-located in the existing transmission corridor that parallels the western side of Moxie Pond before crossing the southern end of the pond. The existing corridor will be widened by 75 feet to accommodate the proposed transmission line. The majority of new transmission structures adjacent to the pond will be screened by existing vegetation and will not be visible from the pond; however, the tops of approximately 12 structures will be visible from various areas of the pond. The widened corridor will be visible from two locations; the existing corridor is visible from these same locations today.

   The VIA concludes the presence of the existing transmission line and the screening effects of shoreline vegetation result in the project having a minimal visual impact on the lake. (Minimal)

B. Mosquito Mountain – Mosquito Mountain is located on private land but used informally by the public for hiking. The widened corridor and numerous structures would be visible from the mountain, adjacent to the existing transmission line that is presently visible. The VIA concludes that in the context of the existing transmission line and existing roads seen from the mountain the visual impact of the proposed line would be minimal. (Minimal)

C. Troutdale Road – This private road is used to access camps on Moxie Pond, as well as several other roads in the Town of Moscow. The road runs parallel to, and within the cleared corridor of, the existing transmission line. The VIA states the project structures and widened corridor would be visible from the road. The longest duration of exposure would be for approximately 1,000 feet where the road is located within the eastern side of the existing cleared corridor. Due to the project being co-located with the existing corridor the VIA concludes the impact on motorists' continued use and enjoyment of the Troutdale Road, and other private roads in the area where there would be less exposure to the project than along the Troutdale Road, would be minimal. (Minimal)

D. Appalachian Trail (AT) – Approximately 14.5 miles of the AT is located within five miles of Segment 2. The proposed Segment 2 transmission line would be co-located with an existing 115-kV transmission line. The applicant evaluated the visual impact on AT hikers from three general areas: Pleasant Pond Mountain summit area, Troutdale Road area, and Bald Mountain summit area. Within these three general areas a total of 11 viewpoints were reviewed (including from Middle Mountain). From Pleasant Pond Mountain the VIA concluded there would be minimal visual impact due to the viewing distance and the resulting minimal project visibility. From the areas near Troutdale Road, including where the AT runs along the road, the VIA concludes that the visual impact from the AT would

be minimal to moderate due to the presence of the existing transmission line corridor. The applicant proposes to plant a buffer along Troutdale Road to minimize the visual impact of the corridor. From the Bald Mountain summit area, the VIA concludes there would be minimal visual impact due to the partial screening and viewing distance. (Minimal/Moderate)

E. Wyman Lake Recreation Area – This area is located in Pleasant Ridge Plantation and managed by Brookfield Renewables and the Bingham-Moscow Chamber of Commerce. The project will be visible from the recreation area and from Wyman Lake, but will be located near the existing Wyman Hydroelectric Dam, which impounds Wyman Lake and also is visible from the lake and recreation area. (Minimal)

Segment 3

A. Road Crossings – Segment 3 will cross several State roads, including Route 2 in Farmington, Route 8 in Anson and Route 201 in Moscow. A total of 64 road crossings are proposed in this segment. At 39 of these crossings, motorists currently see an existing 115-kV transmission line. At the remaining 25 crossings, motorists currently see two 115-kV transmission lines. The widened corridor and structures would be visible at the crossings. The VIA states the project will result in a minimal increase in overall visual impact. (Minimal)

B. Androscoggin Riverlands State Park – This 2,675-acre State Park includes 12 miles of Androscoggin River frontage. The park provides river access for boating and numerous all-season trails. The existing corridor crosses a portion of the park, and the widened corridor and new structures would be visible to park visitors from land. The corridor would not be visible from the river. (Moderate)

C. Merrill Road – The existing corridor crosses Merrill Road in Lewiston. The proposed new Merrill Road Converter Substation would be located approximately 2,400 feet north of the road and would not be visible from the road where the corridor crosses it. There are no scenic resources with potential views of the converter station. (Moderate)

Segment 4

A. Riverside Drive – The rebuilt line crosses Riverside Drive and then the Androscoggin River in Auburn. The existing 45-foot high H-frame structures would be replaced by 75-foot high single pole supports. (Minimal)

B. Fickett Point Substation – The applicant proposes to construct a new 345-kV STATCOM substation in Pownal. The substation would be located on a 4-acre parcel, approximately 60 feet from Allen Road and 115 feet or more from Fickett Road. The substation would be visible to motorists and several homes on the

north side of Fickett Road. The applicant proposed to plant a vegetative, visual buffer along the south side of Fickett Road. (Moderate)

Segment 5

A. Route 27 – The new transmission line would be located between two existing lines, within the current corridor. The new structures and conductors would be visible as the line crosses Route 27 in Wiscasset. No new corridor clearing is proposed. (Minimal)

B. Route 194 – The new transmission line would be located between two existing lines, within the current corridor.

The new structures and conductors would be visible as the line crosses Route 194 in Whitefield. No new corridor clearing is proposed. (Minimal)

Additionally, the applicant analyzed potential impacts for the following sites and determined there would be limited impact (typically minimal or no impact), or determined there is no reasonable public access to the site:

Segment 1
- No. 5 Bog
- Snowmobile Trails, ITS 89 and ITS 87
- Moose River
- South Branch Moose River
- Iron Pond
- Egg Pond
- Grace Pond, Upper Enchanted Parcel

Segment 2
- Arnold Trail Historic District
- Snowmobile Trail, ITS 86
- Moxie Mountain
- Baker Stream

Segment 3
- Monument Hill
- Clearwater Pond
- Dead River
- Allen Pond
- Berry Pond
- Sterry Hill
- Nutting
- Snowmobile Trails, ITS 82, 84, 87, and 115
- Kennebec Valley Trail
- Mount David

Segment 4
- No Name Pond
- Androscoggin River
- Randall Road Ballfields
- Snowmobile Trails, ITS 87 and 115

Segment 5
- Montsweag Dam Preserve
- Residential structures

The VIA also included proposed mitigation strategies, including the use of self-weathering single steel poles to minimize visual contrast, particularly in Segment 1 where structures would often be seen against a wooded backdrop.

Co-location in Segments 2 and 3 also was noted as minimizing new clearing. Mitigation strategies at substations described in the VIA included limiting additional clearing and development of buffer plans. Through the course of the Department's review of the application, additional mitigation measures were incorporated into the overall VIA, including vegetation tapering at Coburn Mountain and Rock Pond, non-specular conductors at Rock Pond, Coburn Mountain, and Moxie Stream, and plantings at several locations, such as Route 201 crossings.

Finally, on May 1, 2019, the applicant submitted supplemental testimony in response to the Department's request in the Tenth Procedural Order. In this supplemental filing the applicant evaluated both whether taller poles within Segment 1 would be visible and their potential visual effect. The focus of this evaluation was the area surrounding the nine priority areas for habitat connectivity identified by TNC through pre-filed witness testimony.[16] In the vicinity of these nine areas the applicant identified resources with potential views, identified whether taller poles with a height of 130 feet would be visible from the resource, and discussed the nature of any impact.

The applicant states that its VIA demonstrates that the project meets the standards for scenic character in both Site Law and NRPA.

B. Peer Review Comments and Applicant Response

The Department hired James F. Palmer of Scenic Quality Consultants (SQC) to provide comments to the Department on the portions of the application related to scenic character. SQC reviewed the VIA included by the applicant in its initial submission and provided the Department with comments dated August 20, 2018. SQC also visited several of the project photosimulation locations on September 5, 2018. The Department reviewed and considered SQC's August 20 comments, as well as subsequent comments provided by

[16] The purpose of the taller poles would be to allow taller vegetation to grow within the corridor under the conductors, improving wildlife connectivity. Wildlife impacts, including the benefits of taller vegetation within the corridor, is discussed in Section 7.

SQC dated November 23, 2018.[17] SQC's comments presented a number of questions, including about the viewshed analysis, whether scenic resources were appropriately identified, and the process for selecting key observation points for which photosimulations were produced. These questions all related to the overall value of the applicant's VIA in assessing potential visual impacts of the project.

Following consideration of each set of comments from SQC, the Department asked the applicant for clarification or for additional information the Department determined was needed to further its review of the project's visual impacts. The applicant provided responses to Department information requests on October 19, 2018 and December 7, 2018.[18] Both responses contained sections focused on assessment of visual impacts, including responses to the questions posed by the Department and comments prepared by SQC. Through this process the applicant significantly supplemented its VIA.

In addition to providing comments on the applicant's VIA, SQC also reviewed and commented on an Upper Kennebec River rafting experience survey commissioned by the applicant. The survey, which involved individuals rafting on the Upper Kennebec and Dead Rivers in the fall of 2018, was completed in response to comments SQC offered at the time the applicant was proposing an overhead crossing of the Upper Kennebec River. The survey was designed to help assess the impact an overhead crossing would have on rafters. SQC offered its interpretation of the survey results – that rafters would notice degraded scenery from an overhead crossing, but would still enjoy the rafting trip and likely return for a repeat rafting experience. SQC also commented that the survey may have value when assessing the visual impacts at other locations, particularly for people engaged in water-based activities, and saw the survey as indicating that people believe seeing power lines has a greater negative impact on the river recreation experience than most other human activities, including wind turbines, clear cuts, and bridges. The applicant responded to SQC's comments, explaining why it believed SQC overstated the relative visual impact of transmission lines relative to other types of human activity or development.

C. Public Hearing Evidence and Written Comments

(1) Applicant Testimony

During the applicant's testimony, Terrence DeWan and Amy Segal, from Terrence J. DeWan & Associates, explained their methodology for the creation of the VIA. In their testimony they stated that they evaluated scenic impacts within three miles of the corridor, which is standard procedure.

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[17] The August 20 and November 23, 2018 comments noted here were the most lengthy and substantive comments offered by SQC. SQC provided additional comments, including on the Merrill Strip Alternative and the Winter Recreation Survey conducted by Sandra Howard, PhD, as well as on potential wildlife impact mitigation strategies in April 23, 2019 comments.

[18] On December 9, 2018, the applicant submitted revised Attachments E and F to its December 7, 2018 response to the Department's additional information request. Both attachments relate to the assessment of visual impacts. Reference in this Order to the applicant's December 7 submission includes the December 9 revisions.

In addition, they also evaluated impacts beyond that, out to five miles from the corridor, for scenic resources as defined in Chapter 315. DeWan and Segal provided testimony on methods used to avoid, minimize, and mitigate the impacts to the numerous affected scenic resources. Some of these methods include: avoiding ridge lines; planting visual buffers in the corridor along the Old Canada Road (Route 201); using non-specular conductors to avoid reflecting sunlight; tapering vegetation around Rock Pond and the areas visible from Coburn Mountain to minimize the line contrast between the corridor and the surrounding forest; and using self-weathering steel poles to maximize landscape compatibility.

DeWan and Segal testified that in their professional opinion, the project would not have an unreasonable adverse effect on the scenic character of the area and would fit harmoniously into the environment. The applicant also testified that the proposed compensation plan adequately compensates for any unavoidable impacts to recreational use of all the scenic resources impacted by the project.

(2) Intervenor Testimony

Group 1 argues that the impact to the Old Canada Road Scenic Byway extends beyond what is visible from the road. In testimony, Robert Hayes argues that travelers coming to the byway come for the entire experience, not just for driving. In his view, the purpose of the byway is to promote tourism in the area and part of that promotion is the scenic beauty of the Upper Kennebec and Moose River valleys, as well as Coburn Mountain. He contends that the project will diminish the proud character of the area resulting in decreased tourism and traditional economic activity.

Groups 2 & 10 argue that the applicant's VIA is inadequate, pointing to comments of SQC in its review memos pertaining to the project. They also contend that the applicant should have conducted user surveys of snowmobilers utilizing the trails in and around the project area near The Forks and argue that this omission is a fatal flaw in the application. Groups 2 & 10 witnesses testified that the project would have a serious impact on the recreational use of the area because many of their clients would no longer come to the area due to the negative scenic impact of the transmission line.

A witness for Group 3, Robert Meyers, the Executive Director of the Maine Snowmobile Association, testified that the snowmobile clubs that make up the association have many miles of trails located in power line corridors. He further testified that he has never received a complaint from a snowmobiler about viewing transmission lines.

A Group 4 witness, Dr. David Publicover, testified that the applicant had not adequately buffered the new transmission line from views that would be experienced by users of the AT. He suggested that this could be accomplished by relocating the trail and recommended that this be a condition of approval if the proposed project is approved.

Group 7 witnesses testified that the applicant's proposal to run the proposed transmission line under the Upper Kennebec River addressed the most significant scenic impact and

that based on their familiarity with the character of the area of the proposed corridor, experience in the outdoor recreation industry, and other steps the applicant took to site the project to minimize visual impacts, the project will not have an adverse impact on existing scenic, aesthetic, and recreational uses of the area surrounding the project.

(3) Public Testimony and Written Public Comments

Many of the written and oral comments the Department received from members of the public related to the scenic impact of the project, particularly from Segment 1.

A large majority of the comments in opposition to the project contained statements that the scenic impacts of the proposed project would be unreasonable. Often these comments were general in nature without focusing on potential impacts at specific locations. When reference was made to specific locations, the impacts to views from Coburn Mountain and the Old Canada Road were commonly noted. Many of the comments received by the Department in support of the project that mention scenic impacts state that the scenic impacts are outweighed by the benefits of the project in terms of a reduction in greenhouse gas emissions.

D. Department Analysis and Findings

(1) Regulatory Framework

Site Law, 38 M.R.S. § 484(3), and NRPA, 38 M.R.S. § 480-D(1), both have standards pertaining to scenic impacts that must be satisfied in order to obtain a permit from the Department. Site Law prohibits development that will "adversely affect" scenic character, while NRPA prohibits activity that will "unreasonably interfere" with existing scenic and aesthetic uses. The criteria of the two laws reflect a similar intent in that they both allow development or activity that will result in a visual impact, but when this impact is too great an applicant fails to satisfy the review criteria. This is reflected in the corresponding NRPA and Site Law rules, both of which specify that the applicant's burden is to demonstrate that there would be no "unreasonable adverse" impacts or effects and the Department's assessment is on that basis. Ch. 315, §§ 1 & 4 and Ch. 375, § 14(B) & (C).

When reviewing scenic impacts under NRPA and evaluating whether an impact is unreasonable, the Department is guided in part by Chapter 315, § 9. This section provides:

> The Department's determination of impact is based on the following visual elements of the landscape:
>
> A. Landscape compatibility, which is a function of the sub-elements of color, form, line, and texture. Compatibility is determined by whether the proposed activity differs significantly from its existing surroundings and the context from which they are viewed such that it becomes an

unreasonable adverse impact on the visual quality of a protected natural resource as viewed from a scenic resource;

B. Scale contrast, which is determined by the size and scope of the proposed activity given its specific location within the viewshed of a scenic resource; and

C. Spatial dominance, which is the degree to which an activity dominates the whole landscape composition or dominates landform, water, or sky backdrop as viewed from a scenic resource.

In making a determination within the context of this rule, the Department considers the type, area, and intransience of an activity related to a scenic resource that will be affected by the activity, the significance of the scenic resource, and the degree to which the use or viewer expectations of a scenic resource will be altered, including alteration beyond the physical boundaries of the activity. In addition to the scenic resource, the Department also considers the functions and values of the protected natural resource, any proposed mitigation, practicable alternatives to the proposed activity that will have less visual impact, and cumulative effects of frequent minor alterations on the scenic resource. An application may be denied if the activity will have an unreasonable impact on the visual quality of protected natural resources as viewed from a scenic resource even if the activity has no practicable alternative and the applicant has minimized the proposed alteration and its impacts as much as possible through mitigation. An "unreasonable impact" means that the standards of the NRPA, 38 M.R.S. § 480-D, will not be met.

Site Law similarly requires the Department to evaluate whether a scenic impact is unreasonable. The corresponding Site Law rules instruct the Department to consider all relevant evidence as part of its evaluation, including evidence on whether:

A. The design of the proposed development takes into account the scenic character of the surrounding area;

B. A development which is not in keeping with the surrounding scenic character will be located, designed, and landscaped to minimize its visual impact to the fullest extent possible;

C. Structures will be designed and landscaped to minimize their visual impact on the surrounding area;

D. The plans for the proposed development provide for the preservation of existing elements of the development site which contribute to the maintenance of scenic character.

Chapter 375, § 14(B).

The Site Law rules do not contain a section similar to NRPA's Chapter 315, § 9, which identifies more specific elements to be considered that guide the Department in determining whether a scenic impact is unreasonable. Finding the guiding concepts in Chapter 315, § 9 instructive to the Department's charge under Site Law in evaluating visual impacts, the Department considers the same elements for evaluating visual impacts set out in Chapter 315, § 9 when evaluating the same type of impacts under Site Law.[19] As noted above, while similar, NRPA and Site Law are not identical. The Department's evaluation of visual impacts under NRPA focuses on impacts to existing scenic uses. As specifically set forth in Chapter 315, scenic impacts under NRPA are evaluated from those public resources and public lands used by the public, defined as "scenic resources." Ch. 315, §§ 5(H) and 10.

The Department's review of visual impacts under Site Law is broader. Under Site Law the Department must consider whether the applicant has made adequate provision for fitting the proposed project harmoniously into the natural environment and whether the proposed project would adversely affect scenic character in the municipality or in neighboring municipalities. As a result, in reviewing the project the Department evaluated potential visual impacts from locations fitting the NRPA definition of scenic resources, as well as from other areas where the project would be visible to the public, including from privately owned land. Through evaluating the project from these many vantage points, the Department is able to evaluate the project as a whole and assess both whether the project unreasonably impacts existing scenic uses and whether it adversely affects scenic character of the area. For the purpose of this Order, where the Department finds the project will not have an unreasonable adverse effect on scenic uses or character it finds the scenic impact standards in both NRPA and Site Law, where applicable, are satisfied.

(2) Sufficiency of the VIA

The burden rests with the applicant to demonstrate that its proposal satisfies the visual impact standards under Site Law and NRPA. The applicant's VIA is an important component of its application with respect to visual impacts. Along with the original VIA, supplemental information provided in response to questions and comments on the original VIA, including from the Department and the consultant it retained, became part of the overall VIA. The Department evaluated the sufficiency of the overall VIA, guided by Chapter 315, § 7 and Chapter 375, § 14(C), which address the components of VIAs.

The applicant selected an Area of Potential Effects (APE) of three miles, extending to five miles from elevated viewpoints. As explained in the VIA, the project would be considered to be in the foreground when within 0 to 0.5 miles from the observer, in the midground at a distance of 0.5 to three miles, and in the background at a distance of greater than three miles.

[19] When applying this general framework as part of its Site Law review, the Department does so without focusing on scenic resources as specifically defined in Chapter 315. The general framework includes consideration of the elements of landscape compatibility, scale contrast, and spatial dominance when evaluating visual impacts, as well as consideration of context, such as the type of area, significance of the area, and viewer expectations.

At distances greater than three miles, changes to the landscape are highly visible only if they present noticeable contrast in form or line. While poles could be visible to some observers when in the background, the corridor itself, depending on the angle of the observer relative to the corridor, is more likely to be noticeable. The APE is tailored accordingly, extending to three miles everywhere and to five miles where viewpoints are elevated, making the ability to see poles or wires in the background more likely and identification of the corridor, which typically will have trees on both sides, particularly along Segment 1, easier. This approach is the APE the Department – informed by decades of experience applying Site Law and NRPA – typically requires for large-scale projects such as the present one.

In its comments, SQC observed that the APE distances for the transmission wires and poles are in general agreement with the literature, but expressed uncertainty about whether those distances were sufficient to evaluate the visual impact of the corridor. It was not clear to SQC at the time of initial comments to what extent the applicant had considered visibility of the corridor (as opposed to just the structures in it) when selecting the APE. In its October 19, 2018 response to a Department information request, the applicant explained where and how corridor visibility had been considered and accounted for in photosimulations. Also, additional photosimulations were provided on December 7, 2018 and January 9, 2019, showing the corridor in the winter, when most visible, from Coburn Mountain and elsewhere. This responsive material and accompanying photosimulations allowed evaluation of the APE with respect to the corridor. Based on the evidence in the record, the Department finds the APE is appropriately sized for the size, scope, and nature of the project, recognizing its location, including the location of Segment 1 in a primarily forested, largely undeveloped area.

Within the APE, identifying locations from which the project would be visible and then assessing the visual impact from key locations is a central component of the VIA. SQC's comments and the applicant's responses assist with review of the sufficiency of the VIA in this area. SQC expressed uncertainty about whether the VIA evaluated impacts from the appropriate places. SQC posed questions about the applicant's viewshed analysis, identification of scenic resources, and selection of key observation points – the points for which photosimulations were created.

The applicant's viewshed analysis includes one analysis based on topography only and another analysis assuming the presence of vegetation, structures, and other obstructions. SQC questioned the data used to reflect forested conditions in the second (landcover) viewshed analysis. While SQC stated the forest cover height of 40 feet used by the applicant was consistent with professional practice, SQC pointed to different and more recent data reflecting the location of forest cover that could have been used. SQC acknowledged, however, that the precision of the viewshed analysis in and of itself was not particularly significant. The significance of the viewshed analysis was dependent on how it was used. SQC believed the landcover viewshed analysis was central to the applicant's identification of locations within the APE from which to evaluate the scenic impacts of the project. Reliance on the viewshed analysis, for example, could mean a place could incorrectly be assumed to be screened from the project. SQC pointed to the

fact that roughly half of the key observation points selected by the applicant for photosimulations, because the project would be visible from those points, are not points identified on the landcover viewshed map. SQC stated that this reflected the limited value of the viewshed analysis.

The Department concurs with SQC on its observations about how the viewshed analysis was used as part of the VIA and notes that the relative role of the viewshed analysis in the overall identification of key observation points could have been more thorough in the original VIA. However, the explanation provided by the applicant in its December 7, 2018 response adds important clarity.

The applicant noted that the landcover viewshed analysis was just a starting point and that for Segments 1 and 2, recognizing forestry patterns change, a topographic viewshed analysis also was used. Vegetation was not included in this analysis. Additionally, the viewshed analysis (both landcover and topographic) was supplemented by Google Earth aerial imagery for 2016 to determine where harvesting operations may have recently altered visibility. The applicant explained that while field investigations started with locations where it appeared there would be views of the project, its consultants collected GIS data, conducted on-line research to identify scenic resources, reviewed aerial imagery, and field checked viewshed maps. The table listing scenic resources submitted by the applicant shows the extensive field work done by the applicant, including site visits to locations where viewshed mapping suggested no visibility. The Department finds SQC's comments helpful and informative; they identified the limitations of the landcover viewshed analysis completed by the applicant. The Department also finds the applicant recognized the value and limitations of the landcover viewshed analysis and appropriately used the analysis, in conjunction with field work and other tools and analysis, as part of the overall VIA. This is supported by the fact that the applicant appropriately identified many KOPs outside the landcover viewshed.

NRPA requires evaluation of visual impacts from scenic resources. While the term scenic resource is defined in Chapter 315, § 5(H), in its review of the applicant's VIA, SQC questioned whether the applicant may have failed to identify scenic resources within the APE. For example, in its August 20, 2018, comments SQC wondered whether all public roads, cemeteries, and land included in Maine's Open Space Tax Law program qualify as scenic resources. The Department notes that privately owned lands, by virtue of inclusion in the Open Space tax program, are not converted to "public natural resources" or "public lands." However, certain cemeteries (those on public land) and public roads (those with notable scenic views) are scenic resources. In its December 7, 2018 submission, the applicant expanded its analysis to include these resources and provided a comprehensive list of all identified scenic resources in its Attachment F, Scenic Resources Chart.[20] The Department finds the applicant identified the scenic resources within the APE, consistent with the Department's expectations for a VIA as laid out in Chapter 315, § 7.

[20] The applicant continued to update this chart, for example, submitting an updated Attachment F on January 30, 2019.

The applicant selected KOPs and prepared photosimulations from these points to illustrate what observers see from these vantage points presently and what they would see if the project were constructed. These points reflect worst-case scenarios and, by including KOPs across the entire project, also reflect the project as a whole. The initial VIA included photosimulations from 32 KOPs. Through the course of review, 21additional photosimulations were added[21], including:

- One photosimulation depicting the tapered vegetation proposed at Rock Pond, and
- Thirteen photosimulations at ten locations showing snow cover conditions.

While the initial submissions by the applicant on this issue were lacking in thoroughness, the submission of additional information in response to questions and comments is not unusual during project review. The Department finds the resulting package of photosimulations is robust and allows full evaluation of the project, including transmission structures and wires, the corridor, and substation, and under various conditions (including snow cover and leaf-off). The Department recognizes the project has drawn considerable public attention and generated extensive comment from intervenors and the public, including from individuals who live and recreate in the area of the project. Much of the evidence presented by intervenors and testimony and written comments submitted by members of the public has addressed the potential visual impacts from various locations. Particular areas of focus in the evidence are the Upper Kennebec River crossing, Coburn Mountain, Rock Pond, several areas along the Spencer Road, the Appalachian Trail, Old Canada Road (Route 201), and Beattie Pond. These are among the places focused on by the applicant in the VIA.

In addition to the identification of scenic resources and KOPs, and the development of photosimulations, the overall VIA describes the significance of visual impacts from various locations, addresses uses of the area and viewers' expectation, and discusses proposed measures to avoid and minimize impacts to scenic resources, including: use of self-weathering poles, co-location of segments with existing transmission line corridor, tapering in certain areas, reducing pole heights in certain areas, and planting buffer vegetation in select areas to minimize impacts looking up a corridor and at the Fickett Road substation. The applicant's supplemental testimony also addresses the potential visibility of and associated visual impact of taller poles in certain areas along Segment 1. The Department finds the VIA, with the supplementary evidence submitted, was developed in a manner consistent with Chapter 315, § 7 and Chapter 375, § 14(C) and is sufficient to enable evaluation of whether the project satisfies the visual impact standards in NRPA, 38 M.R.S. § 480-D(1), and Site Law, 38 M.R.S. § 484(3).

[21] During the course of the Department's review of the project, the applicant submitted photosimulations that supplemented its initial VIA and were for alternatives that are not part of the final proposal, including four photosimulations for the Brookfield Alternative and four photosimulations for a three-structure design for an overhead crossing of the Upper Kennebec River.

(3) Evaluation of Scenic Impacts

In evaluating the scenic impacts of the proposed project under Site Law, 38 M.R.S. § 484(3), and NRPA, 38 M.R.S. § 480-D(1), the Department considered all relevant evidence in the record, including the application and supplementary filings by the applicant, information gathered during the public hearing, the written comments received, the comments of the independent scenic consultant, and the evidence gathered directly by Department staff. The Department staff visited the project area several times in 2018. In addition, on June 29, 2019, the Commissioner, Presiding Officer, Assistant Attorney General, and Department staff conducted a site visit.

The Department evaluated the scenic impact of the project as a whole, as well as from specific vantage points along the length of the project.

This evaluation includes consideration of the potential visual impact of taller poles, transmission structures with a height of 130 feet, within Wildlife Areas identified in Appendix C and required by this Order as explained in Section 7. As SQC commented with regard to taller poles, recreators in the forest will not have views of taller poles and will not encounter a cleared corridor. The taller poles are intended to allow the growth of vegetation within the corridor. Potential visual impacts of taller poles would occur in two situations, open waters and rivers associated with wetlands and elevated viewpoints.

The following discussion and analysis focus on the key locations and topics identified by the Department, its consultant, the applicant, the intervenors, and members of the public during the course of the Department's review.

a. Upper Kennebec River Crossing

The section of the Upper Kennebec River where the applicant originally proposed an overhead crossing is nationally known for its whitewater rafting with approximately 40,000 people a year booking trips with local rafting companies to float this section of the river. Initially, the applicant proposed an overhead crossing utilizing a five-structure design. The conductors, shield wires and the tops of at least two structures would have been visible from the Kennebec River. The applicant redesigned the crossing to eliminate two of the structures in an attempt to reduce the visibility of the project from the river. After the early portions of its review, and review of public input submitted to that point, on May 7, 2018, the Department sent the applicant a letter expressing its concerns with an overhead crossing of the Kennebec River and the scenic impact it would have on existing recreational use of the area. It is unlikely the Department could have found an overhead crossing in this area satisfied the scenic impact standards in NRPA and Site Law.

In October 2018, the applicant amended its application and proposed to utilize a HDD to install the transmission line under the river. With this design, none of the project elements will be visible from the river, although some area of reduced vegetation may be visible from the river.

Based on the change from an overhead crossing to a HDD crossing with no project visibility from the Upper Kennebec River, the Department finds that the proposed project will not have an unreasonable adverse effect on scenic uses or character of the Upper Kennebec River.

b. Spencer Road, Hardscrabble Road, and Other Logging Roads Near Segment 1

These roads, located on private land, were constructed and are maintained to support the commercial forestry operations in the area. It is not uncommon for an individual traveling these roads to see evidence of recently harvested areas or logging equipment, as well as scenic vistas. There even may be areas where a harvest opens up a scenic view from the logging road that was not there prior to commercial forestry operations. Although a person may travel a private land management road and enjoy the surrounding scenic qualities or even travel such a road specifically for the scenery, private roads do not qualify as scenic resources under NRPA. They are neither a public natural resource nor public land.

Under Site Law, scenic impacts to the public from private property may be considered. With regard to land management roads, Maine has a long tradition of private timberland owners allowing members of the public, by permission, to access their timberland for recreational purposes, as well as to reach points more conveniently accessed by travelling private logging roads. The granting of this permission to access and travel across private property does not establish an expectation that any such traveler will enjoy a particular view. Reasonable viewer expectations are a factor considered by the Department when applying the scenic standards in Site Law and untouched forest is not a reasonable expectation when traveling roads used for forest management and harvesting. Some views of a transmission line with low-growth or tapered vegetation would not be sharply out of character along a land management road. The Department declines to interpret the concept of reasonable viewer expectations under the Site Law as including an expectation of certain scenic character when traveling on a private road across private property, by permission. There is no indication that the Legislature intended the Site Law to have that result, which could have a chilling effect on the long tradition of public access to private land in Maine. The Department finds the project will not have an unreasonable adverse effect on scenic uses or character of the Spencer Road, Hardscrabble Road, or the other impacted private land management roads, including as a result of the installation of taller poles in the Wildlife Areas identified in Appendix C.

c. Coburn Mountain

The initial VIA contained only photosimulations with leaf on conditions. On September 4, 2018, the Department requested additional information, including photosimulations depicting the project when snow covered the ground. In response to this request, on October 19, 2018, the applicant submitted photographs taken by an unknown person in 2004 from the top of Coburn Mountain. The Department, in a November 5, 2018 letter, again requested the applicant produce photosimulations with snow cover conditions and

stated that the October 19, 2018 submission was not satisfactory. On December 7, 2018, the applicant submitted the requested photosimulations, including simulations from the top of Coburn Mountain. The Department finds that the snow-cover photosimulations from the top of Coburn Mountain depict the project as a highly visible cleared area that is not compatible with the existing landscape because the cleared, snow-covered corridor differed significantly from the existing surroundings, and the cleared, snow-covered corridor becomes the dominant landform due to the contrast between it and the primarily forested areas surrounding it.

To mitigate this impact, on January 9, 2019, the applicant proposed to taper the vegetation in the corridor for an approximately 2.2-mile section of corridor that is visible from Coburn Mountain.

Instead of clearing the full width of the 150-foot wide corridor, tapering retains increasingly taller vegetation within the corridor as the distance from the wire zone increases. Under the proposed tapering, the wire zone – the 54-foot wide, middle section of the corridor centered under the two conductors – would be cleared during construction and allowed to regrow with noncapable vegetation up to a height of approximately 10 feet, but immediately outside the wire zone, vegetation up to 15 feet tall would be maintained, with vegetation height increasing to 35 feet at the edges of the corridor. (Appendix C contains a further description of tapering.) Within this same section of the corridor the applicant also proposed to use non-specular conductors.

The Department received numerous comments from the parties, as well as interested persons, concerning scenic impact, generally, and from the summit of Coburn Mountain, specifically. Intervenor Groups 1, 2, and 10 all testified that the scenic impact from the top of Coburn Mountain in general, and particularly the impact to snowmobilers' use and enjoyment of Coburn Mountain, would be adversely impacted by the project. These groups provided testimony regarding the amount and value of the recreational use of Coburn Mountain, especially for the snowmobiling community. Intervenor Group 2 witness Greg Caruso testified that the adverse scenic impacts to views from the trails around Coburn and Johnson Mountains would severely affect his snowmobiling business. He described this area as the "mecca" of snowmobiling in Maine. Others provided similar testimony. It is not clear whether those offering testimony on the visual impact of the corridor from Coburn Mountain considered how tapering would affect this impact.

Intervenor Group 3 witness Robert Meyers, the Executive Director of the Maine Snowmobile Association, testified that the project would not adversely affect snow-mobilers' enjoyment of the area. Meyers stated that many of the existing snowmobile trails in Maine are located along transmission lines and that he has never heard a complaint from the members of his organization about having a view of a power line.

The Department finds compelling the evidence that the project, as originally proposed, would have an adverse impact on the users of Coburn Mountain, particularly snow-mobilers. The applicant's proposal to taper vegetation in the area visible from the summit, as well as to use non-specular conductors, significantly reduces the visual impact

of the project. Tapering softens the edge of the corridor and makes the corridor less visible overall. The addition of tapered vegetation reduces the spatial dominance of the project and improves its compatibility within the landscape. This is shown in the photosimulations with snow cover. A fully cleared, 150-foot wide corridor is the dominant feature in the landscape. The tapered corridor, in contrast, is no longer dominant, and is just one of the features of the landscape seen from the summit of Coburn Mountain, and no more prominent, for example, than an existing land management road.

Any taller poles needed to achieve the minimum required vegetation height in the Wildlife Areas identified in Appendix C would not be visible from Coburn Mountain.

The Department finds that the project will not have an unreasonable adverse effect on scenic uses or character of Coburn Mountain, provided the applicant:

- Tapers the vegetation in the corridor within the viewshed of Coburn Mountain (between structures #3006-634 and #3006-616), and
- Uses non-specular conductors within the viewshed of Coburn Mountain (between structures #3006-634 and #3006-616).

d. Number 5 Mountain, T5 R7 BKP WKR

Number 5 Mountain is owned by TNC and is located 3.9 miles from the project. TNC has developed a parking area, a large informational map, and a trail to the top of the mountain. TNC invites members of the public to hike the mountain. No. 5 Mountain is within the Leuthold Preserve, which is collaboratively managed by TNC, Forest Society of Maine, and the Maine Bureau of Parks and Lands. Access to the trailhead parking area for No. 5 Mountain is over the privately-owned Spencer Road, a land management road owned by a third party. The applicant identified the mountain as a scenic resource as a result of being part of the preserve.

The corridor and structures, located at a distance of 3.9 miles, will be visible from the summit of No. 5 Mountain. The project will have a moderate impact as a line zigzagging within the scenic view. However, since the structures will not be silhouetted against the sky backdrop, the project lines are not a significant object in the viewshed. Additionally, taller poles within Wildlife Area 2 would be eight miles from No. 5 Mountain and would not affect the view from the mountain due to this distance. The Department finds the overall scenic impact to be minimal; the project will not have an unreasonable adverse effect on scenic uses or character of No. 5 Mountain.

e. Beattie Pond

Beattie Pond is a remote pond developed with a single camp that is accessed by a private road. The applicant's original proposal included standard poles heights (approximately 100 feet tall) in the area near Beattie Pond. At the request of the Commission, one of these structures was redesigned to be shorter. As redesigned, the visibility of the project

from the pond would be limited to just the very top of that structure. On September 18, 2019, the applicant submitted a petition to reopen the record to allow it to modify the application to change the proposed route and use the Merrill Strip Alternative. As described in Section 1, this alternative moved the project out of the P-RR Subdistrict around Beattie Pond. Existing vegetation and topography would screen the project from view from most of the pond. Any project visibility would be minimal. Within Wildlife Area 1, taller poles may be needed to achieve the required minimum vegetation height. This Wildlife Area does not include the structures closest to Beattie Pond, which would be visible if increased to a height of 130 feet. Wildlife Area 1 is outside of the viewshed of Beattie Pond. Based on the applicant's proposal to use the Merrill Strip Alternative, the Department finds that the project will not have an unreasonable adverse effect on scenic uses or character of Beattie Pond.

f. Rock Pond

Rock Pond is a 124-acre pond with a boat launch and campsite. Project structures and the corridor would be visible approximately 3,100 feet away. The portion of the project that is most visible from Rock Pond is the area where the corridor is perpendicular to the view from the pond, when an individual is looking northwest and up the corridor. The applicant's revised plan incorporates tapering vegetation along this section of the corridor. This minimizes the visibility of the corridor, making it much less prominent and improving compatibility with the landscape. The applicant also proposes to use non-specular conductors in this area where the project is visible from the pond. This further reduces visual intrusion. The Department notes that in contrast to Coburn Mountain, the Department received very few comments from users of Rock Pond, or individuals concerned about the view from the pond. In addition, the Department staff, the Commissioner, Assistant Attorney General, and the Presiding Officer visited Rock Pond during their June 29, 2019 site visit. During that visit the existing conditions were compared with the photosimulations contained in the record.

The Wildlife Areas closest to Rock Pond are Wildlife Areas 3 and 4. The Department finds the applicant's supplemental testimony demonstrates taller poles in these areas will not be visible from Rock Pond. Wildlife Area 3 corresponds with TNC's priority area 3 and Wildlife Area 4 corresponds with a portion of TNC's priority area 4, but not the portion of this area that would be visible from the pond if taller poles were used.

Based on the applicant's VIA, evidence concerning potential impacts to uses of Rock Pond, and the site visit, the Department finds the project will not have an unreasonable adverse effect on scenic uses or character of Rock Pond, provided the applicant:

- Tapers the vegetation in the corridor within the viewshed of Rock Pond (between structures #3006-731 and #3006-729), and
- Uses non-specular conductors within the viewshed of Rock Pond (between structures #3006-731 and #3006-724).

g. Old Canada Road (Route 201)

The Old Canada Road Scenic Byway is a 78.2-mile long section of Route 201. People experience the byway when traveling by motor vehicle. The project is perpendicular to and intersects the Old Canada Road in Johnson Mountain Township. The project will introduce a moderately incompatible line to the landscape when it crosses Route 201. Due to a rise in the roadway, when traveling northwest the line will be silhouetted against the scenic backdrop. However, it appears as a small object and is insignificant in dominance. Motorists will see the project for a very short time as they drive by (approximately 30 seconds when traveling south and 60 seconds when traveling north), compared to the overall time it takes to travel the entire scenic byway, which is approximately 78 miles long. In Moscow, the crossing is not perpendicular to the road, it crosses at an angle, and it is co-located with another transmission line.

The existing corridor will be widened by 75 feet. From the roadway, the additional cleared corridor and several structures will be visible. The new structures are a moderate color difference from the surrounding landscape and the existing wooden transmission line poles. The new structures will introduce minimally incompatible lines to the landscape. Because this crossing is very close to the Wyman Dam and its associated electrical infrastructure, the view is not sharply out of character from other views in the vicinity. The applicant proposes to add buffer plantings at both crossings to minimize visibility down the corridor from the road.

The project will also be visible from two other areas along the byway; however, these views do not involve the corridor crossing the road. In Parlin Pond Township a field on the west side of the road will allow an intermittent view of the corridor for southbound motorists for approximately 15 seconds of travel time. As the photosimulations show, existing distribution lines running along Old Canada Road also may be visible in the foreground. Northbound motorists will not have a view of the project at that location, and the project will not be visible from the rest area in this township. The second viewpoint that is not a crossing is from the Attean View Rest Area in Jackman. While visible from the scenic viewpoint, the Department finds the scale of the structures will be minimal and the spatial dominance will be insignificant as the project will be more than seven miles away from this rest area.

None of the Wildlife Areas will be visible from Old Canada Road.

Based on the minimal time a motorist will have views of the corridor, the scale of the structures involved in comparison to the landscape, and the proposed buffer plantings, the Department finds the project will not have an unreasonable adverse effect on scenic uses or character of the Old Canada Road, provided the applicant:

- Plants and maintains vegetated roadside buffers at the Old Canada Road (Route 201) crossing in Johnson Mountain Twp and in Moscow.

h. Moxie Stream

The project, including the corridor, transmission lines and structures are discussed in the VIA and summarized above. The applicant proposes to use non-specular conductors to reduce the reflectiveness of the wires from the stream. In addition, the applicant originally proposed additional buffer plantings following the clearing for construction. However, the topography in the area enables retaining vegetation up to the height of 35 feet across the entire corridor within 100 feet of the stream. In response to Department questioning at the hearing, the applicant acknowledged this could be achieved without taller poles. This taller vegetation, required in this Order to minimize wildlife impacts, and identified as Wildlife Area 10, also would minimize the scenic impact and eliminate the need for the additional planting originally proposed by the applicant.

The Department finds the project will not have an unreasonable adverse effect on the scenic uses or character of Moxie Stream, provided the applicant:

- Maintains a minimum vegetation height of 35 feet within 100 feet of Moxie Stream (Appendix C lists the Wildlife Areas where taller vegetation is required, including at Moxie Stream), and
- Uses non-specular conductors within the viewshed of Moxie Stream (between structures #3006-542 and #3006-541).

i. Appalachian Trail

The applicant evaluated the scenic impacts of the project on the AT from three general areas: Pleasant Pond Mountain summit area (including Middle Mountain); Troutdale Road area, where the trail crosses the line in three locations; and the Bald Mountain summit area. Within these three general areas the applicant examined 11 viewpoints.

- AT, Pleasant Pond Mountain summit area, The Forks Plantation. The new transmission line will be visible from the mountain at a distance ranging from 2.7 to 6.5 miles. The project will create a minimally incompatible line in the background. The conductors may be more visible in the afternoon when sunlight reflects off the lines. This impact may be reduced through the use of non-specular conductors. The Department finds the visual impact will be minimal from the Pleasant Pond Mountain summit area due to viewing distance and the resulting minimal project visibility, provided the applicant uses non-specular conductors within the viewshed of the summit area, including Middle Mountain.
- AT, Troutdale Road area, Bald Mountain Township. The widened corridor and new structures will be clearly visible from the AT, which runs on Troutdale Road for 0.2 miles. Additionally, the corridor will be visible at a perpendicular angle to the trail where it crosses the southwest corner of Moxie Pond. The Department finds that, although the new structures and widened corridor will increase the scale of intrusion to the landscape, it is subordinate when considered with the existing road and transmission line (which affect the expectations of the users in

this area), provided the applicant plants and maintains the proposed buffer vegetation along Troutdale Road.

- AT, Bald Mountain summit area, Bald Mountain Township. At the point closest to the AT at this location, the co-located transmission line will be visible at a distance of 2.8 miles. The widened corridor will be visible at a distance of 5.1 miles. When viewed from the summit area, the widened corridor will create a moderately incompatible line within the context of the existing viewshed along the west side of Moxie Pond. Additionally, due to the height of the structures, the lines will be a moderately incompatible line in the midground. The conductors will be the most visible project component, especially in the morning when the sun reflects off of the lines. This impact can be minimized with non-specular conductors. On June 29, 2018, the applicant submitted revised plans proposing a lowered height for the structures along Moxie Pond, which will minimize the scenic impact from both Bald Mountain and Moxie Pond.

  The Department finds the visual impact from the Bald Mountain summit area will be minimal due to the viewing distance, partial screening, and the resulting minimal project visibility, provided the applicant uses non-specular conductors within the viewshed of the summit area and shorter poles along Moxie Pond.

The Department finds the project will not have an unreasonable adverse effect on the scenic uses or character of the AT, provided the applicant:

- Uses non-specular conductors within the viewshed of the Appalachian Trail (between structures #3006-529 and #3006-458);
- Plants and maintains vegetated roadside buffers along Troutdale Road; and
- Uses shorter poles along Moxie Pond (between structure #3006-529 and #3006-458).

j. Other Scenic Resources and Vantage Points Along the Corridor

Other scenic resources and vantage points along the corridor evaluated by the Department include the following:

Segment 1

- Wing Pond, Lowelltown Township. Two structures and lines are visible approximately 1.75 miles from the pond. No clearing will be visible from the pond. The structures do not introduce any incompatible lines or shapes to the sky backdrop and are subordinate when seen against the backdrop of Smart Mountain.
- Fish Pond, Hobbstown Township. No corridor clearing will be visible from the pond. The structures do not introduce any incompatible lines or shapes to the sky backdrop and are largely obscured by existing vegetation.
- Northern Forest Canoe Trail, Hobbstown Township, T5 R7 BKP. Four structures may be visible to paddlers from Fish Pond and the line will be visible during a portage on Spencer Rips Road and Spencer Road.

As discussed above, the scenic impact on Fish Pond will be minimal. The structures do not introduce any incompatible lines or shapes to the sky backdrop and are largely obscured by existing vegetation. While portaging on both roads, there may be intermittent views of the project. The scenic impacts will be minimal to moderate.

- Parlin Pond, Parlin Pond Township. The project will have a moderate impact as an incompatible line crossing the shoulder of Coburn Mountain and continuing to the northwest. Additionally, one structure will appear as a silhouette line against the sky. Overall from this pond, the project will be compatible with the landscape given the viewing distance of 1.8 to 2.8 miles and only a single silhouetted pole will be visible.
- Iron Pond, T5 R6 BKP WKR, Hobbstown Township. The top of one structure will be visible, approximately 2,700 feet from the pond. This impact will be minimal.
- Toby Pond, Hobbstown Township. The pond is not a rated waterbody. With taller structures within Wildlife Area 5, two poles would be visible from the pond, with one of these silhouetted against the sky. This impact will be minimal.
- Whipple Pond/Whipple Brook, T5 R7 BKP WKR. As demonstrated in the applicant's supplemental testimony, no structures would be visible from Whipple Pond, including any taller structures within Wildlife Area 5. Where the corridor crosses Whipple Brook, the taller vegetation required in Wildlife Area 5 would screen the poles on either side of the brook and eliminate a view down the corridor. In front of the campsite located on Whipple Brook south of the corridor, a single taller pole might be visible. Overall, the visual impact of the project on Whipple Pond and Whipple Brook, including any taller poles within Wildlife Area 5, will be minimal.
- Egg Pond, Bradstreet Township. The top of one structure, located 332 feet from the pond, will be visible. Given the inaccessible nature of the pond, and the insignificance of the single structure in the overall viewshed, the scenic impacts from the project for this site are minimal.
- Little Wilson Hill Pond, Johnson Mountain Township. The top of two structures will be visible, approximately 1,300 feet from the pond. This impact will be minimal.
- South Branch Moose River, Skinner Township. In response to questions by Department staff at the public hearing, the applicant testified that due to the topography in this location, without changing pole heights, only vegetation taller than 35 feet will need to be cut along the river. Such a change from the proposed plan will reduce project visibility, resulting in a significantly mitigated, moderate visual impact. Even if taller poles were used as part of Wildlife Area 2, the taller vegetation would continue to help screen the taller poles by preventing a view down a cleared corridor.
- Cold Stream, Johnson Mountain Township. As a requirement of this Order, the applicant will be required to maintain 35-foot tall vegetation within 100 feet of this stream. This may require the installation of taller poles on both sides of Cold Stream. (See Wildlife Area 7 in Appendix C, Table C-1.) Poles and wires will be

visible from the stream regardless of final pole height. The taller vegetation will minimize visual impacts by buffering the view of the corridor from the stream.

Segment 2

- Moxie Pond, East Moxie Township. The co-located project lines and structures will be visible near the west side of the pond. The applicant modified the design of the project to reduce the height of the structures and lines so that the majority of the structures are screened from view from the pond. The redesigned project will not be silhouetted against the sky backdrop and the project is not a significant object in the viewshed. The Department finds the visual impact will be moderate.
- Mosquito Mountain, The Forks Plantation.[22] The transmission line will be visible to the northeast and east when viewed from the scenic overlook. Some clearing for the widened corridor also will be visible. However, the transmission line will be partially screened by existing vegetation and is subordinate in the whole landscape composition.
- Troutdale Road, The Forks Plantation. The transmission line will be visible immediately adjacent to the existing line but will be only briefly visible to passing motorists. This road is a private land management road accessed by the public with permission, like Spencer Road discussed above. With the existing line there and user expectations, including forest management activities, the Department finds that this impact will not unreasonably impact the scenic character of the area.
- Wyman Lake Recreation Area, Pleasant Ridge Plantation. The Department finds that, although the proposed project is visible from the Recreation Area, with approximately four structures and conductors visible, it is subordinate in the landscape composition to the existing dam that impounds the lake and visible from other vantage points on the lake. The visual impact of the project on the recreation area is minimal.

Segment 3

- Route 8, Anson. The co-located transmission line will cross Route 8 in Anson. The new line will require an additional 75 feet of cleared corridor. From the roadway, the additional cleared corridor and several structures will be visible. The new structures will be a moderate color difference from the surrounding landscape as well as the existing wooden structures. The new structures will introduce minimally incompatible lines to the landscape.
- Route 2, Farmington. The co-located transmission line will cross Route 2 in Farmington. The new line will require an additional 75 feet of cleared corridor for a portion of the visible section, however, some of the area is already open fields. From the roadway, the additional cleared corridor and several structures will be visible.

[22] Mosquito Mountain is privately owned and contains an informal hiking trail used by the public. The Department does not consider this elevated viewpoint to be a scenic resource as that term is defined in Chapter 315. Regardless, the project will not have an unreasonable adverse effect on scenic uses or character of Mosquito Mountain.

The new structures will be a moderate color difference from the surrounding landscape and the existing wooden structures. The new structures will introduce minimally incompatible lines to the landscape.

- Androscoggin Riverlands State Park, Leeds. The new co-located line will only be visible in the State Park as it crosses an access road in Leeds. The additional 75 feet of corridor clearing and the new structures will be visible for a considerable distance when viewed at the crossing due to the topography. Though there will be moderate contrast in material, color, and structure height, the visual impact to users of the park is expected to be minimal.
- Merrill Road, Lewiston. The additional 75 feet of corridor clearing and the new structures will increase the scale contrast to moderate, but the new transmission line is compatible with the existing landscape.
- Sandy River, Farmington. The corridor will be visible at a perpendicular angle to the River. The Department finds that although the new structures and widened corridor will increase the scale of intrusion to the landscape, it is codominant when considered with the existing transmission line.
- Carrabassett River, Anson. The new structures will be a moderate color difference from the surrounding landscape and the existing wooden structures. The Department finds that although the new structures and widened corridor will increase the scale of intrusion to the landscape, it is codominant when considered with the existing transmission line.

Segment 4

- Riverside Drive, Auburn. The new self-weathering steel structures will be a moderately different color from the landscape and existing structures. A total of six wooden poles will be replaced with two steel structures. The reduction in the number of man-made structures reduces the scenic impact and the new line will be compatible with the existing landscape.

Segment 5

- Route 194, Whitefield. The new transmission line will be located between two existing sets of structures. No new corridor clearing is proposed. The Department finds the new line is compatible with the existing landscape.
- Route 27, Wiscasset. The new transmission line will be located between two existing sets of structures. No new corridor clearing is proposed. The Department finds the new line is compatible with the existing landscape.
- Route 1, Wiscasset. The proposed project will add conductor lines to an existing lattice structure. The Department finds minimal to no visual impact from the additional lines.
- West Branch Sheepscot River, Windsor. The proposed corridor is located between two existing transmission lines. The Department finds minimal to no visual impact from the additional lines.

For each of these scenic resources and vantage points, the Department evaluated any photosimulations included in the VIA and the VIA as a whole, and considered the testimony and comments of its consultant, the applicant's testimony and supplementary

submissions, the testimony of the intervenors, and the testimony and written comments from members of the public. In addition, Department staff conducted site visits to many of the locations at issue and examined topographic maps of the areas. Based on this information and the record as a whole, the Department finds the five transmission line segments, including the poles, wires, and corridor, will not have an unreasonable adverse effect on scenic uses or character at any of the locations listed in this subsection.

k. Substations

The Department evaluated the scenic impacts of the substation upgrades that are part of the project.

- Merrill Road Converter Station. The proposed converter station will be approximately 85 feet or less in height. Existing vegetation with heights between 50 and 70 feet will remain as a visual buffer surrounding the station. Several residences are located within 600 feet of the proposed converter station but will have minimal views of the converter station due to the surrounding vegetation.
- Fickett Road Substation – Portions of the substation, including the access road and infrastructure, will be visible from Fickett Road, Allen Road, and three residences off Fickett Road. The applicant submitted a planting plan, dated August 9, 2018, with proposed plantings on both sides of the substation entrance on Fickett Road. The plantings range in heights at maturity from 4 to 70 feet and are intended to provide buffering to motorists and residents on Fickett Road. The substation will introduce a moderately incompatible form and moderately incompatible edges to the landscape; however, the proposed plantings will significantly mitigate these impacts.
- Coopers Mills Substation. Proposed additions to the north side of the Coopers Mills Substation include a new 345-kV transmission line terminal. No tree clearing is proposed. While three abutting residences and motorists on Coopers Mill Road will have some views of the project, the form, line, and texture will be compatible with the existing substation.
- Crowley's Substation. Replacement of a 115-kV switch and bus wire are proposed within the existing substation structure. No tree clearing is proposed.
- Larrabee Road Substation. Proposed upgrades to the existing substation include an additional 345-kV transmission line terminal and the replacement of an autotransformer. The upgrades will be visible from Mount David, a scenic hike on the Bates College campus, however, no significant changes in line, form, texture, or color will result from the project. An existing vegetative buffer will provide visual screening to a residence that abuts the substation.
- Maine Yankee Substation. An additional 345-kV transmission line terminal will be installed within the fenced yard of the existing substation, but it will be compatible with the existing character at this location.
- Surowiec Substation. A terminal for a new 345-kV transmission line from the proposed Fickett Road Substation, a new dead-end A-frame structure, and a new 345-kV circuit breaker will be installed at the existing substation.

No tree clearing is proposed and the additional structures will be similar in color, texture, and line to the existing substation.

- Raven Farm Substation. Proposed additions to the existing substation include a new 345/115-kV autotransformer and three new 115-kV transmission line terminations with associated equipment and foundations. An existing berm installed for the MPRP will provide visual screening for the project.

For each of the substation upgrades, the Department considered, along with all the record evidence, the surrounding area and its character, the nature and extent of the changes relative to the existing substation development, and the buffering and screening (both existing and proposed).

The Department finds the substation upgrades will not have an unreasonable adverse effect on scenic uses or character of the surrounding area, provided the applicant:

- Plants and maintains vegetated roadside buffers on the south side of Fickett Road in conjunction with the Fickett Road Substation.

1. Cumulative Impacts

Consistent with Chapter 315, § 9, the Department considered the cumulative effects of the project. These are effects that even if minimal or not adverse in any one instance could, in aggregate, unreasonably interfere with existing scenic and aesthetic uses. Given the length of the project, it will be visible from multiple viewpoints and multiple scenic resources. In evaluating cumulative effects under Chapter 315, the Department considered the frequency with which an observer might see the project from scenic resources, which is influenced by the distance and travel time between viewpoints.

Hikers along the AT and travelers along Old Canada Road (Route 201) are two groups with the potential to view the project from multiple points. Along the AT, the project will be visible from three general locations: Pleasant Pond Mountain, Troutdale Road, and Bald Mountain. The visibility of the project from these locations is discussed above. Hiking down from Pleasant Pond Mountain to Troutdale Road would take approximately three to three and a half hours, although hiking pace can vary considerably. Hiking up from Troutdale Road to Bald Mountain would take a similar amount of time. The Department finds that as a result of this separation, and the limited extent of the visual impact of the project at these locations (which takes into account the co-location of the line), there will not be an unreasonable cumulative interference with existing scenic or aesthetic uses of the AT.

With regard to Old Canada Road, the four locations from which the project will be visible are separated by the following distances: 6.2, 6.7, and 17.1 miles. While the travel time between viewpoints for a motorist on the road is short, so too is the amount of time for which the project would be visible at each point for someone traveling at the speed limit. (View times are discussed above.) In the context of the 78-mile stretch of road designated as a scenic byway, the cumulative time the project would be visible is

minimal. The Department finds that when the viewing time, distance between viewpoints, and scenic impact at each viewpoint are considered, the project will not result in an unreasonable cumulative interference with the existing scenic or aesthetic use of Old Canada Road.

The Department also considered that an observer could experience successive views of the project through travel that involved views from more than the AT or Old Canada Road alone. For example, by driving along Old Canada Road to Jackman and then snowmobiling to Coburn Mountain, an individual could engage in multiple activities where the project could be seen from different scenic resources.

In this example, the travel along the road and subsequent snowmobile travel are sufficiently distinct and separated by intervening activities, such as unloading snowmobiles and preparing for that activity, that any cumulative visual impact would be minimal. The Department finds that this example is representative and that even if an individual engages in multiple activities that included viewing the project from a scenic resource these views would be sufficiently distinct, separated by time, distance, and differences between the different activities that the cumulative effects of the project will not unreasonably interfere with existing scenic or aesthetic uses.

The cumulative impact of the project and other structures in its vicinity will also be not unreasonable. Pre-existing scenic impacts from land use activities in the Segment 1 area are almost entirely the result of commercial forestry. The cumulative impact of the project and these forestry activities, discussed in more detail in the following subsection, is not unreasonable. Outside of the Segment 1 area, the co-location of the project in an existing transmission line corridor will minimize its scenic impacts, and the cumulative impact of the pre-existing infrastructure and the project is likewise not unreasonable.

m. Forest Management Activities in the Vicinity of the Project

Portions of the project are proposed to be located in predominantly forested areas. Segment 1, in particular, would involve creation of a new corridor through a forested area in western Maine. Witness testimony and other record evidence establish the existing landscape in this broader area is a mosaic of various aged forests, ranging from mature forest to recently harvested areas. The mosaic changes over time as harvested areas mature and mature areas are harvested. It is important to emphasize that while remote, the area that Segment 1 would traverse is not untouched wilderness, but instead mostly consists of intensively managed commercial timberland.

As a general matter, the Department characterizes commercial timberland as forested, regardless of the age of the growth of the trees on the land at any given point in time. The reasonable expectation of an individual viewing timberland and the surrounding area, however, may vary depending on whether they are viewing a mature forest or a recently harvested area.

The Department is not able to predict which privately owned timberland in the vicinity of the project will be harvested and, if harvested, when a landowner may elect to do so. In evaluating the scenic impact of the project, the Department considered the likely possibility that commercial forestry activity will alter the landscape surrounding the project, particularly Segment 1. The Department considered elevated viewpoints and other viewpoints where existing vegetation could provide screening. From elevated viewpoints, such as Coburn Mountain, the corridor will remain a consistent feature compatible within the landscape as a result of the required tapering of the Segment 1 corridor.[23]

The Department finds this is the case when the tapered corridor runs through a forested area and, as the visual simulations for Coburn Mountain show, when more recent forestry activity is visible, the prominence of a tapered corridor is even further reduced. In addition to the corridor, the poles and wires that are part of the project will have a visual impact. With a tapered corridor, vegetation adjacent to the transmission line wire zone will be retained and will not be subject to commercial forestry. This tapered vegetation will minimize the contrast of the poles and wires and overall visual impact.

From other viewpoints, including those that are not elevated, existing forest patterns may provide screening. The converse also may true; recently harvested areas may enhance visibility of the project. The Department recognizes that as a result, regeneration of harvested areas may increase screening from some vantage points, and future harvesting may reduce screening. Harvesting limitations adjacent to resources such as rivers, streams, and great ponds will preserve screening in many important areas. Finally, the Department recognizes that, should commercial forestry activity result in significant clearing that increases visibility of the project, the reasonable expectations of an individual viewing this cleared area along with the project should be adjusted. As a result of these factors, the Department finds the location of portions of the project within commercial timberland that may be harvested at some point in the future does not alter the Department's conclusions regarding the scenic impacts of the project.

(4) Overall Findings Regarding Scenic Impacts

The project from Beattie Township to Lewiston extends a total of approximately 145 miles within the State. Much of the project, 92 miles, is co-located alongside an existing transmission line, while Segment 1 will be a new 53.1-mile corridor that will run through a predominantly forested and undeveloped area in western Maine. The scenic character of all these areas is important to residents and visitors, alike. The project as designed and as required through conditions of this Order minimizes the visual impact to the fullest extent possible and takes into account the scenic character of the surrounding area.

[23] Tapering near Coburn Mountain and Rock Pond (which are in Segment 1) is required in this Order to mitigate visual impacts. Tapering along the entire Segment 1 corridor, except for where taller vegetation is required across the entire width of the corridor, is also a condition of this Order and discussed further in Section 7, below.

As discussed above, in some areas the corridor will be the most visible component of the project, while from other locations the poles or conductors will be the visible project feature. From a range of vantage points along the entire corridor and near substations proposed for upgrades, the Department considered landscape compatibility, scale contrast, and spatial dominance of the project. Key observation points and other vantage points are discussed above. Upon completing this review, the Department finds the project will not have an unreasonable adverse effect on scenic uses or character of the surrounding area, provided the applicant:

- Tapers the vegetation in the corridor within the viewshed of Coburn Mountain (between structures #3006-634 and #3006-616) and Rock Pond (between structures #3006-731 and #3006-729);
- Maintains a minimum vegetation height of 35 feet within 100 feet of Moxie Stream;
- Uses non-specular conductors within the viewshed of Coburn Mountain (between structures #3006-634 and #3006-616), Rock Pond (between structures #3006-731 and #3006-724), Moxie Stream (between structures #3006-542 and #3006-541), and the Appalachian Trail (between structures #3006-529 and #3006-458);
- Uses shorter poles along Moxie Pond (structures #3006-529 and #3006-458); and
- Plants and maintains vegetated roadside buffers, and replaces any dead buffer plantings within one year of the vegetation dying, at the following locations: Old Canada Road (Route 201) crossings in Johnson Mountain Twp and Moscow, Troutdale Road crossing in Bald Mountain Twp, and on the south side of Fickett Road in conjunction with the Fickett Road Substation.

6. EXISTING USES

Site Law requires an applicant to demonstrate that the proposed development will not adversely affect existing uses or scenic character. 38 M.R.S. § 484(3). Similarly, NRPA requires that the proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses. 38 M.R.S. § 480-D(1). Scenic impacts of the project are evaluated in Section 5 of this Order. The Department addressed the scenic impact standards of both Site Law and NRPA and found that the project will not have an unreasonable adverse effect on scenic uses or scenic character. As a result, because the scenic impact of the project is not unreasonable, the Department further finds the project will not have an unreasonable adverse effect on existing uses that are related to the scenic character.

The impact of a project on existing uses, however, in not limited to a project's impact on scenic uses and scenic character. A project could, for example, physically interfere with existing uses and result in an unreasonable adverse effect. Thus, the Department evaluated the potential impact of the applicant's project on existing uses, looking beyond the scenic impacts.

The majority of testimony, public comment, and record evidence focuses on the potential impact of Segment 1.

In this area of the project the primary activity is commercial forestry. The applicant has negotiated acquisition of the corridor and access to the corridor with private landowners engaged in commercial forestry adjacent to the corridor. The successful result of these negotiations is compelling evidence the project will not have an unreasonable adverse effect on existing commercial forestry activity. Testimony from Kenneth Freye also established that the location of the project was shaped to ensure compatibility with forestry activity. The owner of Spencer Road at the time the applicant was acquiring the rights-of-way for the project opposed locating the transmission line along this land management road because the owner wanted to preserve flexibility in its future use and location of this road as part of its forestry operations. It is a reasonable inference that the landowners and forestry operators involved that did sell a right-of-way or property to the applicant to be used for this proposed project were of the view that the construction and existence of the project would be compatible with the commercial forestry uses in the affected areas.

Testimony established that outdoor recreation is an important activity in the western Maine region in which the Segment 1 corridor is proposed.

Recreation is important to residents and camp owners, as well as to visitors and those who own businesses that cater to visitors, such as those offering lodging to guests or guide services. Recreation activities in the area include hunting, fishing, hiking, and snowmobiling. The project will not impose limitations on these activities. Outdoor recreationalists will be able to cross the corridor and access the same areas they have traditionally used. For example, with regard to snowmobiling, Bob Meyers, Executive Director of the Maine Snowmobile Association, testified that many snowmobile trails are located along transmission line corridors. With regard to hiking, the corridor can be crossed by foot. The most prominent hiking trail that intersects the corridor is the Appalachian Trail.

Testimony established that in the 1980s this segment of the AT was rerouted, resulting in the trail crossing a previously existing transmission line corridor. The proposed line will be co-located with this previously existing transmission line corridor and within a previously existing transmission line right-of-way where the AT and the project intersect. Hiking will not be impeded here or at other hiking trails. With regard to fishing, the proposed line was routed to avoid some particularly sensitive fish spawning stream headwaters, and the line in some potentially affected sensitive fish spawning areas will be elevated to allow for the growth of taller vegetation within the corridor that will provide shade for fish habitat. In addition, culvert replacements required to be funded by the applicant as a condition of this Order (see Section 7) will improve fish passage and should therefore enhance fishing opportunities.

Finally, with regard to navigational uses, no portion of the project will be located in a water used for navigation. Therefore, the project will not impact navigational uses.

In Segments 2 through 5, the transmission line is proposed to be co-located either within or immediately adjacent to an existing corridor.

The Department finds this co-location of the proposed line will greatly limit the impact on existing uses and not result in an unreasonable impact.

In sum, the Department finds the project will not have an unreasonable adverse impact on existing uses, including recreational or navigational uses.

7. NATURAL RESOURCE IMPACTS

Site Law, 38 M.R.S. § 484(3), requires an applicant to demonstrate that a project will not adversely affect any natural resources. Chapter 375, § 15, which is part of the Department's rules implementing Site Law, recognizes the need to protect wildlife and fisheries by maintaining suitable and sufficient habitat, including travel lanes between areas of available habitat, and the susceptibility of certain species to disruption and interference of lifecycles by proposed alterations and activities. Chapter 375, § 12 recognizes the importance of preserving unusual natural areas for educational and scientific purposes. In addition, 38 M.R.S. § 487-A(4) requires the Department to consider whether any alternatives to the proposed location and character of the transmission line may lessen its impact without unreasonably increasing its cost.

NRPA, 38 M.R.S. § 480-D(3), requires the applicant to demonstrate that the proposed project will not unreasonably harm significant wildlife habitat; freshwater wetland plant habitat; threatened or endangered plant habitat; aquatic or adjacent upland habitat; travel corridors; freshwater, estuarine, or marine fisheries; or other aquatic life. The Wetland and Waterbodies Protection Rules, Chapter 310, and the Significant Wildlife Habitat Rules, Chapter 335, interpret and elaborate on the NRPA criteria for obtaining a permit. These rules guide the Department in its determination of whether a project's impacts would be unreasonable. Each application for a NRPA permit that involves a wetland alteration; an alteration to a river, stream, or brook; Inland Waterfowl and Wading Bird Habitat (IWWH); a SVP[24]; or TWWH, must provide an analysis of alternatives, which is a part of the Department's analysis of whether a proposed project's environmental impacts are unreasonable.

A. Overview

(1) Alternatives Considered by Applicant

The applicant submitted an alternatives analysis for the proposed project completed by Burns and McDonnell and dated September 27, 2017. The stated project purpose is to deliver up to 1,200 MW of Clean Energy Generation from Quebec to the New England Control Area via a HVDC transmission line. The applicant evaluated the No-Action alternative but determined that it would not meet the project goals.

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[24] See the project description for further discussion of how the abbreviation SVP is used in this Order and refers to vernal pool depressions and critical terrestrial habitat.

a. Corridor Routes and Underground Alternative

The applicant evaluated five potential transmission corridor routes as part of its initial analysis. The evaluation process included assessment criteria for the following priorities (in order of importance): avoidance of conserved lands; undeveloped right-of-way; amount of clearing required; number of stream crossings; transmission length; wetland impacts based on National Wetland Inventory mapping; Deer Wintering Area (DWA) impacts; IWWH impacts; public water supplies impacted; sand and gravel aquifers impacted; and number of parcels crossed.

Alternative Route 1 was based on a similar project the applicant proposed in the late 1980's. At that time, CMP had acquired title, right, or interest in a corridor that ran from western Maine to Lewiston and was 119.3 miles long. However, the options that CMP had to acquire much of that ROW have expired and portions of the area are now subject to conservation easements. A new crossing of the AT, where no transmission line currently crosses the trail, also would be required. CMP concluded the existence of these conservation easements makes acquiring new ROW easements along this route nearly impossible. AT crossing rights also would be difficult to obtain and a new crossing less desirable than the proposed co-located crossing under the Preferred Alternative.

When compared to the Preferred Alternative, this alternative Route 1 would have resulted in: crossing two more conserved parcels with an increase in the impacts on conserved land of 233.3 acres; an increase of 39.6 miles of undeveloped ROW; an increase in the amount of cleared area of 111 acres; a decrease of 27 stream crossings; a decrease of 25 wetland crossings, but an increase of 42 acres of wetland impact; the same number of DWA crossings, but an increase of 27 acres of impact; a reduction of 3 IWWH crossings, but a 0.4 acre increase in impact.

Alternative Route 2 would cross into Maine in Beattie Township and follow the proposed route for several miles, then turn south until it reached the existing Kibby Wind Farm generator lead line. The corridor would parallel the Kibby Wind Farm generator lead line to the Bigelow Substation in the Town of Carrabassett Valley. From the Bigelow Substation, Alternative Route 2 would proceed east to the Wyman Hydro Substation in Moscow and continue to Lewiston in the same corridor as is proposed. This route would cross the AT near the Wyman/Carrabassett Valley town line. A crossing of the AT in this area by a utility corridor does not presently exist. The U.S. Department of Interior refused to grant the Kibby Wind Farm generator lead line the right to cross the AT, either overhead or below ground, in this same general area. CMP concluded it was unlikely it could obtain an easement for this portion of the project, making this alternative not practicable. Alternative Route 2 would be 138.5 miles long. When compared to the Preferred Alternative, this route would have resulted in: crossing three more conserved parcels with an increase in the impacts on conserved land of 11.2 acres; a decrease of 36.2 miles of undeveloped ROW; a decrease in the amount of cleared area of 153 acres; an increase of 8 stream crossings; an increase of 20 wetland crossings, with an increase of 37 acres of wetland impact; the same number of DWA crossings, but a decrease of 0.3 acres of impact; the same number of IWWH crossings, but a 6.2 acre decrease of impact.

The applicant examined two alternative locations and HDD for the crossing of the Upper Kennebec River. The two alternative locations considered for the crossing of the Upper Kennebec River consisted of one at Harris Station (referred to as the Brookfield Alternative, or the third route alternative), and one just below Harris Station, (referred to as the CMP Land Alternative, or the fourth route alternative). These alternatives would have resulted in an extra 14.5 miles and 13.3 miles of transmission line construction, respectively. The Brookfield Alternative would have required Brookfield to agree to reopen its Federal Energy Regulatory Commission license for its hydroelectric dam to allow the additional transmission line within the project boundary. Both the Brookfield Alternative and the CMP Land Alternative would require additional ROW easements within the Moosehead Kennebec Headwaters conservation easement, which CMP concluded is not allowed under the terms of the conservation easement, making these alternatives not practicable.

The fifth alternative considered by CMP involved running the transmission line under the Upper Kennebec River using HDD technology. The applicant initially stated this alternative was too expensive and potentially not technically feasible.

However, following requests by the intervenors and members of the public to avoid an overhead crossing of the river to reduce scenic impacts, and the Department's expression of concerns with the overhead crossing, CMP further examined locating the transmission line under the Upper Kennebec River. CMP subsequently proposed running the transmission line underground in this location as part of its Preferred Alternative.

The Preferred Alternative described more fully in Section 1, Project Description, does not contain the least amount of new corridor clearing; however, CMP concluded in its analysis, that the Preferred Alternative is the shortest practicable route from the Canadian Border to an existing transmission line corridor. In siting the Preferred Alternative, the applicant chose a route that it states would avoid crossing conserved lands or ridgelines and would avoid natural resources and scenic resources to the greatest practical extent.

CMP's initial alternatives analysis did not include examination of locating the transmission line underground, except for the proposed underground crossing of the Upper Kennebec River described above. A more widespread underground alternative, however, was examined through hearing testimony. This includes the feasibility of locating the line underground, in general, as well as along the Spencer Road or Route 201.

Finally, in the course of the permit review process the applicant also proposed modifying the original preferred route with the Merrill Strip Alternative. This alternative is a slight modification of the original preferred route. It is approximately 0.4 miles shorter, eliminates impacts to one SVP (0.02-acre reduction) and one stream crossing, and reduces the wetland impacts by 32,037 square feet. CMP stated that this route was initially ruled out because the landowner was asking 50 times the market value for the land. Ultimately, the applicant and this landowner reached an agreement and CMP obtained an easement for approximately 20 acres of land to enable it to propose using the

Merrill Strip Alternative as part of its Preferred Alternative. This strip is 1.0 mile long and 150 feet wide.

b. Substation and STATCOM Locations

The applicant evaluated six alternative locations and designs for the Merrill Road Converter Station. Two of the locations were ruled out because they were not large enough, one location was ruled out because a large portion of the property was mapped as either Scantic silt loam (typically a wetland soil) or Peat and muck (also wetland soils), and two other parcels were ruled out because they would have resulted in additional transmission line construction across Route 202 and the placement of double-circuit structures, which are not preferable from a reliability standpoint.

The applicant also evaluated other locations across the transmission system for the STATCOM units ultimately proposed to be located at the Fickett Road Substation. The applicant determined that the best location was as close to the Surowiec Substation as possible.

The Surowiec Substation is not large enough and site constraints, due to the location of Runaround Brook, prevent the equipment being located on the Surowiec Substation parcel. The preferred parcel minimizes the length of new transmission line that would need to be constructed between the two substations. The Fickett Road substation is located on the parcel to maximize the upland area used by the necessary structures and minimize the wetland impacts.

(2) Impact Minimization Efforts by Applicant

In addition to the landscape scale analysis, the applicant also evaluated site specific means to minimize impacts.

These included proposing to use 100-foot tall steel poles that can be placed farther apart than typical H-Frame structures, site-specific adjustments to structure locations, use and location of temporary roads, and substation design. The proposed use of taller structures reduces the number of poles that need to be placed, the amount of temporary construction road that would need to be created, and the number of poles located in wetlands. Other procedures the applicant proposed to minimize impacts included implementation of CMP's Environmental Guidelines, which include erosion and sedimentation control measures, pre-construction wildlife surveys, time of year restrictions on certain construction activities, and the use of third-party inspectors.

(3) Summary of Project Impacts

With the alternative ultimately selected by the applicant, which includes HDD for the Upper Kennebec River crossing and the Merrill Strip Alternative, CMP proposes to directly alter 4.124 acres of freshwater wetland and to indirectly alter 105.55 acres of forested wetland by converting it to shrub-scrub wetland to complete the NECEC project.

The applicant's proposal also includes: 674 crossings of rivers, streams, or brooks, of which 471 contain coldwater fisheries and five are Outstanding River Segments; 15.026 acres of impact to IWWH, which includes 0.017 acres of fill; 31.487 acres of impact to SVPs,[25] which includes 1.46 acres of permanent fill, 29.607 acres of clearing in uplands, and 3.895 acres of clearing forested wetland. The applicant's proposed route also crosses 22 DWAs resulting in a total of 83.5 acres of clearing, including 39.2 acres of impact to the Upper Kennebec River DWA. None of the DWAs are rated moderate or high value.

The project is located in or near habitat for the following species included on Maine's Endangered or Threatened Species list, or identified as species of special concern:[26]

- Roaring Brook Mayfly
- Northern Spring Salamander
- Rusty Black Bird
- Long Eared Bat
- Little Brown Bat
- Small Footed Bat
- Brook Floater Mussel
- Northern Bog Lemming
- Great Blue Heron
- Golden Eagle
- Canada Lynx
- Bicknell's Thrush
- Wood Turtle

Additionally, the project was evaluated for impacts to 15 rare plant occurrences, as well as impacts to five unique natural communities, which were identified in or adjacent to the corridor. The identified rare plant occurrences and unique natural communities include: small whorled pogonia (a federally listed rare plant), Goldie's wood fern (a species of special concern), Jack Pine Forest (a critically imperiled plant community), Hardwood River Terrace Forest (an imperiled community), and Enriched Northern Hardwood Forest (a rare community).

B. Agency Comments

(1) Wildlife, Fisheries, and Other Natural Resources

MDIFW and Department staff reviewed the project impacts to wildlife, fisheries, and other natural resources.

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[25] In its initial application, CMP identified 42 SVPs and 23 Potentially Significant Vernal Pools (PSVP). MDIFW raised identification concerns with 13 of these pools and apparent discrepancies in total area of impact to SVP habitat. Ultimately, after further analysis, CMP, DEP, and MDIFW agreed that the total number of SVPs impacted by the project is 61.

[26] Several of these species (Long Eared Bat, Canada Lynx) are federally listed, as well. Atlantic salmon also are federally listed, but not listed in Maine.

In a December 11, 2017, letter to the applicant following initial review of the proposal, Department staff stated: "The project crosses 67[27] rivers, streams, or brooks which contain brook trout habitat and five Outstanding River Segments and according to the vegetation management plan all vegetation over ten feet tall will be removed. While the Department has not yet made a determination whether the impacts to these resources are unreasonable there will certainly be impacts to these resources. Please provide a mitigation package to compensate for these impacts. The Department envisions this mitigation package will be the responsibility of CMP to implement, not simply providing additional [In-Lieu fee program] monies."

MDIFW provided comments on wildlife and fisheries impacts on March 15, 2018, June 29, 2018; December 7, 2018; February 1, 2019; and March 18, 2019. In its March 15, 2018 comments, MDIFW raised concerns about the lack of data on the presence or absence of a number of species listed on the Endangered or Threatened Species list, including Northern Bog Lemmings, Northern Spring Salamanders, Roaring Brook Mayflies, several species of bats, Wood Turtles, Rusty Black Birds, Great Blue Herons, and Golden Eagles. In addition, MDIFW requested more information on the project impacts to SVPs and requested marker balls be installed on the overhead crossing of the Upper Kennebec River to minimize the chance of Bald Eagles colliding with the wires. MDIFW requested a 25-foot setback for the use of herbicides from any wetland located in an IWWH and only the use of spot spraying of herbicides within the IWWH. MDIFW also expressed concern that the 25-foot wide buffers the applicant had proposed for streams crossed by the project was too narrow. This was a particular concern for the streams in Segment 1 and other coldwater fisheries streams.

Between March and December 2018, the applicant and MDIFW continued to meet and discuss the proposed project's various impacts to fish and wildlife and the applicant conducted field surveys for several wildlife species. During this time:

- The applicant determined the area identified as potentially providing habitat for Northern Bog Lemming did not contain that species.
- The applicant determined there were Northern Spring Salamanders and Roaring Brook Mayflies in two streams crossed by the project, Gold Brook and Mountain Brook.
- MDIFW recommended time of year restrictions for construction activities for wood turtles and Rusty Black Birds. For wood turtles, they recommended construction activities be limited in the 16 mapped habitats to between October 15 and April 15. For Rusty Black Birds, MDIFW recommended no construction activities in the mapped habitat between April 30 and June 30.
- MDIFW also recommended that a 10-15-foot high dense stand of spruce and fir be left in the Rusty Black Bird habitat, which is located in Parlin Pond Twp. and Johnson Mountain Twp.

[27] Based on further field analysis by the applicant, and verification by the Department, the number of brook trout habitat streams crossed by the project has been corrected to 375 since this letter was written. (See Appendix E for a list of waterbodies crossed by the project.)

- The applicant proposed in its Site Law application, prior to initial transmission line clearing and between April 20 and May 31, to complete surveys for heron colonies within or immediately adjacent to (within 75-feet) existing IWWH's within the NECEC project area. If discovered, CMP would notify and consult with MDIFW biologists.
- The applicant noted the requested herbicide spraying setbacks were already a part of CMP's Vegetation Construction Plan (VCP) and the Vegetation Management Plan (VMP).

In its December 7, 2018, comments, MDIFW memorialized a commitment by CMP to incorporate into its proposal:

- Ten travel corridors in Upper Kennebec River DWA. Eight of these travel corridors would be created by selectively cutting the NECEC corridor to promote softwood growth necessary to provide winter habitat for deer (Appendix C describes the vegetation management for deer travel corridors); two of these corridors would be adjacent to the Upper Kennebec River in the area where the transmission line would be underground, allowing maintenance of full height vegetation;
- The utilization of taller poles near Gold Brook and Mountain Brook, which would allow full canopy height vegetation over these streams to minimize the impact to Roaring Brook Mayflies and Northern Spring Salamanders; and
- The preservation of 717 acres of land in the Upper Kennebec River DWA.

Additionally, in response to the Department's December 11, 2017 letter, as well the Department's and MDIFW's concerns about project impacts to coldwater fisheries, the applicant modified its proposal in several ways. CMP agreed to incorporate into its proposal:

- A 100-foot riparian filter areas around all perennial streams in Segment 1 and all coldwater fisheries streams in the other segments (Appendix C describes these filter areas, referred to as buffers by the applicant; Appendix E identifies waterbodies crossed by the project); and
- Compensation for unavoidable impacts in the form of: (a) land preservation (Grand Falls Tract, Basin Tract, and Lower Enchanted Tract), (b) funding to improve fish passage by providing $200,000 for replacement of culverts, and (c) providing $180,000 for compensation for the conversion of forested riparian habitat.

(2) Unusual Natural Areas

The Maine Natural Areas Program (MNAP) reviewed the project for impacts to rare or unique botanical features. Much of the area in Segment 1 had never been surveyed for these features and MNAP requested that the applicant conduct surveys using qualified consultants. The applicant conducted those surveys during 2018. Surveys also were conducted in the remaining portions of the project to update surveys that had been conducted for previous projects. The surveys identified 15 rare plant occurrences and

five unique natural communities in or adjacent to the corridor, including the following: small whorled pogonia (also a federally listed rare plant), Goldie's wood fern (a species of special concern), Jack Pine Forest (critically imperiled plant community), Hardwood River Terrace Forest (an imperiled community), and Northern Hardwood Forest (a rare community).

To avoid impacts to the small whorled pogonia, CMP redesigned a short section of the transmission line in Greene. To minimize impacts to Goldie's wood fern, the applicant proposed to maintain a riparian buffer along a small stream but to remove capable species in the corridor. Within this buffer along the stream the applicant still will remove all capable vegetation and will remove the canopy. MNAP commented that this species is sensitive to canopy disturbances and requested the applicant provide compensation for the impacts by protecting a documented occurrence of Goldie's wood fern outside of the corridor or, if no suitable site is found, by protecting other properties containing rare forest-dwelling plant species in Western or Central Maine, providing funding toward MNAP's rare plant surveys, or some other mitigation proposal to conserve rare plant communities.

The project will result in 9.229 acres of clearing in a Jack Pine Forest located in Bradstreet Township.

There is only one other Jack Pine Forest Community known in the State and that is several miles north of this affected one, in the Number 5 Bog, which is a National Natural Landmark. MNAP requested compensation for this impact to the Jack Pine Forest. MNAP also reviewed the information on the Hardwood River Terrace Forest, which had been documented in 2007 for the MPRP project and determined that it is outside the NECEC Corridor.

In response to MNAP's comments, the applicant revised its proposed compensation plan to mitigate impacts to rare or unique botanical features. This revised plan includes a contribution to the Maine Natural Areas Compensation Fund for impacts to Goldie's Wood Fern and the Jack Pine Forest. In an email dated February 4, 2019, MNAP stated that the revised compensation plan addresses their concerns. The compensation plan proposes that the applicant will make a contribution to the Maine Natural Areas Conservation Fund in the amount of $1,234,526.82. (See Appendix F, Table F-2 for the allocation off funding for different impacts.)

C. Public Hearing and Comments

(1) Alternatives Analysis

a. Applicant Testimony and Evidence on Alternatives

In its application, supporting documents, and witnesses' pre-filed testimony for the first segment of the public hearing, CMP provided evidence on its methods to avoid and minimize the impacts from the project, as described above.

This evidence included evaluation of the alternative routes described above, as well as the efforts the applicant took to site the line once a general location was chosen. On April 1, 2019, CMP's witnesses provided oral testimony on its alternatives analysis. The applicant's witnesses on this first day did not address the feasibility of locating the transmission line, or sections of the line, such as Segment 1, underground.

In response to the pre-filed direct testimony of witnesses for intervenor Groups 2, 6, and 8 highlighting the absence of evidence from the applicant on the option to bury the line (the underground alternative), the applicant provided pre-filed rebuttal testimony on the issue, including from new witnesses. Following this pre-filed rebuttal testimony and further pre-filed sur-rebuttal and supplemental testimony, the underground alternative was the focus of the second segment of the hearing, held on May 9, 2019.

On May 9, CMP's witnesses Justin Tribbet, Justin Bardwell, Thorn Dickinson, and Kenneth Freye provided testimony on the underground alternative for Segment 1 and the entire corridor, as well as along Route 201 and Spencer Road. CMP provided testimony concerning the constructability of an underground line, the feasibility of burying the line in the existing corridor, along Route 201, and along the Spencer Road, and the cost of different underground alternatives. For example, Bardwell testified that for each overhead conductor two underground cables would be needed, plus a spare. This is because of the power transfer capacity of the project, with the fifth cable being a spare. He explained that while other proposed projects with the same voltage included underground components with fewer cables, this was because other projects did not have the same power transfer capacity. Bardwell provided an overview of the construction process, including trenching and other techniques, the need to splice together cable sections approximately every 2,200 feet, and the use of concrete enclosures to protect the splices. He also testified to the environmental impacts of underground construction. Tribbet and Bardwell both testified to the cost of different underground alternatives. They estimated, for example, that locating just Segment 1 underground in the currently proposed corridor would result in a total project cost of $1.6 billion, adding approximately $640 million to the overall coast, or roughly an increase of 67 percent. Tribbet also addressed other transmission line projects with undergrounding technology, noting that each involves project-specific considerations. He listed projects such as Connect New York, Northern Pass, TDI Vermont, and Vermont Greenline and testified that none of these projects had demonstrated economic feasibility or secured a long-term transmission service agreement.

CMP witness Kenneth Freye testified that at the time CMP was evaluating route alternative it discussed options with the landowner of Spencer Road, Plum Creek Maine Timberlands, LLC. Plum Creek was opposed to having a transmission line along the road. Freye also testified that locating the line along Route 201 was not practicable for several reasons, principally because the Department of Transportation would not allow

the underground transmission line within the travel way of the road.[28] He testified that the remainder of the DOT right-of-way was not wide enough to accommodate an underground alternative. As a result, running the line underground along Route 201 would require acquiring land rights from residential, recreational, and small commercial landowners, which Freye testified likely would prove difficult.

b. Intervenor Testimony and Evidence on Alternatives

Group 1 testified that a similar project in Vermont has been permitted that could provide the power for the Massachusetts request for proposal, that the Vermont project would have no impacts in Maine, and therefore, Group 1 argued, the no action alternative is practicable.

Groups 2, 4, and 10 all argued that the applicant failed to meet its burden by not evaluating the underground alternative and that the project should be located either under Spencer Road or adjacent to Route 201.

Group 8 witness Christopher Russo testified concerning the undergrounding alternative. He stated that HVDC lines of the length proposed by CMP are located underground or underwater in the 13 of 14 instances worldwide.

Russo also reiterated the point other intervenors made that the Vermont route and the Northern Pass route were proposed to be located at least partially underground.

Group 6 witnesses also argued the lack of an analysis of the underground alternative was a flaw in the CMP application.

Group 3 witness Gil Paquette testified that locating the transmission line underground was not a practicable alternative. Among the factors he discussed in support of his overall conclusion were cost, cable slicing and associated vaults, and the need for thermal sand.

With regard to thermal sand he testified that in his experience the need for, logistics concerning, and cost of thermal sand is the single most overlooked aspect of undergrounding an HVDC transmission line. He cited his experience with a project where the need for thermal sand was not appreciated until late in the planning process and that based on his familiarity with the geology in western Maine it is highly likely the majority of Segment 1 would require thermal sand.

[28] Bardwell stated in his pre-filed supplemental testimony that splice vaults, which would be a required component for underground construction, are prohibited within the travel lanes by Maine DOT rule, 17-229 CMR Ch. 210, § 10(5), Pt. D.

c. Public Testimony and Comments on Alternatives

Members of the public submitted written comments and testified at the hearing on the applicant's alternatives analysis and the choice of the proposed route. Several members of the public opposed to the project testified that an underground alternative would have less visual impact, be safer, and require a narrower cleared corridor. Many interested persons testified they believed the line should be buried under Spencer Road or Route 201. Several members of the public testified that they believed the line should be buried under Spencer Road. One person in favor of the project testified that undergrounding would be too costly, and therefore is not a practicable alternative.

(2) Impacts to Wildlife, Fisheries, and Other Natural Resources

a. Applicant Testimony and Evidence on Impacts

In its application and its hearing testimony, the applicant described the methods used to locate and design the project in the least environmentally damaging manner. The applicant's witnesses at the hearing testified that the project would not cause unreasonable fragmentation of the forest habitat because the project is located in working forest that is already fragmented by clear cuts, partial-cuts, log yards, skid trails, and logging roads. They contend that the project will provide improved habitat for certain species of wildlife that prefer early successional forest, such as deer, moose, bear, fox, rabbits, and other wildlife species. The applicant provided testimony that the proposed project would not unreasonably impact coldwater fisheries or rare or threatened species and that sufficient compensation had been proposed for the impacts that would occur. In the course of the hearing process the applicant also committed to not using herbicides within Segment 1; this was stated by CMP witness Mirabile in his pre-filed supplemental testimony and reaffirmed orally at the May 9 hearing.

The applicant also provided testimony, in response to questions from the Department, on the possibility of tapering additional areas along Segment 1 or allowing for taller vegetation in the corridor, including through the use of taller poles. Mark Goodwin testified that the applicant did not believe additional tapering or taller poles/vegetation were necessary, but expressed a preference for tapering. Nicholas Achorn testified on the construction process for poles 100-feet and taller. He noted some differences in construction and extent of permanent impacts depending on whether poles are directly imbedded or constructed using caisson foundations. Under either type of construction, he testified the work pad size requirement around the pole would be same.

b. Intervenor Evidence on Impacts

Intervenor Groups in Opposition: Group 1 witness Janet S. McMahon; Group 2 witnesses, Chris Russell, Greg Caruso, and Roger Merchant; Group 4 witnesses Dr. David Publicover, Dr. Aram Calhoun, Ronald Joseph, Todd Towle, and Jeffrey Reardon, all testified that the project would have an adverse impact on wildlife and fisheries. Witnesses McMahon, Merchant, Publicover, Calhoun, and Joseph testified on the

potential impacts the project may have on forest fragmentation. Witnesses Russell, Caruso, Towle, and Reardon all testified on the impacts to coldwater fisheries, particularly brook trout.

McMahon and Merchant testified on the importance of unfragmented habitat to so-called "umbrella" species such as pine marten.[29] They stated that even though the forest may be somewhat fragmented due to logging practices, these features are temporary in nature. The transmission corridor would represent a permanent fragmenting feature in the landscape. Publicover testified that the fragmentation of the forest would be permanent, and asserted the global importance of the western Maine mountains region in terms of ecological diversity.

Reardon testified that the smaller perennial and intermittent streams that would be impacted by the project are "the best of the best" brook trout habitat. He testified that many of the streams impacted by the project in Segment 1 are exceptionally valuable, such as Gold Brook and Tomhegan Stream, which provide brook trout spawning and rearing habitat, and Cold Stream, in which brook trout seek thermal refuge during warm temperature months. He explained that in a 150-foot wide, cleared corridor without taller trees or a full canopy the streams would not have the necessary input of large woody debris from dead trees necessary for healthy habitat. He stated that the proposed compensation parcels offered by CMP as mitigation for these impacts do not contain the same quality habitat as the area being impacted by the project. Finally, he stated that based on his experience with stream-crossing replacements, CMP's statement that 20 to 30 culverts could be replaced with the $200,000 proposed in the compensation fund was not realistic. He testified that in his experience, a single crossing could cost in the range of $50,000 to $100,000.

An Intervenor Group 4 witness, Ronald Joseph, testified concerning the impacts to deer wintering areas. Joseph stated that the proposed project crosses 22 deer yards. He described several instances of deer mortality due to a loss or fragmentation of the winter habitat, including an example of Chub Pond deer yard, not far from the project, that is no longer used because of timber harvesting in the area. He testified that the loss of deer yards and the decline in the deer population has a negative impact on the local economy in the vicinity of the proposed corridor due to the decline in the recreational use by hunters in the area.

An Intervenor Group 4 witness, Calhoun, testified that the project would adversely impact vernal pools and in particular pools that are in proximity to one another. Calhoun testified that these closely related pools, known as poolscapes, would be unreasonably impacted by being fragmented by the clearing of vegetation for the proposed transmission line.

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[29] As described at the hearing, protecting for an umbrella species will also provide protection for a wide range of other wildlife with overlapping or similar habitat needs, including the need for unfragmented habitat.

Neutral Intervenor Groups: Group 5 did not provide any testimony concerning impacts to wildlife and fisheries.

Intervenor Group 6 witnesses, Dr. Malcolm Hunter, Jr., Rob Wood, Andy Cutko, Bryan Emerson, and Dr. Erin Simons-Legaard provided testimony concerning forest fragmentation. Hunter testified on the types of impacts associated with fragmentation, including habitat loss and alteration, increased edge and reduced interior, and potential long-term consequences. He asserted: "The proposed mitigation and compensation does not adequately address the cumulative impacts of the full array of Maine's wildlife." Group 6 witnesses Wood, Cutko, and Emerson jointly testified that the effect of the proposed corridor would be greater than traditional sustainable forestry. They suggested in their testimony methods to minimize the impacts of the project on forest fragmentation. They submitted an exhibit that is a map showing nine areas where taller poles could be utilized to allow 35-foot tall vegetation to remain under the wire zone in order to provide passage for umbrella species such as pine martin. They testified that the taller vegetation also would minimize impacts to any coldwater fisheries located within those nine areas. They suggested that the corridor could be narrowed or built using what they referred to as "V-shaped vegetation management," to further reduce impacts to wildlife habitat. They emphasized the need for mitigating or compensating for remaining habitat fragmentation impacts by reducing or preventing fragmentation elsewhere in the affected region through land conservation. They offered testimony, similar to that of Reardon, explaining why the funding for culvert replacements proposed by CMP was unlikely to be sufficient to support the number of replacements described by the applicant. Finally, Simons-Legaard testified that the proposed corridor would have significant adverse impacts on pine marten and other species, and on the value of mitigation alternatives, including tapering, taller vegetation, and conservation.

Intervenor Groups in Support: Intervenor Groups 3 and 7 did not provide testimony concerning wildlife or fisheries.

c. Public Testimony and Comments

Members of the public submitted written comments and testified at the hearing on the issues of impacts to wildlife, fisheries and other natural resources. Some members of the public commented that herbicide use and an increase in water temperatures from less shading would result in an unreasonable impact to brook trout. Although it was not always clear from the testimony and comments which portion of the 145-mile long project members of the public were discussing, generally the focus was the 53.1-mile long Segment 1.

Many public comments and testimony in support of the project acknowledged the impacts to wildlife and fisheries, but stated that the benefits of the project, in particular with respect to a reduction in greenhouse gas emissions, outweigh the impacts, thereby urging the Department to find that the impacts would be reasonable.

D. Department Analysis, Findings, and Conclusions

(1) Alternatives Analysis

The Department begins its evaluation of natural resource impacts of the NECEC project with a review of the applicant's analysis of alternatives. Chapters 310 and 335 require an applicant to submit an analysis of whether there is a practicable alternative to the project that would be less damaging to the environment and this analysis is considered by the Department in its assessment of the reasonableness of any impacts.

The basic methodology the applicant used in its analysis of alternative routes is sound. The applicant began by evaluating alternatives at a landscape scale and used a reasonable list of factors to assist with comparison. These are factors available to the applicant at the site selection stage of the project and that serve as a reasonable proxy for likely environmental impacts, as well as the practicability of a project. For example, National Wetland Inventory data, while not accurate enough to use at the permitting phase, is appropriate for a prospective developer to review when selecting between alternative sites or routes and attempting to minimize wetland impacts. Consideration of the location of conserved lands is reasonable and appropriate for several reasons. For example, conserved lands often are conserved because of their environmental value and are more likely to be areas used by the public for recreation purposes. Additionally, locating a corridor within conserved lands may not be legally possible depending on the nature of the conservation. The length of undeveloped right-of-way also is a valuable site selection factor. While a shorter corridor could contain more significant natural resources than a longer corridor, the lengthy of corridor to be cleared is a reasonable proxy for environmental impact, especially when considered in conjunction with other environmental screening factors (e.g., presence of IWWH and DWAs), as was done by the applicant. In sum, the Department finds the factors considered by the applicant in its alternative analysis were appropriate and sufficient in number and scope.

The Department also finds the applicant applied these factors appropriately and reasonably selected the route reviewed in this Order.

Alternative Route 1 is not the least environmentally damaging alternative in light of the added length of undeveloped right-of-way, extent of conservation lands impacts, and new Appalachian Trail crossing. The route also does not appear practicable given the easement areas it would have to cross, parcel count, and AT crossing rights that would be needed. Alternative Route 2 is slightly shorter than the Preferred Alternative and would involve considerably less new right-of-way, although the identified resource impacts within Alternative Route 2 and the Preferred Alternative are comparable. The new AT crossing and challenge and cost of navigating through or around the Bigelow Preserve do not make Alternative Route 2 a practicable alternative. The Department also finds that neither the Brookfield Alternative nor the CMP Land Alternative are the least environmentally damaging practicable alternative in light of having to run the corridor through an area subject to a conservation easement that does not allow the project development, the added new right-of way needed, and environmental impacts when compared to running the transmission line under the Upper Kennebec River.

Within the corridor and project area for the Preferred Alternative, on the site-specific scale, the applicant sited structures, including buildings and equipment for the substations and the poles for the transmission line, outside of protected natural resources and valuable habitat to the extent practicable. The applicant also proposes to utilize construction Best Management Practices to minimize impacts to resources adjacent to the structures and roads being built. Special design accommodations are proposed for individual resources in specific locations. For example, in Greene (Segment 3) the applicant proposes to rebuild two existing lines and redesign and relocate a 1.5-mile portion of the proposed transmission line to avoid tree clearing and the associated impacts to nearby whorled pogonia. In Appleton Twp. and Johnson Mountain Twp. (both Segment 1) the applicant proposes taller poles at the crossings of Gold Brook and Mountain Brook to allow for taller vegetation to help conserve Roaring Brook Mayflies and Northern Spring Salamanders. In Parlin Pond Twp. (Segment 1) maintenance of 10- to 15-foot tall spruce/fir within the corridor is proposed to protect Rusty Black Bird habitat. Numerous rare plant occurrences also would be avoided and worked around.

The applicant has made two notable modifications to its proposal after its original alternatives analysis, locating the proposed transmission line under the Upper Kennebec River through the use of HDD technology and adjusting the corridor to stay out of the LUPC's Recreation Protection Subdistrict around Beattie Pond through selection of the Merrill Strip Alternative. The underground crossing of the Upper Kennebec River reduced impacts to existing scenic and recreational uses of that resource and the Merrill Strip Alternative reduced impacts for users of Beattie Pond. Both have been appropriately incorporated into the project by the applicant and reflect the value of the permit review process and the potential for projects to evolve during this process. It is unlikely an overhead crossing of the Kennebec River would have satisfied the applicable visual impact standards and the modification of the route in the vicinity of Beattie Pond, through the Merrill Strip Alternative, responded to concerns raised in the course of the LUPC's review.

Also, in the course of the review process, CMP considered and presented testimony on the alternative of locating the transmission line underground. This alternative was not originally considered by CMP in its application materials. Hearing testimony by Paquette indicated this exclusion was rational because locating the line underground was so obviously unreasonable to anyone with expertise in this construction technique that it made sense CMP did not devote time to analyzing an option that would not be viable. While this may explain the exclusion, the Department finds consideration of the under-ground alternative is both a relevant and important component of an evaluation of the project. As intervenors testified, other existing and proposed transmission lines have been constructed or proposed to be constructed underground. The possibility of doing the same with the present transmission line warrants consideration, even if ultimately ruled out.

The applicant submitted testimony and exhibits on the underground alternative in response to evidence submitted and arguments made by intervenors. The Presiding Officers allowed the intervenors to submit written sur-rebuttal and scheduled an

additional hearing day for testimony and cross-examination of witnesses on this topic, as well as some other testimony. The Department finds that the evidence in the record on the underground alternative is sufficient for the Department's review of whether the applicant has met its burden of proof on the licensing criteria, including the requirement that the applicant provide an analysis of alternatives.

There is intuitive appeal to the argument that locating the transmission line underground would be less damaging to the environment and have less of a scenic impact. No conductors or poles would be visible and a narrower corridor could be maintained. Upon examination of the underground alternative, however, the Department finds that constructing the line underground, outside of the Upper Kennebec River crossing, is not a less damaging practicable alternative. In reaching this conclusion, the Department considered the evidence submitted by all the parties and the research of Department staff.

Bardwell, in testimony the Department found credible, explained underground construction. To locate a transmission line underground, the most affordable and common construction technique, in most areas, would be direct burial. This involves laying sections of cable within an open trench. For this project, because of its power transfer capacity, four cables, plus a spare for reliability, would be located in the trench. The trench would be a minimum of six feet deep and five feet wide at the base and have a minimum surface width of 12 feet. A work area approximately 75 feet wide would be needed during installation and a cleared corridor of this same width would be maintained after construction. The 75-foot wide cleared area, allowed to regenerate with scrub-shrub species, is needed to keep root systems from larger trees out of the cables.

A trench would be opened to accommodate a length of cable, which would be delivered in 2,500-foot long segments that would be spliced together approximately every 2,200 feet. Each splice would be protected by pre-cast concrete components measuring approximately 12 feet long by four feet wide. At each jointing location an excavation approximately 60 feet long, 20 feet wide, and seven feet deep would be opened.

A concrete pad would be poured in the bottom and the spliced cables, each with its pre-cast concrete protection, would be located on top of this pad and backfilled. Beyond the splice vault, cables would be located on a sand bedding and covered with a protective concrete layer. The trench would be backfilled above the concrete. To facilitate construction and ongoing maintenance, permanent access to each splice vault is required.

Paquette testified that thermal sand likely would be needed for much of the Segment 1 corridor due to the cable that would have to be used for this project and the properties of the soils in western Maine. While the volume of thermal sand that would have to be used is not clear from the record, the Department finds credible that thermal sand would have to be imported to enable running the transmission line underground.

This type of underground construction effort would result in a greater environmental impact than the proposed overhead alternative. In order to install cables underground in Segment 1, the cables would need to be buried under the streams, wetlands, vernal pools,

and other natural resources. While this is possible, as was the case for the natural gas pipelines that were installed in the late 1990's, the construction is costly, time consuming, and difficult, especially if there is rainy weather. While some impacts from trenching might be temporary, such as trenching through a wetland, this same impact is avoided with the overhead alternative. The nature and extent of required site access during construction and the permanent access that would be maintained post-construction is more extensive with the underground alternative and would result in greater impact. Furthermore, with the underground alternative a cleared corridor still must be maintained and would be wider, at 75 feet of clearing, than a tapered corridor, with approximately 54 feet of clearing as discussed in this section. Additionally, a wider clearing would have greater scenic impacts from some locations, such as Coburn Mountain, and create more of a fragmenting feature. Taller vegetation within certain portions of the corridor, something required in this Order to minimize environmental impacts associated with overhead construction, would not be an option with an underground alternative.

When the environmental impacts of undergrounding is considered along-side the logistical challenges, such as the splicing boxes needed every 2,200 feet, the need for permanent access roads to these splicing boxes, hauling in thermal sand, hauling out or otherwise disposing of material that cannot be backfilled, the infrastructure upgrades needed to the road network, and the increased cost of this method, the Department finds locating Segment 1 (or the entire project) underground within the corridor is not a less environmentally damaging practicable alternative.

While some of the environmental impacts associated with the underground alternative along the proposed corridor, particularly Segment 1, could be reduced with co-location of an underground transmission line along Route 201 or Spencer Road, the Department finds neither alternative is practicable for the reasons testified to by Freye and Bardwell, including the feasibility of acquiring the legal right to run the transmission line in either location and the associated cost.

Additionally, the Department concurs with the applicant's alternatives analysis for the Merrill Road Converter Station, the Fickett Road Substation, and the remainder of the substation upgrades.

Finally, the Department considered the no action alternative. Group 1 argues that the Department should deny the applications because there is already an approved project in Vermont that, if constructed, would not have any impacts in Maine. The Department did not evaluate that approved project as an alternative because it does not meet this applicant's project needs. The Department declines to interpret an alternatives analysis as requiring an assessment of whether third party commercial competitors in other states may be able to fulfill the stated project purpose by some other means. The Department requires applicants to examine the no build alternative, alternative sites, alternative designs, and reductions in the scope of the project in an alternatives analysis and the applicant has done so in this case.

In sum, the Department finds that the selected above ground alternative and associated substation improvements are the least environmentally damaging practicable alternatives. Additionally, in the course of evaluating the proposed transmission line, including as part of the Department's assessment of the applicant's alternatives analysis and review of scenic impacts and wildlife impacts, the Department considered evidence regarding the transmission line location, character and impact on the environment and risks to public health or safety. The Department finds no further project modification or conditions regarding the transmission line's location, character, width, or appearance, beyond what is required by this Order, are warranted, under 38 M.R.S. § 487-A(4) or otherwise, to lessen the transmission line's impact.

(2) Wildlife, Fisheries, and Other Natural Resources

Chapter 375, § 15, implementing Site Law, requires an applicant to make adequate provision for the protection of wildlife and fisheries by maintaining suitable and sufficient habitat, including travel lanes between areas of habitat. NRPA, and the pertinent regulations promulgated under it, Chapters 310 and 335, recognize the importance of rivers, streams, and brooks; wetlands; and SWHs, including SVPs and IWWHs. The rules support a goal of no net loss of function and values, establish the criteria for avoidance and minimization of project impacts and state that some projects, even if the impacts have been avoided and minimized to the greatest practical extent, still may be unreasonable. In its review, the Department considers evidence concerning buffer strips of sufficient area to provide wildlife with travel lanes, protection of wildlife and fisheries lifecycles, and disturbances to high and moderate value deer wintering areas, threatened or endangered species, SVPs, and high or moderate value waterfowl and wading bird habitat.

a. Habitat Fragmentation and Wildlife Travel Corridors

Segment 1 of the project involves the creation of a new corridor through a forested area in western Maine. Group 6 testimony establishes this area is part of a largely unfragmented forest block that is more than 500,000 acres, which itself is part of an even larger area that is one of the world's last remaining contiguous temperate broadleaf-mixed forests. The western Maine region supports exceptional biodiversity and is expected to be especially effective at maintaining biodiversity as the climate changes. These qualities make the area unique and important for wildlife.

Within this area there also is an extensive network of land management roads and some residential camp and other development. Forest management is the predominant activity. Several witnesses testified the existing landscape is a mosaic of various aged forest, ranging from mature forest to recently harvested areas. The mosaic changes over time as harvested areas mature and mature areas are harvested.

Although the area is not completely undeveloped and is subject to active timber management, a transmission line corridor in the western Maine area where Segment 1 is proposed could contribute to habitat fragmentation and have unreasonable adverse

impacts on wildlife as a result of the effects on wildlife travel lanes and lifecycles and accessibility to suitable and sufficient habitat. Fragmentation occurs when contiguous habitat is broken into smaller, more isolated patches. CMP acknowledged in its Site Law permit application: "Transmission line corridors present potential direct impacts, as they may affect species movement, dispersal, density, nesting success and/or survival. . . . For the undeveloped corridor of Segment 1, impact may include fragmentation and creation of new linear edges. . . . Habitat conversion along transmission line corridors results in a loss of habitat types which, in turn, may adversely impact species that are reliant on the original habitat types." (Site Law Application, pg. 7-23.) Group 4 and Group 6 testimony addresses the negative results associated with fragmentation, such as impacts to wildlife movement, reduction in accessible habitat, an increased in "edge" – the border between forest and an opening – and reduced interior, as well as biodiversity decline.

The Department finds that as Segment 1 initially was proposed, the applicant had not made adequate provision for the protection of wildlife; the proposal's contribution to habitat fragmentation and impact on habitat and habitat connectivity was an unreasonable impact on wildlife habitat. Through modifications CMP made to its proposal during the permitting process, these potential wildlife impacts have been reduced. Through further modification required as a condition of this Order, adequate provision for the protection of wildlife will be achieved.

The project improvements to which CMP committed through written submissions filed with the Department during the permitting process include:

- Maintaining taller, softwood vegetation in the Upper Kennebec River DWA to provide travel corridors for deer.
- Maintaining full canopy height vegetation at the Gold Brook and Mountain Brook crossings. While the primary purpose of maintaining taller vegetation within the corridor in these locations is the protection of Roaring Brook Mayfly and Northern Spring Salamander habitat, the taller vegetation also helps minimize the fragmenting effect of the corridor.
- Maintaining tapered vegetation in the area visible from Coburn Mountain and another area visible from Rock Pond, for the purpose of minimizing the visual impact. The tapered vegetation in the corridor also benefits wildlife.
- Expanding the riparian filter areas on coldwater fisheries streams to 100 feet, and on all other streams to 75 feet.

These measures are expected to reduce the impacts of the Segment 1 corridor, but are not sufficient to avoid substantial and harmful fragmenting of habitat.

The Department finds that additional mitigation is required to satisfy the Site Law standards discussed above. This finding is supported by testimony from Group 4 and Group 6 intervenors. For example, Hunter states in his February 25, 2019 pre-filed testimony: "CMP has made adjustments to its original compensation plan to accommodate for corridor impacts to white-tailed deer (particularly wintering habitat) and a few selected rare species (Roaring Brook Mayfly and Northern Spring Salamander).

While deer have been identified in this process because of their regulatory standing, there are approximately 800 species of vertebrate wildlife in Maine and thousands of species of invertebrates, and many hundreds of species are present in the region affected by this corridor. Although habitat fragmentation affects different species in different ways, it is clear that many other species would be affected in addition to deer." Simons-Legaard in her May 1, 2019 pre-filed testimony and her testimony at the hearing discussed pine marten, which she identified as an umbrella species – meaning that planning for marten often serves the purpose of planning for a wide range of other wildlife. She testified that pine marten utilize tree to tree movement and generally avoid large forest openings where they are vulnerable to predators. Although marten will cross corridors, they do not prefer cleared areas and their home ranges typically include areas with less than 30 percent unsuitable habitat. Simons-Legaard explained the relative benefit of modifying the project with tapering of vegetation and/or taller poles that would allow taller vegetation within the corridor. The weight of the evidence leads the Department to find that to ensure adequate provision for the protection of wildlife, CMP must take the following steps with regard to tapering, taller poles and taller vegetation, and conservation.

1. Tapering

A new, 150-foot wide, 50-plus mile long corridor, initially cleared and then maintained with non-capable vegetation only up to 10 feet in height, in the relatively undeveloped, forested region of western Maine would have an unreasonable adverse impact on wildlife and wildlife habitat. However, evidence in the record shows the project could be designed and built in a manner that would minimize these impacts so that the impacts would not be unreasonable. The Department finds that to do so CMP must maintain tapered vegetation, as described below, along the entire Segment 1 corridor except for the areas where CMP must maintain full height canopy vegetation, vegetation with a minimum height of 35 feet, or taller vegetation managed for deer travel corridors. A tapered corridor, more fully described in Appendix C, includes an approximately 54-foot wide area under the conductors (the wire zone) that is cleared during construction and maintained as scrub-shrub habitat during operation of the project. Outside the wire zone, which is located at the center of the 150-foot wide corridor, taller vegetation is maintained. This taller vegetation increases from 15 to 35 feet in height as the distance from the wires zone towards the outside of the corridor increases. The reduction in clearing and narrowing of the scrub-shrub area within the tapered corridor, and taller vegetation along the sides of the corridor, will substantially reduce the impacts on wildlife.

The Department recognizes much of the forested area around the proposed Segment 1 corridor is actively managed as commercial timberland. This contributes to the mosaic of different aged forest in the western Maine region. Private landowners who actively manage their land do so in response to market conditions and to achieve their individual objectives. As a result, it is not possible for the Department to predict the exact type of forested habitat that will exist along the entire Segment 1 corridor throughout the lifespan of the project. Tapering along Segment 1, however, will provide improved habitat and improved passage between areas of suitable habitat where and when they exist adjacent to the corridor. Tapering will avoid creation of a hard forest edge and help mitigate the

edge effect explained by Hunter in his testimony. A tapered corridor also will result in a narrower scrub-shrub opening closer to the width of a land management road, which testimony established is less fragmenting than a 150-foot wide cleared transmission corridor. This tapering will allow a greater opportunity for wildlife to cross the corridor and reduce the time/distance crossing wildlife would be out in the more open shrub-shrub habitat.

How the vegetation within the tapered areas along Segment 1 is managed will influence the environmental benefit of this form of mitigation. In updating its VCP and VMP as required by this Order, in addition to explaining how the tapered vegetation heights more fully described in Appendix C will be achieved, the applicant must describe how the vegetation will be managed to ensure tapering minimizes the environmental impact of the corridor to the greatest extent practicable, including reasonable efforts to avoid the growth of even-aged stands within each taper.

2. Taller Poles and Taller Vegetation

A tapered corridor helps minimize impacts to habitat and wildlife movement, but, by itself, does not adequately provide for the protection of wildlife throughout Segment 1 of the corridor. For example, Publicover testified "vegetation in the range of 30 to 40 feet would meet minimum height and density requirements for marten." Simons-Legaard offered similar testimony regarding pine marten habitat and this umbrella species' preference for habitat with trees at least 30 feet tall. Taller poles can allow for taller vegetation under the conductors. Additionally, in some locations taller vegetation may be feasible under the corridors simply as a result of taking advantage of existing topography.

The Department finds that additional protection for wildlife habitat and travel corridors can be provided by maintaining taller vegetation in the corridor, including in riparian areas and adjacent to conservation lands. Based on Department staff's knowledge that wildlife utilize riparian areas as travel lanes, the Department finds that significant gains in protection can and must be made in such areas. Additionally, as Simons-Legaard testified, when evaluating where along the corridor to maintain taller vegetation, locations where mature forest in the areas abutting the corridor is most likely to remain should be targeted. Riparian areas and areas adjacent to conserved land are two such areas she noted. TNC identified nine areas where it suggested taller vegetation would benefit wildlife.

Department staff, in questions to CMP at the May 9, 2019 hearing, identified five areas (including nine stream or river crossings) where taller vegetation with a minimum height of 35 feet could be maintained due to existing topography with poles only minimally taller, or no taller, than proposed.[30]

[30] These areas are: the South Branch Moose River crossing (structures 3006-768 to 3006-767), the crossing of a group of five unnamed streams (structures 3006-742 to 3006-741), unnamed stream crossing (structures 3006-589 to 3006-588), Tomhegan Stream crossing (structures 3006-576 to 3006-575), and Moxie Stream crossing (structures 3006-542 to 3006-541). Four of these five areas – South Branch of Moose River, the groups of five unnamed

In a May 17 submission, CMP agreed that this appeared feasible. Since the hearing, the Department has continued its review of the evidence in the record and identified additional areas where taller vegetation, with a minimum height of 35 feet, is appropriate to support wildlife and reasonably achievable in light of existing topography or by using taller poles in areas where the taller structures would not be visible from scenic resources, or any visual impacts would be minimal and not have an unreasonable adverse effect on scenic uses or character of the surrounding area.

In identifying areas where a minimum vegetation height of 35 feet must be maintained the Department focused on areas with stream crossings and areas adjacent to conserved land, and also considered the habitat connectivity priority areas identified by TNC. The identified areas with a required minimum vegetation height of 35 feet are listed in Appendix C and identified as Wildlife Areas 1 through 5 and 7 through 10 in Table C-1.[31]

In response to concerns about the potential impact of the project to Roaring Brook Mayfly and Northern Spring Salamander habitat, the applicant proposed to retain full canopy height vegetation at the Gold Brook and Mountain Brook crossings. The location of this taller vegetation also is listed in Appendix C, Table C-1. The Gold Brook crossing is part of the larger Wildlife Area 4. The Mountain Brook crossing is identified as Wildlife Area 6.

Finally, in response to concerns about potential impacts to DWAs the applicant proposed to provide 10 deer travel corridors within the Upper Kennebec River DWA. Two of the corridors would be adjacent to the Upper Kennebec River in the area where the transmission line would be underground, allowing retention of full canopy height vegetation. Eight of the travel corridors would be created by selectively cutting the corridor to promote softwood growth necessary to provide winter habitat for deer. This softwood vegetation would range in height from 25 to 35 feet. Both forms of vegetation management within the corridor are described more fully in Appendix C. In this same appendix, the locations of these travel corridors are listed. The two full canopy height travel corridors are identified as Wildlife Area 11. The eight softwood vegetation travel corridors managed specifically for deer, collectively, are identified as Wildlife Area 12.[32]

Together, the areas along Segment 1 with full canopy height vegetation, vegetation with a 35-foot minimum height, and softwood vegetation managed for deer travel make up 12 Wildlife Areas.

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streams, Tomhegan Stream and Moxie Stream – correspond with portions of the nine TNC-identified priority areas (numbers 2, 4, 8, and 9, respectively).

[31] Wildlife Area 1 includes part of TNC area 1; Wildlife Area 2 includes all of TNC area 2; Wildlife Area 3 includes all of TNC area 3; Wildlife Area 4 includes part of TNC area 4; Wildlife Area 5 includes all of TNC area 5, plus several additional structures, including the crossing of an unnamed stream where 35-foot tall vegetation likely can be retained without taller poles (3006-708 to 3006-707); Wildlife Area 7 includes the crossing of Cold Stream; Wildlife Area 8 includes an unnamed stream crossing where 35-foot tall vegetation likely can be maintained without taller poles; Wildlife Area 9 includes Tomhegan Stream and part of TNC area 8; and Wildlife Area 10 crosses Moxie stream and is within TNC area 9.

[32] Wildlife Area 11 and most of Wildlife Area 12 are within TNC area 9.

These Wildlife Areas, which total approximately 14.08 miles along the 53.1-mile-long Segment 1 corridor, will provide improved passage and connectivity across Segment 1, helping to protect wildlife, provide travel lanes between areas of habitat, and mitigate wildlife habitat impacts overall. The majority of these travel lanes will exceed 400 feet in width and benefit multiple species that prefer interior forest habitats, including pine marten.

3. Conservation

Tapering and maintaining taller vegetation, as required above, will help mitigate the impact of Segment 1 of the corridor on wildlife and wildlife habitat. The 53.1-mile section of corridor, however, still will have a fragmenting effect on the landscape of this unique forested region, affecting wildlife. For example, an approximately 54-foot wide cleared strip maintained as scrub-shrub habitat will run along much of Segment 1 and the edge effect and reduction in interior forest habitat impacts testified to by Hunter, will remain, although taller vegetation will reduce the edge effect. Additionally, even within areas with taller vegetation access ways will be required during construction and maintained as scrub-shrub habitat. Where the minimum vegetation height is 35 feet, some taller vegetation may need to be selectively cut it if would encroach into the conductor safety zone. The tapering and taller vegetation required by this Order help minimize the impacts associated with fragmentation; they do not eliminate them. The proposed corridor will not provide habitat for interior forest species such as the pine martin and there remains an edge effect created by access roads even in areas with taller vegetation. The shorter vegetation in the wire zone of the tapered areas creates an edge effect as well.

Because of the impacts to wildlife, even with on-site mitigation, the Department finds additional, off-site, mitigation in the form of land conservation is required to ensure the applicant has made adequate provision for the protection of wildlife in the region affected by the project.

TNC advocated through its witness testimony and post-hearing brief that conservation in the range of 40,000 to 100,000 acres would be necessary to mitigate for habitat fragmentation impacts. TNC estimates that approximately 5,000 acres would be impacted by the corridor itself and associated edge effect, assuming an edge effect width of 330 feet. While this 5,000-acre calculation of impact pre-dates the slightly shorter Merrill Strip Alternative and was made without knowing taller vegetation would be required in some areas, the Department finds this estimated area of impact remains a reasonable baseline for evaluating the appropriate amount of additional conservation that should be required. This is based on the fact that even with tapering and taller vegetation, Segment 1 will have an impact on wildlife for which mitigation is required. Factoring in the other forms of mitigation required in this Order, the Department finds a 20:1 ratio, which would yield approximately 100,000 acres of conservation, or even a 10:1 ratio, unreasonably high. In evaluating other environmental impacts and allowing for off-site preservation as

mitigation of those impacts, the Department commonly applies an 8:1 ratio[33] and finds that that ratio and resulting conservation, 40,000 acres, is reasonable and appropriate here to ensure the applicant has made adequate provision for the protection of wildlife.

Within 18 months of the date of this Order, CMP must develop and submit to the Department for review and approval a plan (the Conservation Plan) to permanently conserve 40,000 acres in the vicinity of Segment 1. The Conservation Plan must:

- Establish as its primary goal the compensation for the fragmenting effect of the transmission line on habitat in the region of Segment 1 and the related edge effect by promoting habitat connectivity and conservation of mature forest areas;
- Identify the area(s), with a focus on large habitat blocks, to be conserved and explain the conservation value of this land; any conservation area must be at least 5,000 acres unless the area is adjacent to existing conserved land or the applicant demonstrates that the conservation of any smaller block, based on its location and other characteristics, is uniquely appropriate to further the goals of the Conservation Plan;
- Include a draft forest management plan establishing how, consistent with the primary goal of the Conservation Plan, the conservation area(s) will be managed, including to provide blocks of habitat for species preferring mature forest habitat and wildlife travel corridors along riparian areas and between mature forest habitat;
- Explain the legal interest, such as fee ownership or a working forest conservation easement, that will be acquired in each area; the proposed owner or holder of this interest; and the qualifications of each proposed owner or holder;
- Include preliminary consent from any proposed owner or holder;
- Explain how the applicant will ensure the availability stewardship funding (e.g., funding for monitoring and enforcement) needed to support achievement of the goals of the Conservation Plan; and
- Ensure the Department will have third party enforcement rights.

Prior to commercial operation of the project, the approved Conservation Plan must be fully implemented, unless, upon a showing by the applicant that it has made reasonable, good faith efforts to implement the Conservation Plan and addition time, not more than four years from the date of this Order, is needed, the Department approves an extension of the implementation deadline. Prior to implementation, all forest management plans, and all conservation easements, deed restrictions, covenants, or other legal instruments designed to fulfill the objectives of the Conservation Plan, must be submitted to the Department for review and approval.

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[33] See, e.g., Ch. 310, § 5(C)(5)(c) (requiring an 8:1 ratio for compensation for wetlands impacts) and Ch. 335, § 3(D)(3)(b) (requiring an 8:1 ratio for compensation for SWH impacts).

4. Summary

The combination of vegetation management proposed by CMP and the additional requirements imposed as conditions of this Order, which include tapering and maintenance of taller vegetation, will reduce habitat impacts, provide wildlife sufficient ability to move between suitable habitats, regardless of where adjacent to the corridor this habitat changes as forestry patterns shift. Furthermore, the landscape-scale wildlife habitat impacts associated with fragmentation that will occur, even with this vegetation management, will not be unreasonable, given that they will be mitigated and offset through the required additional conservation within the western Maine forest area in which Segment 1 is located. Provided the applicant implements these measures, the Department finds that the project will result in adequate provision for the protection of wildlife.[34]

b. Significant Vernal Pools and Other Significant Wildlife Habitat

Significant wildlife habitat is a statutorily defined term and, of particular relevance in review of present project, includes significant vernal pool habitat and high and moderate value waterfowl and wading bird habitat. 38 M.R.S. § 480-B(10). Which vernal pools and surrounding habitat qualify as a SVP is based on the criteria in Chapter 335, § 9[35]; what habitat qualifies as an IWWH and TWWH is specified in Chapter 335, § 10.

As discussed in more detail above, the applicant's project will impact 61 SVPs, including 1.46 acres of permanent fill in the critical terrestrial habitat, 27.57 acres of clearing in uplands, and 3.68 acres of clearing forested wetlands; 16 IWWHs, including 15.03 acres of impact, all but 0.003 acres of which is from clearing; and one TWWH.

NRPA, in 38 M.R.S. § 480-D(3), requires the applicant to demonstrate that the proposed project will not unreasonably harm significant wildlife habitat. Site Law also regulates impacts to natural resources, 38 M.R.S. § 484(3), with the Site Law rule Chapter 375, § 15(B) specifically identifying significant vernal pools and high and moderate value waterfowl and wading bird habitat, among the habitats important to protecting wildlife.

Chapter 335 interprets and elaborates on the NRPA criteria for obtaining a permit. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be found to be unreasonable if it would degrade the significant wildlife habitat, disturb the subject wildlife, or affect the continued use of the significant wildlife habitat by the subject wildlife, either during or as a result of the activity, and there is a practicable alternative to the project that would be

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[34] The vegetation management required by this Order, including as identified in Appendix C, is integral to the Department's decision and necessary to ensure the project does not violate applicable statutory or regulatory standards.

[35] Dr. Calhoun testified about vernal poolscapes and advocated for the regulation of these in the same manner as significant vernal pools. Where a vernal pool that is part of a poolscape qualifies as a significant vernal pool, this pool is regulated as such under Chapter 335. Vernal pools that do not meet the definition of significant are regulated under NRPA as wetlands pursuant to Chapter 310.

less damaging to the environment. As discussed above, the Department has reviewed project alternatives and finds there is no practicable alternative to the project that would be less damaging to the environment.

Chapter 335 requires that the amount of habitat to be altered and the disturbance of the subject wildlife must be kept to the minimum amount necessary for meeting the overall purpose of the project. The Department finds that within the corridor and at associated substations, the applicant has designed the project to minimize impacts to significant wildlife habitat, for example, through the selection of pole locations and siting of access roads. Also, the applicant's Vegetation Construction Plan (VCP) and Vegetation Management Plan (VMP) establish:

- Protected natural resources[36] and their associated buffers will be flagged or located using a Global Positioning System (GPS) prior to all construction and maintenance activities;
- Initial clearing within SVP habitat will take place during frozen ground conditions, if practicable. If not practicable, clearing will be accomplished using hand tools or reach-in techniques. If required to remove vegetation, any travel lanes within the SVP habitat must be approved by the Department;
- During routine maintenance, between April 1 and June 30 in any calendar year, no vegetation will be removed using tracked or wheeled equipment in SVP habitat;
- No mechanized equipment will be used within IWWH between April 15 and July 15 in any calendar year;
- Herbicide will not be applied within 25 feet of any IWWH;[37] and
- Provided they do not pose a safety hazard, naturally occurring snags within IWWH will be allowed to remain, at a minimum of two to three snags per acre.

In accordance with Chapter 335, § 3(D)(1), if an impact to significant wildlife habitat will cause habitat functions or values to be lost or degraded, compensation is required to achieve the goal of no net loss of significant wildlife habitat functions and values. The applicant proposes to make a contribution into the In-Lieu Fee (ILF) program of the Maine Natural Resource Conservation Program in the amount of $623,657.53 to compensate for SVP impacts and $253,352.53 to compensate for IWWH impacts. Prior to the start of construction, the applicant must submit a payment in the amount of $877,010.06 payable to "Treasurer, State of Maine", and directed to the attention of the ILF Program Administrator at 17 State House Station, Augusta, Maine 04333. (See Appendix F.)

The Department finds that the applicant has avoided and minimized Significant Wildlife Habitat impacts to the greatest extent practicable, and that, with the compensation that will be achieved through the ILF payment, the proposed project represents the least

[36] Protected natural resources include rivers, streams, brooks, SVP, IWWH, coastal wetlands, and habitats for threatened, or endangered species.
[37] Within Segment 1, CMP will not use any herbicide at all.

environmentally damaging alternative that meets the overall purpose of the project, provided the applicant:

- Submits an In-Lieu Fee payment to the Department for the Maine Natural Resource Conservation Program in the amount of $877,010.06 prior to the start of construction (See Appendix F, Table F-1.)

The Department further finds that the activity will not unreasonably harm or disturb any significant vernal pool habitat or other Significant Wildlife Habitat, including high and moderate value waterfowl and wading bird habitat, provided the applicant:

- Marks the location of all natural resource buffers with flagging prior to the start of construction;
- Permanently marks all natural resource buffers upon completion of construction; and
- Marks all natural resource buffers with flagging prior to any maintenance activities.

c. Brook Trout and Coldwater Fisheries

The project corridor crosses 471 rivers, streams, or brooks that contain brook trout habitat, 351 of which will have clearing impacts, and five Outstanding River Segments. Maine is one of the last places where native brook trout habitat is still intact and wild brook trout still thrive. This fishery and the related use of the resource by fishing guides, owners of sporting camps, and Maine residents and tourists are an important use of the resource involving many communities in the area near the project. While Brook trout habitat is not among the habitats protected in NRPA as Significant Wildlife Habitat, the impacts of a proposed project on the functions and values of rivers, streams and brooks, as set forth in Chapter 310, § 5(D)(b), is a factor in the determination of whether the proposal would have an unreasonable impact on the protected resource. Fisheries, aquatic habitat, and wildlife habitat are listed among the functions to be considered. Chapter 310, § 3(J). In addition, impacts to brook trout from activities that may adversely affect fisheries lifecycles and general impacts to waterbodies that serve as brook trout habitat are considered by the Department under Site Law, 38 M.R.S. § 484(3), and Chapter 375 §15. As a result, to obtain approval for a proposed project under NRPA and Site Law an applicant must make adequate provision for the protection of fisheries and avoid, minimize, and compensate for impacts to fish habitat.

As discussed above, the Department has reviewed project alternatives and finds there is no practicable alternative to the project that would be less damaging to the environment. As the project has evolved through the permit review process, the applicant has taken steps to minimize the impact of the project on brook trout and coldwater fisheries. The applicant has committed to:

- Increase the riparian filter areas (buffers) along streams crossed by the project from the 25 feet originally proposed to 100 feet around all perennial streams in

Segment 1, all coldwater fisheries streams in all segments, all Outstanding River Segments, and all streams containing threatened or endangered species. A complete list of all rivers, streams and brooks that are crossed by the project and their fisheries status is attached as Appendix E.

- Conserve the Grand Falls Tract, Basin Tract, and Lower Enchanted Tract, which contain 12.02 miles of streams combined. These tracts also contain frontage on Dead River, an Outstanding River Segment.

Where a 100-foot riparian filter area will be maintained along streams, capable species (vegetation capable of growing tall enough to reach into the conductor safety zone) will be removed using hand tools or reach-in techniques. (See Appendix C for a summary of riparian filter areas.) No herbicides will be used within these riparian filter areas.[38] Inside the wire zone all capable woody vegetation will be removed down to ground level. Outside the wire zone non-capable species will be allowed to exceed ten feet in height if it is determined the specimens will not encroach into the conductor safety zone.

In addition, as noted above in the discussion of habitat fragmentation, CMP proposed to allow full canopy vegetation at Gold and Mountain brooks and is required to maintain taller vegetation with a minimum height of 35 feet in additional Wildlife Areas, which also are listed in Appendix C of this Order and include the crossing of numerous coldwater streams. The Department finds that this full canopy and taller vegetation will minimize the impacts of habitat fragmentation, and the taller vegetation at these crossings will benefit brook trout by providing shading, buffering runoff, and providing large woody debris to the streams. In areas where tapering or vegetation with a minimum height of 35 feet is required, the applicant must leave trees that have been cut during routine maintenance unless it would be violation of the Slash Law or create a fire or safety hazard. This will provide for large woody debris imports into the streams, which helps create pools and provides nutrients and more closely mimics natural forest succession.

Finally, in the course of the permitting process CMP proposed, as part of its compensation for impacts to coldwater fisheries, to provide $200,000 to fund culvert replacements in order to improve fish passage. CMP estimated this funding would be sufficient to implement 20 to 25 culvert replacements. The Department agrees with CMP that replacing 25 culverts, when viewed in light of the mitigation and conservation noted above, would adequately compensate for project impacts to coldwater fisheries. However, the Department finds the proposed $200,000 insufficient to provide this level of compensation.

The Department recently awarded grants to numerous municipalities to install Stream Smart crossings in public roads. The average grant award was approximately $87,000 and was matched by the municipality or other funding sources in order to fully fund the replacement.

[38] Additionally, no herbicide use will be allowed anywhere in the Segment 1 corridor.

Many of the culverts that may be replaced by the funding proposed by CMP would not be located under town roads and, therefore, would be less expensive to construct. However, based on Department experience and intervenors' witness testimony, sufficiently improved crossings will cost substantially more than $10,000 each. The Department finds the Reardon testimony on culvert replacement costs to be credible. He stated that the cost to construct a proper culvert crossing is in the range of $50,000 to $100,000, depending on the type of crossing. Assuming an average cost of $75,000, the Department finds that replacing approximately 25 culverts would require $1,875,000 in funding.

Prior to the start of construction, CMP must establish an escrow account, secure an irrevocable letter or credit, or otherwise provide a financial guarantee acceptable to the Department, to fund $1,875,000 of culvert replacements. Prior to commercial operation of the project, the applicant must submit a plan to the Department for review and approval that establishes the locations of the culvert replacements and how the funds will be disbursed. The culverts to be replaced must be in the vicinity of Segments 1 or 2, must completely or partially block fish passage, must be replaced with crossings consistent with Stream Smart[39] principles, and must be selected to provide the greatest possible habitat benefit. CMP must document each culvert replacement, monitor those replacements for one year from the date of replacement, and submit a summary report to the Department for review within eighteen months of the date of the last replacement.

The Department finds the applicant has minimized impacts to waterbodies that serve as fisheries habitat to the greatest extent practicable, that the project will not unreasonably harm any aquatic habitat or fisheries, and that the applicant has made adequate provision for the protection of fisheries, provided the applicant:

- Conserves the Grand Falls Tract, Basin Tract, and Lower Enchanted Tract;
- Implements the vegetation management outlined in Appendix C; and
- Funds and implements $1,875,000 of culvert replacements, and reports on the culvert replacement program, as required in this section.

See Appendix F for a list of compensation requirements.

d. Deer Wintering Areas

Impacts to deer wintering areas that have been designated as high or moderate value are reviewed under both NRPA as significant wildlife habitat pursuant to 38 M.R.S. § 480-B(10), and Site Law pursuant to Chapter 375, § 15(B)(3)(a).

[39] Stream Smart principles were developed to design road crossings of streams in a manner that allows for fish and aquatic organism passage while maintaining a safe, reliable road. Stream smart crossings typically involve either an open-bottom arch crossing or a culvert that is large enough to be embedded in the stream bottom.

The project is proposed to cross 22 DWAs, including 39.02 acres of impact to the Upper Kennebec River DWA. None of the impacted DWAs have been rated by MDIFW as high or moderate value.

Although they have not been rated by MDIFW as high or moderate value, credible witness testimony from Joseph established the recent challenges for the deer population and the habitat value of these DWAs. CMP also recognizes their value, and following discussions with MDIFW, agreed to offset impacts to the Upper Kennebec River DWA by:

- Providing 10 travel corridors within this DWA. Eight of the travel corridors would be created by selectively cutting the corridor to promote softwood growth necessary to provide winter habitat for deer (see Appendix C, Table C-1); two of these corridors would be adjacent to the Upper Kennebec River in the area where the transmission line would be underground, allowing retention of full canopy height vegetation; and
- Preserving 717 acres of land within this DWA (see Appendix F, Table F-2).

These actions reduce wildlife impacts and promote the protection of wildlife generally, but especially deer, and will provide travel lanes for deer between available DWA habitat. These measures, together with the conditions contained in this Order, ensure the Project will not unreasonably impact significant wildlife habitat.

e. Threatened and Endangered Species Habitat

The project is located in or near the habitat for 10 species included on the Maine's Endangered or Threatened species list. An applicant must make adequate provision for the protection of wildlife and this includes ensuring no unreasonable disturbance to the habitat of species listed as threatened or endangered. Chapter 375, § 15(B).

During the application review process, CMP gathered additional information and adjusted its proposal to minimize impacts to threatened or endangered species and their habitat in response to questions and concerns raised by MDIFW. CMP also proposed to compensate for these impacts.

CMP has committed to the following impact minimization efforts:

- Preserving full height canopy at the Gold Brook and Mountain Brook crossings, crossings where NSS and RBM habitat is present;
- Limiting construction activities in mapped habitat for wood turtles to between October 15 and April 15 (prohibiting construction between April 16 and October 14);
- Limiting construction activities in mapped habitat for Rusty Black Birds to between June 1 and April 19 (prohibiting construction between April 20 and June 30); and

- Completing a survey for Great Blue Heron colonies within or immediately adjacent to existing IWWH between April 20 and May 31, and prior to initial transmission line clearing (consultation with MDIFW and possible modifications to the proposed project would follow the identification of any colony).

To compensate for impacts, CMP has proposed to:

- Contribute $469,771.95 to Maine's Endangered and Nongame Wildlife Fund for impacts to NSS and RBM habitat; and
- Contribute $180,000 to Maine's Endangered and Nongame Wildlife Fund for impacts associated with 11.02 miles of forested conversion in riparian buffers.

Provided CMP implements the steps outlined above, the Department finds the applicant has made adequate provision for the protection of threatened or endangered species. (See Appendix F for a list of compensation requirements.)

f. Wetlands and Waterbodies

The applicant proposes to directly alter 4.12 acres of wetland and indirectly impact 105.25 acres of wetland to construct the proposed project. The direct impacts include construction of the Merrill Road Converter Station, the Fickett Road Substation, filling and grading for structure placement, and the installation of foundations for structures. Some of the wetlands are considered wetlands of special significance.[40] In addition, the transmission line will cross 674 rivers, streams, or brooks, 131 of which will have no additional clearing. Rivers, streams, and brooks that serve as brook trout habitat also are discussed above in subsection c.

As discussed above the applicant submitted an alternatives analysis for the project and the Department finds the proposed project route is the least environmentally damaging practicable alternative.

The Department further finds that the alteration of the wetlands will be kept to the minimum amount necessary for meeting the overall purpose of the project. For example, the applicant's project is designed to locate poles and roads outside wetlands when possible and the applicant proposes to maintain 100-foot riparian filter areas (buffers) on all perennial streams in Segment 1, all Outstanding River Segments, and on all coldwater fisheries streams, and to maintain 75-foot riparian filter areas (buffers) on all other streams. Within these riparian filter areas, and throughout the Segment 1 corridor, no herbicides will be used. Additionally, as specified in the VCP, any work in freshwater wetlands will occur on construction mats unless the area is frozen or the Department approves another method.

[40] As specified in Chapter 310, § 5-A(1)(b), construction of utility lines is one of the types of activities for which a permit may be sought for a project proposed to impact a wetland of special significance, subject to there being no practicable alternative to the activity that would be less damaging to the environment.

In accordance with Chapter 310, § 5(C), compensation may be required to achieve the goal of no net loss of coastal wetland functions and values. The applicant proposes to preserve 1,022.4 acres of land in three separate parcels (Little Jimmy Pond Tract, Flagstaff Lake Tract, and Pooler Pond Tract), which contain 510.75 acres of wetland. The applicant proposes to use the Department's Declaration of Covenants and Restrictions to preserve these parcels.

The Department finds that the applicant has avoided and minimized freshwater wetland and waterbody impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project, provided the applicant:

- Preserves the Little Jimmy Pond Tract, the Flagstaff Lake Tract and the Pooler Pond Tract, as described above. (See Appendix F for a list of compensation requirements.)

(3) Unusual Natural Areas

In Chapter 375, § 12, the Department recognizes the importance of protection of unusual natural areas, including rare botanical communities or plants. As noted above, the applicant has identified 15 rare plant occurrences and five unique natural communities in or adjacent to the corridor. The applicant has discussed these occurrences and communities with the MNAP and, among other things, agreed to redesign a section of the proposed transmission line to avoid impacts to nearby whorled pogonia and to maintain a riparian buffer to minimize impacts to Goldie's Wood Fern. The applicant's VCP and VCM also take into account rare plant locations; herbicides will not be used in these areas and, mechanized equipment will only be allowed to cross these locations if the rare plant locations encompass the entire corridor and in such an instance the crossing will only occur during frozen conditions, on existing travel paths, or with the use of mats.[41] The Department finds the applicant has avoided and minimized impacts to these natural areas to the extent practicable. In response to comments from MNAP suggesting compensation for impacts the applicant revised the compensation plan. This revised plan includes a contribution to the Maine Natural Areas Compensation Fund for impacts to Goldie's Wood Fern and the Jack Pine Forest. The compensation plan requires the applicant to make a contribution to this fund in the amount of $1,234,526.82.

The Department finds that the proposed development will not have an adverse effect on unusual natural areas either on or near the development site, provided the applicant:

- Contributes $1,234,526.82 to the Maine Natural Areas Compensation Fund prior to the start of construction. (See Appendix F, Table F-2.)

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[41] The VCP establishes that prior to construction the applicant will identify any invasive plant species within the corridor and submit to the Department for review and approval, a vegetation monitoring plan. The objective of the plan would be prevention of the introduction or spreading of invasive species as a result of construction.

(4) Overall Findings Regarding Natural Resource Impacts

Upon review of the administrative record, including the application materials, hearing testimony and exhibits, agency comments, and written public comments, the Department has considered whether the applicant has met its burden of proof on the criteria pertaining to the natural resource impacts of the project. The potential impacts of most significance and that generated the most testimony and public comment are discussed in more detail above. Having completed its review and evaluation, the Department finds that the applicant has avoided and minimized natural resource impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project, provided the applicant meets the requirements summarized below and discussed more fully in Section 7 of this Order.

The Department finds that the applicant has made adequate provision for the protection of wildlife and fisheries, unusual natural areas, significant wildlife habitat, and freshwater wetlands, provided the applicant:

- Maintains taller vegetation within the Segment 1 corridor as outlined in Appendix C, including by:
  - Maintaining full canopy height vegetation in the locations identified in Table C-1,
  - Maintaining vegetation with a minimum height of 35 feet in the locations identified in Table C-1,
  - Maintaining deer travel corridors in the locations identified in Table C-1, and
  - Maintaining tapered vegetation along the entire Segment 1 corridor, except where full canopy height vegetation, vegetation with a minimum height of 35 feet, or taller vegetation managed for deer travel corridors is required;
- Leaves trees that have been cut during routine maintenance in areas where tapering or vegetation with a minimum height of 35 feet is required, unless doing so would violate the Slash Law or create a fire or safety hazard;
- Maintains 100-foot riparian filter areas along all perennial streams in Segment 1, all coldwater fisheries streams in all project segments as identified in Appendix E, all streams containing threatened or endangered species, and all Outstanding River Segments; and maintains 75-foot riparian filter areas on all other streams;
- Conserves the Basin Tract, Lower Enchanted Tract, and Grand Falls Tract, which together include 1,053.5 acres of land and 12.02 linear miles of stream;
- Conserves the Little Jimmy Pond Tract, Flagstaff Lake Tract, and Pooler Pond Tract, which together include 510.75 acres of wetland and 1,022.4 acres of land area;
- Conserves 717 acres of land within the Upper Kennebec River DWA and provides 10 travel corridors within this DWA consistent with Appendix C;
- Limits construction activities in mapped habitat for wood turtles to between October 15 and April 15 (prohibiting construction between April 16 and October

14) in any calendar year, unless CMP follows the measures described in its July 13, 2018 Response to MDIFW March 15, 2018 Environmental Review comments;

- Limits construction activities in mapped habitat for Rusty Black Birds to between July 1 and April 19 (prohibiting construction between April 20 and June 30) in any calendar year;
- Maintains 10-15-foot tall spruce/fir vegetation in the mapped Rusty Black Bird habitat;
- Completes a survey for Great Blue Heron colonies within or immediately adjacent to existing IWWH between April 20 and May 31, and prior to initial transmission line clearing; if any colonies are identified, the applicant must consult with MDIFW and obtain approval from the Department prior to construction in the vicinity of any colony;
- Marks the location of all natural resource buffers with flagging prior to the start of construction;
- Permanently marks all natural resource buffers upon completion of construction;
- Marks all natural resource buffers with flagging prior to any maintenance activities;
- Updates its VCP and VMP to be consistent with the requirements of this Order, including but not limited to vegetation management requirements in Appendix C, and submits the updated plans to the Department for review and approval prior to the start of construction (which includes clearing) within the corridor;
- Contributes, prior to the start of construction:
    - A total of $877010.06 to the ILF program for unavoidable impacts to SVPs ($623,657.53) and IWWHs ($253,352.53), and
    - A total of $649,771.95 to Maine Endangered and Nongame Fund for impacts to RBM and NSS ($469,771.95) and riparian buffers ($180,000.00);
- Ensures $1,875,000 of funding to replace culverts as described above; and
- Within 18 months of the date of this Order, develops and submits to the Department for review and approval a Conservation Plan, consistent with Section 7(D)(2)(a)(3), to permanently conserve 40,000 acres in the vicinity of Segment 1. Prior to commercial operation of the project, the approved Conservation Plan must be fully implemented, unless, upon a showing by the applicant that it has made reasonable, good faith efforts to implement the Conservation Plan and addition time, not more than four years from the date of this Order, is needed, the Department approves an extension of the implementation deadline. Prior to implementation, all forest management plans, and all conservation easements, deed restrictions, covenants, or other legal instruments designed to fulfill the objectives of the Conservation Plan, must be submitted to the Department for review and approval.

The Department finds that the proposed development will not have an adverse effect on unusual natural areas either on or near the development site, provided the applicant:

- Contributes, prior to the start of construction, $1,234,526.82 to the Maine Natural Areas Conservation Fund for impacts to Goldie's Wood Fern and the Jack Pine Forest.

8. HISTORIC SITES

The Department recognizes the value of preserving sites of historic significance and, pursuant to Chapter 375, § 11(C), considers whether a proposed development will have an adverse effect on the preservation of historic sites either on or near the development site.

The applicant evaluated the project impacts to archeological sites within the right-of-way (ROW) and to architectural resources within a half mile of the project centerline. As part of its review of potential impacts to archeological sites the applicant conducted a Phase I archeological survey. This survey was prepared and updated by the applicant in consultation with the Maine Historic Preservation Commission (MHPC). As part of this survey, which included both desktop analysis and field work, the applicant identified sensitive areas where archaeological sites were likely and conducted shovel tests at 4,537 locations. There were 440 positive shovel tests, which identified 47 archaeological resources, including 29 archaeological sites and 18 isolated finds. The applicant found that the 18 isolated finds were not eligible for National Register of Historic Places (NRHP) listing. The 29 archaeological sites, plus 16 previously recorded sites, produced a total of 45 such sites within the ROW. The applicant focused further analysis on the 29 previously unidentified sites, finding that 28 are historic and one is prehistoric. The applicant recommended 14 sites as not eligible for NRHP listing and identified one as potentially extending beyond the ROW, but not containing significant deposits within the ROW. For the remaining sites the applicant opted for avoidance because of their potential significance. The applicant noted seven of the 14 may potentially be impacted by the project and offered a treatment plan for these seven sites. With the proposed treatment the applicant concluded there would be no adverse effect on these sites. Other sites would not be adversely affected as they would not be impacted at all.

MHPC reviewed the Phase I archeological report and on February 11, 2019, issued comments concurring with the final report and report recommendations. MHPC stated that plans for site avoidance, treatments, and site monitoring during and after construction should be detailed in a project memorandum of agreement between the applicant and MHPC.

The Department finds the Phase I archeological report is thorough and informative, and the measures proposed by the applicant to avoid and minimize any impact to archeological resources reasonable and appropriate. The Department finds that the proposed development will not have an adverse effect on the preservation of historic archeological resources, provided the applicant:

- Implements the plans for site avoidance and treatments described in the final Phase I archaeological survey report.

With regard to architectural resources, the applicant conducted an above ground resources survey in which it identified over 1,500 historic resources within a half mile of the project.

The applicant identified which of these resources were listed or already recommended for listing on the NRHP, as well as those which it recommended as eligible for listing. The applicant prepared its above ground resources survey in consultation with MHPC, responding to MHPC comments throughout the survey process. The applicant identified historic resources that could be adversely affected by the project and proposed mitigation measures. MHPC agreed with the survey methods and largely agreed with the applicant's conclusions. Ultimately, of all the historic resources identified, MHPC determined, in letters dated January 18 and March 26, 2019, the project will have an adverse effect on five:

- Farmstead at 1195 Hilton Hill (Anson) Road, Starks (SM#s 1014-1020)
- Farmstead at 1294 Hilton Hill (Anson) Road, Starks (SM#s 1022-1033)
- Barn at 40 Turmel Road, Livermore Falls (SM# 795)
- Bowman Airfield, River Road, Livermore Falls (SM# 719)
- Appalachian Trail, near Troutdale Road, Bald Mountain Twp. (SM# 66)

MHPC's determination was based on Section 106 of the National Historic Preservation Act and accompanying federal regulations defining adverse effect. Based on its determination, MHPC requested that the federal permitting agency, the U.S. Army Corps of Engineers enter into a memorandum of agreement with MHPC.

The Department finds the comments provided by MHPC informative, while recognizing they are focused on a separate federal review process. For those historic resources where the applicant's analysis and the assessment of MHPC are in agreement that the project will not have an adverse effect, the Department finds the project will not have an adverse effect on the preservation of these historic properties. For the remaining five historic resources, the federal process resulting in a determination of adverse effect by MHPC, under the federal definition of that term, does not mandate a conclusion that the impacts are unreasonable under the Site Law. Where MHPC makes such a determination, however, the Department finds closer scrutiny of the impacts is warranted.

With regard to the two farmsteads, the barn, and airfield the Department finds the impact of the project on these historic properties would be indirect. The structures and the airfield themselves would not be impacted, but the setting in which they are located would be affected. The Department finds, however, that this impact would not affect the preservation of these historic properties, nor would the impact be unreasonable. Factors the Department considered include that the project at each of these sites is being co-located with existing transmission lines and the long-standing presence of these existing lines in the setting of these historic properties. Research provided by the applicant shows a transmission line has been part of the barn's setting for nearly eighty years, with two transmission lines present for over 50 years. Similarly, the existing transmission line has been a part of the setting of two farmsteads since approximately 1930.

With regard to the airfield, it was established in the 1960s, with hangers ranging in age from the 1960s to the 1990s. An initial transmission line was constructed in 1930, well before the establishment of the airfield, with a second line added in approximately 2012.

The crossing of the Appalachian Trail (AT) is discussed above as part of the Department's review of the scenic impacts of the project. In addition to being a scenic resource, the AT also is a historic resource. In evaluating the impact of the project under Chapter 375, § 11(C), the Department finds the history of the trail in this area of Troutdale Road important. The transmission line corridor, which is currently developed with a transmission line, predates the trail in the location of the present crossing. The corridor was developed with a transmission line in the 1950s; the AT was rerouted and crossed the corridor in its present location in the1980s. The project will increase the cleared width of the existing corridor and include taller poles, increasing visibility of transmission infrastructure within the setting of the AT. The Department finds, however, that this impact will not affect the preservation of the AT, nor will the impact of the co-located line within a pre-existing transmission line right of way be unreasonable.[42]

In sum, the Department finds that the proposed development will not have an adverse effect on the preservation of any historic sites either on or near the development site, provided the applicant:

- Implements the plans for site avoidance and treatments described in the final Phase I archaeological survey report.

9 BUFFER STRIPS

Natural buffer strips play an important role in protecting water quality and wildlife habitat. Buffer strips also provide screening that can serve to lessen the visual impact of incompatible or undesirable land uses. Pursuant to Chapter 375, § 9, an applicant must demonstrate that it has made adequate provision for buffer strips where appropriate. When evaluating whether an applicant has made adequate provision for buffers, the Department considers all relevant evidence, including evidence that:

- Water bodies within or adjacent to the development will be adequately protected from sedimentation and surface runoff by buffer strips;
- Buffer strips will provide adequate space for movement of wildlife between important habitats; and
- Buffer strips will shield adjacent uses from unsightly developments and lighting. (Ch. 375, § 9(B).)

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[42] CMP has stated it "has agreed with [Maine Appalachian Trail Club] that CMP will pay to re-locate the trail to an alignment farther to the southwest where the trail currently parallels the CMP corridor south of the Baker Stream Crossing" and that "CMP's long-term goal is to secure a permanent re-route acceptable to both MATC and [the National Park Service], and CMP is willing to commit the necessary funds to this end." (May 7, 2019, Letter from M. Manahan on Behalf of CMP to the Department regarding "NECEC – Preservation of Historic Sites.) While the Department does not find re-routing the AT is necessary to satisfy the permitting standards addressed in this Order, the Department acknowledges this commitment by CMP.

A. Overview

The applicant submitted a Vegetation Clearing Plan (VCP) that describes the methods it proposed to be used to initially clear the ROW and a Vegetation Management Plan (VMP) that describes the methods it proposed to be used to maintain the vegetation in the ROW. These plans specify the types and heights of vegetation the applicant proposed to be maintained as buffers around various resources. To protect water bodies crossed by the corridor, the applicant initially proposed to maintain a 25-foot wide buffer strip adjacent to rivers, streams, and brooks where all woody vegetation would be removed from the wire zone, and proposed that outside the wire zone all capable species would be removed. In response to comments from both MDIFW and the Department, the applicant revised the VCP and the VMP to specify that it would maintain a 100-foot buffer around all coldwater fisheries streams, all perennial streams within Segment 1, all streams containing threatened or endangered species, and Outstanding River Segments and a 75-foot buffer adjacent to all other rivers, streams, and brooks. In these buffers all capable woody vegetation in the wire zone would be cut during initial clearing. Outside the wire zone, non-capable species would be allowed to grow after initial clearing if it is determined the specimens would not grow into the conductor zone prior to the next scheduled maintenance. These proposed buffers, referred to as riparian filter areas in this Order, are described more fully in Appendix C.

The VCP and VMP contain additional provisions that buffer resources beyond river, streams, and brooks. For example, when terrain conditions permit capable vegetation will be permitted to grow within and adjacent to protected natural resources or critical habitats where maximum growing height can be expected to remain well below the conductor safety zone.

In addition, the applicant proposed vegetation management intended to protect certain habitat and to facilitate wildlife movement. Specifically, the applicant proposed to maintain full canopy height vegetation at the Gold Brook and Mountain Brook crossings for the protection of Roaring Brook Mayfly and Northern Spring Salamander. Within the Upper Kennebec River DWA, the applicant also proposed to maintain taller softwood stands to create eight deer travel corridors, and to retain full canopy height vegetation along both sides of the river to preserve two additional travel corridors.

The applicant proposed additional buffering to serve as screening to minimize the visual impacts of the project, including tapering vegetation in 2.2 miles of the corridor visible from Coburn Mountain and planting screening vegetation at the Fickett Road Substation and certain road crossings, such as along the Old Canada Road (Route 201) in Johnson Mountain Township and Moscow and at the Troutdale Road.

The applicant also proposed no herbicide use, mixing, or transfer within 100 feet of private wells or 200 feet of publics wells, identified by the applicant.

B. Department Analysis, Findings, and Conclusions

The Department has evaluated the applicant's proposal and the evidence related to buffers. With regard to the protection of waterbodies from sedimentation and surface runoff, the Department finds the project will be set back from great ponds, except for a short section of Segment 2 where the co-located corridor crosses Moxie Pond. The setbacks from great ponds (except Moxie Pond) serve as an adequate buffer. The Department further finds that the increased riparian filter areas (buffers) – 100 feet on all streams in Segment 1, all Outstanding River Segments, all streams containing threatened or endangered species, and on coldwater streams along the entire corridor; and 75 feet on all other crossings – will adequately protect rivers, streams, and brooks crossed by the project. In the area adjacent to Moxie Pond in Segment 2, the applicant must construct and maintain the project with a 100-foot riparian filter area identical to the riparian filter areas adjacent to coldwater fishery streams in Segment 1.

With regard to wildlife, the potential impact of the project on wildlife, wildlife movement, and habitat connectivity are evaluated in Section 7 of this Order. While the applicant proposed full canopy height vegetation at Gold and Mountain brooks, and adjacent to the Upper Kennebec River, along with eight additional deer travel corridors in the Upper Kennebec River DWA, these measures, by themselves, are insufficient to protect wildlife and adequately provide for wildlife movement. This is discussed more fully in Section 7. As a condition of this Order, a total of 12 Wildlife Areas are required, all of which include taller vegetation across the entire width of the 150-foot wide corridor to facilitate wildlife movement. (See Appendix C.) In addition, outside the areas where taller vegetation is required the entire Segment 1 corridor must be maintained with tapered vegetation. This tapered vegetation reduces the scrub-shrub portion of the corridor from 150 to approximately 54 feet (the area under the wire zone), benefiting wildlife movement. Outside of Segment 1, the proposed transmission line will be co-located with or immediately adjacent to an existing cleared corridor, minimizing fragmentation and the impact to wildlife movement. The Department finds that with this required vegetation management and co-location, the buffer strips proposed and required by this Order will provide adequate space for movement of wildlife between important habitats.

With regard to screening, the visual impacts of the project are evaluated in Section 5, above. Tapering the vegetation for the Segment 1 corridor will minimize the visual impact of that portion of the corridor, particularly from elevated viewpoints. Taller vegetation within Wildlife Areas also will buffer the view of the corridor for those fishing or otherwise recreating on the streams crossed by the project. In addition, the applicant proposes plantings at both crossings of the Old Canada Road, the AT crossing at the Troutdale Road, and the Fickett Road Substation. The Department finds the required vegetation management, maintaining existing vegetation at the Merrill Road Converter Station, and the plantings proposed by the applicant will adequately shield adjacent uses from the project.

With regard to water quality and protection of wells, the proposed buffers are sufficient, provided they are adhered to by the applicant.

Overall, with the conditions imposed in this Order, the Department finds the applicant has made adequate provision for buffer strips, provided the applicant:

- Maintains taller vegetation and tapered vegetation within the corridor as outlined in Appendix C;
- Plants and maintains vegetated roadside buffers, and replaces any dead buffer plantings within one year of the vegetation dying, at the following locations: Old Canada Road (Route 201) crossings in Johnson Mountain Twp and Moscow, Troutdale Road crossing in Bald Mountain Twp, and on the south side of Fickett Road in conjunction with the Fickett Road Substation;
- In the area adjacent to Moxie Pond in Segment 2, the applicant must construct and maintain the project with a 100-foot riparian filter area identical to the riparian filter areas adjacent to coldwater fishery streams in Segment 1; and
- Provides a list of buffers surrounding private or public water supply wells to the Department prior to construction and adheres to the buffers during construction.

10. SOILS

As set forth in 38 M.R.S. § 484(4), an applicant must demonstrate that the proposed project will be built on soil types that are suitable to the nature of the development. An applicant also must demonstrate the proposed activity will not cause unreasonable erosion of soil or sediment. Pursuant to 38 M.R.S. § 484(9), any blasting that is required for the project must comply with the requirements of 38 M.R.S. § 490(Z).

To demonstrate the suitability of the soils, the applicant submitted a soil survey map and report and a geotechnical report describing the soils found within the NECEC project site. The applicant submitted a Class B soil survey and report for the Merrill Road Converter Station and the Fickett Road Substation. In addition, the applicant submitted a Class D soil survey and report for the transmission line portion of the project. These reports were prepared by a certified soil scientist and reviewed by the Department. The Department also reviewed a blasting plan submitted by the applicant that outlines the proposed procedures for removing ledge at the Merrill Road Converter Station and for installation of structures where necessary. If a rock crusher is utilized on site, the applicant must insure that the crusher is licensed by the Department's Bureau of Air Quality and is operated in accordance with that license.

The Department finds that, based on the soil and geotechnical reports and the blasting plan, the soils on the project site present no limitations to the proposed project that cannot be overcome through standard engineering practices. The Department further finds the proposed project will be built on soil types that are suitable to the nature of the undertaking and, for the reasons noted here and discussed below in Section 11, will not cause unreasonable erosion of soil or sediment.

11. STORMWATER MANAGEMENT

The Site Law, in 38 M.R.S §484(4-A), requires an applicant to demonstrate that the proposed development meets the standards for stormwater management set forth in 38 M.R.S. § 420-D and the standard for erosion and sedimentation control in 38 M.R.S. § 420-C. Additionally, an applicant must demonstrate the proposed activity will not cause unreasonable erosion of soil or sediment. The proposed project includes approximately 19.27 acres of developed area, of which 12.55 acres is impervious area at the converter station and substations. The transmission line corridor is not developed area as defined in Chapter 500 because it is not mowed more than twice per year.

A. Basic Standards

(1) Erosion and Sedimentation Control

The applicant submitted an Erosion and Sedimentation Control Plan (Section 14 of its Site Law application) that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments from, Department staff. Staff recommend the applicant perform a complete GIS analysis, including both soils and topographic data, on Segment 1 to determine the areas with high erosion risk. The Department commented that the high-risk areas must:

- Receive a higher frequency of environmental inspection as outlined in page 14-3 of the application;
- Have a dedicated Erosion and Sediment Control (ESC) maintenance crew;
- Have additional structural ESC measures, which can include multiple layers of sediment barriers, upgradient flow diversion structures, and temporary sediment basins, depending on the location; and
- Have an accelerated work schedule to the maximum extent practicable.

In response to these comments, on June 29, 2018, the applicant submitted a table that identifies areas along Segment 1 that meet the criteria for higher risk of erosion. The areas identified by the applicant have been incorporated into Appendix G. These areas must receive the additional erosion and sedimentation control measure described above.

In its review of the application amendment for a HDD under the Upper Kennebec River, the Department commented that prior to start of the drilling operation, the applicant should submit for review and approval, the location of the disposal area for the cuttings from the drilling operation.

Due to the length of the transmission line portion of the project, the number of segments involved, and the amount of material that must be removed for construction of the Merrill Road Converter Station, the applicant must retain the services of no fewer than one third-party inspector for each transmission line segment under construction at any one time,

and one third-party inspector for the converter station. If CMP's contractors employ multiple crews working in multiple locations within a segment, the Department may require more third-party inspectors. Details of the erosion control requirements will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor. Prior to the start of construction, the applicant must conduct a pre-construction meeting to discuss the construction schedule and the erosion and sediment control plan with the appropriate parties. This meeting must be attended by the applicant's representative, Department staff, the design engineer, the contractor, and the third-party inspectors. The applicant must retain the services of the third-party inspectors in accordance with the Special Condition for Third Party Inspection Program, which is attached to this Order.

(2) Inspection and Maintenance

The applicant submitted a maintenance plan that addresses both short and long-term maintenance requirements. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. This plan was reviewed by, and adequately revised in response to comments from, the Department.

(3) Housekeeping

The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

(4) Summary

Based on the Department's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500, § 4(B), provided the applicant:

- Retains no fewer than one third-party inspector for each transmission line segment under construction at any one time, and one third-party inspector for the Merrill Road Converter Station. The inspectors must be retained and work in accordance with the Special Condition for Third Party Inspection Program included with this Order.
- Conducts additional erosion control inspections, have dedicated crews, install additional erosion control structures, and have an accelerated work schedules, for the areas identified in Appendix G.
- Prior to start of the drilling operation under the Kennebec River, submits for review and approval, the location of the disposal area for the cuttings from the drilling operation.

B. General and Phosphorus Standards

The applicant's stormwater management plan includes general treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to

runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. This mitigation will be achieved by using Best Management Practices (BMPs) that will control runoff from no less than 95% of the impervious area and no less than 80% of the developed area. The access road to the proposed project meets the definition of "a linear portion of a project" in Chapter 500 and the applicant is proposing to control runoff volume from no less than 75% of the impervious area and no less than 50% of the developed area.

(1) Merrill Road Converter Station

The Merrill Road Converter Station will result in 13.42 acres of new developed area, of which 8.11 acres are impervious. It lies within the watershed of the Androscoggin River. The applicant submitted a stormwater management plan based on the Basic, General, and Flooding standards contained in Chapter 500. As currently designed, the converter station pad is self-treating. The proposed stormwater management system for other impervious and developed areas consists of two grassed, underdrained soil filters.

(2) Fickett Road and Surowiec Substations

The Fickett Road Substation will result in 4.87 acres of developed area, of which 3.90 acres are impervious. The applicant submitted a stormwater management plan based on the Basic, Phosphorus, and Flooding standards contained in Chapter 500. The stormwater management system will consist of a self-treating pad for the substation and a grassed, underdrained soil filter. The Surowiec Substation upgrades will result in no new developed area and 0.01 acre of new impervious area within the existing yard. No additional stormwater management system is required for this small amount of new impervious area. Because both the Fickett Road Substation and the Surowiec Substation are located in the watershed of Runaround Pond, a lake most at risk from development, stormwater runoff from the project site will be treated to meet the phosphorus standard outlined in Chapter 500, § 4(D). The applicant's phosphorus control plan was developed using methodology developed by the Department and outlined in "Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development." For the Fickett Road Substation, the Permitted Phosphorus Export is 0.51 pounds of phosphorus per year. The predicted phosphorus export for the project site based on the applicant's model is 0.45 pounds of phosphorus per year. For the Surowiec Substation, the Permitted Phosphorus Export is 2.19175 pounds of phosphorus per year. The current export is 0.4225 pounds per year and the proposed increase is 0.4275 pounds per year, for a total of 0.85 pounds of phosphorus per year from the site. The proposed stormwater treatment at both the Fickett Road Substation and the Surowiec Substation will be able to reduce the export of phosphorus in the stormwater runoff below the maximum permitted phosphorus export for the sites.

(3) Other Substations

Improvements at the other substations will not result in any increased developed or impervious area and stormwater treatment is not required.

(4) Summary

The stormwater management system proposed by the applicant was reviewed by the Department and revised by the applicant in response to these comments. After a final review, the Department finds that the proposed stormwater management system is designed in accordance with the General and the Phosphorus Standards contained in Chapter 500, § 4(C). The applicant must retain the stormwater design engineer to oversee the installation of the stormwater best management practices. At least once per year, or within 30 days of completion, the applicant must submit an update or as-built plans to the Department for review.

Based on the stormwater system's design, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the General and the Phosphorus Standards contained in Chapter 500, § 4(C), provided the applicant:

- Complies with the reporting and inspection requirements summarized in Section 11(B)(4) of this Order.

C. Flooding Standard

The applicant is proposing to utilize a stormwater management system based on estimates of pre- and post-development stormwater runoff flows obtained using Hydrocad. Hydrocad is a stormwater modeling software that utilizes the methodologies outlined in Technical Releases #55 and #20, U.S.D.A., Soil Conservation Service, and retains stormwater from 24-hour storms of 2-, 10-, and 25-year frequency. The post-development peak flow from the substations will not exceed the pre-development peak flow from the site.

Based on the system's design and the Department's review, the Department finds the applicant has made adequate provision to ensure that the proposed project will meet the Flooding Standard contained in Chapter 500, § 4(F) for peak flow from the project site, and channel limits and runoff areas.

12. GROUNDWATER

Site Law, in 38 M.R.S.A. § 484(5), requires an applicant to demonstrate that the proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur. Chapter 375, §§ 7 & 8 require an applicant to show that that a proposed development will not have an unreasonable adverse effect on groundwater quality or quantity.

The applicant does not propose any withdrawal from, or discharge to, the groundwater. The transmission line portion of the project traverses 30 significant sand and gravel aquifers. The proposed Fickett Road Substation and the Merrill Road Converter Station are not located in sole source aquifer areas or over significant sand and gravel aquifers. Existing substations affected by the proposed project include Crowley's, Coopers Mills,

Larrabee Road, Maine Yankee, Raven Farm, and Surowiec substations. Larrabee Road Substation is the only substation positioned over a sand and gravel aquifer. Department staff reviewed the project and determined that if a Spill Prevention, Control, and Countermeasures (SPCC) Plan is required for the equipment to be installed at the Merrill Road Converter Station, it must be submitted for review prior to operation.

The Department finds that the proposed project will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur. The Department further finds that the proposed project will not have an unreasonable adverse effect on ground water quality or quantity, provided the applicant:

- Submits an SPCC Plan for the Merrill Road Converter Station to the Department prior to operation, if such a plan is required by 40 CFR Part 112.

13. WATER SUPPLY

The Department evaluates the availability of adequate water supply pursuant to Chapter 375, § 18.

No wells are proposed for the new Merrill Road Converter Station or the new Fickett Road Substation. Coopers Mills, Larrabee Road, Raven Farm and Surowiec substations have existing wells. No common wells or public water supply wells are proposed to be used. Water may be necessary during construction for dust control. For dust control CMP proposes to use either municipal water or publicly available surface water sources, accessible from stable locations, such as bridges, roads or boat ramps, if necessary.

The Department finds that the applicant has made adequate provision for securing and maintaining a sufficient and healthful water supply.

14. WASTEWATER DISPOSAL

Pursuant to the Site Law, 38 M.R.S. § 484(6), an applicant must demonstrate that it has made adequate provision for wastewater disposal.

The proposed project will not generate any additional wastewater. Existing wastewater disposal systems at Coopers Mills, Larrabee Road, Raven Farm, and Surowiec substations will be utilized by the applicant.

The Department finds that the applicant has made adequate provisions for wastewater disposal.

15. SOLID WASTE

Pursuant to the Site Law, 38 M.R.S. § 484(6) and Chapter 375, § 16, an applicant must demonstrate that it has made adequate provision for solid waste disposal

The proposed project is anticipated to generate 50 cubic yards of food waste, plastics, and common trash, when completed, which will be hauled to a licensed disposal location by a licensed non-hazardous waste transporter. All general solid wastes from the proposed project will be disposed of at facilities pre-approved by CMP and the list of facilities will be submitted to the Department for review and approval prior to construction. Facilities operated by Casella Waste Systems, Inc., including the State-owned Juniper Ridge Landfill in Old Town, ME, have been pre-approved by CMP and have been demonstrated to have adequate capacity as approved by the Department. These facilities are currently in substantial compliance with the Maine Solid Waste Management Rules.

The proposed project will generate approximately 30,000 cubic yards of stumps and grubbings. Wood materials associated with clearing will be sold as marketable timber, chipped for biomass facilities, manufactured into erosion control mulch, and/or chipped and spread within the corridor. These materials are not proposed to be shipped to a landfill. Any excess soils removed as part of this project will be utilized on site or will be removed to other exempt or permitted facilities. Any wood that is chipped and spread on the corridor must be left in layers no more than two inches thick, as measured above the mineral soil surface.

The proposed project will generate approximately 153 cubic yards of construction debris and demolition debris, including wooden cable spools and pallets, wooden insulator crates, and concrete debris. Wooden cable spools, metals, concrete debris, and porcelain insulators will be recycled by Casella Waste Systems. Metals will be disposed of at Schnitzer Steel Industries, Inc. facilities in Auburn and Portland, Maine. All remaining construction and demolition debris will be disposed of at facilities pre-approved by CMP. Facilities operated by Casella Waste Systems, Inc. have been pre-approved by CMP and have been approved by the Department. They are currently in substantial compliance with the Maine Solid Waste Management Rules. If a contractor chooses a facility other than one operated by Casella Waste Systems or Schnitzer Steel Industries, the applicant must receive approval from the Department prior to material being taken to that facility.

Based on the evidence summarized above, the Department finds that the applicant has made adequate provision for solid waste disposal, provided the applicant:

- Receives approval from the Department prior to any material being taken to a facility other than Casella Waste Systems or Schnitzer Steel Industries.

16. FLOODING

Site Law, in 38 M.R.S. § 484(7), and NRPA, in 38 M.R.S. § 480-D(6), require an applicant to demonstrate that the proposed activity will not unreasonably cause or increase flooding

The transmission line portion of the proposed project will have 30 structures located within the 100-year flood plain of any river or stream, three in Segment 3, 22 in Segment 4, and five in Segment 5.

There is limited additional impervious area associated with each structure. The placement of these structures is not expected to result in any increase in flooding. Portions of the Surowiec Substation and the Fickett Road Substation are also located in the 100-year flood plain. The substations will be designed and constructed at a final elevation such that the equipment will not be inundated during a 100-year flood event.

The Department finds that the proposed project is unlikely to cause or increase flooding or cause an unreasonable flood hazard to any structure.

17. ALTERATION OF CLIMATE

The Department received extensive public comment, as well as written argument from Groups 3 and 4 and the Applicant, concerning whether and how potential greenhouse gas (GHG) emission reductions resulting from the project have regulatory significance under the applicable permitting standards. Some members of the public testified the project is urgently needed to reduce regional GHG emissions, while others challenged whether such emission reductions would even occur, and argued any such reductions have not been adequately proven. Groups 3 and 4 also asserted that the Department's standards for evaluating adverse environmental effects under Site Law, as set forth in Chapter 375, require the Department to undertake an analysis of a proposed project's impact on global climate change. The relevant section of Chapter 375 reads in its entirety as follows:

2. No Unreasonable Alteration of Climate

A. Preamble. The Department recognizes the potential of large-scale, heavy industrial facilities, such as power generating plants, to affect the climate in the vicinity of their location by causing changes in climatic characteristics such as rainfall, fog, and relative humidity patterns.

B. Scope of Review. In determining whether the proposed development will cause an unreasonable alteration of climate, the Department shall consider all relevant evidence to that effect.

C. Submissions. Applications for approval of large-scale, heavy industrial developments, such as power generating plants, shall include evidence that affirmatively demonstrates that there will be no unreasonable alteration of climate, including information such as the following, when appropriate:

(1) Evidence that the proposed development will not unreasonably alter the existing cloud cover, fog, or rainfall characteristics of the area.

D. Terms and Conditions. The Department may, as a term or condition of approval, establish any reasonable requirement to ensure that the proposed development will not cause an unreasonable alteration of climate.

Chapter 375, § 2. Read in context, this provision is not directed at issues of global climate change, but instead is exclusively concerned with the potential for highly localized climate impacts that facilities such as powerplants could have on atmospheric conditions such as rainfall, fog, and humidity. Chapter 375, § 2(A) & (C)(1). The Department has consistently interpreted Chapter 375, § 2 in this manner, and has never before construed it as applying to issues of global climate change. Neither Site Law nor NRPA in their current form, and as applicable to this project, require an applicant to make any particular showing regarding a project's impact on global climate change. To the extent Chapter 375, § 2 has any applicability to this project, the Department finds the project will not cause any adverse environmental impact on climate, as that term is used in the regulation.

Although not relevant under Chapter 375, § 2, the issue of GHG emission reductions is material to the Department's review of this project because its stated purpose is to provide clean, renewable energy to the regional energy grid. The Department considers a project's purpose in the context of evaluating whether the totality of its adverse environmental effects is reasonable. As described in detail above, construction and maintenance of the project will cause some adverse environmental effects on habitat, scenic character, and existing uses. Climate change, however, is the single greatest threat to Maine's natural environment. It is already negatively affecting brook trout habitat, and those impacts are projected to worsen. It also threatens forest habitat for iconic species such as moose, and for pine marten, an indicator species much discussed in the evidentiary hearing. Failure to take immediate action to mitigate the GHG emissions that are causing climate change will exacerbate these impacts. The Maine Public Utilities Commission (PUC), which has jurisdiction necessary to assess GHG emissions from the project in light of its impact on the electricity grid, concluded that, "the NECEC [project] will result in significant incremental hydroelectric generation from existing and new sources in Quebec and, therefore, will result in reductions in overall GHG emissions through corresponding reductions of fossil fuel generation (primarily natural gas) in the region."[43] The Department reviewed documents in the PUC's proceeding, including the London Economics International, LLC report.[44] The Department also reviewed the Examiner's Report and finds its conclusions to be credible. The Department accepts the PUC's finding on this issue and weighs the NECEC project's reductions in GHG emissions against the project's other impacts in its reasonableness determination.

In doing so, the Department finds the adverse effects to be reasonable in light of the project purpose and its GHG benefits, provided the project is constructed in accordance with the terms and conditions of this Order.

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[43] Public Utilities Commission Examiner's Report (March 29, 2019), Docket No. 2017-00232 at 114.
[44] "Independent Analysis of Electricity Market and Macroeconomic Benefits of the New England Clean Energy Conned Project" dated May 21, 2018, prepared by London Economics International, LLC.

18. DECOMMISSIONING REQUIREMENTS

Segment 1is a new transmission line corridor in a largely undeveloped area of the State. The Department finds that to ensure this segment of the project and associated infrastructure will not adversely affect the scenic character and natural resources of the region, 38 M.R.S. § 484(3), Segment 1 must be decommissioned when this portion of the project reaches the end of its useful life or the applicant ceases operation of this transmission line. Therefore, the applicant must demonstrate, in the form of a decommissioning plan, the means by which decommissioning of Segment will be accomplished. The plan must be submitted within one year of the start of commercial operation of the project. The decommissioning plan must include the following:

A. Trigger for implementation of decommissioning. The current contracts are valid for a period of 20 years, but may be renewed. If the contracts are not renewed or for some other reason, the Segment 1 transmission line does not conduct electricity for a period of 12 consecutive months, decommission must begin within 18 months of the end of the contract or the last day of operation, whichever comes first.

B. Description of work. The description of work contained in the plan must include the manner in which the transmission line, structures, and other components of the project would be dismantled and removed from the site. Subsurface components must be removed to a minimum of 24 inches below grade, and disturbed areas must be permanently stabilized. At the time of decommissioning, the applicant must submit a plan for continued beneficial use of any components proposed to be left on-site to the Department for review and approval.

C. Financial Assurance. The plan must include financial assurance for the decommissioning costs in the form of a decommissioning bond, irrevocable letter of credit, establishment of an escrow account, or other form of financial assurance accepted by the Department, for the total cost of decommissioning. The cost of decommissioning must be reevaluated in years 10 and 15 of commercial operation, and every five years thereafter, and the amount of financial assurance adjusted remains sufficient to cover the full cost of decommissioning.

Provided the applicant submits a decommissioning plan and complies with the requirements described above, the Department finds the project will be adequately decommissioned at the end of its useful life and will not adversely affect the scenic character and natural resources of the region. 38 M.R.S. § 484(3).

19 MAINE LAND USE PLANNING COMMISSION CERTIFICATION

The LUPC reviewed the portion of the proposed NECEC project located in the unorganized or deorganized areas of the State. On January 8, 2020, the LUPC certified to the Department (SLC-9) that the project is an allowed use within the subdistricts in which it is proposed and that the project complies with all of the Commission's applicable land use standards, those not considered in the Department's review.

The LUPC certification, including its conditions, is incorporated into and made part of this Order. A copy of the LUPC's certification is included in Appendix H.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. §§ 480-A–480-JJ and Section 401 of the Federal Water Pollution Control Act:

A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses, provided the applicant complies with the requirements in Section 5 and the corresponding conditions below.

B. The proposed activity will not cause unreasonable erosion of soil or sediment, provided the applicant complies with the requirements in Section 11 and the corresponding conditions below.

C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life, provided the applicant complies with the requirements in Section 7 and the corresponding conditions below.

E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.

F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.

G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.

H. The proposed activity is not on or adjacent to a sand dune.

I. The proposed project is a crossing of five outstanding river segments identified in 38 M.R.S.§ 480-P, however, the applicant has demonstrated there are no practicable alternatives that would have less adverse effect upon the natural and recreational features of the river segments.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. §§ 481–489-E:

A. The applicant has provided adequate evidence of financial capacity and technical ability to develop the project in a manner consistent with state environmental standards,

provided the applicant submits additional financial information as required in Section 2 and in the corresponding condition below.

B. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities provided the applicant complies with the requirements in Sections 4, 5, 6, 7, 8, 9, 12, 15, and 18 and the corresponding conditions below.

C. The proposed development will be built on soil types which are suitable to the nature of the undertaking and will not cause unreasonable erosion of soil or sediment nor inhibit the natural transfer of soil. The applicant has made adequate provision to ensure blasting during construction of the project will be in compliance with 38 M.R.S. § 490-Z.

D. The proposed development meets the standards for stormwater management in 38 M.R.S. § 420-D and the standard for erosion and sedimentation control in 38 M.R.S. § 420-C provided that the applicant complies with the requirements in Section 11 and the corresponding conditions below.

E. The proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur provided that the applicant complies with the requirements in Section 12 and the corresponding condition below.

F. The applicant has made adequate provision of utilities, including water supplies, sewerage facilities and solid waste disposal required for the development and the development will not have an unreasonable adverse effect on the existing or proposed utilities in the municipality or area served by those services provided the applicant complies with the requirements in Section 15 and the corresponding condition below.

G. The activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties nor create an unreasonable flood hazard to any structure.

H. No further project modification or conditions regarding the transmission line's location, character, width, or appearance, beyond what is required by this Order, are warranted, under 38 M.R.S. § 487-A(4) or otherwise, to lessen the transmission line's impact on the environment or risk to public health or safety.

THEREFORE, the Department APPROVES the application of CENTRAL MAINE POWER COMPANY for the New England Clean Energy Connect Project as described in Finding 1, SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached.

2. In addition to any specific erosion control measures described in this or previous orders, the applicant shall take all necessary actions to ensure that its activities or those of its agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.

3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions, unless the Department determines that said invalidity or unenforceability results in a project that would violate applicable statutory or regulatory standards, in which case the applicant shall file an application to modify the license to ensure full compliance. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

4. Prior to the start of construction, the applicant shall submit evidence that it has been granted a line of credit or a loan by a financial institution authorized to do business in this State, or evidence of any other form of financial assurance consistent with Department Rules, Chapter 373, § 2(B), to the Department for review and approval.

5. Prior to the start of construction, CMP shall establish an escrow account, secure an irrevocable letter or credit, or otherwise provide a financial guarantee acceptable to the Department, to fund $1,875,000 of culvert replacements. Prior to commercial operation of the project, the applicant shall submit a plan to the Department for review and approval that establishes the locations of the culvert replacements and how the funds will be disbursed. The culverts to be replaced must be in the vicinity of Segments 1 or 2, must completely or partially block fish passage, must be replaced with crossings consistent with Stream Smart principles, and must be selected to provide the greatest possible habitat benefit. CMP shall document each culvert replacement, monitor those replacements for one year from the date of replacement, and submit a summary report to the Department for review within eighteen months of the date of the last replacement.

6. Prior to the start of construction, the applicant shall conserve the Basin Tract, Lower Enchanted Tract, and Grand Falls Tract, which together include 1,053.5 acres of land and 12.02 linear miles of stream.

7. Prior to the start of construction, the applicant shall conserve the Little Jimmy Pond Tract, Flagstaff Lake Tract, and Pooler Pond Tract, which together include 510.75 acres of wetland and 1,022.4 acres of land area.

8. Prior to the start of construction, the applicant shall conserve 717 acres of land within the Upper Kennebec River DWA.

9. Prior to the start of construction, the applicant shall contribute:
   a. A total of $877,010.06 in In-Lieu-Fee payments to the Department for the Maine Natural Resource Conservation Program for impacts to SVPs ($623,657.53) and IWWHs ($253,352.53), and
   b. A total of $649,771.95 to Maine Endangered and Nongame Fund for impacts to NSS and RBM habitat ($469,771.95) and forest conversion in riparian buffers ($180,000.00).

10. Prior to the start of construction, the applicant shall contribute $1,234,526.82 to the Maine Natural Areas Conservation Fund for impacts to Goldie's Wood Fern and the Jack Pine Forest.

11. Prior the start of construction on each transmission line segment, the HDD under the Upper Kennebec River, the Merrill Road Converter Station, and the Fickett Road Substation, the applicant shall conduct a pre-construction meeting to discuss, among other topics, construction schedule, erosion and sedimentation control, and adherence to the conditions of this Order. This meeting shall be attended by the applicant's representative, Department staff, the design engineer, the contractor, and the third-party inspector for that portion of the project.

12. The applicant shall update its VCP and VMP to be consistent with the requirements of this Order, including but not limited to the vegetation management required in Appendix C, and submit the updated plans to the Department for review and approval prior to the start of construction (which includes clearing) within the corridor.

13. The applicant shall maintain taller vegetation within the Segment 1corridor as outlined in Appendix C, including by:
   a. Maintaining full canopy height vegetation in the locations identified in Table C-1,
   b. Maintaining vegetation with a minimum height of 35 feet in the locations identified in Table C-1,
   c. Maintaining deer travel corridors in the locations identified in Table C-1, and
   d. Maintaining tapered vegetation along the entire Segment 1 corridor, except where full canopy height vegetation, vegetation with a minimum height of 35 feet, or taller vegetation managed for deer travel corridors is required.

14. The applicant shall leave any trees that have been cut during routine maintenance in areas where tapering or vegetation with a minimum height of 35 feet is required, unless doing so would violate the Slash Law or create a fire or safety hazard.

15. Any wood that is chipped and spread on the corridor shall be left in layers no more than two inches thick, as measured above the mineral soil surface.

16. The applicant shall maintain 100-foot riparian filter areas along all perennial streams in Segment 1, all coldwater fisheries streams in other segments as identified in Appendix E, all streams containing threatened or endangered species, and all Outstanding River Segments; and maintain 75-foot riparian filter areas on all other streams.

17. In the area adjacent to Moxie Pond in Segment 2, the applicant shall construct and maintain the project with a 100-foot riparian filter area identical to the riparian filter areas adjacent to coldwater fishery streams in Segment 1.

18. The applicant shall provide a list of buffers surrounding private or public water supply wells to the Department prior to construction and adhere to the buffers during construction.

19. The applicant shall limit construction activities in mapped habitat for wood turtles to between October 15 and April 15 (prohibiting construction between April 16 and October 14) in any calendar year.

20. The applicant shall limit construction activities in mapped habitat for Rusty Black Birds to between July 1 and April 19 (prohibiting construction between April 20 and June 30) in any calendar year.

21. The applicant shall maintain 10-15-foot tall spruce/fir vegetation in the mapped Rusty Black Bird habitat.

22. The applicant shall complete a survey for Great Blue Heron colonies within or immediately adjacent to existing IWWH between April 20 and May 31, and prior to initial transmission line clearing; if any colonies are identified, the applicant shall consult with MDIFW and obtain approval from the Department prior to construction in the vicinity of any colony.

23. The applicant shall plant and maintain vegetated roadside buffers, and replace any dead buffer plantings with one year of the vegetation dying, at the following locations: Old Canada Road (Route 201) crossings in Johnson Mountain Twp and Moscow, Troutdale Road crossing in Bald Mountain Twp, and on the south side of Fickett Road in conjunction with the Fickett Road Substation.

24. The applicant shall mark the location of all natural resource buffers with flagging prior to the start of construction.

25. The applicant shall permanently mark all natural resource buffers upon completion of construction.

26. The applicant shall mark all natural resource buffers with flagging prior to any maintenance activities.

27. The applicant shall retain no fewer than one third-party inspector for each transmission line segment under construction at any one time, and one third-party inspector for the Merrill Road Converter Station. The inspectors must be retained and work in accordance with the Special Condition for Third Party Inspection Program included with this Order.

28. Prior to start of the drilling operation under the Kennebec River, the applicant shall submit for review and approval, the location of the disposal area for the cuttings from the drilling operation.

29. Any new equipment the applicant installs at Merrill Road Converter Station, the Larrabee Road, Fickett Road, and Coopers Mills Road substations, shall meet the sound power limits listed in Appendix D, Table D-1 (incorporating the limits from the Site Law application, Tables 5-8, 5-11, 5-15, and 5-19).

30. Any new equipment the applicant installs at Raven Farm Substation shall meet the sound power limit listed in Appendix D, Table D-1 (incorporating the base option listed in the Table 6-1 of the Raven Farm Substation Sound Study).

31. The applicant shall install sound walls at the Coopers Mills Road Substation, as proposed, with the final design supported by additional acoustic modeling using vendor-supplied octave band sound power levels, and submit the final design and modeling results to the Department for review and approval prior to operation of the new equipment at the substation.

32. The applicant shall install non-specular conductors within the viewshed of Coburn Mountain (between structures #3006-634 and #3006-616), Rock Pond (between structures #3006-731 and #3006-724), Moxie Stream (between structures #3006-542 and #3006-541), and the Appalachian Trail (between structures #3006-529 and #3006-458).

33. The applicant shall install shorter poles along Moxie Pond (structures #3006-529 and #3006-458).

34. The applicant shall conduct additional erosion control inspections, have dedicated crews, install additional erosion control structures, and have accelerated work schedules, for the areas identified in Appendix G.

35. The applicant shall retain the stormwater design engineer to oversee the installation of the stormwater best management practices. At least once per year, or within 30 days of completion, the applicant shall submit an update or as-built plans to the Department for review.

36. The applicant shall submit an SPCC Plan for the Merrill Road Converter Station to the Department prior to operation, if such a plan is required pursuant to 40 CFR Part 112.

37. The applicant shall receive approval from the Department prior to any material being taken to a facility other than Casella Waste Systems or Schnitzer Steel Industries.

38. The applicant shall implement the plans for site avoidance and treatments described in the final Phase I archaeological survey report.

39. Within 18 months of the date of this Order, the applicant shall develop and submit to the Department for review and approval a Conservation Plan, consistent with Section 7(D)(2)(a)(3), to permanently conserve 40,000 acres in the vicinity of Segment 1. Prior to commercial operation of the project, the applicant must fully implement the approved Conservation Plan, unless, upon a showing by the applicant that it has made reasonable, good faith efforts to implement the Conservation Plan and addition time, not more than four years from the date of this Order, is needed, the Department approves an extension of the implementation deadline. Prior to implementation, all forest management plans, and all conservation easements, deed restrictions, covenants, or other legal instruments designed to fulfill the objectives of the Conservation Plan, must be submitted to the Department for review and approval.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 11th DAY OF MAY, 2020,
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
Gerald D Reid, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

JB/L27625ANBNCNDN/ATS#82334, 82335, 82336, 82337, 82338

FILED

MAY 11, 2020

State of Maine
Board of Environmental Protection

Department of Environmental Protection

SITE LOCATION OF DEVELOPMENT (SITE)
STANDARD CONDITIONS

A. **Approval of Variations from Plans.** The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation. Further subdivision of proposed lots by the applicant or future owners is specifically prohibited without prior approval of the Board, and the applicant shall include deed restrictions to that effect.

B. **Compliance with All Applicable Laws.** The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.

C. **Compliance with All Terms and Conditions of Approval.** The applicant shall submit all reports and information requested by the Board or the Department demonstrating that the applicant has complied or will comply with all preconstruction terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.

D. **Advertising.** Advertising relating to matters included in this application shall refer to this approval only if it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.

E. **Transfer of Development.** Unless otherwise provided in this approval, the applicant shall not sell, lease, assign or otherwise transfer the development or any portion thereof without prior written approval of the Board where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval shall be granted only if the applicant or transferee demonstrates to the Board that the transferee has the technical capacity and financial ability to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant.

F. **Time frame for approvals.** If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the Board for a new approval. The applicant may not begin construction or operation of the development until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.

G. **Approval Included in Contract Bids.** A copy of this approval must be included in or attached to all contract bid specifications for the development.

I. **Approval Shown to Contractors.** Work done by a contractor pursuant to this approval shall not begin before the contractor has been shown by the developer a copy of this approval.

Natural Resources Protection Act (NRPA)
Standard Conditions

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCES PROTECTION ACT, 38 M.R.S.A. § 480-A ET SEQ., UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

A. Approval of Variations From Plans. The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.

B. Compliance With All Applicable Laws. The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.

C. Erosion Control. The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.

D. Compliance With Conditions. Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.

E. Time frame for approvals. If construction or operation of the activity is not begun within four years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.

F. No Construction Equipment Below High Water. No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.

G. Permit Included In Contract Bids. A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.

H. Permit Shown To Contractor. Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

STORMWATER STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

(1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S.A. §420-D(8) and is subject to penalties under 38 M.R.S.A. §349.

(2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.

(3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.

(4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.

(5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.

(6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the developer, and the owner and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been

received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

(7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the department.

(8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.

(a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.

(b) All aspects of the stormwater control system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the facilities.

(c) The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the department, and the maintenance log is being maintained.

(9) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

November 16, 2005 (revised December 27, 2011)

Special Condition
for
Third Party Inspection Program

THIRD-PARTY INSPECTION PROGRAM

1.0 THE PURPOSE OF THE THIRD-PARTY INSPECTION

As a condition of this permit, the Maine Department of Environmental Protection (MDEP) requires the permit applicant to retain the services of a third-party inspector to monitor compliance with MDEP permit conditions during construction. The objectives of this condition are as follows:

1) to ensure that all construction and stabilization activities comply with the permit conditions and the MDEP-approved drawings and specifications,

2) to ensure that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations, and

3) to ensure communication between the contractor and MDEP regarding any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan.

This document establishes the inspection program and outlines the responsibilities of the permit applicant, the MDEP, and the inspector.

2.0 SELECTING THE INSPECTOR

At least 30 days prior to starting any construction activity on the site, the applicant will submit the names of at least two inspector candidates to the MDEP. Each candidate must meet the minimum qualifications listed under section 3.0. The candidates may not be employees, partners, or contracted consultants involved with the permitting of the project or otherwise employed by the same company or agency except that the MDEP may accept subcontractors who worked for the project's primary consultant on some aspect of the project such as, but not limited to, completing wetland delineations, identifying significant wildlife habitats, or conducting geotechnical investigations, but who were not directly employed by the applicant, as Third Party inspectors on a case by case basis. The MDEP will have 15 days from receiving the names to select one of the candidates as the inspector or to reject both candidates. If the MDEP rejects both candidates, then the MDEP shall state the particular reasons for the rejections. In this case, the applicant may either dispute the rejection to the Director of the Bureau of Land Resources or start the selection process over by nominating two, new candidates.

3.0 THE INSPECTOR'S QUALIFICATIONS

Each inspector candidate nominated by the applicant shall have the following minimum qualifications:

1) a degree in an environmental science or civil engineering, or other demonstrated expertise,

2) a practical knowledge of erosion control practices and stormwater hydrology,

3) experience in management or supervision on large construction projects,

4) the ability to understand and articulate permit conditions to contractors concerning erosion control or stormwater management,

5) the ability to clearly document activities being inspected,

6) appropriate facilities and, if necessary, support staff to carry out the duties and responsibilities set forth in section 6.0 in a timely manner, and

7) no ownership or financial interest in the development other than that created by being retained as the third-party inspector.

4.0 INITIATING THE INSPECTOR'S SERVICES

The applicant will not formally and finally engage for service any inspector under this permit condition prior to MDEP approval or waiver by omission under section 2.0. No clearing, grubbing, grading, filling, stockpiling, or other construction activity will take place on the development site until the applicant retains the MDEP-approved inspector for service.

5.0 TERMINATING THE INSPECTOR'S SERVICES

The applicant will not terminate the services of the MDEP-approved inspector at any time between commencing construction and completing final site stabilization without first getting written approval to do so from the MDEP.

6.0 THE INSPECTOR'S DUTIES AND RESPONSIBILITIES

The inspector's work shall consist of the duties and responsibilities outlined below.

1) Prior to construction, the inspector will become thoroughly familiar with the terms and conditions of the state-issued site permit, natural resources protection permit, or both.

2) Prior to construction, the inspector will become thoroughly familiar with the proposed construction schedule, including the timing for installing and removing erosion controls, the timing for constructing and stabilizing any basins or ponds, and the deadlines for completing stabilization of disturbed soils.

3) Prior to construction, the inspector will become thoroughly familiar with the project plans and specifications, including those for building detention basins, those for installing the erosion control measures to be used on the site, and those for temporarily or permanently stabilizing disturbed soils in a timely manner.

4) During construction, the inspector will monitor the contractor's installation and maintenance of the erosion control measures called for in the state permit(s) and any additional measures the inspector believes are necessary to prevent sediment discharge to off-site properties or natural resources. This direction will be based on the approved erosion control plan, field conditions at the time of construction, and the natural resources potentially impacted by construction activities.

5) During construction, the inspector will monitor the contractor's construction of the stormwater system, including the construction and stabilization of ditches, culverts, detention basins, water quality treatment measures, and storm sewers.

6) During construction, the inspector will monitor the contractor's installation of any stream or wetland crossings.

7) During construction, the inspector will monitor the contractor's final stabilization of the project site.

8) During construction, the inspector will keep logs recording any rain storms at the site, the contractor's activities on the site, discussions with the contractor(s), and possible violations of the permit conditions.

9) During construction, the inspector will inspect the project site at least once a week and before and after any significant rain event. The inspector will photograph all protected natural resources both before and after construction and will photograph all areas under construction. All photographs will be identified with, at a minimum the date the photo was taken, the location and the name of the individual taking the photograph. *Note: the frequency of these inspections as contained in this condition may be varied to best address particular project needs.*

10) During construction, the inspector will prepare and submit weekly *(or other frequency)* inspection reports to the MDEP.

11) During construction, the inspector will notify the designated person at the MDEP immediately of any sediment-laden discharges to a protected natural resource or other significant issues such as the improper construction of a stormwater control structure or the use of construction plans not approved by the MDEP.

7.0 INSPECTION REPORTS

The inspector will submit weekly written reports *(or at another designated frequency)*, including photographs of areas that are under construction, on a form provided by the Department to the designated person at the MDEP. Each report will be due at the MDEP by the Friday *(or other designated day)* following the inspection week (Monday through Sunday).

The weekly report will summarize construction activities and events on the site for the previous week as outlined below.

1) The report will state the name of the development, its permit number(s), and the start and end dates for the inspection week (Monday through Sunday).

2) The report will state the date(s) and time(s) when the inspector was on the site making inspections.

3) The report will state the date(s) and approximate duration(s) of any rainfall events on the site for the week.

4) The report will identify and describe any erosion problems that resulted in sediment leaving the property or sediment being discharged into a wetland, brook, stream, river, lake, or public storm sewer system. The report will describe the contractor's actions to repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.

5) The report will list the buildings, roads, parking lots, detention basins, stream crossings or other features open to construction for the week, including those features or areas actively worked and those left unworked (dormant).

6) For each area open to construction, the report will list the date of initial soil disturbance for the area.

7) For each area open to construction, the report will note which areas were actively worked that week and which were left dormant for the week. For those areas actively worked, the report will briefly state the work performed in the area that week and the progress toward final stabilization of the area -- e.g. "grubbing in progress", " grubbing complete", "rough grading in progress", "rough grading complete", "finish grading in progress", "finish grading complete", "permanent seeding completed", "area fully stable and temporary erosion controls removed", etc.

8) For each area open to construction, the report will list the erosion and sedimentation control measures installed, maintained, or removed during the week.

9) For each erosion control measure in-place, the report will note the condition of the measure and any maintenance performed to bring it to standard.

Third Party Inspection Form

This report is prepared by a Third Party Inspector to meet the requirements of the Third Party Inspector Condition attached as a Special Condition to the Department Order that was issued for the project identified below. The information in this report/form is not intended to serve as a determination of whether the project is in compliance with the Department permit or other applicable Department laws and rules. Only Department staff may make that determination.

TO: *PM, Maine DEP (@maine.gov)*	FROM:
PROJECT NAME/ LOCATION:	DEP #:
DATE OF INSPECTION:	DATE OF REPORT:
WEATHER:	CONDITIONS:

SITE CHARACTERISTICS:

# ACRES OPEN:	# ACRES ACTIVE:	# ACRES INACTIVE:
LOCATION OF OPEN LAND:	LOCATION OF ACTIVE LAND:	LOCATION OF INACTIVE LAND:
OPEN SINCE:	OPEN SINCE:	OPEN SINCE:

PROGRESS OF WORK:

INSPECTION OF:	**Satisfactory**	**Minor Deviation** (corrective action required)	**Unsatisfactory** (include photos)
STORMWATER CONTROL (VEGETATIVE & STRUCTURAL BMP'S)			
EROSION & SEDIMENTATION CONTROL (TEMPORARY & PERMANENT BMP'S)			
OTHER: (PERMIT CONDITIONS, ENGINEERING DESIGN, ETC.)			

COMMENTS/CORRECTIVE ACTIONS TAKEN (attach additional sheets as necessary):

Photos (must be labeled with date, photographer and location):

Cc:		
Original and all copies were sent by email only.		

Appendix A
List of Municipal and County Governments

Town	County	Senate District	House District	Congressional District
City of Auburn 60 Court Street Auburn, Maine 04210 Phone (207) 333-6600 pcrichton@auburnmaine.gov	Androscoggin **County Commissioners' Office** 2 Turner Street, Unit 2 Auburn, Maine 04210 Phone (207) 753-2500, Ext 1801 lpost@androscoggincountymaine.gov	**Senate District 20** Senator Eric L. Brakey 146 Pleasant Street Auburn, ME 04210 Phone (207) 406-0897 Eric.brakey@legislature.maine.gov	**House District 62** Rep. Gina M. Melaragno 25 James Street, Apt. 3 Auburn, Maine 04210 Phone (207)740-8860 gina.melaragno@legislature.maine.gov **House District 63** Rep. Bruce A. Bickford 64 Cameron Lane Auburn, Maine 04210 Cell Phone (207) 740-0328 bruce.bickford@legislature.maine.gov **House District 64** Rep. Bettyann W. Sheats 32 Waterview Drive Auburn, Maine 04210 Cell Phone (207)740-2613 bettyann.sheats@legislature.maine.gov	**Congressional District 2** Representative Bruce Poliquin 179 Lisbon Street Lewiston, ME 04240 Phone (207) 784-0768
City of Lewiston 27 Pine Street Lewiston, Maine 4240-7204 Phone (207) 513-3000 ebarrett@lewistonmaine.gov	Androscoggin **County Commissioners' Office** 2 Turner Street, Unit 2 Auburn, Maine 04210 Phone (207) 753-2500, Ext 1801	**Senate District 21** Senator Nate Libby 44 Robinson Gardens Lewiston, ME 04240 Phone (207)713-8449 nathan.libby@legislature.maine.gov	**House District 58** Rep: James R. Handy 9 Maplewood Road Lewiston, Maine 04240 Phone (207) 784-5595 jim.handy@legislature.maine.gov	**2**

	lpost@androscoggincounty maine.gov		**House District 59** Rep. Roger Jason Fuller 36 Elliott Avenue Lewiston, ME 04240 Phone (207) 783-9091 roger.fuller@legislature.maine.gov **House District 60** Rep. Jared F. Golden 3 Diamond Court Lewiston, ME 04240 Phone (207) 287-1430 jared.golden@legislature.maine.gov **House District 61** Rep. Heidi E. Brooks 1 Pleasant Street, #2 Lewiston, Maine 04240 Cell Phone (207) 740-5229 heidi.brooks@legislature.maine.gov	
Town of Alna 1568 Alna Rd Alna, Maine 04535 PHONE: (207) 586-5313 mmaymcc@yahoo.com dcbaston@northatlanticenergy.com	Lincoln County Commissioners Office 32 High Street, P.O. Box 249 Wiscasset, Maine 04578 Phone (207) 882-6311 ckipfer@lincounty.me	**Senate District 13** Senator Dana Dow 30 Kalers Pond Road Waldoboro, Maine 04572 Phone (207) 832-4658 dana.dow@legislature.maine.gov	**House District 87** Rep. Jeffery P. Hanley 52 Turner Drive Pittston, Maine 04345 Phone (207) 582-1524 Cell Phone (207) 458-9009 jeff.hanley@legislature.maine.gov	1
Town of Anson 5 Kennebec Street, PO Box 297 Anson, Maine 04911-0297	Somerset County Commissioners Office 41 Court Street	**Senate District 3** Senator Rod Whittemore PO Box 96	**House District 112** Rep. Thomas H. Skolfield 349 Phillips Road	2

Phone (207) 696-3979	Skowhegan, ME 04976 Phone (207) 474-9861 ddiblasi@SomersetCounty-ME.org	Skowhegan, Maine 04976 Phone (207) 474-6703 rodney.whittemore@legislature.maine.gov	Weld, Maine 04285 Phone (207) 585-2638 thomas.skolfield@legislature.maine.gov	
Town of Caratunk Elizabeth Caruso - 1st Select PO Box 180 Caratunk, Maine 04925-0180 OFFICE PHONE: 672-3030	Somerset County Commissioners Office 41 Court Street Skowhegan, ME 04976 Phone (207) 474-9861 ddiblasi@SomersetCounty-ME.org	**Senate District 3** Senator Rod Whittemore PO Box 96 Skowhegan, Maine 04976 Phone (207) 474-6703 rodney.whittemore@legislature.maine.gov	**House District 118** Rep. Chad Wayne Grignon 181 Fox Hill Road Athens, Maine 04912 Phone (207) 654-2771 Cell Phone (207) 612-6499 chad.grignon@legislature.maine.gov	2
Town of Chesterville 409 Dutch Gap Road Chesterville, Maine 04938 Phone (207) 778-2433 chesterville.me@gmail.com	Franklin County Commissioner's Office 140 Main Street, Suite 3 Farmington, Maine 04938 Phone (207) 778-6614 jmagoon@franklincountymaine.gov	**Senate District 17** Senator Thomas Saviello 60 Applegate Lane Wilton, ME 042924 Phone (207) 287-1505 thomas.saviello@legislature.maine.gov	**House District 114** Rep. Russell J. Black 123 Black Road Wilton, Maine 04294 Phone (207) 491-4667 russell.black@legislature.maine.gov	2
Town of Cumberland William R. Shane, Town Manager 290 Tuttle Road Cumberland, Maine 04021 Phone (207) 829-5559	Cumberland County Commissioners Office James Gailey, County Manager 142 Federal Street Portland, ME 04101 Phone (207) 871-8380 gailey@cumberlandcounty.org	**Senate District 25** Senator Catherine Breen 15 Falmouth Ridges Drive Falmouth, Maine 04105 Phone (207) 329-6142 Cathy.breen@legislature.maine.gov	**House District 45** Rep. Dale J. Denno 275 Main Street Cumberland Center, Maine 04021 Cell Phone (207) 400-1123 dale.denno@legislature.maine.gov	1 Senator Susan Collins 55 Lisbon Street Lewison, ME 04240 Phone (207) 784-6969 Senator Angus King 4 Gabriel Drive, Suite 3 Augusta, ME 04330 Phone (207) 622-8292 Phone (800) 432-1599 Representative Chellie Pingree 2Portland Fish Pier, Suite 304 Portland, ME 04101 Phone (207) 774-5019 Phone (888) 862-6500

Town of Durham 630 Hallowell Road Durham, Maine 04222 Phone (207) 353-2561	Androscoggin **County Commissioners' Office** 2 Turner Street, Unit 2 Auburn, Maine 04210 Phone (207) 753-2500, Ext 1801 lpost@androscoggincountymaine.gov	**Senate District 22** Senator Garrett Mason PO Box 395 Lisbon Falls, Maine 04252 Phone (207) 557-1521 garret.mason@legislature.maine.gov	**House District 46** Rep. Paul B. Chace 31 Colonial Drive Durham, ME 04222 Cell Phone (207)240-9300 paul.chace@legislature.maine.gov	2
Town of Embden 809 Embden Pond Road Embden, Maine 04958-3521 Phone (207) 566-5551 embden-clerk@roadrunner.com	Somerset County Commissioners Office 41 Court Street Skowhegan, ME 04976 Phone (207) 474-9861 ddiblasi@SomersetCounty-ME.org	**Senate District 3** Senator Rod Whittemore PO Box 96 Skowhegan, Maine 04976 Phone (207) 474-6703 rodney.whittemore@legislature.maine.gov	**House District 118** Rep. Chad Wayne Grignon 181 Fox Hill Road Athens, Maine 04912 Phone (207) 654-2771 Cell Phone (207) 612-6499 chad.grignon@legislature.maine.gov	2
Town of Farmington 153 Farmington Falls Road Farmington, Maine 04938 Phone (207) 778-5871 rdavis@farmington-maine.org	Franklin County Commissioner's Office 140 Main Street, Suite 3 Farmington, Maine 04938 Phone (207) 778-6614 jmagoon@franklincountymaine.gov	**Senate District 17** Senator Thomas Saviello 60 Applegate Lane Wilton, ME 042924 Phone (207) 287-1505 thomas.saviello@legislature.maine.gov	**House District 113** Rep. Lance Evans Harvell 398 Knowlton Corner Road Farmington, Maine 04938 Phone (207) 491-8971 lance.harvell@legislature.maine.gov	2
Town of Greene 220 Main St, PO Box 510 Greene, Maine 04236-0510 Phone (207) 946-5146 tmgreene@fairpoint.net	Androscoggin **County Commissioners' Office** 2 Turner Street, Unit 2 Auburn, Maine 04210 Phone (207) 753-2500, Ext 1801 lpost@androscoggincountymaine.gov	**Senate District 22** Senator Garrett Mason PO Box 395 Lisbon Falls, Maine 04252 Phone (207) 557-1521 garret.mason@legislature.maine.gov	**House District 57** Rep. Stephen J. Wood PO Box 927 Sabattus, Maine 04280 Cell Phone (207) 740-3723 stephen.wood@legislature.maine.gov	2
Town of Industry 1033 Industry Road Industry, Maine 04938 Phone (207) 778-5050	Franklin County Commissioner's Office 140 Main Street, Suite 3 Farmington, Maine 04938 Phone (207) 778-6614 jmagoon@franklincountymaine.gov	**Senate District 17** Senator Thomas Saviello 60 Applegate Lane Wilton, ME 042924 Phone (207) 287-1505 thomas.saviello@legislature.maine.gov	**House District 114** Rep. Russell J. Black 123 Black Road Wilton, Maine 04294 Phone (207) 491-4667 russell.black@legislature.maine.gov	2

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[2] These Intervenors are represented by Gerald F. Petruccelli, Esq., Petruccelli, Martin & Haddow LLP.
[3] Maine Office of the Public Advocate is not an Intervenor with the LUPC but, as a governmental agency, may still participate in the LUPC's portion of the NECEC hearing in accordance with Chapter 5, section 5.16. The OPA is an Intervenor in the DEP's hearing.

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Appendix C
Vegetation Management

This appendix describes the four types of vegetation management required along the Segment 1 corridor, which achieve:

- Full canopy height vegetation,
- Vegetation with a 35-foot minimum height,
- Deer travel corridors, and
- Tapered vegetation.

This appendix also describes riparian filter areas adjacent to rivers, streams, and brooks.

Full Canopy Height Vegetation

Full canopy height vegetation is required in three locations along the Segment 1 corridor. The locations, identified more specifically below in Table C-1, include the Gold Brook crossing (which is within Wildlife Area 4), the Mountain Brook crossing (Wildlife Area 6), and the Upper Kennebec River crossing (Wildlife Area 11).

In areas where full canopy height vegetation must be maintained, vegetation will be removed only in areas necessary to access pole locations and place the poles. (There are no pole locations in Wildlife Area 11.) This includes the area within the entire width of the 150-foot wide corridor. Access roads and structure preparation and installation areas will be cleared of all capable and non-capable species and maintained as scrub-shrub habitat to allow for post-construction maintenance, repair, and/or emergency access during operation of the line.

35-Foot Minimum Vegetation Height

In areas where 35-foot tall vegetation must be maintained, only areas necessary to access pole locations or install poles will be cleared during construction. Access roads and structure preparation and installation areas will be cleared of all capable and non-capable species and maintained as scrub-shrub habitat to allow for post-construction maintenance, repair, and/or emergency access during operation of the line. In other areas within the entire width of the corridor only trees taller than 35 feet, or trees that may grow taller than 35 feet prior to the next scheduled maintenance will be removed during construction. Vegetation maintenance within Segment 1 will be on a two- to three-year cycle and may not exceed a three-year cycle within any particular area within this segment without prior approval from the Department.

With regard to ongoing vegetation management, trees that exceed 35 feet or are anticipated to exceed this height before the next scheduled maintenance cycle will be selected and cut at ground level and will only be removed if leaving them will cause a violation of the Maine Slash Law or create a fire or safety hazard.

Deer Travel Corridors

Eight deer travel corridors must be managed as softwood stands to promote deer movement across the transmission line corridor during the winter months when snow depths have the potential to inhibit deer travel. These travel corridors are located on either side of the four structures identified in Table C-1 and will extend along the corridor, under the conductors, where conductor height allows for taller vegetation within the corridor. These deer travel corridors must be managed, designated, and labeled corridors 1 through 8, as softwood stands and allow for the maximum tree height that can practically be maintained without encroaching into the conductor safety zone (approximately 24 feet of clearance between a conductor and the top of vegetation) or into the necessary cleared area adjacent to structures. Tree heights will vary based on structure height, conductor sag, and topography, but must generally range from 25 to 35 feet.

Within designated deer travel corridors 1 through 8, during the initial vegetation clearing for construction all capable hardwood species will be cut and individual softwood specimens will be cut to heights necessary so that they do not intrude into the conductor safety zone and are not at risk of growing into the conductor safety zone prior to the next scheduled vegetation maintenance. On an ongoing basis, softwood specimens that are not intruding into the conductor safety zone and are not at risk of growing into the conductor safety zone prior to the next scheduled vegetation maintenance will be retained. Access roads and structure preparation and installation areas will be cleared of all capable and non-capable species and maintained as scrub-shrub habitat to allow for post-construction maintenance, repair, and/or emergency access during operation of the line.

Table C-1

Area Name	From Structure	To Structure	Location	Min. Veg Height	Notes	Approximate Length (miles)
Wildlife Area 1	3006-800	3006-799	Beattie Twp	35'	Includes Number One Brook not visible from Beattie Pond	0.22
Wildlife Area 2	3006-771	3006-765	Skinner Twp	35'	Includes crossing of the South Branch of the Moose River (all of TNC 2)	1.19
Wildlife Area 3	3006-758	3006-752	Skinner Twp Appleton Twp	35'	Includes five perennial streams and four intermittent streams	1.25
Wildlife Area 4	3006-742	3006-731	Appleton Twp	35' (except full canopy height at Gold Brook crossing)	Includes Gold Brook crossing (structures 3006-735 to 3006-732) and Roaring Brook Mayfly habitat adjacent to that crossing where full canopy height vegetation is required, as well as group of 5 unnamed streams; portions adjacent to Leuthold Preserve	2.18
Wildlife Area 5	3006-708	3006-683	Hobbstown Twp T7 BKP WKR Bradstreet Twp	35'	Includes area near Moose Pond and surrounding land owned by BPL, Whipple Brook crossing, areas adjacent to Leuthold Preserve, and unnamed stream crossing where topography may allow crossing without taller poles (structures 3006-708 to 3006-707)	4.87
Wildlife Area 6	3006-635	3006-633	Johnson Mtn Twp	Full canopy height	Mountain Brook crossing, includes Roaring Brook Mayfly habitat	0.38
Wildlife Area 7	3006-598	3006-597	Johnson Mtn Twp	35'	Cold Stream crossing; adjacent to Cold Stream Forest Tract	0.23
Wildlife Area 8	3006-589	3006-588	Johnson Mtn Twp	35'	Unnamed stream crossing where 35-foot vegetation likely can be maintained without taller poles	0.20
Wildlife Area 9	3006-576	3006-563	West Forks	35'	Includes Tomhegan Stream crossing and adjacent to Cold Stream Forest Tract	2.21
Wildlife Area 10	3006-542	3006-541	Moxie Gore	35'	Moxie Stream crossing where 35-foot vegetation likely can be maintained without taller poles	0.19

Area Name	From Structure	To Structure	Location	Min. Veg Height	Notes	Approximate Length (miles)
Wildlife Area 11	Eastern edge of clearing for the HDD Termination Station in West Forks	Western edge of clearing for the HDD Termination Station in Moxie Gore	West Forks Moxie Gore	Full canopy height	Upper Kennebec River crossing; deer travel corridors 9 and 10	0.56
Wildlife Area 12						
	3006-548		Moxie Gore	25'-35'	Vegetation managed for deer travel in Upper Kennebec River DWA; corridors 7 and 8	0.23
	3006-543		Moxie Gore	25'-35'	Vegetation managed for deer travel in Upper Kennebec River DWA; corridors 5 and 6	0.18
	3006-542		Moxie Gore	25'-35'	Vegetation managed for deer travel in Upper Kennebec River DWA; corridors 3 and 4	0.09
	3006-541		Moxie Gore	25'-35'	Vegetation managed for deer travel in Upper Kennebec River DWA; corridors 1 and 2	0.1

Total distance along the Segment 1 corridor with taller vegetation is approximately14.08 mile.

Tapered Vegetation

Tapered vegetation is required along the entire Segment 1 corridor, except where full canopy height vegetation, vegetation with a minimum height of 35 feet, or taller vegetation managed for deer travel corridors is required. In Wildlife Area 12 taller vegetation is required for deer travel corridors 1 through 8. Within this wildlife area, tapering is required along the transmission line corridor in the sections outside the deer travel corridors. For example, the section of the transmission line corridor between structures 3006-542 and 3006-543 that is not within a deer travel corridor must be tapered.

"Tapering" refers to a form of vegetation management along the transmission line corridor where increasingly taller vegetation is allowed to grow as the distance from the wire zone increases. Along Segment 1 where tapering is required, the transmission line includes two conductors running parallel to each other and separated by 24 feet. A shield wire runs over each conductor. The wire zone is the 54-foot wide area that runs along the center of the 150-foot wide corridor and includes the 24-foot wide area below and between the two conductors, plus 15 feet on each side of the set of conductors (15 ft. + 24 ft. + 15 ft. = 54 ft.).

In a tapered corridor, within this 54-foot wide wire zone all woody vegetation will be cut to ground level during construction. During maintenance of this portion of the corridor non-capable species are allowed to grow. (Capable species includes vegetation capable of growing tall enough to reach up, into the conductor safety zone). Within a tapered corridor, the result is that within the 54-foot wide wire zone vegetation that is approximately 10 feet tall regenerates so that the wire zone primarily consists of native, scrub-shrub habitat with non-capable species. (Without tapering, the corridor would be cleared and maintained as scrub-shrub habitat across the entire 150-foot width.)

In a tapered corridor, the area outside the wire zone will be selectively cut during construction to create a taper with vegetation approximately 15 feet tall near the wire zone and increasing to approximately 35 feet tall near the edge of the 150-foot wide corridor. The first taper includes the areas within 16 feet of either side of the wire zone, within which vegetation 15 feet tall and under, including capable species, will be maintained. The second taper includes the next 16 feet on either side of the corridor, within which taller vegetation up to 25 feet tall will be maintained. The third and final taper includes the next 16 feet on either side of the corridor, within which even taller vegetation up to 35 feet tall will be maintained.

As vegetation is maintained within a tapered corridor, any trees that exceed the height for the taper they are within or are anticipated to exceed the height before the next scheduled maintenance cycle, will be selected and cut at ground level. Vegetation maintenance within Segment 1 will be on a two- to three-year cycle and may not exceed a three-year cycle within any particular area within this segment without prior approval from the Department. Any trees that are cut will only be removed if leaving them will cause a violation of the Maine Slash Law or create a fire or safety hazard.

The overall result is that a cross section of a 150-foot wide tapered corridor breaks down into the following components:

16' 3rd taper + 16' 2nd taper + 16' 1st taper + 54' wire zone + 16' 1st taper + 16' 2nd taper + 16' 3rd taper = 150' wide corridor. The approximate maximum vegetation height of each taper is:

- 1st taper: 15-foot vegetation
- 2nd taper: 25-foot vegetation
- 3rd taper: 35-foot vegetation

How the vegetation within the tapered areas along Segment 1 is managed will influence the environmental benefit of this form of mitigation. Reasonable steps will be taken to manage the vegetation to ensure tapering minimizes the environmental impact of the corridor to the greatest extent practicable, including reasonable efforts to avoid the growth of even-aged stands within each taper.

Access roads and structure preparation and installation areas will be cleared of all capable and non-capable species and maintained as scrub-shrub habitat to allow for post-construction maintenance, repair, and/or emergency access during operation of the line. Soil disturbance and grading will be minimized through careful planning of temporary access ways. When the temporary access ways are removed, the disturbed areas will be restored to their pre-construction grade and allowed to revegetate. Except for the areas immediately around the base of each transmission line structure, the full width and length of the transmission corridor will remain vegetated following construction of the Project.

Riparian Filter Areas

Unless more restrictive requirements apply,[45] within 100 feet of all perennial streams in Segment 1, all coldwater fisheries streams in other segments as identified in Appendix E, all streams containing threatened or endangered species, and all Outstanding River Segments; and within 75 feet of all other streams, a riparian filter area will be maintained. Riparian filter areas will be established and maintained in the following manner:

- The boundary of each riparian filter area will have unique flagging installed to distinguish between the applicable 75-foot or 100-foot filter area prior to clearing. Flagging will be maintained throughout construction.
- Foliar herbicides will be prohibited within the riparian filter area,[46] and all refueling/maintenance of equipment will be excluded from the filter area unless it occurs on an existing paved road or if secondary containment is used with oversight from an environmental inspector.
- All stream crossings by heavy equipment will be performed through the installation of equipment spans with no in-stream disturbances. Streams will not be forded by heavy equipment.
- Initial tree clearing will be performed during frozen ground conditions whenever practicable, and if not practicable, the recommendations of the environmental inspector

[45] More restrictive requirements include, but are not limited to, requirements to maintain taller vegetation within the corridor such as provided for in Appendix C, Table C-1.
[46] Additionally, no herbicide will be used in the Segment 1 corridor.

will be followed regarding the appropriate techniques to minimize disturbance, such as the use of selectively placed travel lanes within the riparian filter area. Transmission line structures will not be placed within the riparian filter area, unless specifically authorized by the Department and accompanied by a site-specific erosion control plan. No structures will be placed within 25 feet of any stream regardless of its classification.

- Within that portion of the appropriate riparian filter area that is within the wire zone (i.e., within 15 feet, horizontally, of any conductor), all woody vegetation over 10 feet in height, whether capable or non-capable, will be cut back to ground level and resulting slash will be managed in accordance with Maine's Slash Law. No other vegetation, other than dead or hazard trees, will be removed. Within the riparian filter area and outside of the wire zone, non-capable species may be allowed to exceed 10 feet in height unless it is determined that they may encroach into the conductor safety zone prior to the next maintenance cycle. Vegetation maintenance within Segment 1 will be on a two- to three-year cycle and must not exceed a three-year cycle within any particular area within this segment, without prior approval from the Department. Vegetation maintenance within other segments will be on an approximately four-year cycle.
- Removal of capable species, dead or hazard trees within the appropriate riparian filter area will typically be accomplished by hand-cutting. Use of mechanized harvesting equipment is allowed if supported by construction matting or during frozen conditions in a manner (i.e., use of travel lanes and reach-in techniques) that preserves non-capable vegetation less than 10 feet in height to the greatest extent practicable; within the wire zone, all woody vegetation may be cut to ground level.
- Any construction access roads that must cross streams or brooks must be designed, constructed, and maintained to minimize erosion and sedimentation.

Appendix D
Sound Level Requirements

Table D-1
New Equipment Sound Level Requirements

	Sound Level Requirement	Source
Merrill Road Converter Station		
Reactor/Valve Building (1) Transformers (4) Radiators (10)	66 dBA (SPL) at 3 feet 90 dBA (SWL) per transformer 80 dBA (SWL) per radiator	Site Law Application, Table 5-8
Larrabee Road Substation		
New Autotransformer (3)	82 dBA (SPL) at 3 feet	Site Law Application, Table 5-11
Fickett Road Substation		
Transformer (2) Air Core Reactor – D1 (3) Air Core Reactor – CA1 (3) Capacitor Bank (3) Dry Air Cooler (5) HVAC Fans (2)	91 dBA (SWL) 74 dBA (SWL) 64 dBA (SWL) 71 dBA (SWL) 80 dBA (SWL) 80 dBA (SWL)	Site Law Application, Table 5-15
Coopers Mills Substation		
Transformer (2) Air Core Reactor – D1 (3) Air Core Reactor – CA1 (3) Capacitor Bank (3) Dry Air Cooler (5) HVAC Fans (2)	91 dBA (SWL) 74 dBA (SWL) 64 dBA (SWL) 71 dBA (SWL) 80 dBA (SWL) 80 dBA (SWL)	Site Law Application, Table 5-19
Raven Farm Substation		
Transformer	75 dBA at 6 feet	Raven Farm Substation Sound Study (5/17/18), Table 6-1

Notes:
SPL – Sound Pressure Level, averaged along acoustical envelope
SWL – Sound Power Level

Appendix E
Waterbody Crossing Table

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Beattie Twp	ISTR-01-02	Trib. to West Branch Mill Brook	2	INT	N	Y	439	Y	3
1	Skinner Twp	ISTR-08-01	Trib. to West Branch Moose River	4	INT	N	Y	382	Y	20, 21
1	Appleton Twp	WB-16-101	Water body assoc. with trib. to Gold Brook	30	Open Water	N	Y	131	N	3 7
1	Bradstreet Twp	ISTR-24-01	Trib. to Bitter Brook	2	INT	N	N/A	435	Y	5 6
1	Johnson Mountain Twp	ISTR-39-01	Trib. to Cold Stream	4	INT	N	Y	220	N	8 9
1	Johnson Mountain Twp	ISTR-39-03	Trib. to East Branch Salmon Stream	4	INT	N	N/A	274	N	8 8
1	Johnson Mountain Twp	ISTR-42-09	Trib. to Tomhegan Stream	5	INT	N	Y	133	N	9 4
1	West Forks Plt	ISTR-45-02-02	Trib. to Tomhegan Stream	3	INT	N	Y	317	N	10 0
1	West Forks Plt	ISTR-46-05	Trib. to Cold Stream	4	INT	N	Y	43	N	10 3
1	West Forks Plt	ISTR-48-02	Trib. To Kennebec River	3	INT	N	N/A	89	N	108, 109
1	Moxie Gore	ISTR-49-01	Trib. to Moxie Stream	5	INT	N	Y	375	N	11 1
1	Moxie Gore	ISTR-51-07	Trib. to Moxie Stream	2	INT	N	N/A	269	N	11 4
1	Moxie Gore	ISTR-51-15	Trib. to Moxie Stream	1.5	INT	N	N/A	353	N	11 5

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Moxie Gore	ISTR-51-16	Trib. to Moxie Stream	3	INT	N	N/A	320	N	11 5
1	The Forks Plt	ISTR-52-07	Trib. to Moxie Stream	3	INT	N	N/A	394	N	11 6
1	Moxie Gore/The Forks Plt	ISTR-52-08	Trib. to Moxie Stream	1	INT	N	N/A	227	N	11 6
1	The Forks Plt	ISTR-52-12	Trib. to Moxie Stream	2	INT	N	N/A	258	N	116, 117
1	Appleton Twp	ISTR-RR-11-01	Trib. to Bog Brook	5	INT	N	Y	517	N	2 7
1	Appleton Twp/Skinner Twp	ISTR-RR-11-3-RR1	Trib. to Bog Brook	3	INT	N	Y	328	N	2 7
1	Appleton Twp/Skinner Twp	ISTR-RR1-1	Trib. to Bog Brook	5	INT	N	Y	348	N	2 7
1	Appleton Twp	ISTR-RR1-2	Trib. to Bog Brook	2	INT	N	Y	230	N	2 7
1	Beattie Twp	PSTR-00-10	Trib. to West Branch Mill Brook	3	PER	N	Y	21	N	3
1	Skinner Twp	PSTR-09-11	South Branch Moose River	46	PER	N	Y	524	N	2 1
1	Appleton Twp	PSTR-11-07-RR1	Trib. to Bog Brook	6	PER	N	Y	378	N	2 7
1	Appleton Twp	PSTR-11-08-RR1	Trib. to Bog Brook	4	PER	N	Y	353	N	2 7
1	Appleton Twp	PSTR-15-06	Gold Brook	25	PER	N	Y	187	N	3 6
1	Appleton Twp	PSTR-17R-03	Baker Stream	12	PER	N	Y	159	N	3 9
1	T5 R7 BKP WKR	PSTR-23-02	Whipple Brook	60	PER	N	Y	128	N	5 2
1	Bradstreet Twp	PSTR-24-03	Bitter Brook	45	PER	N	Y	462	N	5 5

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Johnson Mountain Twp	PSTR-39-02	Trib. to Cold Stream	2	PER	N	Y	128	N	88, 89
1	Appleton Twp	PSTR-RR1-3	Trib. to Bog Brook	4	PER	N	Y	389	Y	27
1	West Forks Plt/Moxie Gore	PSTR-48-03	Kennebec River	300	PER	N	Y	399	N	109
1	Moxie Gore	STRM-50-01	Moxie Stream	80	PER	N	Y	401	N	113
1	Moxie Gore	ISTR-50-02	Trib. to Moxie Stream	1.5	INT	N	Y	37	N	113
1	Moxie Gore	ISTR-51-01	Trib. to Moxie Stream	80	INT	N	Y	331	N	113
1	Moxie Gore	ISTR-51-02	Trib. to Moxie Stream	5	INT	N	Y	279	N	113
1	Moxie Gore	ISTR-51-03	Trib. to Moxie Stream	4	INT	N	Y	292	N	113
1	Moxie Gore	ISTR-51-04	Trib. to Moxie Stream	2	INT	N	Y	325	N	113
1	Moxie Gore	ISTR-51-05	Trib. to Moxie Stream	8	INT	N	Y	361	N	113
1	Moxie Gore	ISTR-51-06	Trib. to Moxie Stream	3	INT	N	Y	383	N	113, 114
1	Moxie Gore	ISTR-51-08	Trib. to Moxie Stream	1.5	INT	N	Y	244	N	114, 115
1	Moxie Gore	ISTR-51-09	Trib. to Moxie Stream	3	INT	N	Y	267	N	114, 115
1	Moxie Gore	ISTR-51-10	Trib. to Moxie Stream	6	INT	N	Y	312	N	114, 115

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Moxie Gore	ISTR-51-11	Trib. to Moxie Stream	4	INT	N	Y	307	N	114, 115
1	Moxie Gore	ISTR-51-12	Trib. to Moxie Stream	3	INT	N	Y	522	N	114, 115
1	Moxie Gore	ISTR-51-13	Trib. to Moxie Stream	6	INT	N	Y	333	N	115
1	Moxie Gore	ISTR-51-14	Trib. to Moxie Stream	5	INT	N	Y	3	N	115
1	Moxie Gore	ISTR-51-17	Trib. to Moxie Stream	2	INT	N	Y	235	N	115
1	Moxie Gore	ISTR-51-18	Trib. to Moxie Stream	2	INT	N	Y	226	N	115
1	Moxie Gore	ISTR-51-19	Trib. to Moxie Stream	2	INT	N	Y	251	N	115
1	Moxie Gore	ISTR-51-20	Trib. to Moxie Stream	1.5	INT	N	Y	215	N	115
1	Moxie Gore	ISTR-51-21	Trib. to Moxie Stream	3	INT	N	Y	416	N	115
1	Moxie Gore	ISTR-52-01	Trib. to Moxie Stream	5	INT	N	Y	337	N	115, 116
1	Moxie Gore	ISTR-52-02	Trib. to Moxie Stream	3	INT	N	Y	317	N	115, 116
1	Moxie Gore	ISTR-52-03	Trib. to Moxie Stream	3	INT	N	Y	295	N	115, 116
1	Moxie Gore	ISTR-52-04	Trib. to Moxie Stream	5	INT	N	Y	304	N	116
1	Moxie Gore	ISTR-52-05	Trib. to Moxie Stream	5	INT	N	Y	299	N	116

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Moxie Gore	ISTR-52-06	Trib. to Moxie Stream	2	INT	N	Y	379	N	116
1	The Forks Plt	ISTR-52-09	Trib. to Moxie Stream	2	INT	N	Y	192	N	116
1	The Forks Plt	ISTR-52-10	Trib. to Moxie Stream	3	INT	N	Y	62	N	116, 117
1	The Forks Plt	ISTR-52-11	Trib. to Moxie Stream	4	INT	N	Y	195	N	116, 117
1	The Forks Plt	ISTR-52-13	Trib. to Moxie Stream	8	INT	N	Y	518	N	117
1	The Forks Plt	ISTR-52-14	Trib. to Moxie Stream	6	INT	N	Y	419	N	117
1	The Forks Plt	ISTR-52-15	Trib. to Moxie Stream	5	INT	N	Y	486	N	117
1	The Forks Plt	ISTR-52-16	Trib. to Moxie Stream	2	INT	N	Y	288	N	117
1	The Forks Plt	ISTR-52-17	Trib. to Moxie Stream	2	INT	N	Y	399	N	117
1	Beattie Twp	ISTR-00-07	Trib. to West Branch Mill Brook	1	INT	N	Y	408	N	1
1	Beattie Twp	ISTR-01-11	Trib. to Mill Brook	1	INT	N	Y	644	N	5
1	Skinner Twp	ISTR-05-05	Trib. to Smart Brook	1	INT	N	Y	103	N	13
1	Skinner Twp	ISTR-10-04	Trib. to Bog Brook	1	INT	N	Y	108	N	25
1	Appleton Twp	ISTR-12-02	Trib. to Bog Brook	1	INT	N	Y	510	N	29
1	Appleton Twp	ISTR-12-12	Trib. to Bog Brook	1	INT	N	Y	348	N	30

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Appleton Twp	ISTR-14-11	Trib. to Gold Brook	1	INT	N	Y	293	N	34
1	Johnson Mountain Twp	ISTR-41-02	Trib. to Tomhegan Stream	1	INT	N	Y	484	Y	94
1	Johnson Mountain Twp	ISTR-41-04	Trib. to Cold Stream	2	PER	N	Y	342	N	92, 93
1	Beattie Twp	ISTR-01-12	Trib. to Mill Brook	1.5	INT	N	Y	668	N	5
1	Beattie Twp	ISTR-02-09	Trib. to Number One Brook	1.5	INT	N	Y	464	N	7
1	Skinner Twp	ISTR-05-09	Trib. to Smart Brook	1.5	INT	N	Y	99	N	12
1	Skinner Twp	ISTR-06-04	Trib. to Smart Brook	1.5	INT	N	Y	52	N	16
1	Appleton Twp	ISTR-12-09	Trib. to Bog Brook	1.5	INT	N	Y	368	N	28
1	Appleton Twp	ISTR-12-11	Trib. to Bog Brook	1.5	INT	N	Y	321	N	30
1	Appleton Twp	ISTR-14-37	Trib. to Barrett Brook	1.5	INT	N	Y	416	N	33
1	Johnson Mountain Twp	ISTR-33-02	Trib. to MountainBrook	1.5	INT	N	N/A	214	N	76
1	Johnson Mountain Twp	ISTR-36-05	Trib. to Salmon Stream	1.5	INT	N	N/A	393	N	83
1	Johnson Mountain Twp	ISTR-38-11	Trib. to East Branch Salmon Stream	1.5	INT	N	N/A	144	N	85, 86
1	Johnson Mountain Twp	ISTR-38-13	Trib. to East Branch Salmon Stream	1.5	INT	N	N/A	206	N	85, 86
1	Johnson Mountain Twp	ISTR-38-14	Trib. to East Branch Salmon Stream	1.5	INT	N	N/A	82	N	85, 86

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Beattie Twp	ISTR-02-13	Trib. to Number One Brook	2	INT	N	Y	115	N	7
1	Skinner Twp	ISTR-05-03	Trib. to Smart Brook	2	INT	N	Y	40	Y	13
1	Skinner Twp	ISTR-05-04	Trib. to Smart Brook	2	INT	N	Y	58	N	13
1	Skinner Twp	ISTR-05-10	Trib. to Smart Brook	2	INT	N	Y	336	N	12
1	Skinner Twp	ISTR-06-01	Trib. to Smart Brook	2	INT	N	Y	331	N	16
1	Skinner Twp	ISTR-06-02	Trib. to Smart Brook	2	INT	N	Y	361	N	16
1	Skinner Twp	ISTR-06-03	Trib. to Smart Brook	2	INT	N	Y	249	N	16
1	Skinner Twp	ISTR-06-07	Trib. to Smart Brook	2	INT	N	Y	277	Y	15, 16
1	Skinner Twp	ISTR-07-03	Trib. to West Branch Moose River	2	INT	N	Y	133	N	18
1	Skinner Twp	ISTR-07-04	Trib. to West Branch Moose River	2	INT	N	Y	365	N	18
1	Skinner Twp	ISTR-07-08	Trib. to Hay Bog Brook	2	INT	N	N/A	169	N	17
1	Skinner Twp	ISTR-09-03	Trib. to South Branch Moose River	2	INT	N	Y	549	N	22
1	Skinner Twp	ISTR-09-04	Trib. to South Branch Moose River	2	INT	N	Y	267	N	22

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Skinner Twp	ISTR-09-07	Trib. to South Branch Moose River	2	INT	N	Y	271	N	22, 23
1	Skinner Twp	ISTR-09-08	Trib. to South Branch Moose River	2	INT	N	Y	235	N	23
1	Skinner Twp	ISTR-09-09	Trib. to South Branch Moose River	2	INT	N	Y	183	N	22
1	Skinner Twp	ISTR-10-09	Trib. to Bog Brook	2	INT	N	Y	60	N	25
1	Appleton Twp	ISTR-12-01	Trib. to Bog Brook	2	INT	N	Y	451	N	29
1	Appleton Twp	ISTR-12-05	Trib. to Bog Brook	2	INT	N	Y	380	N	29, 30
1	Appleton Twp	ISTR-13-01	Trib. to Barrett Brook	2	INT	N	Y	166	N	32
1	Appleton Twp	ISTR-13-02	Trib. to Barrett Brook	2	INT	N	Y	149	N	32
1	Appleton Twp	ISTR-13-08	Trib. to Barrett Brook	2	INT	N	Y	485	N	31
1	Appleton Twp	ISTR-13-10	Trib. to Barrett Brook	2	INT	N	Y	90	N	31
1	Appleton Twp	ISTR-13-15	Trib. to Bog Brook	2	INT	N	Y	242	Y	30, 31
1	Appleton Twp	ISTR-13-16	Trib. to Bog Brook	2	INT	N	Y	257	N	30, 31
1	Appleton Twp	ISTR-14-03	Trib. to Gold Brook	2	INT	N	Y	205	N	34
1	Appleton Twp	ISTR-14-04	Trib. to Gold Brook	2	INT	N	Y	170	N	34

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest Row Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Appleton Twp	ISTR-14-05	Trib. to Gold Brook	2	INT	N	Y	284	N	34
1	Appleton Twp	ISTR-14-08	Trib. to Gold Brook	2	INT	N	Y	194	N	34
1	Appleton Twp	ISTR-14-09	Trib. to Gold Brook	2	INT	N	Y	173	N	34
1	Appleton Twp	ISTR-14-10	Trib. to Gold Brook	2	INT	N	Y	120	N	34
1	Appleton Twp	ISTR-14-23	Trib. to Barrett Brook	2	INT	N	Y	443	N	33
1	Appleton Twp	ISTR-14-27	Trib. to Barrett Brook	2	INT	N	Y	339	N	33
1	Appleton Twp	ISTR-14-45	Trib. to Barrett Brook	2	INT	N	Y	512	N	33
1	Appleton Twp	ISTR-14-46	Trib. to Barrett Brook	2	INT	N	Y	639	N	33
1	Appleton Twp	ISTR-14-51	Trib. to Barrett Brook	2	INT	N	Y	114	N	33
1	Appleton Twp	ISTR-14-62	Trib. to Barrett Brook	2	INT	N	Y	206	Y	32
1	Appleton Twp	ISTR-14-66	Trib. to Barrett Brook	2	INT	N	Y	512	N	32
1	Appleton Twp	ISTR-15-02	Trib. to Gold Brook	2	INT	N	Y	178	Y	35
1	Appleton Twp	ISTR-15-05	Trib. to Gold Brook	2	INT	N	Y	12	N	35
1	Appleton Twp	ISTR-15-09	Trib. to Gold Brook	2	INT	N	Y	223	N	36
1	Appleton Twp	ISTR-15-12	Trib. to Gold Brook	2	INT	N	Y	297	N	36
1	Appleton Twp	ISTR-15-18	Trib. to Gold Brook	2	INT	N	Y	382	N	34
1	Appleton Twp	ISTR-16-16	Trib. to Gold Brook	2	INT	N	Y	52	N	37

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Appleton Twp	ISTR-17-04	Trib. To Rock Pond	2	INT	N	N/A	424	N	40
1	Appleton Twp	ISTR-17R-05	Trib. To Rock Pond	2	INT	N	N/A	554	N	40
1	Parlin Pond Twp	ISTR-30-02	Trib. to Piel Brook	2	INT	N	Y	227	N	69
1	Johnson Mountain Twp	ISTR-35-02	Trib. to Salmon Stream	2	INT	N	N/A	423	N	80
1	Johnson Mountain Twp	ISTR-36-01	Trib. to Salmon Stream	2	INT	N	N/A	379	N	83
1	Johnson Mountain Twp	ISTR-36-04	Trib. to Salmon Stream	2	INT	N	N/A	440	N	83
1	Johnson Mountain Twp	ISTR-38-01	Trib. to East Branch Salmon Stream	2	INT	N	N/A	213	N	87
1	Johnson Mountain Twp	ISTR-38-08	Trib. to East Branch Salmon Stream	2	INT	N	N/A	131	N	86
1	Johnson Mountain Twp	ISTR-38-12	Trib. to East Branch Salmon Stream	2	INT	N	N/A	99	N	85, 86
1	Johnson Mountain Twp	ISTR-41-04	Trib. to Cold Stream	2	INT	N	Y	140	N	92, 93
1	Johnson Mountain Twp	ISTR-42-10	Trib. to Tomhegan Stream	2	INT	N	Y	124	N	94
1	Appleton Twp	ISTR-RR-11-03	Trib. to Bog Brook	2	INT	N	Y	343	N	27
1	Appleton Twp	ISTR-RR-12-01	Trib. to Bog Brook	2	INT	N	Y	174	N	27, 28
1	Bradstreet Twp	ISTR-SR-29-03	Trib. To Fourmile Brook	2	INT	N	N/A	174	N	66

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Appleton Twp	PSTR-14-28	Trib. to Barrett Brook	2	PER	N	Y	142	Y	33
1	Appleton Twp	PSTR-14-34	Trib. to Barrett Brook	2	PER	N	Y	257	N	33
1	Johnson Mountain Twp	PSTR-40-08	Trib. to Cold Stream	2	PER	N	Y	353	N	91
1	Johnson Mountain Twp	PSTR-40-09	Trib. to Cold Stream	2	PER	N	Y	300	N	91
1	Beattie Twp	ISTR-01-10	Trib. to Mill Brook	2.5	INT	N	Y	663	N	5
1	Skinner Twp	ISTR-05-08	Trib. to Smart Brook	2.5	INT	N	Y	163	N	12
1	Johnson Mountain Twp	ISTR-36-02	Trib. to Salmon Stream	2.5	INT	N	N/A	254	Y	82, 83
1	Johnson Mountain Twp	ISTR-37-01	Trib. to East Branch Salmon Stream	2.5	INT	N	N/A	223	N	84
1	Beattie Twp	ISTR-MS-02-10	Trib. to Number One Brook	2.5	INT	N	Y	272	N	7
1	Beattie Twp	PSTR-01-09	Trib. To Mill Brook	2.5	PER	N	Y	726	N	5
1	Beattie Twp	ISTR-00-01	Trib. to West Branch Mill Brook	3	INT	N	Y	402	N	1
1	Beattie Twp	ISTR-00-08	Trib. to West Branch Mill Brook	3	INT	N	Y	176	N	1
1	Beattie Twp	ISTR-02-04	Trib. to Number One Brook	3	INT	N	Y	310	N	7
1	Beattie Twp	ISTR-02-08	Trib. to Number One Brook	3	INT	N	Y	429	N	7

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Skinner Twp	ISTR-05-06	Trib. to Smart Brook	3	INT	N	Y	328	N	12, 13
1	Skinner Twp	ISTR-05-07	Trib. to Smart Brook	3	INT	N	Y	454	N	12, 13
1	Skinner Twp	ISTR-06-05	Trib. to Smart Brook	3	INT	N	Y	152	Y	16
1	Skinner Twp	ISTR-06-08	Trib. to Smart Brook	3	INT	N	Y	65	N	15
1	Skinner Twp	ISTR-07-01	Trib. to West Branch Moose River	3	INT	N	Y	73	N	18, 19
1	Skinner Twp	ISTR-07-07	Trib. to Hay Bog Brook	3	INT	N	N/A	417	N	17
1	Skinner Twp	ISTR-09-10	Trib. to South Branch Moose River	3	INT	N	Y	376	N	21, 22
1	Skinner Twp	ISTR-10-10	Trib. to Bog Brook	3	INT	N	Y	190	N	25
1	Appleton Twp	ISTR-12-04	Trib. to Bog Brook	3	INT	N	Y	408	N	29, 30
1	Appleton Twp	ISTR-14-06	Trib. to Gold Brook	3	INT	N	Y	287	N	34
1	Appleton Twp	ISTR-14-67	Trib. to Barrett Brook	3	INT	N	Y	361	Y	32
1	Appleton Twp	ISTR-15-10	Trib. to Gold Brook	3	INT	N	Y	257	N	36
1	Appleton Twp	PSTR-16-01	Trib. to Baker Stream	25	INT	N	Y	285	N	37
1	Appleton Twp	ISTR-17-02	Trib. to Baker Stream	3	INT	N	N/A	20	Y	39
1	T5 R7 BKP WKR	ISTR-18-08	Trib. to Fish Pond	3	INT	N	N/A	429	N	41, 42
1	T5 R7 BKP WKR/Hobbstown Twp	ISTR-18-11	Trib. to Fish Pond	3	INT	N	N/A	405	N	42

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Bradstreet Twp	ISTR-26-03	Trib. to Horse Brook	3	INT	N	N/A	60	N	60
1	Bradstreet Twp	ISTR-26-04	Trib. to Horse Brook	3	INT	N	N/A	45	N	60
1	Johnson Mountain Twp	ISTR-38-03	Trib. to East Branch Salmon Stream	3	INT	N	N/A	528	N	87
1	Johnson Mountain Twp	ISTR-38-07	East Branch Salmon Stream	3	INT	N	N/A	115	N	86, 87
1	Johnson Mountain Twp	ISTR-42-08	Trib. to Tomhegan Stream	3	INT	N	Y	221	N	94
1	West Forks Plt	ISTR-44-08	Tomhegan Stream	3	INT	N	Y	231	N	100
1	West Forks Plt	ISTR-45-04	Trib. to Tomhegan Stream	3	INT	N	Y	311	N	100, 101
1	Beattie Twp	ISTR-MS-02-08	Trib. to Number One Brook	3	INT	N	Y	359	N	7
1	Beattie Twp	ISTR-MS-02-09	Trib. to Number One Brook	3	INT	N	Y	359	N	7
1	Skinner Twp	ISTR-RR-11-04	Trib. to Bog Brook	3	INT	N	Y	8	N	26
1	Beattie Twp	PSTR-00-06	Trib. to West Branch Mill Brook	3	PER	N	Y	398	N	1
1	Appleton Twp	PSTR-16-10	Trib. to Gold Brook	3	PER	N	Y	313	N	37
1	Appleton Twp	PSTR-16-101	Trib. to Gold Brook	3	PER	N	Y	226	N	37
1	T5 R7 BKP WKR	PSTR-18-15	Trib. to Fish Pond	3	PER	N	Y	198	N	41

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Hobbstown Twp	PSTR-20-01	Trib. to Little Spencer Stream	3	PER	N	Y	443	N	46
1	T5 R7 BKP WKR	PSTR-23-01	Trib. to Whipple Brook	3	PER	N	Y	258	N	52
1	Bradstreet Twp	PSTR-26-05	Trib. to Horse Brook	3	PER	N	Y	298	N	60
1	West Forks Plt	PSTR-44-07	Tomhegan Stream	3	PER	N	Y	37	N	100
1	Beattie Twp	ISTR-MS-02-11	Trib. to Number One Brook	3.5	INT	N	Y	512	N	7
1	Beattie Twp	ISTR-02-01	Trib. to Number One Brook	4	INT	N	Y	505	N	7
1	Skinner Twp	ISTR-08-02	Trib. to West Branch Moose River	4	INT	N	Y	421	N	20, 21
1	Skinner Twp	ISTR-09-05	Trib. to South Branch Moose River	4	INT	N	Y	199	N	22, 23
1	Appleton Twp	ISTR-12-06	Trib. to Bog Brook	4	INT	N	Y	409	N	29, 30
1	Appleton Twp	ISTR-14-01	Trib. to Gold Brook	4	INT	N	Y	328	N	34
1	Appleton Twp	ISTR-16-04	Trib. to Gold Brook	4	INT	N	Y	465	N	37
1	Appleton Twp	ISTR-16-05	Trib. to Gold Brook	4	INT	N	Y	182	N	37
1	T5 R7 BKP WKR	ISTR-18-16	Trib. to Fish Pond	4	INT	N	Y	48	N	41
1	Johnson Mountain Twp	PSTR-31-02	Trib. to Piel Brook	3	INT	N	Y	214	N	68, 69

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing[8] (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Johnson Mountain Twp	ISTR-38-05	Trib. to East Branch Salmon Stream	4	INT	N	N/A	72	150	Y	86, 87
1	Johnson Mountain Twp	ISTR-41-05	Trib. to Cold Stream	4	INT	N	Y	466	150	N	93
1	Johnson Mountain Twp	ISTR-42-02	Trib. to Tomhegan Stream	4	INT	N	Y	279	150	N	96
1	Johnson Mountain Twp	ISTR-42-13	Trib. To Little Wilson Hill Pond	4	INT	N	N/A	329	150	Y	94
1	West Forks Plt	ISTR-45-02	Trib. to Tomhegan Stream	4	INT	N	Y	281	150	N	100
1	Bradstreet Twp	ISTR-SRD1-28-03	Fourmile Brook	4	INT	N	N/A	5	150	Y	63
1	Skinner Twp	PSTR-05-02	Smart Brook	4	PER	N	Y	8	150	N	13
1	Skinner Twp	PSTR-09-06	Trib. to South Branch Moose River	4	PER	N	Y	100	150	N	22, 23
1	Appleton Twp	PSTR-14-30	Trib. to Barrett Brook	4	PER	N	Y	185	150	N	33
1	Appleton Twp	PSTR-14-36	Trib. to Barrett Brook	4	PER	N	Y	329	150	N	33
1	Appleton Twp	PSTR-14-68	Trib. to Barrett Brook	4	PER	N	Y	109	150	Y	32
1	Appleton Twp	PSTR-15-04	Trib. to Gold Brook	4	PER	N	Y	93	150	N	35, 36
1	Appleton Twp	PSTR-16-14	Trib. to Gold Brook	4	PER	N	Y	176	150	N	37
1	T5 R7 BKP WKR/Hobbstown Twp	PSTR-18-06	Trib. to Fish Pond	4	PER	N	Y	527	150	N	42

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[8] (Y/N)	Natural Resource Map/Sheet Number
1	Johnson Mountain Twp	PSTR-38-02	Trib. to East Branch Salmon Stream	4	PER	N	Y	441	N	87
1	Johnson Mountain Twp	PSTR-38-15	Trib. to East Branch Salmon Stream	4	PER	N	Y	146	N	85
1	West Forks Plt	PSTR-44-09	Tomhegan Stream	4	PER	N	Y	440	N	100
1	Bradstreet Twp	PSTR-SR-29-05	Trib. to Piel Brook	4	PER	N	Y	213	N	66, 67
1	Johnson Mountain Twp	ISTR-31-01	Trib. to Piel Brook	5	INT	N	Y	388	N	68
1	Johnson Mountain Twp	ISTR-32-01	Trib. to Piel Brook	5	INT	N	Y	198	N	74
1	Johnson Mountain Twp	ISTR-32-02	Trib. to Piel Brook	5	INT	N	Y	163	N	74
1	Johnson Mountain Twp	ISTR-42-07	Trib. to Tomhegan Stream	5	INT	N	Y	177	N	94
1	Johnson Mountain Twp	ISTR-EM-33-01	Trib. To Twomile Brook	5	INT	N	N/A	170	N	75
1	Johnson Mountain Twp	ISTR-EM-34-03	Trib. To Mountain	5	INT	N	N/A	58	N	77
1	Johnson Mountain Twp	ISTR-EM-34-05	Trib. To Mountain	5	INT	N	N/A	142	N	77
1	Appleton Twp	PSTR-14-24	Trib. to Barrett Brook	5	PER	N	Y	255	Y	33
1	Appleton Twp	PSTR-14-47	Trib. to Barrett Brook	5	PER	N	Y	509	N	33
1	T5 R7 BKP WKR/Hobbstown Twp	PSTR-18-05	Trib. to Fish Pond	5	PER	N	Y	421	Y	42

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	T5 R7 BKP WKR	PSTR-21-02	Trib. to Little Spencer Stream	5	PER	N	Y	454	N	48, 49
1	T5 R7 BKP WKR	PSTR-21-2A	Trib. to Little Spencer Stream	5	PER	N	Y	544	N	48, 49
1	Johnson Mountain Twp	PSTR-40-07	Trib. to Cold Stream	5	PER	N	Y	268	N	91, 92
1	West Forks Plt	PSTR-44-05	Tomhegan Stream	5	PER	N	Y	278	N	100
1	West Forks Plt	PSTR-44-06	Tomhegan Stream	5	PER	N	Y	167	N	100
1	West Forks Plt	PSTR-45-03	Trib. to Tomhegan Stream	5	PER	N	Y	7	Y	100
1	Bradstreet Twp	PSTR-SRD1-02	Trib. to Piel Brook	5	PER	N	Y	274	N	66
1	West Forks Plt	PSTR-45-3	Tomhegan Stream	6	PER	N	Y	249	N	100
1	Skinner Twp	PSTR-05-01	Smart Brook	6	PER	N	N/A	80	N	13
1	Skinner Twp	PSTR-07-02	Trib. to West Branch Moose River	6	PER	N	Y	54	N	18
1	Skinner Twp	PSTR-08-04	Trib. to West Branch Moose River	6	PER	N	Y	27	Y	20
1	Appleton Twp	PSTR-11-07	Trib. to Bog Brook	6	PER	N	Y	583	N	27
1	Appleton Twp	PSTR-14-49	Trib. to Barrett Brook	6	PER	N	Y	458	N	33
1	Johnson Mountain Twp	PSTR-38-06	Trib. to East Branch Salmon Stream	6	PER	N	Y	8	Y	86, 87

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Johnson Mountain Twp	PSTR-38-10	Trib. to East Branch Salmon Stream	6	PER	N	Y	41	N	86
1	Merrill Strip Twp/Beattie Twp	PSTR-LT-1	Trib. to Number One Brook	6	PER	N	Y	190	Y	10
1	Appleton Twp	PSTR-14-33	Trib. to Barrett Brook	7	PER	N	Y	298	N	33
1	Bradstreet Twp	ISTR-27-02	Trib. To Fourmile Brook	8	INT	N	N/A	233	N	61, 62
1	T5 R7 BKP WKR	PSTR-18-14	Trib. to Fish Pond	8	PER	N	Y	123	N	41
1	Johnson Mountain Twp	PSTR-31-06	Trib. to Piel Brook	8	PER	N	Y	100	Y	71
1	Bradstreet Twp	PSTR-SRD1-28-04	Fourmile Brook	8	PER	N	Y	17	N	63
1	Johnson Mountain Twp	PSTR-EM-34-01	Mountain Brook	9	PER	N	Y	31	N	76
1	Appleton Twp	PSTR-12-07	Trib. to Bog Brook	10	PER	N	Y	264	N	28
1	Appleton Twp	PSTR-16-07	Trib. to Gold Brook	10	PER	N	Y	178	N	37
1	Bradstreet Twp	PSTR-26-01	Trib. to Moose River	10	PER	N	Y	326	N	59
1	Johnson Mountain Twp	PSTR-31-SRD2-01	Piel Brook	0	PER	N	Y	239	N	70
1	West Forks Plt	PSTR-45-01	Trib. to Cold stream	10	PER	N	Y	150	N	102
1	West Forks Plt	PSTR-46-04	Trib. To Kennebec River	10	PER	N	Y	201	N	104
1	Appleton Twp	PSTR-11-07-RR1	Trib. to Bog Brook	6	PER	N	Y	583	N	27

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Johnson Mountain Twp	PSTR-SR-31-01	Piel Brook	10	PER	N	Y	219	N	70
1	Bradstreet Twp	PSTR-SRD1-28-01	Fourmile Brook	10	PER	N	Y	6	N	63
1	T5 R7 BKP WKR/Hobbstown Twp	PSTR-21-03	Trib. to Little Spencer Stream	12	PER	N	Y	221	N	48
1	Bradstreet Twp	ISTR-30-01	Piel Brook	1	PER	N	Y	261	N	
1	Johnson Mountain Twp	ISTR-35-02	Trib. to Salmon Stream	2	PER	N	N/A	524	N	80
1	Appleton Twp	ISTR-15-07	Gold Brook	15	INT	N	Y	248	N	36
1	Beattie Twp	PSTR-01-05	Mill Brook	15	PER	N	Y	612	N	4
1	Skinner Twp	PSTR-11-01	Trib. to Bog Brook	15	PER	N	Y	125	N	26
1	Appleton Twp	PSTR-17R-04	Baker Stream	15	PER	N	Y	390	N	39
1	West Forks Plt	PSTR-44-01 (TOB)	Tomhegan Stream	15	PER	N	Y	414	N	100
1	West Forks Plt	PSTR-44-01 EAST	Tomhegan Stream	15	PER	N	Y	290	N	100
1	West Forks Plt	PSTR-44-01 WEST	Tomhegan Stream	15	PER	N	Y	301	N	99, 100
1	West Forks Plt	PSTR-44-02	Tomhegan Stream	15	PER	N	Y	355	N	100
1	West Forks Plt	PSTR-44-04	Tomhegan Stream	15	PER	N	Y	228	N	100
1	Johnson Mountain Twp	PSTR-33-01	Mountain Brook	18	PER	N	Y	33	N	76
1	Appleton Twp	PSTR-17-07	Baker Stream	20	PER	N	Y	354	N	39
1	Appleton Twp	PSTR-16-01	Gold Brook	25	PER	N	Y	32	N	37
1	T5 R7 BKP WKR/Hobbstown Twp	PSTR-21-04	Little Spencer Stream	25	PER	N	Y	358	N	48

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
1	Johnson Mountain Twp	PSTR-40-06	Cold Stream	25	PER	N	Y	391	N	91
1	Bradstreet Twp	PSTR-25-01	Horse Brook	30	PER	N	Y	119	Y	58
1	Johnson Mountain Twp	PSTR-42-03 (TOB)	Trib. to Tomhegan Stream	40	PER	N	Y	121	N	95
2	Bald Mountain Twp T2 R3	ISTR-60-08	Trib. to Joes Hole	2	INT	N	N/A	212	N	133
2	Moscow	ISTR-71-101	Trib. to Austin Stream	1	INT	N	N/A	120	N	158
2	Moscow	ISTR-72-101	Trib. to Chase Stream	3	INT	N	N/A	228	N	159, 160
2	Moscow	ISTR-72-102	Trib. to Chase Stream	3	INT	N	N/A	405	N	159
2	Moscow	ISTR-72-106	Trib. to Chase Stream	2	INT	N	N/A	209	N	160
2	Moscow	ISTR-73-02	Mink Brook	1.5	INT	N	Y	416	N	161
2	Moscow	ISTR-73-03	Mink Brook	2	INT	N	Y	574	N	
2	Moscow	ISTR-73-05	Trib. to Mink Brook	2	INT	N	Y	15	Y	161, 162
2	Moscow	ISTR-73-06	Trib. to Mink Brook	3	INT	N	N/A	20	Y	162
2	Moscow	ISTR-73-07	Mink Brook	3	INT	N	Y	341	N	
2	Moscow	ISTR-73-08	Trib. to Austin Stream	2	INT	N	N/A	461	N	163
2	Bald Mountain Twp T2 R3	POND-59-05	Joes Hole	100	Open Water	N	Y	118	N	131, 132
2	Bald Mountain Twp T2 R3	POND-60-01	Joes Hole	180	Open Water	N	Y	109	N	133, 134
2	The Forks Plt	ISTR-54-01	Trib. to Moxie Pond	9	PER	N	Y	397	N	120

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
2	Moscow	PSTR-71-102	Trib. to Austin Stream	4	PER	N	Y	378	N	157
2	Moscow	PSTR-72-103	Chase Stream	30	PER	N	Y	1	Y	159, 160
2	Moscow	PSTR-72-104	Trib. to Chase Stream	3.5	PER	N	Y	40	N	159, 160
2	Moscow	PSTR-72-105	Trib. to Chase Stream	2	PER	N	Y	124	N	159, 160
2	Moscow	ISTR-73-01	Mink Brook	2	PER	N	Y	139	N	
2	Moscow	ISTR-73-04	Trib. to Mink Brook	2	PER	N	Y	21	N	
2	Moscow	PSTR-74-01	Trib. to Kennebec River	2	PER	N	Y	172	N	164, 165
2	Bald Mountain Twp T2 R3	ISTR-61-05	Trib. to Wild Brook	1	INT	N	N/A	295	N	136
2	The Forks Plt	ISTR-55-03	Trib. to Moxie Pond	1.5	INT	N	N/A	297	N	123
2	Moscow	ESTR-66-12	Trib. to Heald Stream	2	INT	N	N/A	520	N	148, 149
2	The Forks Plt	ISTR-53-01	Trib. to Moxie Pond	2	INT	N	N/A	59	N	119
2	The Forks Plt	ISTR-55-02	Trib. to Moxie Pond	2	INT	N	N/A	274	N	123
2	The Forks Plt	ISTR-56-03	Trib. to Moxie Pond	2	INT	N	N/A	442	N	125
2	Bald Mountain Twp T2 R3	ISTR-63-07	Trib. to Wild Brook	2	INT	N	N/A	467	N	141
2	Bald Mountain Twp T2 R3	PSTR-60-02	Trib. to Baker Stream	2	PER	N	Y	124	Y	135
2	Bald Mountain Twp T2 R3	ISTR-60-05	Trib. to Joes Hole	2.5	INT	N	N/A	119	N	134

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
2	Bald Mountain Twp T2 R3	ISTR-63-05	Trib. to Wild Brook	2.5	INT	N	N/A	446	N	140
2	Bald Mountain Twp T2 R3	ISTR-64-03	Trib. to Wild Brook	2.5	INT	N	N/A	368	N	142, 143
2	Moscow	ISTR-65-04	Trib. to Little Heald Brook	2.5	INT	N	Y	217	N	146
2	Bald Mountain Twp T2 R3	PSTR-60-07	Trib. to Joes Hole	2.5	PER	N	Y	314	N	133
2	Moscow	PSTR-65-03	Little Heald Stream	2.5	PER	N	Y	136	N	146
2	The Forks Plt	ISTR-54-02	Trib. to Moxie Pond	3	INT	N	Y	322	N	120
2	Bald Mountain Twp T2 R3	ISTR-62-01	Trib. to Wild Brook	3	INT	N	N/A	267	N	139
2	Bald Mountain Twp T2 R3	ISTR-62-02	Trib. to Wild Brook	3	INT	N	N/A	342	N	139
2	Bald Mountain Twp T2 R3	ISTR-62-03	Trib. to Wild Brook	3	INT	N	N/A	330	N	140
2	Bald Mountain Twp T2 R3	ISTR-63-08	Trib. to Wild Brook	3	INT	N	N/A	438	N	141
2	Bald Mountain Twp T2 R3	ISTR-63-09	Trib. to Wild Brook	3	INT	N	N/A	322	N	141
2	Bald Mountain Twp T2 R3	ISTR-64-05	Trib. to Wild Brook	3	INT	N	N/A	288	N	142
2	Moscow	ISTR-66-05	Heald Stream	3	INT	N	Y	454	N	147
2	Moscow	PSTR-65-01	Trib. to Little Heald Brook	3	PER	N	Y	119	Y	145
2	Bald Mountain Twp T2 R3	PSTR-61-08	Trib. to Baker Stream	3.5	PER	N	Y	191	N	136

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
2	Moscow	ISTR-66-07	Trib. to Heald Stream	4	INT	N	N/A	238	Y	147
2	Bald Mountain Twp T2 R3	PSTR-60-01	Trib. to Baker Stream	4	PER	N	Y	161	N	135
2	Bald Mountain Twp T2 R3	PSTR-63-06	Trib. to Wild Brook	4	PER	N	Y	333	N	141
2	Bald Mountain Twp T2 R3	PSTR-63-11	Trib. to Wild Brook	4	PER	N	Y	283	N	142
2	Bald Mountain Twp T2 R3	PSTR-64-06	Trib. to Wild Brook	4	PER	N	Y	118	Y	143
2	The Forks Plt	ISTR-57-02	Trib. to Mosquito Stream	5	INT	N	Y	532	N	127
2	Moscow	ISTR-66-08	Trib. to Heald Stream	5	INT	N	Y	416	N	148
2	Moscow	ISTR-66-09	Trib. to Heald Stream	5	INT	N	Y	3	Y	148
2	Moscow	ISTR-66-10	Trib. to Heald Stream	5	INT	N	Y	5	Y	148, 149
2	Bald Mountain Twp T2 R3	PSTR-60-06	Trib. to Joes Hole	5	PER	N	Y	316	N	133
2	Bald Mountain Twp T2 R3	PSTR-61-01	Wild Brook	5	PER	N	Y	511	Y	137
2	Bald Mountain Twp T2 R3	PSTR-64-02	Trib. to Wild Brook	5	PER	N	Y	413	N	142, 143
2	The Forks Plt	ISTR-55-01	Trib. to Moxie Pond	6	INT	N	Y	212	N	123
2	Bald Mountain Twp T2 R3	ISTR-59-02	Trib. to Little Sandy Stream	6	INT	N	Y	16	Y	131

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
2	Moscow	ISTR-66-06	Trib. to Heald Stream	6	INT	N	Y	258	Y	147
2	Moscow	ISTR-67-01	Trib. to Austin Stream	6	INT	N	Y	120	Y	149
2	Bald Mountain Twp T2 R3	PSTR-63-10	Trib. to Wild Brook	6	PER	N	Y	215	N	142
2	Moscow	ISTR-69-01	Trib. to Austin Stream	7	INT	N	Y	155	N	156, 157
2	Bald Mountain Twp T2 R3	PSTR-63-03	Wild Brook	7	PER	N	Y	380	N	140
2	Bald Mountain Twp T2 R3	PSTR-63-04	Wild Brook	7	PER	N	Y	284	N	140
2	Moscow	ISTR-72-107	Trib. to Chase Stream	8	INT	N	Y	66	Y	160
2	The Forks Plt	PSTR-57-01	Mosquito Stream	10	PER	N	Y	470	N	127
2	Bald Mountain Twp T2 R3	PSTR-59-01	Little Sandy Stream	15	PER	N	Y	107	Y	131
2	Moscow	PSTR-66-02	Heald Stream	15	PER	N	Y	459	N	146, 147
2	Moscow	PSTR-65-02	Little Heald Brook	25	PER	N	Y	82	N	146
3	Industry	ISTR-101-01	Trib. to Josiah Brook	5	INT	Y	Y	272	N	223
3	Industry	ISTR-101-02	Trib. to Josiah Brook	2	INT	Y	N/A	219	N	223
3	Industry	ISTR-102-01	Trib. to Josiah Brook	8	INT	Y	Y	294	N	225
3	Industry	ISTR-103-01	Trib. to Goodrich Brook	5	INT	Y	Y	349	N	229

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Industry	ISTR-103-02	Trib. to Goodrich Brook	1.5	INT	Y	N/A	302	N	229
3	Industry	ISTR-103-03	Trib. to Goodrich Brook	3	INT	Y	N/A	72	N	228, 229
3	Industry	ISTR-103-04	Trib. to Goodrich Brook	3	INT	Y	N/A	102	N	228, 229
3	Industry	ISTR-103-05	Trib. to Goodrich Brook	3	INT	Y	N/A	195	N	228
3	Industry	ISTR-103-06	Trib. to Goodrich Brook	1.5	INT	Y	N/A	375	N	228
3	Industry	ISTR-103-07	Trib. to Goodrich Brook	5	INT	Y	Y	330	N	228
3	Industry	ISTR-103-08	Trib. to Goodrich Brook	4	INT	Y	N/A	209	N	227, 228
3	Industry	ISTR-103-09	Trib. to Goodrich Brook	5	INT	Y	Y	274	N	227, 228
3	Farmington	ISTR-107-01	Trib. to Beales Brook	1.5	INT	Y	N/A	299	N	238
3	Farmington	ISTR-108-01	Trib. to Cascade Brook	3	INT	Y	N/A	200	N	240
3	Farmington	ISTR-108-02	Trib. to Cascade Brook	2.5	INT	Y	N/A	246	N	240
3	Farmington	ISTR-108-03	Trib. to Cascade Brook	1.5	INT	Y	N/A	275	N	240
3	Farmington	ISTR-108-04	Trib. to Cascade Brook	1	INT	Y	N/A	196	N	239
3	Farmington	ISTR-111-01	Trib. to Wilson Stream	2	INT	Y	N/A	162	N	246

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[8] (Y/N)	Natural Resource Map/Sheet Number
3	Jay	ISTR-114-02	Trib. to Wilson Stream	3	INT	Y	N/A	107	N	253
3	Chesterville	ISTR-114-03	Trib. to Wilson Stream	6	INT	Y	Y	349	Y	253
3	Jay	ISTR-116-02	Trib. To Sugar Brook	8	INT	Y	Y	140	Y	256
3	Jay	ISTR-117-01	Trib. to Fuller Brook	2	INT	Y	N/A	86	Y	259
3	Livermore Falls	ISTR-127-01	Trib. to Androscoggi n River	10	INT	N	N/A	411	Y	280, 281
3	Leeds	ISTR-132-02	Trib. To Dead River	3	INT	N	N/A	277	N	292
3	Leeds	ISTR-135-04	Trib. to Allen Stream	4	INT	N	N/A	201	N	299
3	Concord Twp	ISTR-75-03	Trib. to Kennebec River	4	INT	N	N/A	287	Y	167
3	Concord Twp	ISTR-76-02	Trib. to Kennebec River	1	INT	N	N/A	251	N	
3	Concord Twp	ISTR-76-03	Trib. to Kennebec River	20	INT	N	Y	536	N	
3	Concord Twp	ISTR-76-04	Trib. to Kennebec River	2	INT	N	N/A	366	N	
3	Concord Twp	ISTR-76-05	Trib. to Kennebec River	15	INT	N	Y	247	N	
3	Concord Twp	ISTR-76-06	Trib. to Kennebec River	20	INT	N	Y	238	N	
3	Concord Twp	ISTR-77-03	Trib. to Kennebec River	2.5	INT	N	N/A	228	N	171
3	Concord Twp	ISTR-78-01	Trib. To Mill Stream	3	INT	N	N/A	204	Y	173

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[4]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Concord Twp	ISTR-78-02	Trib. To Mill Stream	3	INT	N	N/A	254	N	173
3	Concord Twp	ISTR-80-01	Trib. to Kennebec River	2	INT	N	N/A	480	N	177
3	Concord Twp	ISTR-80-02	Trib. to Kennebec River	3	INT	N	N/A	267	N	176
3	Concord Twp	ISTR-80-03	Trib. to Kennebec River	2	INT	N	N/A	93	N	176
3	Concord Twp	ISTR-80-04	Trib. to Kennebec River	1.5	INT	N	N/A	468	N	177
3	Concord Twp	ISTR-80-05	Trib. to Kennebec River	3	INT	N	N/A	247	N	177
3	Concord Twp	ISTR-81-01	Trib. to Kennebec River	4	INT	N	N/A	256	N	178, 179
3	Concord Twp	ISTR-81-02	Trib. to Kennebec River	4	INT	N	N/A	243	N	178, 179
3	Embden	ISTR-82-01	Trib. to Alder Brook	5	INT	N	Y	330	N	182, 183
3	Embden	ISTR-83-02	Trib. to Alder Brook	4	INT	N	N/A	429	N	184
3	Embden	ISTR-83-05	Trib. to Alder Brook	3	INT	N	Y	327	N	184
3	Embden	ISTR-83-06	Trib. to Alder Brook	2	INT	N	Y	281	Y	183, 184
3	Embden	ISTR-84-01	Trib. to Alder Brook	4	INT	N	N/A	312	N	185
3	Embden	ISTR-85-01	Jackin Brook	2	INT	N	Y	232	N	187
3	Starks	ISTR-96-07	Trib. to Pelton Brook	3	INT	Y	N/A	374	N	213
3	Starks	ISTR-96-08	Trib. to Pelton Brook	4	INT	Y	N/A	245	N	213

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Starks	ISTR-96-09	Trib. to Pelton Brook	2	INT	Y	N/A	251	N	213
3	Starks	ISTR-96-10	Trib. to Pelton Brook	5	INT	Y	Y	319	N	213
3	Starks	ISTR-96-11	Trib. to Pelton Brook	2	INT	Y	N/A	335	N	213
3	Starks	ISTR-96-12	Trib. to Pelton Brook	2	INT	Y	N/A	260	N	213
3	Starks	ISTR-97-02	Trib. to Pelton Brook	100	INT	Y	Y	460	N	214, 215
3	Starks	ISTR-97-03	Trib. to Pelton Brook	2.5	INT	Y	N/A	494	N	214, 215
3	Starks	ISTR-97-04	Trib. to Pelton Brook	3	INT	Y	N/A	341	N	214, 215
3	Starks	ISTR-97-06	Trib. to Cold Pond/Hilton Brook	4	INT	Y	N/A	533	N	216
3	Starks	ISTR-97-07	Trib. to Cold Pond/Hilton Brook	2	INT	Y	N/A	562	N	216
3	Starks	ISTR-98-01	Trib. to Lemon Stream	2	INT	Y	N/A	110	N	217, 218
3	Starks	ISTR-99-01	Trib. to Lemon Stream	2	INT	Y	Y	193	N	219
3	Lewiston	ISTR-PERRON-1	Trib. to Stetson Brook	0	INT	N	N/A	353	N	320
3	Farmington	PSTR-112-01	Trib. to Wilson Stream	2	PER	Y	Y	290	N	249

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Chesterville	PSTR-114-01	Trib. to Wilson Stream	8	PER	Y	Y	352	N	253
3	Chesterville	PSTR-114-04	Trib. to Wilson Stream	1	PER	Y	Y	354	N	252
3	Greene	PSTR-141-01	Trib. to Daggett Bog	3	PER	N	N/A	92	N	312
3	Moscow/ Concord Twp	ISTR-75-01	Kennebec River	3	PER	N	Y	218	N	
3	Concord Twp	ISTR-75-02	Trib. to Kennebec River	2	PER	N	Y	206	N	
3	Concord Twp	ISTR-76-01	Trib. to Kennebec River	0	PER	N	Y	192	N	
3	Concord Twp	PSTR-77-01	Trib. to Kennebec River	30	PER	N	Y	209	N	171
3	Concord Twp	PSTR-77-02	Trib. to Kennebec River	2	PER	N	Y	293	N	171
3	Embden	PSTR-83-01	Trib. to Alder Brook	6	PER	N	Y	364	Y	184
3	Embden	PSTR-83-03	Alder Brook	35	PER	N	Y	81	Y	183
3	Embden	PSTR-83-04	Alder Brook	8	PER	N	Y	615	N	184
3	Embden	PSTR-83-07	Trib. to Alder Brook	2.5	PER	N	Y	93	N	183
3	Embden	PSTR-83-08	Trib. to Alder Brook	6	PER	N	Y	107	N	182, 183
3	Anson	PSTR-89-01	Jackin Brook	4.5	PER	N	Y	348	N	196
3	Anson	PSTR-90-02	Carrabassett River	400	PER	N	Y	193	N	199, 200
3	Anson	PSTR-91-01	Gilbert Brook	190	PER	Y	N/A	242	N	201
3	Starks	PSTR-96-01	Trib. to Pelton Brook	20	PER	Y	Y	340	Y	212
3	Starks	PSTR-96-05	Pelton Brook	30	PER	Y	Y	300	N	213

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Starks	PSTR-97-01	Trib. to Pelton Brook	85	PER	Y	Y	125	Y	214
3	Starks	PSTR-97-05	Trib. to Cold Pond/Hilton Brook	20	PER	Y	Y	424	N	216
3	Starks	ISTR-100-01	Trib. To Meadow Brook	2	PER	Y	N/A	499	N	220
3	Starks	ISTR-100-02	Trib. To Meadow Brook	2	INT	Y	N/A	454	N	221
3	Starks	ISTR-100-03	Trib. To Meadow Brook	1	INT	Y	N/A	310	N	221
3	Industry	PSTR-101-03	Trib. to Josiah Brook	6	PER	Y	Y	312	N	223
3	Industry	ISTR-101-04	Trib. to Josiah Brook	4	PER	Y	Y	334	N	223
3	Industry	PSTR-101-05	Josiah Brook	3	PER	Y	Y	208	Y	224
3	Industry	ISTR-101-06	Trib. to Josiah Brook	3	INT	Y	N/A	469	Y	224
3	Industry	ISTR-102-01	Trib. to Josiah Brook	8	PER	Y	Y	216	N	225
3	Industry	ISTR-102-02	Trib. to Josiah Brook	5	INT	Y	Y	270	Y	225
3	Industry	ISTR-102-03	Trib. to Goodrich Brook	3	UNK	Y	N/A	367	N	227
3	Industry	ISTR-103-10	Trib. to Goodrich Brook	4	UNK	Y	N/A	321	N	227
3	Industry	PSTR-103-11	Trib. to Goodrich Brook	7	UNK	Y	Y	349	N	228

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Industry	PSTR-103-12	Goodrich Brook	15	PER	Y	Y	245	N	229
3	Industry	PSTR-103-13	Trib. to Goodrich Brook	7	UNK	Y	Y	104	N	229
3	Industry	PSTR-103-14	Trib. to Goodrich Brook	8	UNK	Y	Y	131	N	229
3	Industry	ISTR-103-15	Trib. to Goodrich Brook	3	UNK	Y	N/A	38	N	227
3	Industry	ISTR-103-16	Trib. to Goodrich Brook	5	UNK	Y	Y	362	N	227
3	Industry	ISTR-104-02	Trib. to Goodrich Brook	4	UNK	Y	N/A	146	N	230
3	Industry	PSTR-104-04	Trib. to Goodrich Brook	6	UNK	Y	Y	135	Y	230
3	New Sharon	PSTR-105-01	Muddy Brook	40	PER	Y	Y	521	N	232
3	Farmington	ISTR-107-01	Trib. to Beales Brook	1.5	UNK	Y	N/A	280	N	238
3	Farmington	PSTR-107-02	Trib. to Beales Brook	3.5	UNK	Y	N/A	116	Y	237
3	Farmington	ISTR-107-03	Trib. to Beales Brook	1	UNK	Y	N/A	275	N	236, 237
3	Farmington	PSTR-107-04	Beales Brook	5	PER	Y	Y	335	N	236
3	Farmington	ISTR-108-05	Trib. to Cascade Brook	1.5	UNK	Y	N/A	29	N	239
3	Farmington	ISTR-108-06	Trib. to Cascade Brook	1.5	UNK	Y	N/A	317	N	239
3	Farmington	ISTR-108-07	Trib. to Cascade Brook	4	UNK	Y	N/A	91	N	239, 240

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Farmington	ISTR-108-08	Trib. to Cascade Brook	1.5	UNK	Y	N/A	62	N	239
3	Farmington	ISTR-108-09	Trib. to Cascade Brook	1	UNK	Y	N/A	404	N	239
3	Farmington	ISTR-109-01	Trib. to Cascade Brook	3	UNK	Y	N/A	162	N	241
3	Farmington	PSTR-109-02	Cascade Brook	8	PER	Y	N/A	113	N	242
3	Farmington	ISTR-109-03	Trib. to Cascade Brook	3	UNK	Y	N/A	386	Y	241
3	Farmington	PSTR-110-	Sandy River	70	PER	Y	Y	136	N	242, 243
3	Farmington	ISTR-111-02	Trib. to Wilson Stream	3.5	UNK	Y	Y	240	N	246, 247
3	Farmington	ISTR-111-03	Trib. to Wilson Stream	4	UNK	Y	Y	51	N	246
3	Farmington	PSTR-112-02	Trib. to Wilson Stream	6	UNK	Y	Y	77	N	247, 248
3	Farmington	PSTR-112-03	Wilson Stream	40	UNK	Y	Y	61	N	247
3	Jay	PSTR-114-01	Trib. to Wilson Stream	8	UNK	Y	Y	169	Y	253
3	Chesterville	PSTR-114-05	Trib. to Wilson Stream	25	UNK	Y	Y	243	Y	252
3	Chesterville	ISTR-114-06	Trib. to Wilson Stream	5	UNK	Y	Y	391	N	252
3	Chesterville	PSTR-114-07	Trib. to Wilson Stream	5	PER	Y	Y	85	Y	252, 253
3	Jay	ISTR-116-03	Trib. to Sugar Brook	2	UNK	Y	N/A	35	Y	256

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Jay	PSTR-116-04	Sugar Brook	3.5	PER	Y	N/A	302	Y	257
3	Jay	PSTR-117-02	Trib. To Fuller Brook	5	UNK	Y	N/A	98	N	258, 259
3	Jay	ISTR-117-03	Trib. To Fuller Brook	4	UNK	Y	N/A	53	N	259
3	Jay	PSTR-117-	Fuller Brook	3	PER	Y	N/A	37	N	260
3	Jay	PSTR-118-	Fuller Brook	15	PER	Y	N/A	492	N	262
3	Jay	PSTR-119-01	James Brook	15	PER	Y	N/A	130	Y	263
3	Embden	ISTR-85-01	Trib. to Jackin Brook	2	UNK	N	Y	175	N	187
3	Anson	ISTR-89-03	Trib. to Fahi Brook	3.5	INT	N	N/A	328	N	196
3	Anson	PSTR-90-01	Trib. to Carrabassett River	5.5	UNK	N	Y	373	N	198
3	Anson	ISTR-90-04	Trib. to Carrabassett River	1.5	UNK	Y	N/A	165	N	200
3	Anson	ISTR-92-01	Trib. to Carrabassett River	2	INT	Y	N/A	332	N	204
3	Anson	ISTR-92-02	Trib. to Carrabassett River	1.5	INT	Y	N/A	307	N	204
3	Anson	PSTR-92-03	Gilman Brook	20	UNK	Y	Y	305	N	205
3	Anson	ISTR-92-05	Trib. to Gilman Brook	4.5	UNK	Y	N/A	365	N	205
3	Anson	PSTR-93-01	Getchell Brook	15	INT	Y	N/A	59	N	207, 208
3	Anson	ISTR-93-02	Trib. to Getchell Brook	4	INT	Y	N/A	162	N	208
3	Anson	PSTR-93-03	Trib. to Getchell Brook	2	UNK	Y	N/A	413	N	208

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Anson	ISTR-95-01	Trib. to Kennebec River	2.5	INT	Y	N/A	123	N	209, 210
3	Anson	ISTR-95-02	Trib. to Kennebec River	6	INT	Y	Y	416	N	209, 210
3	Anson	ISTR-95-03	Trib. to Kennebec River	1	UNK	Y	N/A	504	N	210
3	Anson	ISTR-95-04	Trib. to Kennebec River	1	UNK	Y	N/A	412	N	210
3	Starks	PSTR-95-05	Trib. to Kennebec River	2	UNK	Y	N/A	119	N	210
3	Starks	PSTR-99-02	Trib. to Lemon Stream	6	UNK	Y	Y	43	Y	219
3	Starks	ISTR-99-03	Trib. to Lemon Stream	1	UNK	Y	Y	128	Y	219
3	Starks	ISTR-99-04	Trib. to Lemon Stream	3	UNK	Y	Y	125	N	219
3	Starks	PSTR-99-05	Lemon Stream	55	PER	Y	Y	116	N	219, 220
3	Starks	PSTR-99-06	Trib. to Lemon Stream	6	UNK	Y	Y	406	N	219
3	Starks	ISTR-99-07	Lemon Stream	1	UNK	Y	Y	206	N	220
3	Anson	WB-94-01	Trib. to Getchell Brook	85	Open Water	Y	N/A	299	N	208
3	Anson	ISTR-88-01	Trib. to Fahi Brook	1	INT	N	N/A	444	N	196
3	Industry	ISTR-104-01	Trib. to Goodrich Brook	2	INT	Y	N/A	426	N	229
3	Livermore Falls	ISTR-123-03	Trib. to Clay Brook	4	INT	N	N/A	150	N	272

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Livermore Falls	ISTR-128-02	Trib. to Androscoggin River	2	INT	N	N/A	196	N	283
3	Livermore Falls	ISTR-128-03	Trib. to Androscoggin River	2	INT	N	N/A	157	N	283
3	Leeds	ISTR-135-02	Trib. to Allen Stream	2	INT	N	N/A	54	N	299
3	Leeds	ISTR-135-03	Trib. to Allen Stream	2	INT	N	N/A	153	N	299, 300
3	Greene	ISTR-139-03	Trib. to Allen Pond	2	INT	N	N/A	366	N	309
3	Greene	ISTR-140-02	Trib. to Allen Pond	1.5	INT	N	N/A	228	N	309
3	Greene	ISTR-140-07	Trib. to Allen Pond	2	INT	N	N/A	153	N	310, 311
3	Lewiston	ISTR-145-02	Trib. to Stetson Brook	2	INT	N	Y	157	N	322
3	Lewiston	ISTR-145-03	Trib. to Stetson Brook	8	INT	N	N/A	170	N	321
3	Lewiston	ISTR-146-04	Trib. to Stetson Brook	2	INT	N	Y	482	N	323
3	Starks	ISTR-96-03	Trib. to Pelton Brook	2	INT	Y	N/A	186	N	212
3	Livermore Falls	PSTR-121-03	Trib. to Clay Brook	2	PER	N	N/A	318	N	269
3	Livermore Falls	PSTR-122-04	Trib. to Clay Brook	2	PER	N	N/A	271	N	269, 270
3	Livermore Falls	PSTR-122-05	Trib. to Clay Brook	6	PER	N	N/A	295	N	269
3	Livermore Falls	PSTR-122-06	Trib. to Clay Brook	2	PER	N	N/A	250	N	269
3	Livermore Falls	PSTR-125-01	Trib. to Androscoggin River	2	PER	N	N/A	303	N	276

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Leeds	PSTR-135-01	Trib. to Allen Stream	2	PER	N	N/A	333	N	299
3	Greene	PSTR-144-02	Trib. to Daggett Bog	2	PER	N	N/A	76	N	319
3	Livermore Falls	ISTR-125-06	Trib. to Androscoggin n River	2	UNK	N	N/A	244	N	277
3	Livermore Falls	ISTR-126-06	Trib. to Androscoggin n River	2	UNK	N	N/A	422	N	279
3	Leeds	ISTR-134-01	Trib. to Allen Stream	2	UNK	N	N/A	131	N	298
3	Leeds	ISTR-134-02	Trib. to Allen Stream	2.5	INT	N	N/A	116	N	297
3	Leeds	ISTR-134-03	Trib. to Allen Stream	2.5	INT	N	N/A	51	N	297
3	Jay	ISTR-121-01	Trib. to Clay Brook	3	INT	N	N/A	227	N	268
3	Livermore Falls	ISTR-123-02	Trib. to Clay Brook	3	INT	N	N/A	146	N	272
3	Livermore Falls	ISTR-124-01	Trib. to Androscoggin n River	3	INT	N	N/A	279	N	274
3	Livermore Falls	ISTR-124-02	Trib. to Androscoggin n River	3	INT	N	N/A	459	N	274
3	Livermore Falls	ISTR-126-01	Trib. to Androscoggin n River	3	INT	N	N/A	297	N	279
3	Livermore Falls	ISTR-127-03	Trib. to Hunton Brook	30	INT	N	N/A	539	N	282
3	Leeds	ISTR-130-02	Trib. to Androscoggin n River	3	INT	N	N/A	58	N	287

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[8] (Y/N)	Natural Resource Map/Sheet Number
3	Leeds	ISTR-130-03	Trib. to Androscoggin n River	3	INT	N	N/A	330	Y	287, 288
3	Leeds	ISTR-131-02	Trib. To Dead River	3	INT	N	N/A	142	N	291
3	Leeds	ISTR-132-01	Trib. To Dead River	3	INT	N	N/A	190	N	292
3	Greene	ISTR-138-03	Trib. to Allen Stream	3	INT	N	N/A	295	N	306
3	Greene	ISTR-140-04	Trib. to Allen Pond	3	INT	N	N/A	215	N	309
3	Greene	ISTR-140-05	Trib. to Allen Pond	3	INT	N	N/A	199	N	309
3	Starks	ISTR-96-04	Trib. to Pelton Brook	3	INT	Y	N/A	524	N	212
3	Jay/Livermore Falls	PSTR-121-02	Trib. to Clay Brook	3	PER	N	N/A	138	N	268, 269
3	Jay	PSTR-121-04	Trib. to Clay Brook	3	PER	N	N/A	92	N	267, 268, 269
3	Livermore Falls	PSTR-128-01	Trib. to Androscoggin n River	3	PER	N	N/A	108	Y	282, 283
3	Leeds	PSTR-133-01	Trib. to Allen Stream	3	PER	N	N/A	113	Y	295
3	Starks	PSTR-96-02	Trib. to Pelton Brook	3	PER	Y	Y	334	N	212
3	Livermore Falls	ISTR-123-01	Trib. to Clay Brook	4	INT	N	N/A	110	N	272
3	Livermore Falls	PSTR-125-02	Trib. to Androscoggin n River	2	INT	N	N/A	295	Y	277
3	Livermore Falls	ISTR-125-05	Trib. to Androscoggin n River	4	INT	N	N/A	319	N	277
3	Leeds	ISTR-131-01	Trib. to Dead River	4	INT	N	N/A	15	Y	289
3	Greene	ISTR-138-01	Trib. to Allen Pond	4	INT	N	N/A	24	N	307

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Greene	ISTR-138-02	Trib. to Allen Pond	4	INT	N	N/A	194	N	307
3	Greene	ISTR-140-03	Trib. to Allen Pond	6	INT	N	N/A	174	Y	310
3	Greene	ISTR-141-02	Trib. to Daggett Bog	4	INT	N	N/A	200	N	312
3	Livermore Falls	PSTR-126-02	Trib. to Androscoggin n River	4	PER	N	N/A	333	N	279
3	Livermore Falls	PSTR-126-05	Trib. to Androscoggin n River	4	PER	N	N/A	346	N	279
3	Livermore Falls	PSTR-127-02	Trib. To Hunton Brook	30	PER	N	N/A	426	N	281
3	Greene	PSTR-139-01	Trib. to Allen Stream	4	PER	N	N/A	351	Y	307
3	Greene	PSTR-139-02	Trib. to Allen Stream	4	PER	N	N/A	373	N	307
3	Greene	PSTR-140-06	Trib. to Allen Pond	4	PER	N	N/A	354	N	310
3	Greene	PSTR-140-08	Trib. to Allen Pond	4	PER	N	N/A	139	Y	309
3	Greene	PSTR-140-09	Trib. to Allen Pond	4	PER	N	N/A	142	N	309
3	Lewiston	PSTR-145-01	Trib. to Stetson Brook	4	PER	N	Y	8	Y	321, 322
3	Anson	PSTR-89-02	Trib. to Fahi Brook	5	PER	N	N/A	503	N	196
3	Livermore Falls	PSTR-122-02	Trib. to Clay Brook	5	PER	N	N/A	208	N	270
3	Livermore Falls	PSTR-122-03	Clay Brook/Redw ater Brook	5	PER	N	N/A	60	N	270, 271
3	Livermore Falls	PSTR-126-03	Trib. to Androscoggin n River	5	PER	N	N/A	141	N	280

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
3	Lewiston	PSTR-146-03	Trib. to Androscoggin River	2	PER	N	N/A	419	N	323
3	Lewiston	PSTR-146-05	Trib. to Androscoggin River	1	PER	N	N/A	35	N	323
3	Starks	PSTR-96-06	Pelton Brook	5	PER	Y	Y	336	N	213
3	Leeds	PSTR-136-01	Trib. to Androscoggin River	6	PER	N	N/A	194	Y	302
3	Greene	PSTR-140-01	Allen Stream	6	PER	N	N/A	323	N	310
3	Greene	PSTR-143-01	Stetson Brook	6	PER	N	N/A	26	Y	318
3	Greene	PSTR-144-01	Trib. to Stetson Brook	6	PER	N	Y	32	Y	318
3	Livermore Falls	ISTR-126-04	Trib. to Androscoggin River	3	INT	N	N/A	132	Y	280
3	Leeds	ISTR-130-01	Trib. to Dead River	8	INT	N	N/A	296	N	289
3	Leeds	PSTR-130-	Dead River	60	INT	N	N/A	91	N	289
3	Livermore Falls	PSTR-122-01	Trib. to Clay Brook	5	PER	N	N/A	466	N	269, 270
3	Livermore Falls	PSTR-122-07	Trib. to Clay Brook	5	PER	N	N/A	311	N	270
3	Greene	PSTR-143-02	Stetson Brook	10	PER	N	N/A	210	N	318
3	Livermore Falls	PSTR-125-03	Trib. to Androscoggin River	2	PER	N	N/A	42	N	277, 278
3	Livermore Falls	PSTR-125-04	Trib. to Androscoggin River	4	PER	N	N/A	191	N	277, 278
3	Livermore Falls	PSTR-129-01	Scott Brook	20	PER	N	N/A	166	N	285, 286
3	Livermore Falls	PSTR-127-04	Hunton Brook	4	PER	N	N/A	106	N	281

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
4	Lewiston	ISTR-153-01	Trib. to Androscoggin n River	3	UNK	Y	N/A	120	N	340
4	Durham	ISTR-156-02	Trib. to Androscoggin n River	1	INT	Y	N/A	103	N	346
4	Durham	ISTR-158-01	Trib. to Libby Brook	15	INT	N	N/A	143	N	351
4	Durham	ISTR-158-02	Trib. to Libby Brook	2	INT	N	N/A	134	N	351
4	Lewiston	ISTR-155-01	Trib. to Androscoggin n River	2	INT	Y	N/A	127	N	343
4	Durham	ISTR-157-01	Trib. to House Brook	1.5	INT	Y	N/A	116	Y	348
4	Pownal	ISTR-161-04	Trib. to Runaround Brook	6	INT	N	N/A	66	N	
4	Auburn	PSTR-156-01	Trib. to Androscoggin n River	2	PER	Y	N/A	211	N	345
4	Auburn	PSTR-156-03	Trib. to Androscoggin n River	1	PER	Y	N/A	91	N	346
4	Auburn	PSTR-156-04	Trib. to Androscoggin n River	2	PER	Y	N/A	165	Y	345
4	Auburn	PSTR-156-05	Trib. to Androscoggin n River	2	PER	Y	N/A	90	N	346
4	Auburn	PSTR-156-06	Trib. to Androscoggin n River	2	PER	Y	N/A	178	N	345
4	Auburn	PSTR-156-07	Trib. to Androscoggin n River	2	PER	Y	N/A	85	N	346
4	Durham	PSTR-157-02	House Brook	2	PER	Y	N/A	105	Y	348

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
4	Lewiston	ISTR-150-02	Trib. to No Name Brook	3	INT	Y	N/A	197	Y	333
4	Pownal	ISTR-161-02	Trib. to Runaround Brook	3	INT	N	N/A	117	Y	356
4	Lewiston	PSTR-146-01	Trib. to Stetson Brook	4	PER	N	Y	87	N	324
4	Lewiston	PSTR-146-02	Trib. to Stetson Brook	4	PER	N	Y	144	N	324
4	Lewiston	PSTR-152-01	Trib. to No Name Brook	3	PER	Y	N/A	58	N	337
4	Lewiston	PSTR-147-01	Trib. to No Name Brook	3.5	PER	Y	N/A	80	Y	326, 327
4	Lewiston	PSTR-148-01	Trib. to No Name Pond	3.5	PER	Y	N/A	87	Y	329
4	Lewiston	ISTR-150-01	Trib. to No Name Brook	4	INT	Y	N/A	106	Y	332
4	Lewiston	PSTR-148-02	Trib. to No Name Pond	4.5	PER	Y	N/A	81	Y	329
4	Pownal	PSTR-161-01	Runaround Brook	5	PER	N	N/A	15	N	358
4	Pownal	PSTR-161-03	Runaround Brook	5	PER	N	N/A	472	N	358
4	Auburn	PSTR-155-02	House Brook	8	PER	Y	N/A	160	N	345
4	Durham	PSTR-160-01	Runaround Brook	9	PER	N	N/A	108	Y	355
4	Durham	PSTR-160-03	Trib. to Runaround Brook	12	PER	N	N/A	105	N	355
4	Durham	PSTR-158-03	Libby Brook	15	PER	N	N/A	47	Y	351, 352
4	Lewiston	PSTR-151-01	No Name Brook	25	PER	Y	N/A	83	N	334, 335
4	Lewiston	PSTR-147-02	Stetson Brook	50	PER	N	Y	86	N	325
4	Lewiston	PSTR-149-01	No Name Brook	50	PER	Y	N/A	90	N	330
4	Auburn/ Lewiston	PSTR-155-03	Androscoggin River	645	PER	Y	N/A	104	N	344

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
5	Wiscasset	ISTR-183-01	Trib. to Montsweag Brook	2	INT	Y	N/A	140	N	370
5	Wiscasset	ISTR-188-09	Trib. to Back River/Montsweag Bay	3	INT	Y	N/A	15,281	N	359
5	Whitefield	PSTR-171-01	Trib. to Sheepscot River	40	PER	Y	Y	355	Y	397
5	Whitefield	PSTR-172-02	Trib. to Sheepscot River	20	PER	Y	Y	101	N	395
5	Whitefield	ISTR-166-01	Trib. To Finn Brook	2	UNK	Y	N/A	140	N	408
5	Whitefield	PSTR-166-	Finn Brook	5	PER	Y	Y	395	Y	408
5	Whitefield	PSTR-168-01	East Branch Eastern River	11	PER	Y	N/A	206	N	403
5	Whitefield	PSTR-168-02	East Branch Eastern River	3	PER	Y	N/A	58	Y	403
5	Whitefield	PSTR-169-01	East Branch Eastern River	5	PER	Y	N/A	149	Y	402
5	Whitefield	ISTR-169-02	Trib. to East Branch Eastern River	2	UNK	Y	N/A	296	N	402
5	Whitefield	ISTR-169-03	Trib. to East Branch Eastern River	2	UNK	Y	N/A	178	Y	402
5	Whitefield	ISTR-169-04	Trib. to East Branch Eastern River	1	UNK	Y	N/A	136	N	402
5	Whitefield	PSTR-170-01	East Branch Eastern River	9	PER	Y	N/A	189	Y	399, 400

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
5	Whitefield	ISTR-170-02	Trib. to East Branch Eastern River	2	INT	Y	N/A	129	N	400
5	Whitefield	PSTR-172-01	Trib. to Sheepscot River	6	PER	Y	Y	226	N	394
5	Whitefield	PSTR-172-03	Trib. to Sheepscot River	2	UNK	Y	N/A	320	N	396
5	Whitefield	ISTR-173-01	Trib. to Sheepscot River	3	UNK	Y	N/A	285	Y	392
5	Whitefield	PSTR-174-01	Trib. to Sheepscot River	6	PER	Y	Y	333	Y	391
5	Whitefield	ISTR-174-02	Trib. to Sheepscot River	3	UNK	Y	Y	385	Y	391
5	Whitefield	PSTR-174-03	Trib. to Sheepscot River	7	PER	Y	Y	366	Y	389
5	Whitefield	ISTR-174-04	Trib. to Sheepscot River	1	UNK	Y	Y	366	N	389
5	Whitefield	ISTR-175-01	Trib. to Sheepscot River	1	UNK	Y	N/A	218	Y	388
5	Whitefield	PSTR-175-02	Trib. to Sheepscot River	3	UNK	Y	Y	201	Y	388
5	Alna	PSTR-176-01	Trib. to Sheepscot River	5	INT	Y	Y	209	Y	387
5	Alna	PSTR-177-01	Trib. to Trout Brook	25	PER	Y	Y	107	N	383
5	Alna	PSTR-178-	Trout Brook	8	PER	Y	Y	264	N	381, 382
5	Alna	PSTR-178-	Trout Brook	15	PER	Y	Y	133	N	381, 382
5	Alna	PSTR-179-02	Trib. to Trout Brook	6	INT	Y	N/A	119	Y	379, 380
5	Alna	PSTR-179-03	Trib. to Trout Brook	6	PER	Y	Y	198	N	379

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
5	Alna	ISTR-180-01	Trib. to Trout Brook	1	INT	Y	N/A	112	N	377
5	Wiscasset	ISTR-181-01	Trib. to Ward Brook	3	UNK	Y	N/A	82	Y	374
5	Wiscasset	ISTR-181-02	Ward Brook	2	UNK	Y	N/A	114	Y	374, 375
5	Wiscasset	ISTR-182-01	Trib. Ward Brook	4	UNK	Y	N/A	247	N	373
5	Wiscasset	PSTR-183-02	Trib. to Montsweag Brook	0.5	UNK	Y	N/A	39	Y	370
5	Wiscasset	ISTR-183-03	Trib. to Montsweag Brook	2	UNK	Y	N/A	94	N	370
5	Wiscasset	ISTR-184-01	Trib. to Montsweag Brook	1.5	INT	Y	N/A	140	N	369
5	Woolwich	ISTR-184-02	Trib. to Montsweag Brook	2.5	UNK	Y	N/A	318	Y	367
5	Woolwich	ISTR-184-03	Trib. To Montsweag Brook	150	UNK	Y	N/A	113	N	367, 368
5	Woolwich	ISTR-184-04	Trib. to Montsweag Brook	2.5	UNK	Y	N/A	209	Y	367, 368
5	Wiscasset	ISTR-184-05	Trib. to Montsweag Brook	3	UNK	Y	N/A	253	N	369
5	Wiscasset	ISTR-184-06	Trib. to Montsweag Brook	2	UNK	Y	N/A	195	N	369
5	Wiscasset	ISTR-184-08	Montsweag Brook	25	UNK	Y	N/A	55	Y	369
5	Wiscasset	ISTR-184-09	Montsweag Brook	30	PER	Y	N/A	45	N	368, 369
5	Wiscasset	ISTR-184-10	Montsweag Brook	2.5	PER	Y	N/A	66	N	368
5	Woolwich	ISTR-185-02	Trib. to Montsweag Brook	2.5	UNK	Y	N/A	28	N	366

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
5	Woolwich	ISTR-185-03	Trib. to Montsweag Brook	1	UNK	Y	N/A	23	N	366
5	Woolwich	ISTR-185-04	Trib. to Montsweag Brook	1	UNK	Y	N/A	37	N	366
5	Woolwich	ISTR-185-05	Trib. to Montsweag Brook	1	UNK	Y	N/A	62	Y	366
5	Woolwich	ISTR-185-06	Trib. to Montsweag Brook	3	UNK	Y	N/A	312	N	
5	Wiscasset	ISTR-186-02	Trib. to Chewonki Creek	1	INT	Y	N/A	4,335	N	364
5	Wiscasset	ISTR-187-01	Trib. to Chewonki Creek	2.5	INT	Y	N/A	6,250	N	363
5	Wiscasset	ISTR-187-02	Trib. to Chewonki Creek	1.5	INT	Y	N/A	6,262	N	363
5	Wiscasset	ISTR-187-03	Trib. to Chewonki Creek	1.5	INT	Y	N/A	6,300	N	363
5	Wiscasset	ISTR-187-05	Trib. to Chewonki Creek	1	INT	Y	N/A	6,728	N	362, 363
5	Wiscasset	ISTR-187-07	Trib. to Chewonki Creek	1	INT	Y	N/A	7,099	N	362
5	Wiscasset	ISTR-187-15	Trib. to Back River/ Monstsweag Bay	1	INT	Y	N/A	10,413	N	361
5	Wiscasset	ISTR-187-16	Trib. to Back River/ Monstsweag Bay	1	INT	Y	N/A	10,248	N	361
5	Wiscasset	ISTR-187-17	Trib. to Back River/ Monstsweag Bay	1	INT	Y	N/A	10,265	N	361

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
5	Wiscasset	ISTR-187-18	Trib. to Back River/ Monstsweag Bay	1	INT	Y	N/A	10,246	N	361
5	Wiscasset	ISTR-187-22	Trib. to Chewonki Creek	1	INT	Y	N/A	7,549	N	362
5	Wiscasset	ISTR-187-23	Trib. to Back River/ Monstsweag Bay	2.5	INT	Y	N/A	10,710	N	361
5	Wiscasset	ISTR-188-05	Trib. to Back River/ Monstsweag Bay	1	INT	Y	N/A	11,591	N	360
5	Wiscasset	ISTR-188-06	Trib. to Back River/ Monstsweag Bay	1	INT	Y	N/A	11,601	N	360
5	Wiscasset	ISTR-186-03	Trib. to Chewonki Creek	1.5	INT	Y	N/A	3,628	Y	364
5	Wiscasset	ISTR-186-04	Trib. to Chewonki Creek	1.5	INT	Y	N/A	3,810	Y	364
5	Wiscasset/Wo olwich	ISTR-186-06	Trib. to Montsweag Brook	1.5	INT	Y	N/A	1,334	N	365
5	Wiscasset	ISTR-187-13	Trib. to Chewonki Creek	2	INT	Y	N/A	7,645	N	362
5	Wiscasset	ISTR-187-20	Trib. to Chewonki Creek	1.5	INT	Y	N/A	9,419	N	361
5	Wiscasset	ISTR-187-21	Trib. to Chewonki Creek	1.5	INT	Y	N/A	9,380	N	361
5	Wiscasset	PSTR-187-19	Trib. to Chewonki Creek	1.5	PER	Y	N/A	9,386	N	361

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
5	Wiscasset	PSTR-187-24	Trib. to Chewonki Creek	1.5	PER	Y	N/A	8,911	N	361, 362
5	Windsor	ISTR-162-03	Trib. to West Branch Sheepscot River	2	INT	Y	N/A	339	N	417
5	Windsor	ISTR-162-04	Trib. to West Branch Sheepscot River	2	INT	Y	N/A	566	N	417
5	Windsor	ISTR-162-05	Trib. to West Branch Sheepscot River	2	INT	Y	N/A	628	N	417
5	Windsor	ISTR-162-08	Trib. to West Branch Sheepscot River	2	INT	Y	N/A	1,664	N	
5	Wiscasset	ISTR-187-06	Trib. to Chewonki Creek	2	INT	Y	N/A	8,231	N	362
5	Wiscasset	ISTR-187-08	Trib. to Chewonki Creek	2	INT	Y	N/A	7,599	N	362
5	Wiscasset	ISTR-187-09	Trib. to Chewonki Creek	2	INT	Y	N/A	7,709	N	362
5	Wiscasset	ISTR-187-10	Trib. to Chewonki Creek	2	INT	Y	N/A	7,607	N	362
5	Wiscasset	ISTR-187-11	Trib. to Chewonki Creek	2	INT	Y	N/A	7,490	N	362
5	Wiscasset	ISTR-187-12	Trib. to Chewonki Creek	2	INT	Y	N/A	7,409	N	362

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
5	Wiscasset	ISTR-187-14	Trib. to Chewonki Creek	2	INT	Y	N/A	7,906	N	362
5	Wiscasset	ISTR-188-02	Trib. to Back River/ Monstsweag Bay	2	INT	Y	N/A	14,492	N	359
5	Wiscasset	ISTR-188-03	Trib. to Back River/ Monstsweag Bay	2	INT	Y	N/A	13,444	N	359, 360
5	Wiscasset	ISTR-188-07	Trib. to Back River/ Monstsweag Bay	2	INT	Y	N/A	14,547	N	359
5	Windsor	PSTR-162-02	Trib. to West Branch Sheepscot River	2	PER	Y	Y	291	N	417
5	Windsor	PSTR-162-06	Trib. to West Branch of Sheepscot River	1.5	PER	Y	Y	1,595	N	
5	Wiscasset	ISTR-186-05	Trib. to Montsweag Brook	1.5	INT	Y	N/A	2,386	N	364, 365
5	Wiscasset	ISTR-186-07	Trib. to Montsweag Brook	3	INT	Y	N/A	2,193	N	365
5	Wiscasset	ISTR-188-01	Trib. to Back River/ Montsweag Bay	3	INT	Y	N/A	15,388	N	359
5	Wiscasset	ISTR-188-08	Trib. to Back River/ Monstsweag Bay	3	INT	Y	N/A	12,829	N	360
5	Wiscasset	ISTR-186-01	Trib. to Chewonki Creek	4	INT	Y	N/A	5,614	N	363

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[6]	Brook Trout[7] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing[9] (Y/N)	Natural Resource Map/Sheet Number
5	Wiscasset	PSTR-188-04	Trib. to Back River/ Monstsweag Bay	1	PER	Y	N/A	12,450	Y	360
5	Wiscasset	ISTR-187-04	Trib. to Chewonki Creek	5	INT	Y	N/A	6,112	N	363
5	Windsor	PSTR-162-01	Trib. to West Branch Sheepscot River	8	PER	Y	Y	265	N	417
5	Windsor	PSTR-162-09	Trib. to West Branch Sheepscot River	3	PER	Y	Y	158	N	416, 417
5	Windsor	PSTR-162-13	Trib. to West Branch Sheepscot River	1.5	PER	Y	Y	778	N	417
5	Windsor	ISTR-162-07	Trib. to West Branch Sheepscot River	8	INT	Y	N/A	268	N	417
5	Windsor	ISTR-162-14	Trib. to West Branch Sheepscot River	8	INT	Y	N/A	53	N	416
5	Windsor	PSTR-163-01	Trib. to West Branch Sheepscot River	40	PER	Y	Y	319	N	415
5	Woolwich	PSTR-185-01	Trib. to Montsweag Brook	9.5	PER	Y	N/A	559	N	365
5	Wiscasset/Woolwich	PSTR-186-08	Montsweag Brook	17.5	PER	Y	N/A	1,219	N	365

Segment	Town	Feature ID	Stream Name[1]	Ave. Stream Width (ft)[2]	Stream Type (PER/ INT)[3]	Atlantic Salmon Habitat (Y/N)[4]	Brook Trout[5] (Y/N)	Nearest New Structure Location (ft)	Temp. Equip. Crossing (Y/N)	Natural Resource Map/Sheet Number
5	Windsor	PSTR-162-12	Trib. to West Branch Sheepscot River	40	PER	Y	Y	362	N	416
5	Windsor	PSTR-163-02	West Branch Sheepscot River	40	PER	Y	Y	51	N	414, 415, 416

Notes:

1 Stream name is based on USGS National Hydrography dataset.
Tributary names are based on a review by the applicant of the watershed areas and drainage patterns.

2 Stream widths are based on field data collected by the applicant

3 Stream type is based on field work by the applicant.

4 Atlantic Salmon habitat is based on Maine Office of GIS data catalog. Edition 2016-03-21.

5 Brook trout habitat is based on information submitted by MDIFW on January 24, 2019

Appendix F
Compensation Requirements

Table F-1: Summary of Compensation as Required by NRPA and/or USACE

Resource Type & Impact	Agency Requiring	Form of Compensation	Type and Amount of Compensation
47.638 acres of Temporary Wetland Fill	USACE	Preservation & In-Lieu Fee	Preservation of 56.97 acres of wetlands. $154,369.29
105.252 acres of Permanent Cover Type Conversion of Forested Wetlands[1]	USACE & MDEP	Preservation	Preservation of three parcels, (Little Jimmie Pond, Flagstaff Lake, and Pooler Pond tracts) 440.29 acres of wetlands.
3.814 acres of Permanent Fill in Wetlands of Special Significance (WOSS)[2]			
0.307 acres of Permanent Fill in Wetland (Non-WOSS)			
0.743 acres of Permanent Wetland Fill in SVP Habitat	MDEP	In-Lieu Fee	$623,657.53
3.678 acres of Permanent Forested Wetland Conversion in SVP Habitat			
0.719 acres of Permanent Upland Fill in SVP Habitat			
27.572 acres of Permanent Upland Conversion in SVP Habitat			
Direct and Indirect Impact to USACE Jurisdictional Vernal Pools	USACE	In-Lieu Fee	$2,015,269.01
0.003 acres of Permanent Wetland Fill in IWWH	MDEP	In-Lieu Fee	$253,352.53
2.622 acres of Permanent Forested Wetland Conversion in IWWH			
0.014 acres of Permanent Upland Fill in IWWH			
12.387 acres of Permanent Upland Conversion in IWWH			
	In-Lieu Fee		$3,046,648.37
	Land Preservation		1022.4 acres of preservation containing 510.75 acres of wetland.

[1]The USACE requires compensation for Permanent Cover Type Conversion of Forested Wetlands. The MDEP requires compensation for Permanent Cover Type Conversion of significant wildlife habitat. Compensation for wetlands within significant wildlife habitat, IWWH and SVPH, are not included within the Permanent Cover Type Conversion of Forested Wetlands calculation and are calculated separately within their respective categories. Cover type conversion within upland areas of IWWH and SVPH are compensated separately as well.
[2]Permanent fill in WOSS excludes fill in IWWH and SVPH, which are calculated separately, in their respective categories.

Table F-2: Summary of Compensation Resulting from Consultation with Resource Agencies

Resource Type & Impact	Agency Requiring	Form of Compensation	Amount of Compensation
9.229 acres of forested conversion in Unique Natural Communities	MNAP	Fee contribution to Maine Natural Areas Conservation Fund	$1,224,526.82
Forested conversion to the Goldie's Wood Fern	MNAP	Funding for rare plant surveys to the Maine Natural Areas Conservation Fund	$10,000
26.416 acres of forest conversion in Roaring Brook Mayfly and Northern Spring Salamander Conservation Management Areas	MDIFW	Fee contribution to Maine Endangered and Nongame Wildlife Fund	$469,771.95
39.209 acres of forest conversion in the Upper Kennebec Deer Wintering Area	MDIFW	Preservation	Seven parcels, totaling 717 acres of land in the Upper Kennebec DWA
Habitat and fisheries impacts, including 11.02 linear miles of forested conversion in riparian buffers	MDEP & MDIFW	Preservation	Three preservation parcels (Basin, Lower Enchanted, and Grand Falls tracts), totaling 1053.5 acres, containing 12.02 linear miles of stream
		Fee contribution to Maine Endangered and Nongame Wildlife Fund	$180,000
Impacts to Brook Trout and Coldwater Fisheries	MDEP	Funding for culvert replacements	$1,875,000
Impact to Outstanding River Segments	MDEP	Preservation	Three preservation parcels, (Basin, Lower Enchanted, and Grand Falls tracts) offering 7.9 miles of frontage on the Dead River, an Outstanding River Segment
Habitat fragmentation and impact to wildlife movement	MDEP	Conservation	Conservation of 40,000 acres in the vicinity of Segment 1
	Total Additional Monetary Contribution		**$3,759,298.76**
	Total Additional Land Preservation/Conservation		**41,770.5 Acres**

Appendix G
Table of Areas Requiring Additional Erosion Control Measures

Transmission Line Spans			
Pole #		Pole #	
From	To	From	To
3006-541	3006-542	3006-633	3006-648
3006-547	3006-549	3006-659	3006-664
3006-549	3006-555	3006-674	3006-678
3006-556	3006-559	3006-684	3006-685
3006-563	3006-564	3006-697	3006-699
3006-570	3006-572	3006-705	3006-706
3006-576	3006-577	3006-706	3006-727
3006-579	3006-580	3006-728	3006-747
3006-582	3006-589	3006-748	3006-758
3006-594	3006-599	3006-760	3006-764
3006-603	3006-604	3006-765	3006-769
3006-606	3006-608	3006-771	3006-788
3006-609	3006-613	3006-793	3006-794
3006-616	3006-622	3006-796	3006-797
3006-624	3006-626	3006-799	3006-817

Appendix H
Land Use Planning Commission
Site Law Certification

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
LAND USE PLANNING COMMISSION
22 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0022

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

JUDY C. EAST
EXECUTIVE DIRECTOR

SITE LAW CERTIFICATION

COMMISSION DETERMINATION
IN THE MATTER OF

REQUEST OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
FOR SITE LOCATION OF DEVELOPMENT LAW CERTIFICATION
CENTRAL MAINE POWER COMPANY
NEW ENGLAND CLEAN ENERGY CONNECT
SITE LAW CERTIFICATION SLC-9

FINDINGS OF FACT AND DETERMINATION

The Maine Land Use Planning Commission ("Commission"), at a meeting of the Commission held on January 8, 2020, and after reviewing the request of the Maine Department of Environmental Protection ("Department") for Site Location of Development Law ("Site Law") Certification ("SLC") SLC-9, supporting documents and other related materials on file, makes the following findings of fact and determination.

PROJECT DESCRIPTION AND LOCATION

Central Maine Power Company ("CMP") proposes to construct the New England Clean Energy Connect Project ("proposed Project"), a high voltage direct current ("HVDC") transmission line and related facilities to deliver electricity from Quebec, Canada to a new converter station in Lewiston, Maine. The proposed Project would include three main components: construction of a new transmission line corridor, expansion of an existing transmission line corridor, reconstruction of existing transmission lines within existing corridors, and rebuilding and upgrading substations.

The areas that would be involved in the proposed Project extend from Beattie Township at the Maine border with Quebec, Canada to Lewiston, Maine. The transmission line corridor and other components associated with the proposed Project would be located in the following townships, plantations, towns and municipalities:

- Franklin County townships: Beattie Township, Merrill Strip Township, Skinner Township;

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PHONE: 207-287-2631
FAX: 207-287-7439

- Somerset County townships and plantations: Appleton Township, Bald Mountain Township, Bradstreet Township, Concord Township, Hobbstown Township, Johnson Mountain Township, Moxie Gore, Parlin Pond Township, The Forks Plantation, T5 R7 BKP WKR, West Forks Plantation; and

- Towns and municipalities: Alna, Anson, Auburn, Caratunk, Chesterville, Cumberland, Durham, Embden, Farmington, Greene, Industry, Jay, Leeds, Lewiston, Livermore Falls, Moscow, New Sharon, Pownal, Starks, Whitefield, Wilton, Windsor, Wiscasset, Woolwich.

The proposed Project is described by CMP in five segments. A project scope map showing the extent of each segment is included as **Appendix A** of this Site Law Certification.[1] Segment 1 would be approximately 53.5 miles in length and would begin in Beattie Township and end in Moxie Gore, entirely within townships and plantations served by the Commission. Segment 2 would be approximately 21.9 miles in length and would begin in The Forks Plantation and end in Moscow, within which The Forks Plantation and Bald Mountain Township are served by the Commission. Segment 3 would be approximately 71.5 miles in length and would begin in Concord Township and end in Lewiston, within which only Concord Township is served by the Commission. Segments 4 and 5 would be wholly within towns and municipalities not served by the Commission.

A new approximately 145.3-mile, 320-kilovolt HVDC transmission line would be constructed in Segments 1, 2, and 3. In Segment 1, the transmission line corridor would be 300 feet wide, is generally forested, and is not currently developed. A 150-foot wide portion of the Segment 1 corridor would be cleared of vegetation capable of growing into the conductor safety zone, as required by the National Electric Reliability Corporation.[2] In Segments 2 and 3, the proposed Project would be co-located with an existing transmission line and clearing of the corridor would be increased by 75 feet to accommodate the new line.

No new permanent roads would be constructed for portions of the proposed Project within the Commission's jurisdiction. Access to portions of the proposed Project within the Commission's jurisdiction in Segments 1, 2, and 3 would be over existing land management roads.[3]

CMP would utilize a backhoe to excavate holes to install transmission line structures. Placement of transmission line structures would disturb areas ranging from 30 square feet to 195 square feet, depending on the height of the transmission line structure required at a specific location and the size of the base needed to install each transmission line structure. Additional holes would be excavated to install guy wire anchors, as needed. Blasting may be required in some areas to achieve the

[1] Excerpts from CMP's Site Law application, exhibit 1-1, and September 18, 2019, Site Law application amendment.
[2] The North American Electric Reliability Corporation is a not-for-profit international regulatory authority whose mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. The North American Electric Reliability Corporation develops and enforces reliability standards, including the management of vegetation to prevent encroachments into the Minimum Vegetation Clearance Distance of its transmission lines.
[3] Access to Segments 1, 2, and 3 would be largely over privately-owned roads used for timber harvesting activities. Land management roads are used primarily for agricultural or forest management activities; however, some private landowners in the remote areas of Maine where the proposed Project would be located allow members of the public to utilize land management roads for recreation, hunting, fishing and other similar uses.

necessary depth for the transmission line structures and guy wire anchor bases. Once a hole is dug to the proper depth, a crane would be used to place the pole in proper alignment.[4]

SCOPE OF COMMISSION'S REVIEW: ZONING, LAND USE STANDARDS, AND COMPREHENSIVE LAND USE PLAN

Pursuant to 12 M.R.S. § 685-B(1-A)(B-1), the Commission must determine whether the proposed Project is an allowed use within the subdistricts in which it is proposed and whether the proposed Project meets any land use standards established by the Commission that are not considered in the Department's review under the Site Law.

a. Commission's Zoning Subdistricts & Use Listings

Within the Commission's jurisdictional area, there are three major zoning district classifications—management, protection, and development districts—which the Commission has further delineated into zoning subdistricts to protect important resources and prevent conflicts between incompatible uses. For each subdistrict, the Commission designated uses that are allowed without a permit, uses that are allowed without a permit subject to standards, uses that are allowed with a permit, uses that are allowed with a permit by special exception, and uses that are prohibited. The Commission's zoning subdistricts are codified in the Commission's Land Use Districts and Standards, 01-672 C.M.R. ch. 10 ("Chapter 10").

The proposed Project would be located within the following subdistricts, listed in the Table 1 below. Because the proposed Project is a "utility facility" as that term is defined in Ch. 10, § 10.02(248), the table identifies the status of utility facilities within each listed subdistrict.

Table 1. Subdistricts in which the proposed Project is proposed and use listing status.

Subdistrict	**Use Listing Status**
General Development	Allowed with a permit
Residential Development	Allowed with a permit
General Management	Allowed with a permit
Flood Prone Protection	Allowed with a permit
Fish and Wildlife Protection	Allowed with a permit
Great Pond Protection	Allowed with a permit
Shoreland Protection	Allowed with a permit
Recreation Protection	Allowed with a permit by special exception
Wetland Protection	Allowed with a permit by special exception

[4] Additional details regarding proposed construction plans are found in CMP's Natural Resources Protection Act application, section 7.0. The proposed Project would include other components that are either exempt from Site Law review by the Department or that are otherwise not proposed within the Commission's jurisdiction. Additional information regarding these components is provided in CMP's Site Law permit application.

b. Land Use Standards

The Commission's land use standards are codified in Ch. 10, §§ 10.24 – 10.27, and are grouped into three categories: development standards, dimensional requirements, and activity-specific standards.[5] The Commission's role in certifying the proposed Project to the Department is limited to reviewing development standards that are not duplicative of the Department's review pursuant to the Site Law. 12 M.R.S. § 685-B(1-A)(B-1). Applicable statutory criteria[6] and review standards that are not duplicative of the Department's review are:

a. Vehicular Circulation, Access and Parking – Ch. 10, §§ 10.24(B) and 10.25(D);

b. Conformance with Chapter 10 and the regulations, standards and plans adopted pursuant to Ch. 10 – Ch. 10, § 10.24(E);

c. Subdivision and Lot Creation – Ch. 10, §§ 10.24(F) and 10.25(Q);

d. Public's Health, Safety and General Welfare – Ch. 10, § 10.24

e. Lighting – Ch. 10, § 10.25(F);

f. Activities in Flood Prone Areas – Ch. 10, § 10.25(T);

g. Dimensional Standards – Ch. 10, § 10.26(D) and (F);

h. Vegetative Clearing – Ch. 10, § 10.27(B);

i. Pesticide Application – Ch. 10, § 10.27(I); and

j. Signs – Ch. 10, § 10.27(J).

c. Comprehensive Land Use Plan

Pursuant to 12 M.R.S. § 685-C(1), the Commission has a Comprehensive Land Use Plan that guides the Commission in developing specific land use standards, delineating district boundaries, siting development, and generally fulfilling the purposes of the Commission's governing statute. If approving applications submitted to it pursuant to 12 M.R.S. § 685-A(10) and § 685-B, the Commission may impose such reasonable terms and conditions as the Commission considers appropriate to satisfy the criteria of approval and purpose set forth in these statutes, rules, and the Comprehensive Land Use Plan.[7]

[5] Ch. 10, subchapter III.
[6] The criteria for approval set forth at 12 M.R.S. § 685-B(4) are restated in Chapter 10, § 10.24.
[7] Ch. 10, § 10.24.

PROCEDURAL BACKGROUND

On March 31, 2017, Massachusetts Electric Distribution Companies, in coordination with the Massachusetts Department of Energy Resources, issued a Request for Proposal for Long-Term Contracts for Clean Energy Projects ("Massachusetts RFP").

On July 27, 2017, CMP and Hydro Renewable Energy, Inc., an affiliate of Hydro Quebec, submitted to Massachusetts Electric Distribution Companies a joint bid proposal, *New England Clean Energy Connect: 100% Hydro*, in response to the Massachusetts RFP.

On September 27, 2017, CMP submitted to the Department an application for a Natural Resources Protection Act ("NRPA") permit pursuant to 38 M.R.S. §§ 480-A – 480-JJ and a Site Law permit pursuant to 38 M.R.S. §§ 481 – 490 for its proposed Project.

On October 12, 2017, the Department submitted to the Commission a Request for Certification for CMP's proposed Project.

On October 13, 2017, the Commission provided the Department with a Completeness Determination in which staff determined that there was sufficient information to begin the review of the certification request pursuant to 12 M.R.S. § 685-B(1-A)(B-1), and the Department accepted the applications as complete for processing.

On November 17, 2017, the Commissioner of the Department decided that the Department would hold a public hearing on CMP's NRPA and Site Law permit applications. On June 27, 2018, the Department provided notice of the opportunity to intervene in its hearing.

On December 11, 2017, the Appalachian Mountain Club, Maine Audubon, and the Natural Resources Council of Maine, in a joint letter to the Commission, filed a request for a hearing on the allowed use determination portion of the Commission's certification of the proposed Project.

On December 19, 2017, the Commission voted to hold a public hearing limited to whether the proposed Project is an allowed use within the Recreation Protection ("P-RR") subdistricts.
On March 28, 2018, Massachusetts Electric Distribution Companies selected the proposed Project as the winning bid in the Massachusetts RFP.

On July 12, 2018, the Commission provided notice of the public hearing and opportunity to intervene.

To facilitate efficient review and avoid the need for duplicative testimony by the same parties and interested members of the public in different proceedings, the Commission decided to hold its public hearing jointly with the Department.

Through its First Procedural Order, the Commission granted intervenor status to the 30 petitioners identified in Table 2 below. Additionally, the Commission allowed the Office of the Public Advocate to participate as a governmental agency, which, pursuant to Chapter 5 § 5.15, has all the rights of an intervenor.

Table 2. Persons and entities granted leave to intervene.

Hawk's Nest Lodge	Taylor Walker
Kennebec River Angler	Tony DiBlasi
Kingfisher River Guides	Edwin Buzzell
Maine Guide Service, LLC	Appalachian Mountain Club
Mike Pilsbury	Natural Resources Council of Maine
Alison Quick	Trout Unlimited
Carrie Carpenter	City of Lewiston
Courtney Fraley	Town of Caratunk
Eric Sherman	Wagner Forest Management
Kathy Barkley	NextEra Energy Resources, LLC
Kim Lyman	Western Mountains & Rivers Corp.
Linda Lee	International Brotherhood of Electrical Workers
Mandy Farrar	Industrial Energy Consumer Group
Matt Wagner	Lewiston Auburn Metropolitan Chamber of Commerce
Noah Hale	Maine State Chamber of Commerce

The Presiding Officer consolidated the following twelve intervenors: 1) Alison Quick, 2) Carrie Carpenter, 3) Courtney Fraley, 4) Eric Sherman, 5) Kathy Barkley, 6) Kim Lyman, 7) Linda Lee, 8) Mandy Farrar, 9) Matt Wagner, 10) Noah Hale, 11) Taylor Walker, and 12) Tony DiBlasi. This group is referred to as the "Local Residents and Recreational Users" in Intervenor Group 10 (see next paragraph).

The Department's and the Commission's Presiding Officers further consolidated the Intervenors into the following ten (10) intervenor groups.

Group 1: Friends of Boundary Mountains*; Maine Wilderness Guides*; Old Canada Road*

Group 2: West Forks Plantation*; Town of Caratunk**; Kennebec River Anglers**; Maine Guide Services**; Hawk's Nest Lodge**; Mike Pilsbury**

Group 3: International Energy Consumer Group**; City of Lewiston**; International Brotherhood of Electrical Workers**; Maine Chamber of Commerce**; Lewiston/Auburn Chamber of Commerce***

Group 4: Natural Resources Council of Maine**; Appalachian Mountain Club**; Trout Unlimited**

Group 5: Brookfield Energy*; Wagner Forest**

Group 6: The Nature Conservancy*; Conservation Law Foundation*

Group 7: Western Mountains and Rivers Corporation**

Group 8: NextEra**

Group 9: Office of the Public Advocate*

Group 10: Edwin Buzzell**; Local Residents and Recreational Users***

Note:

* indicates: Intervenors with the Department only
** indicates: Intervenors with the Department and the Commission
*** indicates: Intervenors with the Commission only

After receiving input from the parties, the Department's and the Commission's Presiding Officers selected the following hearing topics:

a. Scenic Character and Existing Uses;

b. Wildlife Habitat and Fisheries;

c. Alternatives Analysis; and

d. Compensation and Mitigation.

The Commission required prefiling of all direct and rebuttal testimony in advance of the hearing. On April 1-5, 2019, in Farmington, and on May 9, 2019, in Bangor, the Department held a public hearing on CMP's proposed Project. On April 2, 2019, and May 9, 2019, only, the hearing was held jointly with the Commission. The hearing included both daytime and evening sessions. Participation in the daytime sessions was limited to the parties. The evening sessions, held on April 2, 2019, for the Commission and the Department jointly, and April 4, 2019, for the Department only, were devoted to receiving testimony from members of the public. The Commission allowed the submission of post-hearing briefs, proposed findings of fact, and reply briefs following the hearing. The Commission and the Department concluded the hearing in this matter on May 9, 2019. The record remained open until May 31, 2019, for the parties to submit limited additional evidence and responses. The Commission's hearing record closed on May 31, 2019.

The opportunity for public comment on the proposed Project began with receipt of the request for certification on October 12, 2017. In October 2017, the Commission created a webpage for the proposed Project on which pertinent information regarding the Commission's certification process was posted.[8] A GovDelivery distribution list specific to the proposed Project was created by the Commission in October 2017 to provide updates on the proposed Project.[9] Any interested person was provided the option to enter their email address to receive updates regarding the proposed Project. The Commission received approximately 300 written comments from members of the public, municipalities, plantations, and townships regarding the proposed Project. Additionally, the Commission received written and oral testimony from dozens of members of the public at the public hearing on April 2, 2019. Following the conclusion of the hearing, the Presiding Officers held open the opportunity for public comment until May 20, 2019, then until May 28, 2019, to allow the public to file statements in rebuttal of those written statements filed by May 20, as required by Commission rule Chapter 5.

On September 11, 2019, the Commission conducted a deliberative session to consider a draft Site Law Certification decision document. The Commission did not vote or make any decisions regarding the draft decision document at the September meeting.

On September 18, 2019, CMP submitted to the Department and the Commission a petition to reopen the record with attachments that describe an amendment to the Site Law and NRPA applications pertaining to the originally proposed route in the area near Beattie Pond. On October 3, 2019, the Presiding Officers of the Department and the Commission reopened the record for the purpose of allowing CMP to amend its Site Law and NRPA applications and to gather additional evidence needed to evaluate the proposed alternative route outside of the P-RR subdistrict at Beattie Pond. Intervenors were permitted to submit evidence and comments pertaining to the amendment until November 12, 2019. CMP was permitted to submit evidence and comments responsive to the Intervenors' submissions until November 26, 2019. The general public was permitted to submit evidence and comments until November 26, 2019.

ALLOWED USE DETERMINATION: SPECIAL EXCEPTION REVIEW CRITERIA

As set forth in Table 1 above, a utility facility is a use allowed with a permit within all subdistricts in which it is proposed, except in the P-RR and Wetland Protection ("P-WL") subdistricts. Within the P-RR and P-WL subdistricts, a utility facility is allowed with a permit by special exception. For the Commission to find that a use is allowed by special exception in both the P-RR and P-WL subdistricts, pursuant to Ch. 10, §§ 10.23(I)(3)(d) and 10.23(N)(3)(d) respectively, an applicant must show by substantial evidence that:

a. there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant;

[8] https://www.maine.gov/dacf/lupc/projects/site_law_certification/slc9.html (last accessed December 30, 2019).
[9] GovDelivery is a Maine government subscription service allowing citizens to sign up for free text and email updates about topics relevant to the subscriber.

b. the use can be buffered from those other uses and resources within the subdistrict with which it is incompatible; and

c. such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan.

The proposed Project would cross or traverse two separate P-RR subdistricts: 1) where the proposed Project would cross the Kennebec River in West Forks Plantation and Moxie Gore; and 2) at a proposed crossing of the Appalachian Trail in Bald Mountain Township. The proposed Project crosses P-WL subdistricts in numerous locations throughout Segments 1, 2, and 3.[10]

The purpose of the P-RR subdistrict is to provide protection from development and intensive recreational uses to those areas that currently support, or have opportunities for, unusually significant primitive recreation activities. By so doing, the natural environment that is essential to the primitive recreational experience will be conserved. Ch. 10, § 10.23(I). The purpose of the P-WL subdistrict is to conserve coastal and freshwater wetlands in essentially their natural state because of the indispensable biologic, hydrologic and environmental functions which they perform. Ch. 10, § 10.23(N).

SPECIAL EXCEPTION ALTERNATIVES ANALYSIS

The Commission considers alternatives analysis information to determine whether a proposed activity is an allowed use by special exception within P-RR and P-WL subdistricts.[11] Although the Commission's role does not include evaluation of alternatives outside the P-RR and P-WL subdistricts, an understanding of CMP's overall alternatives analyses for siting the proposed Project is necessary context for the Commission's evaluation of the P-RR and P-WL special exception criteria.[12]

[10] CMP's initial proposal was to cross or traverse three separate P-RR subdistricts: 1) where the proposed Project would cross the Kennebec River; 2) adjacent to Beattie Pond in Beattie Township, Lowelltown Township, Skinner Township, and Merrill Strip Township; and 3) at a proposed crossing of the Appalachian Trail. CMP's September 2019 application amendment revised the route of the proposed Project to avoid the P-RR subdistrict at Beattie Pond. As a result, no portion of the revised proposed Project route is within the Beattie Pond P-RR subdistrict or within Lowelltown Township.

[11] The Department requires a broader alternatives analysis as part of its review under the NRPA that addresses avoidance and minimization of impacts to protected natural resources over the entire proposed Project, including impacts to protected natural resources within the Commission's jurisdiction.

[12] CMP's complete alternatives analysis is provided in section 2.0 of its NRPA permit application with the Department. Alternatives analyses pertaining to the P-RR and P-WL subdistricts are discussed in section 25 of CMP's Site Law permit application as well as in its hearing testimony before the Commission.

a. Alternative Routes for Transmission Line Corridor: Above Ground Alternatives

CMP analyzed three HVDC transmission line alternative routes when designing the proposed Project, each of which it stated would meet the project purpose of delivering energy generation from Québec to the New England Control Area.[13] In doing so, CMP specifically evaluated alternatives that would avoid the P-RR subdistricts. The three routes CMP evaluated are the Preferred Route, which is the route selected by CMP for its proposed Project for which it seeks permits; Alternative 1; and Alternative 2. Alternative 1 would require a new and additional crossing of the Appalachian Trail, would require acquisition of lands held in conservation, would include 93 miles of new corridor as compared to the Preferred Route distance of 53.5 miles, and would require more landowner acquisitions. Alternative 2 would also require a new crossing of the Appalachian Trail, the acquisitions of land in the 36,000-acre Bigelow Preserve and from the Penobscot Indian Nation, contains more wetland and stream crossings than the Preferred Alternative, and requires more landowner acquisitions than the Preferred Alternative.

CMP considered the following in conducting its evaluation of alternatives: conserved lands, undeveloped right-of-way, amount of clearing required, number of stream crossings, transmission line length, National Wetlands Inventory mapped wetlands, deer wintering areas, inland waterfowl and wading bird habitat, public water supplies, significant sand and gravel aquifers, and parcel count total. In siting Segment 1, CMP stated that it considered the presence of publicly owned conservation lands (e.g., the Appalachian National Scenic Trail and Maine Bureau of Parks and Lands properties), as well as those held by private conservation organizations such as The Nature Conservancy and the New England Forestry Foundation. The paramount goal of the route selection was to avoid iconic scenic and recreational areas that characterize this part of western Maine, including the Bigelow Preserve, the Crocker Mountain High Peaks area, Mount Abraham, Saddleback Mountain, the Moosehead Region Conservation Easement, Grace Pond in Upper Enchanted Township, the Leuthold Forest Preserve, the Number 5 Bog Ecological Reserve, and the Moose River/Attean and Holeb Ponds. CMP further stated that care was taken to microsite the new corridor in a manner that would avoid visual impacts to smaller but visually sensitive areas such as the Moxie Falls Scenic Area and the Cold Stream Forest.

CMP stated that it would utilize existing transmission line corridors to the greatest extent practicable for the proposed Project. Approximately 73 percent of the proposed Project would be sited in existing transmission corridors, and CMP already holds title, right, or interest to lands within these existing corridors. Regarding Segment 1, the undeveloped corridor between the Canadian border and The Forks Plantation, CMP asserts that has fee title, leases, and easements to all the land within the Preferred Alternative corridor.

Ultimately, CMP decided that the Preferred Alternative would be the least environmentally damaging and most cost-effective option and is the route selected for the proposed Project.

[13] CMP witness Brian Berube, hearing transcript, April 2, 2019, pages 129-130; NRPA application, section 2.0.

CMP evaluated additional specific alternatives to avoid crossing the P-RR subdistricts at the Kennebec River, Beattie Pond, and the Appalachian Trail.

In an effort to avoid the P-RR subdistrict at Beattie Pond, CMP negotiated an agreement with a landowner for a corridor south of the pond through Merrill Strip Township.[14]

CMP provided an easement to the United States government for the construction of the Appalachian Trail at the location where it now seeks to install an additional transmission line as part of the proposed Project.[15] The easement reserves the right to build and maintain additional transmission lines and clear within the corridor. CMP contends that alternative alignments at this location would result in one or more new crossings of the Appalachian Trail where there is not an existing transmission line.

None of the components of the proposed underground crossing of the Kennebec River would be visible from the P-RR subdistrict. CMP concluded that the previously proposed overhead crossing of the Kennebec River is no longer suitable as it would have a greater environmental impact than the current proposal.

More detailed discussion of alternatives for sections of the proposed Project that would cross or traverse the P-RR subdistricts is provided below.

b. Alternative Routes for Transmission Line Corridor: Undergrounding Alternative

Several intervenors raised the concern that CMP did not include undergrounding the transmission line as an alternative considered to the proposed overhead crossing of the Appalachian Trail P-RR subdistrict. In response, CMP argued that it "is under no obligation to analyze alternatives that are too remote, speculative, or impractical to pass the threshold test of reasonableness.... It was and remains so obvious that undergrounding would not be practicable that CMP did not initially include it as an alternative in its Applications."[16] CMP testified that when the proposed Project was designed and put to bid for the Massachusetts RFP, incorporating the costs associated with undergrounding would have resulted in CMP's proposal not being competitive relative to the other proposals and therefore not selected by the Massachusetts Electric Distribution Companies.[17] Additional costs to underground the proposed Project at the Appalachian Trail P-RR subdistrict would be borne by CMP (or an affiliate owner of the [proposed] Project) and its investors.[18]

[14] Prior to submitting its September 2019 application amendment, CMP testified that the landowner demanded approximately 50 times the fair market value for the land necessary to avoid the Beattie Pond P-RR. Consequently, CMP concluded that this alternative was not reasonably available. (CMP witness Brian Berube, hearing transcript, April 2, 2019, page 130.)
[15] CMP rebuttal testimony, exhibit 9-B.
[16] CMP post-hearing reply brief, page 20.
[17] CMP witness Thorn Dickinson, prefiled rebuttal testimony.
[18] CMP witness Thorn Dickinson, prefiled rebuttal testimony, page 11.

Despite CMP's conclusion that undergrounding would be obviously cost prohibitive without conducting a thorough analysis, CMP provided an underground alternatives analysis in response to the testimony of witnesses in Intervenor Groups 2, 6, and 8. CMP additionally provided detailed cost analysis information to the Commission and Department on May 17, 2019. CMP argued that "this analysis confirmed CMP's initial determination that undergrounding the [proposed] Project, or even portions of the [proposed] Project beyond the proposed undergrounding at the upper Kennebec River, is not reasonable, and therefore also could not be 'practicable,' because the costs of doing so would defeat the purpose of the [proposed] Project. For the same reason, undergrounding in the two other P-RR subdistricts that the [proposed] Project will cross is not suitable or reasonably available to CMP."[19,20]

Intervenor Groups 2, 4, and 10 argued that CMP did not conduct a proper and thorough alternatives analysis, in part, because the time to conduct such analysis was at the time the proposed Project was being sited, not during the hearing. Intervenor Group 4 argued that the amount of redacted information in CMP's undergrounding cost analysis renders the analysis of limited use in evaluating whether or not these figures are reasonable, what they include, and whether the alternatives could have been practicable, had they ever truly been considered by CMP.[21]

Intervenor Group 8 argued that HVDC transmission lines installed worldwide that are similar to the one proposed by CMP are routed underground and therefore are technically feasible. Undergrounding some or all of the proposed Project in Segment 1, Intervenor Group 8 argues, is a financially viable alternative that would mitigate scenic and recreational concerns in this section of the proposed Project. CMP committed to route the proposed Project under the Kennebec River, which will cost $42 million, approximately four percent of the project's capital cost.

Intervenor Group 8 argued the incremental cost increases for undergrounding the specific areas within the P-RR subdistrict for Segment 1 range from $13, 28, and 30 million, which is approximately one, three, and three percent increases in the capital costs for the proposed Project. The total associated cost attributable to routing under the Kennebec River and specific areas in Segment 1, therefore, sum to only 11 percent of the proposed Project's total costs. Intervenor Group 8 argued that CMP conceded that its budget includes a contingency of 15 percent of the total project cost. Accordingly, undergrounding specific areas within the P-RR subdistrict for Segment 1 is well within CMP's anticipated contingency funds for the NECEC.[22]

CMP argued that, contrary to the assertions of Intervenor Group 8, undergrounding is not available or feasible considering the technology and logistics and doing so would defeat the purpose of the proposed Project because it would not have been selected by the Massachusetts Electric Distribution

[19] CMP post-hearing reply brief, pages 20-21.
[20] CMP considered undergrounding alternatives for all three P-RR subdistricts proposed in its initial application. However, the September 2019 application amendment eliminated all portions of the proposed Project from the Beattie Pond P-RR subdistrict. This change in the proposed Project is not reflected in testimony and other record evidence from the hearing that is cited in this order.
[21] Intervenor Group 4 post-hearing brief.
[22] Intervenor Group 8 post-hearing brief, page 4 (footnotes omitted).

Companies.[23] CMP argued that "[t]he design of transmission lines that interconnect systems is very, very site dependent" and that "underground transmission installations cause a continuous surface disruption (rather than intermittent and widely spaced at each overhead structure installation location), require additional control measures for soil erosion, sedimentation, and dust generation during construction, require permanent access roads to every jointing location along the route, and can only avoid wetlands and waterways by using higher cost and higher risk trenchless methods."[24]

In both prefiled rebuttal testimony and at the live hearing, CMP's witness, Justin Bardwell provided testimony regarding underground transmission methods, potential alternate routes, estimated costs, anticipated environmental and public impacts, and additional risk during construction. Mr. Bardwell identified and discussed direct burial and trenchless installation technologies used as alternatives to overhead transmission lines. Key points relative to the Commission's review include the following.

- Generally, direct burial of a transmission line in a trench is the lowest cost underground option. This requires digging a trench, management of spoils, erosion control, and removal of trees along a 75-foot wide corridor.

- Direct burial is often unsuitable for installation within roadways.

- Trenchless horizontal directional drill ("HDD") technology methodology can be used to overcome or avoid surface obstacles, such as highways, railroads, sensitive wetlands, or waterways.

- HDD installation is two to ten times more expensive than trenched installations.

- HDD requires termination stations, similar in appearance to a substation, when transitioning between overhead and underground segments.

- Underground construction for the proposed Project would be expected to be mostly direct burial with HDD installations used for major highway, waterway, and wetlands crossings.

- The cost estimate for undergrounding the entirety of the proposed route in the proposed Project would be approximately $1.9 billion. The cost estimate for undergrounding only Segment 1 would be approximately $750 million. These costs are approximately 5 to 7 times more than the expected cost of overhead transmission construction.

- The vast majority of environmental impacts would be temporary impacts associated with construction.

- Outage rates for overhead and underground installations are respectively 0.53 incidents per 100 miles and 0.141 incidents per 100 miles. Outages in an overhead line are often restored

[23] CMP witness Thorn Dickinson, prefiled rebuttal testimony, pages 2-3, 10.
[24] CMP post-hearing reply brief, page 21.

in a few hours, while outages in underground cables typically require 2 to 5 weeks to restore.

- Larger vehicles are needed to service an underground transmission line than an overhead transmission line making access during winter and spring more challenging.

c. Kennebec River P-RR subdistrict alternatives analysis

The proposed Project includes the proposed crossing of the Kennebec River at a location north of Moxie Stream, between West Forks Plantation and Moxie Gore. This river segment is commonly referred to as the Kennebec Gorge and is located just below the Harris Station Dam, the largest hydropower generating facility in Maine. The P-RR subdistrict extends 250 feet from the normal high water mark on both sides of the Kennebec River from the outlet of Indian Pond at the Harris Station Dam to 0.5 miles above its confluence with the Dead River in The Forks Plantation.[25]

Recreational whitewater rafting in Maine is centered on the Kennebec River, particularly within the Kennebec Gorge, the Dead River, and the West Branch of the Penobscot River.[26] Controlled flow releases from the Harris Station Dam support commercial and recreational rafting in this reach of the Kennebec. Between the dam and its confluence with the Dead River, there are no known residential or commercial developments within the Kennebec River P-RR subdistrict. Several individuals and companies representing the recreational and commercial uses of the Kennebec Gorge for whitewater rafting intervened in and testified at the hearing held by the Commission in April and May 2019.

In addition to the broader alternatives analyses discussed above, CMP evaluated three alternatives specific to the proposed crossing of the Kennebec River: 1) at a location north of Moxie Stream, between West Forks Plantation and Moxie Gore; 2) a crossing of the Kennebec River on CMP-owned land about one mile downstream of Harris Dam; and 3) a crossing of the Kennebec River near the Harris Station powerhouse. These are depicted in Figure 25-3 of CMP's Site Law application.

CMP selected the option north of Moxie Stream, between West Forks Plantation and Moxie Gore as its preferred alternative and, in its September 27, 2017, Site Law application, proposed to cross the Kennebec Gorge with an overhead transmission line. In response to early concerns about the impact of the overhead crossing proposal on scenic character and compatibility with the existing recreational uses, CMP, on October 19, 2018, filed an amendment to its Site Law and NRPA applications to incorporate an underground crossing of the Upper Kennebec River using HDD technology.

The proposed HDD crossing of the Kennebec River would not include the construction or placement of any structures within the P-RR subdistrict. The proposed HDD crossing would consist

[25] Comprehensive Land Use Plan, Appendix B, Rivers with Special Zoning (2010).
[26] Comprehensive Land Use Plan, page 102.

of three main components: 1) the HDD bore, a subgrade conduit containing the HDVC line; 2) two termination stations, one on each side of the river, where the transmission lines transition from underground to overhead; and 3) trenching, a direct buried conduit used to carry the transmission cables from the HDD bore to the termination station.

Intervenors provided no final arguments opposing CMP's proposed HDD crossing of the Kennebec River.

d. Commission findings and conclusions regarding the Kennebec P-RR subdistrict alternatives analysis

Given the potential for significant visual impacts to recreational users on the Kennebec River from an overhead alternative at that location, that the undergrounding alternative using a directional drill would result in no construction activity within the Kennebec River P-RR subdistrict, and the termination stations, which would also be located outside the Kennebec River P-RR, will be well buffered from the river, the Commission concludes that there is no other alternative that is both suitable and reasonably available to the applicant outside of the Kennebec River P-RR subdistrict.

e. The Merrill Strip Alternative (M-GN subdistrict) to the original Beattie Pond Proposed Route (P-RR subdistrict)

In its initial application, CMP proposed a section of the new corridor within the Beattie Pond P-RR subdistrict encompassing portions of Beattie Pond Township, Lowelltown Township, and Skinner Township. Beattie Pond is a remote, undeveloped, management class 6 lake.[27] The management objective of management class 6 ponds is prohibiting development within 1/2 mile of these ponds to protect the primitive recreational experience and coldwater lake fisheries in remote settings.[28] In 1978, the Commission established a P-RR subdistrict within ½ mile of the normal high water mark of Beattie Pond.

As stated above, a utility facility in a P-RR subdistrict is allowed by special exception, which requires an alternatives analysis. In its initial application, CMP evaluated an alternative route south of the Beattie Pond P-RR, an alternative route north of the Beattie Pond P-RR, and undergrounding. Regarding the alternative route south of the Beattie Pond P-RR, CMP stated that it attempted to negotiate an alternative alignment south of the Beattie Pond P-RR subdistrict through Merrill Strip Township, but the landowner required compensation of approximately 50 times fair market value for that property. (Thus, CMP concluded that that alternative was not practicable.)

Following the Commission's September deliberations, CMP petitioned to reopen the record:

> [I]n light of the questions and concerns expressed by [the Commission] during the hearing, CMP continued to pursue the Merrill Strip Alternative

[27] Commission's Wildlands Lake Assessment Findings, Ch. 10, Appendix C
[28] Comprehensive Land Use Plan, page 290.

> and recently had the opportunity to re-engage in negotiations with the landowner. Good cause exists to reopen the record because on August 30, 2019 CMP was able to close on the purchase of an easement, reviving the Merrill Strip Alternative and enabling CMP to propose construction of the [proposed] Project entirely outside of the Beattie Pond P-RR subdistrict.[29]

The Commission and the Department granted CMP's request to reopen the record and, in its September 2019 application amendment, CMP proposed to avoid the Beattie Pond P-RR subdistrict by routing the proposed Project through a new tract, the Merrill Strip Alternative. The Merrill Strip Alternative is a 150-foot wide proposed transmission line corridor that would extend for approximately one mile across the northeast corner of Merrill Strip between Skinner and Beattie Townships. The Merrill Strip Alternative is located within a General Management subdistrict, where a utility facility is allowed with a permit.

The 150-foot wide corridor would be cleared of capable woody vegetation and managed in a persistent early successional habitat (i.e., scrub-shrub), consistent with CMP's Vegetation Management Plans to accommodate construction and maintenance of the transmission line. The Merrill Strip Alternative would require six new structures, five of which will be direct-embed monopoles and one will be a direct-embed two pole structure. The structures would be self-weathering steel, consistent with the CMP's original proposal, ranging in heights from 96 feet to 118.5 feet above ground level.[30]

Intervenor Groups 2 and 10 "agree that the new location avoids Beattie Pond and consequently eliminates the negative impacts on this particular special resource by removing a small segment of the route from this sub-district. However, the short time frame to study this new area and the inability to give this new route adequate peer review leaves open the question of whether there are other as yet unidentified, negative affects created in this newly impacted area. It is also important to note that simply shifting 1 mile of the 53 miles through Maine's north western woods does not suddenly make the entirety of the 145 mile corridor acceptable nor mean that CMP has met its burden of proof under either the Department's or the Commission's legal standards."[31]

Intervenor Group 4 stated that CMP "did not conduct an adequate alternatives analysis" and that "[i]t did not fully analyze all of the alternative routes and it too quickly dismissed alternatives that the company deemed too expensive at the time. As a result, [CMP] failed to truly evaluate whether or not there were opportunities to avoid and minimize environmental impacts to achieve the least environmentally damaging practicable alternative."[32]

Intervenor Group 3 stated that "[t]he [proposed Project] should be approved with or without the [Merrill Strip Alternative] because its benefits vastly outweigh its environmental costs, especially given proposed mitigation techniques. The [Merrill Strip Alternative], however, is on its face an

[29] Petition of Central Maine Power Company to Reopen the Record, page 2.
[30] Site Law amendment application, section 1.0.
[31] Intervenor Groups 2 and 10's Response to CMP's Petition to Reopen the Record, page 3.
[32] Intervenor Group 4's Comment on Supplemental Information on the Merrill Strip Alternative from Central Maine Power, pages 9-10.

environmentally superior alternative to [the proposed Project] crossing the Beattie Pond P-RR Subdistrict. The [Merrill Strip Alternative] is shorter by nearly 30 percent (1 mile versus 1.4 miles) and will use fewer structures, in an area almost exclusively used for private commercial timber harvesting. Therefore, [the Merrill Strip Alternative] will create fewer and less significant construction, maintenance, and environmental impacts."[33]

Intervenor Group 7 stated that "CMP's [a]mendment presents a straight-forward alternative warranting consideration and approval by the [Department] and [the Commission] [sic] The [Merrill Strip Alternative] clearly meets the [Commission's] land use standards, the [Department's] Site Law and NRPA standards, and is preferable to the originally proposed alignment of the [proposed] Project in the vicinity of Beattie Pond and through the Beattie Pond P-RR subdistrict."[34]

In response to Intervenor comments, CMP stated that "the evidence demonstrates that the Merrill Strip Alternative alignment meets the [Commission's] land use standards and the Site Law and NRPA standards, and is preferable to alignment of the [proposed] Project through the Lowelltown P-RR subdistrict. In sum, the [proposed] Project as modified by the Merrill Strip Alternative meets all Site Law and NRPA approval standards, and [Commission] certification requirements."[35]

The Commission considered all relevant testimony and documents in the record for this proceeding. Regarding alternatives for locating the proposed Project outside of the P-RR subdistricts, CMP has proposed the Merrill Strip Alternative to address the relevant Chapter 10 criteria. As a result, no portion of the proposed Project, as amended to include the Merrill Strip Alternative, would be located within the Beattie Pond P-RR subdistrict. The Merrill Strip Alternative is located in a General Management subdistrict in which a utility facility is a use allowed with a permit. As such, the Commission's special exception analysis, including the alternatives analysis, does not apply to this portion of the proposed Project.

f. Appalachian Trail P-RR subdistrict alternatives analysis

The Commission has established a 200-foot wide P-RR subdistrict centered on the entire length of the Appalachian Trail within its jurisdictional area. The proposed Project would cross the P-RR subdistrict in three locations at the Appalachian Trail adjacent to Moxie Pond in Bald Mountain Township. At this location, the Appalachian Trail is located in an existing CMP corridor containing a 115-kilovolt transmission line. One of the three proposed Appalachian Trail crossings is located at an area referred to as Joe's Hole, which crossing is depicted in Figure 25-4 of CMP's Site Law application and in "Photosimulation 50: Troutdale Road, Bald Mountain Twp" included as Appendix D of CMP's December 7, 2018, response to an additional information request.

[33] Intervenor Group 3's Comments in Support of the Merrill Strip Alternative and CMP's Request for Prompt LUPC Deliberation, page2

[34] Intervenor Group 7's Comments of Western Mountains & Rivers Corporation on Merrill Strip Alternative, page 5.

[35] CMP's Objection and Reply of Central Maine Power Company to Public Comments and to Intervenor Comments and Testimony, pages 13-14.

The cleared portion of CMP's existing corridor in the Appalachian Trail P-RR is approximately 150 feet wide. CMP proposes to widen the clearing by an additional 75 feet on the southern side of the corridor to accommodate the new HVDC transmission line. The resulting cleared portion of the corridor in this location would be 225 feet wide. Portions of six proposed HVDC transmission structures would be visible from the Appalachian Trail P-RR and co-located within an existing CMP transmission line corridor.

CMP's witness testified that while the existing corridor intersects the P-RR subdistrict near the Troutdale Road, the proposed clearing associated with the proposed Project is entirely outside the P-RR and in a Residential Development subdistrict. CMP's witness introduced Applicant Exhibit "Cross-1" depicting the location of the proposed clearing associated with the proposed Project and the zoning boundaries for the P-RR subdistricts.[36] Based on information provided by CMP regarding the extent and location of vegetative clearing at the proposed Appalachian Trail crossing, the Commission finds that the proposed Project crosses the Appalachian Trail P-RR in two rather than the three locations identified in the September 2017 Site Law application.

CMP stated in their Site Law application that "[t]he configuration of the [Appalachian Trail], within and adjacent to an approximately 3,500-foot long portion of transmission line corridor, prevented CMP from avoiding direct impacts to the subdistrict through the siting of the transmission line structures. As a result, one of five transmission line structures in this portion of the Project corridor is located within the P-RR subdistrict." CMP additionally stated that "[a]lternative alignments of the transmission line to meet the purpose and need of the [proposed] Project would result in crossings of the Appalachian Trail in one or more locations where there are no existing transmission line corridors. Co-location of the transmission line within the existing transmission line corridor is therefore the least environmentally-damaging practicable alternative."[37]

In 1987, CMP granted to the United States of America an easement for the Appalachian Trail to cross CMP's land.[38] Pursuant to the easement, CMP reserves the right to construct electric transmission lines in the corridor that the Appalachian Trail crosses. With respect to undergrounding at the proposed Appalachian Trail crossing, CMP's witness testified that CMP would have to acquire the underground rights from the United States National Park Service and CMP has not sought to acquire such rights. Intervenor Group 4 argued that CMP, as part of its alternative analysis, should have initiated discussions with private land owners, the National Park Service, and the Maine Appalachian Trail Club to explore the potential alternative of relocating the Appalachian Trail outside CMP's corridor.[39]

Additional numerical cost analysis information concerning the proposed crossing of the Appalachian Trail provided by CMP on May 17, 2019, included estimates for undergrounding the proposed transmission line at the Appalachian Trail crossing. The estimated cost of an underground alternative for the approximately 1.0 mile of transmission line within the Appalachian Trail P-RR is $29.8 million, or 3.13% of the overall proposed Project cost of approximately $950 million. CMP's

[36] CMP witness Peggy Dwyer, hearing transcript, April 2, 2019, pages 143-145.
[37] Site Law application section 25.3.1.3.
[38] CMP prefiled rebuttal testimony, exhibit CMP-9-B.
[39] Intervenor Group 4 post-hearing brief, page 9.

witness testified that underground construction is a not a practicable or reasonable alternative and that underground construction would have increased environmental impacts, increased impacts to the public and increased cost to overhead construction. CMP argued that undergrounding of the transmission line at Joe's Hole would require a large hydraulic rig to be set up next to the Appalachian Trail for several months causing significant noise and visual impacts and would require construction of termination stations within site of the trail. [40] CMP did not address whether the timing of such construction could be coordinated during a period of reduced trail use to minimize the impacts on trail users.

Intervenor Groups 2 and 10 argued that the proposed Project will "degrade the hiking experience for users of the Appalachian Trail. It would be the first crossing of the [Appalachian Trail] by a transmission line of this size anywhere in the state."[41]

Intervenor Group 4 argued that "[t]he widening of the corridor and the addition of a second much larger line would significantly increase the visual impact of these transmission line crossings on users of the [Appalachian Trail]." "The proposed [P]roject would greatly exceed the size, in both height and clearing width, of any existing transmission line crossing of the [Appalachian Trail] in Maine, and increase the sense of users that the trail at this location crosses a developed landscape." "We agree that creating a new crossing of the [Appalachian Trail] where none currently exists is not a preferable alternative. However, there are at least three other potential alternatives that have not been adequately explored: routing the project along existing roads to avoid this [Appalachian Trail] crossing, relocating the [Appalachian Trail], or burying the line at the proposed [Appalachian Trail] crossing." Intervenor Group 4 argues that CMP has not met the burden to demonstrate that the proposed Project satisfies the requirements for a special exception to cross the P-RR subdistrict at the Appalachian Trail.[42]

g. Commission findings and conclusions regarding the Appalachian Trail P-RR subdistrict alternatives analysis

The Commission considered all relevant testimony and documents in the record for this proceeding. Regarding alternatives for locating the proposed Project outside of the Appalachian Trail P-RR subdistrict, the Commission finds most credible CMP's testimony and other evidence provided by CMP. The Commission finds that alternative routes for crossing the Appalachian Trail are not suitable because they would cross the Appalachian Trail in places not already impacted by an existing transmission line.[43]

Undergrounding at the Appalachian Trail P-RR would necessitate construction of termination stations that would be visible to remote recreational hikers and necessitate the positioning of a large hydraulic drilling rig next to the trail for several months which would result in greater noise and visual impacts than the construction of the proposed overhead transmission lines.

[40] CMP witness Justin Bardwell, hearing transcript, May 9, 2019, page 343; CMP's post-hearing brief, p. 27.
[41] Intervenor Groups 2 and 10 post-hearing brief, page 7.
[42] Intervenor Group 4 post-hearing brief and proposed finding of facts, pages 6-8.
[43] CMP witness Brian Berube, hearing transcript, April 2, 2019, page 170.

The Commission considers cost as a factor in evaluating whether an alternative is reasonably available to an applicant. CMP's estimated costs associated with undergrounding the transmission line in the Appalachian Trail P-RR subdistricts is $29.8 million (or 3.13% of the overall proposed Project).

Overall, as compared to the proposed overhead transmission line, undergrounding at the Appalachian Trail P-RR subdistrict would necessitate the use of more heavy equipment, longer construction time, greater disruption to traffic, additional temporary environmental impacts, construction of permanent access roads, and higher construction costs. Both overhead and undergrounding methods of installing a transmission line result in some environmental and scenic impacts within the P-RR subdistrict. The Commission finds that, on balance, the benefit to recreational users on the Appalachian Trail of undergrounding the transmission line does not outweigh the environmental, technological, logistical, and financial implications of using this methodology in the Appalachian Trail P-RR subdistrict and is therefore not suitable to the proposed use or reasonably available to the applicant.

h. P-WL subdistrict alternatives analysis

The Wetland Protection subdistrict includes the area enclosed by the normal high water mark of surface water bodies, including coastal and freshwater wetlands and rivers, streams and brooks, within the Commission's jurisdictional area. Freshwater wetlands means "[f]reshwater swamps, marshes, bogs and similar areas that are inundated or saturated by surface or groundwater at a frequency and for a duration sufficient to support, and which under normal circumstances do support, a prevalence of wetland vegetation typically adapted for life in saturated soils and not below the normal high water mark of a body of standing water, coastal wetland, or flowing water." Ch. 10, § 10.02(87).

The Commission's Chapter 10 describes three categories of coastal or freshwater wetlands included in P-WL subdistricts: P-WL1, P-WL2, and P-WL3. Ch. 10, § 10.23(N)(2)(a).

The Department considers impacts to freshwater wetlands, including the wetlands zoned as P-WL, in its review of the proposed Project pursuant to the NRPA and the Department's related rule, Wetlands and Waterbodies Protection, 06-096 C.M.R. ch. 310. The Commission's Protected Natural Resource standards set forth in Ch. 10, § 10.25(P) are therefore duplicative and not considered by the Commission in its certification decision.

In preparing its NRPA application, CMP provided an alternatives analysis that identified wetlands and water bodies generally one acre and larger that are listed in the National Wetlands Inventory maps developed by the United States Fish and Wildlife Service, which would be crossed by the proposed Project. CMP considered and favored transmission line routes that minimized crossings of wetlands and water bodies to minimize unavoidable temporary (e.g., construction mat crossings) and permanent (e.g., habitat conversion, filling) impacts to these resources. CMP concluded that frequency of wetland occurrence per mile of transmission line corridor is greater along the route

alternatives than along the preferred route for which it seeks permits. As such, a route meeting the purpose and need of the proposed Project and reasonably available to CMP could not be found without similar or greater impact to P-WL subdistricts.[44]

CMP's preferred alternative route, for which it seeks permits, includes 76.3 acres of mapped wetland impacts compared to 118.3 acres for Alternative 1 and 113.3 acres for Alternative 2.[45] CMP's application identifies that the proposed Project would cross P-WL subdistricts a total of 34 times.[46] CMP did not provide information regarding the number of crossings of P-WL subdistricts the two alternative routes would involve.

The Commission finds that the proposed Project would intersect a total of 73 individually zoned P-WL subdistricts. A summary of the locations and wetland category for each crossing is provided in Table 3 below. A total of two transmission structures, identified in Table 4 below, are located within the P-WL subdistricts.[47] The primary impact to wetlands from the proposed Project would be the conversion of forested wetlands to scrub-shrub wetlands and emergent wetlands. The footprint of the two proposed transmission structures within P-WL3 wetlands would result in permanent impacts.

Table 3. Location and category of P-WL wetlands within the proposed Project area.

Location	Nearest Transmission Structure	Wetland Category
Appleton Township	3006-723	P-WL1: Wetlands of Special Significance
	3006-727	P-WL2: Scrub-shrub Wetlands
	3006-728	P-WL3: Forested Wetlands
	3006-731	P-WL3: Forested Wetlands
	3006-754	P-WL1: Wetlands of Special Significance
Bald Mountain Township	3006-436	P-WL1: Wetlands of Special Significance
	3006-436	P-WL3: Forested Wetlands
	3006-440	P-WL3: Forested Wetlands
	3006-441	P-WL3: Forested Wetlands
	3006-447	P-WL2: Scrub-shrub Wetlands
	3006-453	P-WL3: Forested Wetlands
	3006-463	P-WL1: Wetlands of Special Significance
	3006-483	P-WL1: Wetlands of Special Significance
	3006-483	P-WL1: Wetlands of Special Significance
Bradstreet Township	3006-667	P-WL2: Scrub-shrub Wetlands
	3006-667	P-WL1: Wetlands of Special Significance

[44] Site Law application, section 25.3.2. CMP's alternatives analysis is included in section 2.0 of its NRPA application.
[45] CMP Witness Gerry Mirabile, prefiled direct testimony, pages 19-20.
[46] Site Law application, section 25.3.2.
[47] CMP's August 13, 2018, response to additional information request.

	3006-671	P-WL2: Scrub-shrub Wetlands
	3006-678	P-WL1: Wetlands of Special Significance
	3006-678	P-WL2: Scrub-shrub Wetlands
	3006-680	P-WL1: Wetlands of Special Significance
	3006-682	P-WL3: Forested Wetlands
	3006-685	P-WL1: Wetlands of Special Significance
	3006-687	P-WL3: Forested Wetlands
	3006-687	P-WL2: Scrub-shrub Wetlands
	3006-687	P-WL1: Wetlands of Special Significance
	3006-688	P-WL1: Wetlands of Special Significance
Concord Township	3006-354	P-WL3: Forested Wetlands
	3006-357	P-WL3: Forested Wetlands
	3006-361	P-WL3: Forested Wetlands
	3006-365	P-WL1: Wetlands of Special Significance
	3006-365	P-WL3: Forested Wetlands
	3006-365	P-WL2: Scrub-shrub Wetlands
	3006-365	P-WL3: Forested Wetlands
	3006-366	P-WL3: Forested Wetlands
	3006-370	P-WL2: Scrub-shrub Wetlands
	3006-375	P-WL2: Scrub-shrub Wetlands
	3006-376	P-WL2: Scrub-shrub Wetlands
	3006-376	P-WL3: Forested Wetlands
	3006-378	P-WL3: Forested Wetlands
	3006-708	P-WL1: Wetlands of Special Significance
Hobbstown Township	3006-703	P-WL1: Wetlands of Special Significance
	3006-708	P-WL3: Forested Wetlands
	3006-710	P-WL3: Forested Wetlands
	3006-721	P-WL2: Scrub-shrub Wetlands
Johnson Mountain Township	3006-588	P-WL2: Scrub-shrub Wetlands
	3006-599	P-WL3: Forested Wetlands
	3006-614	P-WL2: Scrub-shrub Wetlands
	3006-650	P-WL2: Scrub-shrub Wetlands
Moxie Gore	3006-540	P-WL3: Forested Wetlands
	3006-541	P-WL3: Forested Wetlands
	3006-543	P-WL3: Forested Wetlands
	3006-548	P-WL3: Forested Wetlands
Skinner Township	3006-770	P-WL2: Scrub-shrub Wetlands
T5 R7 BKP WKR	3006-693	P-WL2: Scrub-shrub Wetlands
	3006-693	P-WL3: Forested Wetlands
	3006-694	P-WL3: Forested Wetlands

	3006-694	P-WL3: Forested Wetlands
	3006-694	P-WL3: Forested Wetlands
	3006-695	P-WL3: Forested Wetlands
	3006-700	P-WL1: Wetlands of Special Significance
	3006-700	P-WL3: Forested Wetlands
	3006-702	P-WL1: Wetlands of Special Significance
	3006-702	P-WL3: Forested Wetlands
	3006-703	P-WL1: Wetlands of Special Significance
	3006-703	P-WL3: Forested Wetlands
	3006-704	P-WL3: Forested Wetlands
	3006-705	P-WL3: Forested Wetlands
The Forks Plantation	3006-502	P-WL2: Scrub-shrub Wetlands
	3006-502	P-WL1: Wetlands of Special Significance
	3006-502	P-WL1: Wetlands of Special Significance
	3006-530	P-WL3: Forested Wetlands
West Forks Plantation	3006-566	P-WL3: Forested Wetlands
	3006-567	P-WL3: Forested Wetlands

Table 4. Proposed transmission structures located within P-WL subdistricts.

Structure Number	Subdistrict	Location	Natural Resource Map Number
3006-541	P-WL3	Moxie Gore	Segment 1 - Map 113
3006-548	P-WL3	Moxie Gore	Segment 1 - Map 110

Capable tree species include, but are not limited to, fir, spruce, oaks, pines, maples, birches, poplar, elm, beech, and basswood.[48] CMP developed a Construction Vegetation Clearing Plan which describes the restrictive management practices required for protected natural resources, including freshwater wetlands, during vegetation clearing associated with proposed Project construction.[49] CMP also developed a Post-Construction Vegetation Maintenance Plan which describes the restrictive maintenance requirements for protected natural resources within the transmission line corridor and applies to routine maintenance. [50]

i. Commission findings and conclusions regarding the P-WL subdistrict alternatives analysis

The Commission finds that the two alternative routes analyzed by CMP would result in greater wetland impact than CMP's preferred alternative for which it seeks permits. In addition, the Commission finds that the trench method of installing transmission lines, as discussed by Mr.

[48] Site Law application, section 10.1.
[49] Site Law application, exhibit 10-1.
[50] Site Law application, exhibit 10-2.

Bardwell, would necessitate excavation of a trench through each wetland area resulting in temporary wetland impacts from the removal of vegetation and disturbance of soils. The underground trench alternative would also involve permanent changes in wetland vegetation, including the conversion of forested wetland to scrub-shrub wetland. Mr. Bardwell testified to the cost of horizontal directional drilling beneath wetlands. The Commission finds that the cost of horizontal direction drilling beneath wetlands would be cost prohibitive and not an alternative that is reasonably available for the 73 individually zoned P-WL subdistricts within the Commission's jurisdictional area. In consideration of all the evidence, the Commission concludes that there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant relative to the P-WL subdistricts.

SPECIAL EXCEPTION BUFFERING ANALYSIS

The special exception criteria for the P-RR and P-WL subdistricts require that the use can be buffered from those other uses and resources within the subdistrict with which it is incompatible. For purposes of Chapter 10, the proposed Project use is a utility facility. Because components of the proposed Project will be visible, the Commission considers visual screening of the proposed use from other uses and resources with which it is incompatible to determine whether the proposed use is sufficiently buffered.

CMP submitted a visual impact assessment, prepared by Terrence J. DeWan & Associates. CMP's visual impact assessment, which includes photosimulations, examines the potential scenic impact of the transmission line from 32 key observation points, including the site of the proposed Kennebec River crossing, and the site of the proposed crossing of the Appalachian Trail.[51,52]

The Department contracted with Dr. James F. Palmer, Scenic Quality Consultants, an independent scenic consultant, to assist in the Department's review of the evidence submitted on scenic character. Given the overlap of the Department's scenic character review with the Commission's consideration of scenic impacts as they relate to the buffering special exception criterion, the Commission considered Dr. Palmer's review of CMP's visual impact assessment.

[51] Site Law application, section 6.16, Appendix D, Photosimulations I and IA; section 6.16, Appendix D, Photosimulations 10, 10A, 10B, 11, and 11A; and section 6.16, Appendix E.

[52] The perspective of some key observation points is from private property. In its prefiled direct testimony, Wagner Forest testified that "the inclusion of photos and photo simulations from private lands, including those from our managed property, taken without our consent. This project will pass through several miles of private working forests, which only allow public recreational access at the sole discretion of the individual landowners. Based on recent public comments regarding the NECEC project, it is apparent this access privilege is misunderstood by many in the public. We ask you to not encourage this misunderstanding by considering photos or simulations from viewpoints that occur on private land." The photosimulations provided for the Kennebec River, Beattie Pond and the Appalachian Trail were not taken from lands owned by Wagner Forest.

In siting the proposed Project, and specifically the segments within the P-RR subdistricts, CMP stated that it maximized the use of natural buffers, such as topography and intervening vegetation, to maintain visual buffers, and also sited the proposed new transmission line within existing transmission line corridors.[53]

a. Kennebec River P-RR buffering analysis and conclusions

As stated above, the proposed use is a utility facility. The P-RR subdistrict extends 250 feet from the normal high water mark on each side of the Kennebec River. Existing uses of the Kennebec River at the site of the proposed crossing include recreational whitewater rafting, kayaking, and fishing. CMP's proposed crossing of the river using underground horizontal directional drilling technology would result in no project components being visible from this P-RR subdistrict.

CMP proposed to retain a forested buffer of approximately 1,200 in length within the corridor between the northwest shoreline and the termination station and a forested buffer of approximately 1,000 in length will be preserved within the corridor between the southeast shoreline and the termination station. Updated photographic simulations and computer model images of the proposed HDD crossing, submitted by CMP with its October 19, 2018, Site Law application amendment, demonstrate that no components of the proposed Project would be visible from the Kennebec River P-RR subdistrict.

Intervenor Groups 2 and 10 argued that "[t]he West Forks has seen over 100,000 people a year recreate on their two class A Rivers – the Kennebec River Gorge and the Dead River – for whitewater boating, commercial and private rafting as well as canoeing, kayaking and fishing"; that no level of buffering can protect the use of recreational whitewater rafting on this type of river; that "CMP has failed to meet the special exception criterion regarding buffering"; and that "[n]o visual assessment has been done or study of what damage directional drilling will do to the surrounding area, Kennebec Gorge or the cold stream fisheries located just below the crossing."[54] The Commission disagrees. Specifically, the proposed undergrounding of the transmission line at the Kennebec River crossing will prevent the proposed Project from being seen by users of the river. Based on CMP's photosimulations, the Commission finds that CMP's revised proposal to underground the line within the Kennebec River P-RR would entirely avoid scenic impacts within the Kennebec River P-RR subdistrict. The Commission concludes that CMP's proposed Project will be buffered from those other uses and resources within the Kennebec River P-RR subdistrict with which it is potentially incompatible because no portion of the proposed Project will be visible within or from the P-RR subdistrict on either side of the river, provided CMP, for the life of the project, maintains a vegetative buffer at the Kennebec River necessary to provide visual screening (buffering) of all transmission line structures in accordance with Condition #1 of this Site Law Certification.

[53] CMP post-hearing brief, page 8 (footnotes omitted).
[54] Intervenor Groups 2 and 10 post-hearing brief, pages 8, 20, and 52; Intervenor Groups 2 and 10 post-hearing brief, page 8.

b. Appalachian Trail P-RR buffering analysis and conclusions

The Appalachian Trail, a resource of national as well as world-wide significance, valued for the scenic qualities that surround it, is a nearly 2,200-mile trail stretching from Georgia to Maine. Maine's portion of the Appalachian National Scenic Trail ("Appalachian Trail") stretches from Mount Success on the New Hampshire border to Mount Katahdin in Baxter State Park. Of the 281 miles of the Appalachian Trail in Maine, almost all are located in the Commission's jurisdictional area. The Appalachian Trail in Maine is identified as one of the distinctive recreational resources used by recreational hikers. The Commission has placed P-RR subdistricts on approximately 300 miles of hiking trails, including nearly the entire Appalachian Trail within Maine.[55]

CMP's summary of visual impact ratings for leaf-off snow cover describes the visual impact of the proposed Project at the [Appalachian Trail] crossing on Troutdale Road as "strong."[56] CMP proposes to utilize vegetative screening to reduce the visual impact of the proposed crossing of the Appalachian Trail P-RR. Native woody shrub species are proposed in CMP's "Joe's Hole (Moxie Pond) Planting Plan" submitted as Attachment J of CMP's August 13, 2018, response to additional information request. A total of 93 shrubs are proposed to be planted on either side of Troutdale Road in addition to maintaining non-capable vegetation within the corridor.

Intervenor Group 4 argued that "[a] special exception for construction of the proposed project should not be granted for the proposed transmission line crossing of the Appalachian Trail [] in Bald Mountain Twp....because CMP has not shown by substantial evidence that...the transmission line can be buffered from [Appalachian Trail] users."[57] "The widening of the corridor and the addition of a second much larger line would significantly increase the visual impact of these transmission line crossings on users of the [Appalachian Trail]" and that "no user surveys were conducted to actually assess users' expectations and reactions to the project."[58] "The proposed project would greatly exceed the size, in both height and clearing width, of any existing transmission line crossing of the [Appalachian Trail] in Maine, and increase the sense of users that the trail at this location crosses a developed landscape. CMP's contention that the impact on trail users would be 'negligible' is without foundation."[59] With regard to CMP's proposed planting plan for Joe's Hole, Intervenor Group 4 argued that "these plantings do not, and cannot, come close to buffering the existing use of the [Appalachian Trail], remote hiking, from the increased and incompatible impact of the wider corridor and additional much taller transmission line."[60]

Where the Appalachian Trail intersects the proposed Project, it does so within an existing CMP corridor containing a 115-kilovolt transmission line. CMP argued, "[w]hile the location of the trail throughout this 3,500-foot section of existing transmission line corridor prevented CMP from entirely avoiding impacts within the P-RR subdistrict, the use of the [Appalachian Trail] in these

[55] Comprehensive Land Use Plan, pages 245, 247, 259, 273.
[56] CMP's Basis Visual Impact Form Summary Table, January 30, 2019.
[57] Intervenor Group 4 post-hearing brief, pages 6-7.
[58] Intervenor Group 4 post-hearing brief, page 7.
[59] Intervenor Group 4 post-hearing brief, page 8.
[60] Intervenor Group 4 post-hearing brief, page 10.

locations is not incompatible with transmission lines, as evidenced by both the existing use of the corridor by [Appalachian Trail] hikers and by the easement from CMP allowing such use and by which the National Park Service [] agreed to the construction by CMP of additional above ground electric transmission lines.... The Project will add additional transmission structures, but the character of the [Appalachian Trail] in this location will not change."[61] CMP stated,

> CMP is willing to relocate the [Appalachian Trail] so that it crosses the CMP transmission line corridor only once in the vicinity of Troutdale Road, eliminating two existing crossings. Before CMP could commit to such a condition, though, the National Park Service [] would need to agree to it, and CMP would need to acquire, on behalf of [National Park Service], the necessary property interests in the new location. CMP has secured rights to a parcel that would allow a reroute that eliminates two of the transmission line crossings. However, because this reroute would pass by one or two camps, the Maine Appalachian Trail Club [] prefers the existing two crossings of the transmission line corridor. CMP will continue to explore all options to find a new route that is satisfactory to [the Maine Appalachian Trail Club] and [the National Park Service]. In the interim, CMP is working with [the Maine Appalachian Trail Club] on an interim relocation that will eliminate two crossings but will approach the edge of the [proposed Project]. Provided this interim alignment is ultimately acceptable to [the Maine Appalachian Trail Club] and [the National Park Service], CMP will pay for the cost of the realignment, including any appropriate buffer plantings. CMP's long-term goal is to secure a permanent re-route acceptable to both [the Maine Appalachian Trail Club] and [the National Park Service], and CMP is willing to commit the necessary funds to this end.[62]

The Commission encourages CMP's willingness to work with the National Park Service and the Maine Appalachian Trail Club to relocate the Appalachian Trail in the vicinity of the existing and proposed new crossing of the trail by the transmission line corridor.

Intervenor Groups 2 and 10 argued, "[t]he proposed [P]roject will also degrade the hiking experience for users of the Appalachian Trail. It would be the first crossing of the [Appalachian Trail] by a transmission line of this size anywhere in the state."[63] Intervenor Group 4 testified, "the Appalachian Trail passes through an existing transmission line corridor containing 115 kilovolt transmission line three times at the southern end of Moxie Pond. The existing towers are about 45 feet high, less than the height of the surrounding forested vegetation. The proposed project would widen this corridor by 50 percent and install a second transmission line with towers that are 100 feet tall, more than twice the height of the existing towers and significantly taller than the surrounding forest."[64] "As proposed the project fails the second criteria for a special exception in that this

[61] CMP post-hearing brief, pages 10-11.
[62] CMP post-hearing brief, page 10, footnote 40.
[63] Intervenor Group 4 proposed findings of fact, page 7.
[64] Hearing transcript, April 2, 2019, page 97.

increased impact cannot be buffered from existing uses. The opportunity exists to improve rather than degrade the users' experience by relocating the trail in this area. [The Commission] should condition the granting of the special exception on a resolution of this issue between [CMP] and [Appalachian Trail] trail managers."[65]

The existing transmission line predates the Appalachian Trail and the P-RR subdistrict at the proposed location for the new crossing, and numerous transmission line structures are visible from the three areas where the proposed Project would cross the trail this area. CMP's easement to the United States of America for the Appalachian Trail states that the easement

> ...shall not be interpreted or exercised to, in any way, interfere with [CMP's] erection, construction, maintenance, repair, rebuilding, respacing, replacing, operation, patrol and removal of electric transmission, distribution and communication lines consisting of suitable and sufficient poles and towers with sufficient foundations, together with wires strung upon and extending between the same for the transmission of electric energy and intelligence, together with all necessary fixtures, anchors, guys, crossarms, and other electrical equipment and appurtenances, or the clearing and keeping clear Tract 108-04 of all trees, timber and bushes growing on said tract only by such means as [CMP] may select which do not interfere with the footpaths continuity or endanger hiker's passing along the footpath.[66]

Although the proposed Project would increase the width of vegetative clearing in the transmission corridor and the height of the proposed transmission pole structures would be considerably higher than the existing transmission poles, the Commission finds that these conditions were contemplated at the time the easement was granted.

In consideration of all the evidence, the Commission concludes that the proposed Project, given the visibility of the existing transmission line, will be adequately buffered from those other uses and resources within the subdistrict with which it is incompatible, namely primitive recreational hiking on the Appalachian Trail, provided the vegetative planting described in CMP's "Joe's Hole (Moxie Pond) Planting Plan" is installed and maintained for the life of the project in accordance with Condition #2 of this Site Law Certification.

c. P-WL subdistrict buffering analysis and conclusions

The Wetland Protection subdistrict provides protection to areas that serve as important habitat for terrestrial and aquatic species.[67] Uses within P-WL subdistricts vary depending on the type of

[65] Intervenor Group 4 witness David Publicover, prefiled direct testimony, pages 3-4.
[66] CMP prefiled rebuttal testimony, CMP to USA Easement, exhibit CMP-9-B.
[67] Comprehensive Land Use Plan, page 235.

wetland system. Examples of uses that occur within P-WL subdistricts include hunting, fishing, boating, bird watching, swimming, scientific research, and habitat for fish and wildlife.[68]

Within Segment 1, the proposed Project would cross or traverse 480 freshwater wetlands and convert 8.23 acres of wetland to shrub-scrub wetland. Within Segment 2, the proposed Project would cross or traverse 147 freshwater wetlands and convert 1.13 acres of wetland to shrub-scrub wetland. Within Segment 3, the proposed Project would cross or traverse 227 freshwater wetlands and convert 5.65 acres of wetland to shrub-scrub wetland. The Department reviews all freshwater wetland impacts pursuant to the NRPA, which requires measures for avoidance and minimization of proposed wetland impacts and compensation for wetland impacts that are unavoidable.

Regarding the Commission's special exception criterion that the use can be buffered from those other uses and resources within the subdistrict with which it is incompatible, CMP stated,

> A wetlands functions and values assessment [] was performed for the [proposed] Project and is included in Attachment 12 of the NRPA application. The [functions and values assessment] concluded that none of the functions or values identified within forested wetlands would be eliminated or significantly diminished by the conversion of forested wetlands to scrub-shrub and emergent wetlands, and that, on balance, there will be a positive net benefit with regards to functions and values. As a result, the construction of the transmission line in accordance with the methods described in Section 10 (Buffers) of the Site Law Application is consistent with the objective of the P-WL subdistrict.[69]

CMP's proposed Post-Construction Vegetation Maintenance Plan describes the restrictive maintenance requirements for protected natural resources within the transmission line corridor and specifies that shrub and herbaceous vegetation will remain in place to the extent possible. The Post-Construction Vegetation Maintenance Plan identifies the following procedures to be implemented during vegetation maintenance activities to protect sensitive natural resources:

- Protected resources and their associated buffers will be flagged or located with a Global Positioning System prior to all maintenance operations;
- Hand-cutting will be the preferred method of vegetation maintenance within buffers and sensitive areas, where reasonable and practicable;
- Equipment access through wetlands or over streams will be avoided as much as practicable by utilizing existing public or private access roads, with landowner approval where required;

[68] A detailed discussion of wetland functions and values for areas that would be impacted by the proposed Project is included in section 12.0 of CMP's NRPA permit application.
[69] Site Law application, section 25.3.2.

- Equipment access in upland areas with saturated soils will be minimized to the extent practicable to avoid rutting or other ground disturbance;

- Significant damage to wetland or stream bank vegetation, if any, will be repaired following completion of maintenance activities in the area; and

- Areas of significant soil disturbance will be stabilized and reseeded following completion of maintenance activity in the area.[70]

The Post-Construction Vegetation Maintenance Plan provides that vegetation maintenance within, and within 25 feet of, freshwater wetlands with standing water will be conducted only by hand cutting with hand tools or chainsaws. Herbicides will not be used in Segment 1. In other segments, the Post-Construction Vegetation Maintenance Plan provides that herbicide use would occur in wetlands only when no standing water is present in the wetland at the time of the application.

To the extent that the proposed Project is incompatible with any resources in the P-WL subdistricts, the Commission finds that the proposed Project will be buffered from any such resources, provided CMP complies with the Post-Construction Vegetation Maintenance Plan as stipulated in Condition #3 of this Site Law Certification.

LAND USE STANDARDS

The Commission must determine whether the proposed Project meets any land use standards established by the Commission that are not considered in the Department's review under the Site Law.[71]

a. Vehicular Circulation, Access and Parking, Ch. 10, §§ 10.24(B) and 10.25(D)

In considering this land use standard, the Commission evaluates whether the proposal ensures adequate provision has been made for loading, parking and circulation of land; traffic movement in, on and from the site; and for assurance that the proposal will not cause congestion or unsafe conditions with respect to existing or proposed transportation arteries or methods.

[70] CMP's Post-Construction Vegetation Maintenance Plan, Site Law application exhibit 10-2, December 2018, page 3.
[71] 12 M.R.S. § 685-B(1-A)(B-1).

CMP stated:

> There are approximately 125 miles of existing gravel roads primarily used for forest management that provide direct access to the Project from State Route 201 in Johnson Mountain Twp. Since the Project is an HVDC transmission line right of way, vehicular traffic would only result during construction (short-term) and maintenance (infrequent), and as such the Project is not expected to generate a significant amount of traffic. The Project will only access construction areas through the use public roads and existing land management roads. There will be no Level C road projects constructed in any P-RR subdistrict as a result of the Project.[72]
>
> Temporary, unpaved access roads through sections of the new transmission line corridor will need to be established for the clearing and construction phases of the Project. However, these access roads will be restored to pre-existing contours and revegetated once construction is complete and final restoration has been established. No new permanent roadways will be developed and project construction and maintenance related parking would primarily be in upland locations on the Project corridor or in existing developed areas. No on-street parking will be associated with this project.[73]

CMP stated, "Poles will either be hauled in by truck or skidder or flown in via helicopter. In areas where access is suitable (e.g., level uplands near roads), trucks may be used. In areas with more difficult access, skidders or forwarders may be used to bring the poles to the proposed pole locations. In very remote areas or areas with extreme terrain, or during accelerated construction, helicopter transportation may be used."[74]

Access to the proposed Project for construction and maintenance would be over both public and private roadways. Public roadways may be under the jurisdiction of the Maine Department of Transportation, Franklin County, or Somerset County. Any vehicle transporting non-divisible loads

[72] Level C Road Project means "[c]onstruction of new roads, and relocations or reconstruction of existing roads, other than that involved in level A or level B road projects; such roads shall include both public and private roadways excluding land management roads." Ch. 10, § 10.02(112). Within P-RR subdistricts, Level C road projects may be allowed upon issuance of a permit as a special exception. Level A Road Project means "[r]econstruction within existing rights-of-way of public or private roads other than land management roads, and of railroads, excepting bridge replacements." Ch. 10, § 10.02(110). Level A road projects are allowed without a permit subject to land use standards. Level B Road Project means "[m]inor relocations, and reconstructions, involving limited work outside of the existing right-of-way of public roads or private roads other than land management roads and of railroads; bridge reconstruction and minor relocations whether within or outside of existing right-of-way of such roads." Ch. 10, § 10.02(111). Level B road projects are allowed upon issuance of a permit, subject to land use standards.

[73] Site Law application, section 25.4.3.

[74] NRPA application, section 7.2.1.6.

in excess of legal dimension and weight limits on roads and bridges maintained by the Maine Department of Transportation must obtain an overlimit permit from the Department of the Secretary of State, Bureau of Motor Vehicles. Municipalities may have their own restrictions and permitting systems in place and would have to be checked individually. Access over privately owned roadways would be subject to individual landowner approval and any terms or conditions so stipulated.

The Commission concludes that the proposed Project adequately provides for loading, parking and circulation of traffic, in, on and from the site, and assurance that the proposal will not cause congestion or unsafe conditions, provided CMP complies with all applicable regulations of the Maine Department of Transportation, Franklin County, and Somerset County in accordance with Condition #4 of this Site Law Certification.

b. Subdivision and Lot Creation, Ch. 10, §§ 10.24(F) and 10.25(Q)

In considering this land use standard, the Commission evaluates whether the proposal to place a structure upon any lot in a subdivision and whether any divisions of land comply with the Commission's laws and rules governing subdivisions. "'Subdivision' means a division of an existing parcel of land into 3 or more parcels or lots within any 5-year period, whether this division is accomplished by platting of the land for immediate or future sale, by sale of the land or by leasing."[75] A lot or parcel that when sold or leased created a subdivision requiring a permit from the Commission is not considered a subdivision lot and is exempt from the permit requirement if the permit has not been obtained and the subdivision has been in existence for 20 or more years.[76]

CMP provided a 20-year land division history, prepared by Curtis Thaxter, LLC, for all parcels within the proposed Project area that are within the Commission's jurisdictional area, except for parcels within Moxie Gore. CMP stated that it "acquired most of the 300-foot wide corridor located in Moxie Gore in a deed from T-M Corporation dated November 10, 1988 and recorded in the Somerset County Registry of Deeds in Book 1480, Page 89. This transaction was part of a land exchange and boundary line agreement with T-M Corporation in which CMP reconfigured part of its ownership that dated back to the early 1900s. The remainder of the proposed corridor in Moxie Gore crosses land along the Kennebec River that CMP currently owns. This land was also acquired by several deeds in the early 1900s."[77] The land division history prepared by Curtis Thaxter, LLC concludes that no unauthorized land divisions appear to have occurred within the twenty-year review period.

The Commission finds that CMP's proposal does not include the development of any structures on lots that are part of a subdivision and that the land division history provided by CMP demonstrates that CMP has not created a subdivision. The Commission concludes that the proposed Project complies with Ch. 10, §§ 10.24(F) and 10.25(Q).

[75] 12 M.R.S. § 682(2-A).
[76] 12 M.R.S. § 682-B (5).
[77] Site Law application, section 25.4.1.

c. Public's Health, Safety and General Welfare – Ch. 10, § 10.24

The burden is upon the applicant to demonstrate by substantial evidence that the criteria for approval are satisfied, and that the public's health, safety and general welfare will be adequately protected. In the context of utility facilities the applicant "generally must show that the proposed use[] will not burden local public facilities and services" including "fire and ambulance services."[78]

The Maine State Federation of Firefighters ("Firefighters Federation"), in a letter dated February 12, 2019, expressed concerns regarding fire and other emergency response capacities within the proposed Project area. The Firefighters Federation has a membership of over 6,000 firefighters of which many are volunteers within small departments in rural communities. The Firefighters Federation stated:

> Several of our volunteer members, who serve areas within the proposed NECEC Corridor, contacted us to express their concerns for fire and safety response. These concerns focus not only on the major construction phases of the project, but also on significant risks that will be established and which will continue to exist long after construction crews have left the area and wide areas of high voltage power lines cross their jurisdictions. Further conversations and investigation indicate that to date, no evaluation, assessment, or documentation of the fire, emergency medical, terrorism and other risks, or the services and equipment needed to mitigate those risks, have been formally identified, discussed, studied, and/or reported on.
>
> ...
>
> The first 100 miles of the proposed Corridor, including the 70 miles covered by the [Maine Forest Service] and Rangers, has only three (3) volunteer departments within a one-mile (1-mile) buffer of the proposed Corridor. These are the Bingham, Anson, and Solon Volunteer Fire Departments. This area has no staffed fire services and daytime coverage is extremely limited.
>
> South of Bingham, and still within Somerset County, there are three (3) additional fire departments [within] a two-mile (2-mile) buffer of the proposed NECEC transmission line. These are the volunteer departments of Starks, Madison, and Industry. Once again, these three additional departments have no staffed fire services and daytime coverage is extremely limited.
>
> ...

[78] Comprehensive Land Use Plan, § 4.3.E.

> Non-fire emergency medical services (EMS) paramedic response is provided by Upper Kennebec Valley Ambulance out of Bingham. Emergency transports are taken to Redington-Fariview [sic] Hospital, 35-miles away. Redington-Fariview [sic] hospital has a Lifeflight landing pad, with helicopter transport dispatched from Bangor, Lewiston, or Sanford, if available.

Concerns regarding the ability of emergency crews to respond to fires within the proposed Project in the Commission's jurisdiction were raised by Intervenor Group 2 and by members of the public.[79]

CMP provided no evidence addressing the proposed Project's impact on fire and ambulance services. The Commission concludes that the public's health, safety and general welfare will be adequately protected provided CMP submits to the Commission, prior to commencing construction of the proposed Project, written agreement(s) with state, local, or private emergency services providers to ensure fire and emergency services are available at all times and at all locations of the proposed Project that are within the Commission's jurisdictional area during and following construction of the proposed Project in accordance with Condition #5 of this Site Law Certification.

d. Lighting – Ch. 10, § 10.25(F)

In considering this land use standard, the Commission evaluates whether the proposed activity will comply with standards for exterior light levels, glare reduction, and energy conservation.

CMP proposes no permanent operation of lights on transmission line structures installed within the Commission's jurisdiction. CMP does propose that temporary nighttime lighting may be necessary during construction of the proposed Project.

The Commission finds that temporary lighting proposed by CMP is anticipated to comply with the applicable standards and concludes that the proposed Project will comply with the lighting standards set forth at Ch. 10, § 10.25(F).

e. Activities in Flood Prone Areas – Ch. 10, § 10.25(T)

In considering this land use standard, the Commission evaluates whether all development in flood prone areas, including areas of special flood hazard, as identified by Flood Prone Area Protection subdistricts or Federal Emergency Management Agency Flood Boundary and Floodway, Flood Hazard Boundary or Flood Insurance Rate maps comply with the procedural requirements and development standards set forth in Ch. 10, § 10.25(T).[80]

[79] Hearing transcript, April 2, 2019, pages 96, 202, 204; Hearing transcript, May 9, 2019, page 58; Hearing transcript, April 2, 2019 – Public Comment Session, pages 23, 37, 89, 106-107.
[80] The purpose and description of the Flood Prone Area Protection subdistrict is set forth in Ch. 10, § 10.23(C).

CMP stated that the proposed Project would cross one Flood Prone Area Protection subdistrict in Appleton Township. The only portion of the proposed Project that crosses a flood hazard area mapped by the Federal Emergency Management Agency is in Concord Township. CMP proposes no transmission line structures within a Flood Prone Area Protection subdistrict or within mapped 100-year floodplains within the Commission's jurisdictional area.

The Commission concludes that the proposed Project will not directly impact or increase the risk of flooding and will comply with Ch. 10, § 10.25(T).

f. Dimensional Standards – Minimum Setbacks, Ch. 10, § 10.26(D)

The Commission's dimensional requirements for minimum setbacks apply to all lots on which structural development is proposed, unless otherwise provided by Ch. 10, § 10.26(G).

In CMP's proposal, no proposed structures are located within the applicable roadway setbacks (75 feet in all subdistricts, except 30 feet in Residential Development and General Development subdistricts).[81]

All infrastructure associated with the proposed Project within the Commission's jurisdictional area will be at least 75 feet from all side and rear property lines.

Ch. 10, § 10.26(D)(2)(a) establishes a setback of 100 feet from the nearest shoreline of a flowing water draining less than 50 square miles, a body of standing water less than 10 acres in size, or a coastal wetland, and from the upland edge of non-forested wetlands located in Wetland Protection (P-WL1) subdistricts. Ch. 10, § 10.26(D)(2)(b) establishes a setback of 150 feet from the nearest shoreline of a flowing water draining 50 square miles or more and a body of standing water 10 acres or greater in size.

CMP stated that "[t]ransmission line structures and guy wires will be positioned outside of the setback requirements to the fullest extent practicable. However, the design of the transmission line is constrained by both topography and the presence of natural resources and other features (e.g., roadways). The transmission line was designed to place transmission line structures such that they avoid natural resource impacts to the maximum extent practicable while maintaining necessary safety clearances for the overhead conductors."[82] As a result, CMP proposes 135 transmission line structures within the 100-foot shoreline setback due to the nature of the proposed Project, engineering constraints, and other design parameters.[83] CMP stated that only one transmission structure, Structure 3006-378, would be located within the 150-foot setback required by Ch. 10, § 10.26(D)(2)(b).

[81] CMP's August 13, 2018, update to NRPA and Site Law Applications, page 5.
[82] Site Law application, section 25.4.2.
[83] Structure numbers and the setback distances are provided in the table provided in CMP's August 13, 2018, update to NRPA and Site Law applications, page 6.

CMP requested an exception to the minimum setbacks in accordance with Ch. 10, § 10.26(G)(5), which states, in part, "[a]n exception may be made to the shoreline, road, and/or property line setback requirements for structures where the Commission finds that such structures must be located near to the shoreline, road, or property line due to the nature of their use." Pursuant to Ch. 10, § 10.26(G)(19), the Commission may reduce the minimum setback requirements for guy wire anchors provided such reduction will not result in unsafe conditions.

The Commission finds that the linear nature of the proposed Project and requirement to maintain minimum safety clearances for the overhead conductors results in the placement of transmission structures in locations that cannot meet the Commission's default setback distances from certain water bodies. The Commission finds that CMP has attempted to design the proposed Project in such a way as to avoid conflict with the shoreline setbacks to the greatest extent practicable and that the 135 proposed transmission structures and guy wire placements that do not meet shoreline setbacks is an operational necessity and will not result in unsafe conditions. The Commission concludes that the proposed Project complies with applicable dimensional standards for minimum setbacks.

g. Dimensional Standards – Maximum Structure Height, Ch. 10, § 10.26(F)

Pursuant to Ch. 10, § 10.26(F)(1)(b), the maximum structure height for commercial, industrial, and other non-residential uses involving one or more structures is 100 feet. Pursuant to Ch. 10, § 10.26(F)(2), within 500 feet of the normal high water mark of a body of standing water 10 acres or greater, is 30 feet. Pursuant to Ch. 10, § 10.26(F)(3), features of structures which contain no floor area such as chimneys, towers, ventilators and spires and freestanding towers and turbines may exceed these maximum heights with the Commission's approval.

CMP stated:

> Transmission line structure heights are determined during project design based on a number of parameters governed by the safety standards of the National Electric Safety Code. Specifically, for safe operation of the line, the transmission line must be designed in a manner that provides adequate clearance from the ground to the maximum sag of the transmission line. Structure locations are placed, to the extent practicable, in a manner that avoids and spans protected natural resources. Additionally, topographic constraints, the presence of existing utilities, and the span length needed to place structures outside of sensitive areas often requires transmission line structures to be taller than 100 feet.[84]

CMP has identified a total of 96 transmission line structures within the Commission's jurisdictional area that would exceed the maximum structure height of 100 feet.[85] Additionally, four structures in

[84] Site Law application, section 25.4.1.F.
[85] See Site Law application, Table 25-4 for a listing of proposed structures that would exceed 100 feet in height.

the Merrill Strip Alternative would exceed the maximum structure height of 100 feet.[86] CMP does not propose any structures within 500 feet of a body of standing water 10 acres or greater.

The Commission finds that the proposed transmission structures contain no floor area and thus may exceed the 100-foot height limitation pursuant to Ch. 10, § 10.26(F)(3). The Commission concludes that the proposed Project is consistent with applicable dimensional requirements for maximum structure height.

h. Vegetative Clearing – Ch. 10, § 10.27(B)

The Commission has established vegetative clearing standards for areas within 250 feet of certain water bodies. Vegetation clearing activities not in conformance with these standards may be allowed upon issuance of a permit from the Commission provided that such types of activities are allowed in the subdistrict involved and that an applicant for such permit shows by a preponderance of the evidence that the proposed activity, which is not in conformance with the standards will be conducted in a manner which produces no undue adverse impact upon the resources and uses in the area.

Pursuant to Ch. 10, § 10.27(B)(1), a vegetative buffer strip shall be retained within either 30 or 50 feet of the right-of-way of any public roadway, depending on the subdistrict involved, and within either 75 or 100 feet of the normal high water mark of standing and flowing water bodies, depending on the type of water body in proximity to proposed structures. The Department retains jurisdiction over vegetative clearing subject to the NRPA, including clearing adjacent to standing and flowing waters.

Within the vegetative buffer strip, Chapter 10 requires that there shall be no cleared opening greater than 250 square feet in the forest canopy, and selective cutting of trees is permitted provided that a well-distributed stand of trees and other natural vegetation is maintained. [87]

In Segment 1 of the proposed Project, CMP proposes to clear a 150-foot wide strip of capable vegetation to accommodate the new transmission line. In Segments 2 and 3, CMP proposes to clear a 75-foot wide strip of capable vegetation to accommodate the new transmission line.

Relating to road buffers, CMP stated,

> Due to the nature of the [proposed] Project, the buffer strips identified in [Ch. 10,] § 10.27, B will be retained but the Project cannot conform to the selective cutting requirements associated with the maintenance of vegetation ([Ch. 10,] § 10.27, B, 2). The Project will maintain vegetative buffers in all scenarios but these buffers will not include capable vegetation that could grow to heights that would grow into the conductor

[86] Site Law amendment application, section 25.3.
[87] The Commission's rating system for a well-distributed stand of trees is set forth in Ch. 10, § 10.27(B), Table 10.27(B-1).

> safety zone of the transmission line. A description of buffers and CMP vegetation clearing and maintenance practices is included in Section 10 of the Site Law application.[88]

Section 10 of CMP's Site Law application describes the proposed natural resource buffers and clearing guidelines CMP will employ for the proposed Project. CMP stated that all tree species capable of growing into the conductor safety zone must be removed from the buffers during construction and be prevented from re-establishing during periodic scheduled vegetation maintenance operations. Selective transmission line corridor management techniques are discussed in Section 10 of the Site Law application and have also been incorporated into CMP's Construction Vegetation Clearing Plan and CMP's Post-Construction Vegetation Management Plan. The objective of CMP's proposed vegetative buffer management plan "is to maintain ecological values of resources without sacrificing the operational safety of the electric transmission line and associated conductors."[89] CMP proposes mechanized clearing, including motorized equipment, to prepare the corridor for construction. However, for periodic maintenance of the corridor, CMP testified that it "practices integrated vegetation management [], including the selective use of herbicides, to safely and effectively maintain its transmission line corridors in a scrub/shrub cover."[90] Within Segment 1, CMP testified that it will not apply herbicides but instead utilize mechanical methods for vegetation maintenance on this portion of the proposed Project.[91] For portions of the proposed Project in which vegetative tapering is proposed or required, CMP stated that mechanized methods, primarily chainsaws, would be used to selectively remove capable vegetation.

CMP's Site Law application section 10.3, Buffer and Resource Protection Concepts, identifies that vegetative buffers are designed to:

- Prevent soil erosion and sedimentation of surface waters;
- Slow the velocity, increase the infiltration, and otherwise remove sediment and other contaminants in runoff before it enters surface waters;
- Reduce access of all-terrain vehicles to streams;
- Provide shade, to reduce the warming effect of sunlight (insolation) on water; and
- Provide cover and habitat for wildlife that use riparian and significant habitats.

CMP's proposed Construction Vegetation Clearing Plan specifies restrictive vegetation management requirements for sensitive areas within the proposed Project area including:

[88] Site Law application, section 25.4.6.
[89] Site Law application, section 10.2.
[90] CMP Witness Gerry Mirabile, supplemental testimony, page 4.
[91] CMP Witness Gerry Mirabile, supplemental testimony, page 5.

- Wetlands and streams;
- Perennial streams within designated Atlantic salmon habitat;
- Significant vernal pools;
- Inland waterfowl and wading bird habitat;
- Deer wintering areas;
- Rare plant locations; and
- Locations over mapped significant sand and gravel aquifers.

On January 30, 2019, CMP submitted revisions to its Construction Vegetation Clearing Plan and Post-Construction Vegetation Management Plan to incorporate 100-foot buffers on perennial streams located in Segment 1, including all coldwater fisheries, waterbodies containing special concern, threatened, and/or endangered species, and outstanding river segments; and 75-foot buffers on all other streams. In addition, CMP proposes to employ tapered vegetation management areas to minimize the visual impact of the proposed Project from the summit of Coburn Mountain in Upper Enchanted Township and from Rock Pond in T5 R6 BKP WKR.

The Commission concludes that the proposed Project will be conducted in a manner which produces no undue adverse impact upon the resources and uses in the area provided CMP adheres to the vegetative clearing and maintenance as described its Construction Vegetation Clearing Plan and Post-Construction Vegetation Management Plan in accordance with Condition #3 of this Site Law Certification.

i. Pesticide Application – Ch. 10, § 10.27(I)

Pursuant to Ch. 10, § 10.27(I), pesticide application in any of the subdistricts will not require a permit from the Commission provided such application is in conformance with applicable state and federal statutes and regulations.

CMP proposes to use herbicide applications after initial clearing of the corridor is completed to gain control of vegetation growth. When control is achieved, treatment will typically occur as part of scheduled maintenance on a 4-year cycle or as needed to discourage the establishment of capable tree species. CMP would not use herbicides within the 53.5 miles of new corridor in Segment 1 of the proposed Project. For the remainder of the line, CMP stated that "[h]erbicides will be selectively applied to capable species, using low-pressure (hand-pressurized) backpack applicators, to prevent growth of individual capable specimens and to prevent regrowth of cut capable specimens. Individual capable specimens will be treated with herbicides, and no broadcast application will be done. CMP will not use herbicides within 25 feet of any waterbody or standing water. In addition, CMP will not use herbicides within 100 feet of a known well or spring or within 200 feet of any

known public water supply."[92] CMP also stated that "[h]erbicides will be used in strict accordance with the manufacturer's [United States Environmental Protection Agency]-approved labeling and will not be applied directly to waterbodies or areas where surface water is present."[93]

The Commission concludes that the proposed use of herbicides complies with the Commission's land use standards for pesticide application.

j. Signs – Ch. 10, § 10.27(J)

The Commission's regulations pertaining to signs, set forth in Ch. 10, § 10.27(J)(2), establishes standards to ensure placement of signs does not produce undue adverse impact upon the resources and uses in the area.

CMP does not propose to install signs as part of the proposed Project within the Commission's jurisdictional area. Traffic control signs and directional signs utilized during the proposed Project construction would be limited and temporary and do not require a permit pursuant to Ch. 10, § 10.27(J)(1)(d).

The Commission concludes that the proposed Project will comply with the Commission's land use standards for signs.

FINAL CONCLUSIONS

1. The proposed Project is an allowed use in the General Development, Residential Development, General Management, Flood Prone Protection, Fish and Wildlife Protection, Great Pond Protection, and Shoreland Protection subdistricts.

2. The proposed Project is an allowed use in the Recreation Protection subdistricts provided CMP installs and maintains for the life of the project the vegetative plantings described in CMP's "Joe's Hole (Moxie Pond) Planting Plan" within the Recreation Protection subdistrict surrounding the Appalachian Trail.

3. The proposed Project is an allowed use in the Wetland Protection subdistricts provided CMP complies with its proposed Construction Vegetation Clearing Plan and Post-Construction Vegetation Maintenance Plan.

[92] Site Law application, section 15.2.
[93] Site Law application, exhibit 10-1, section 2.2.

4. The proposed Project complies with all applicable sections of the Commission's land use standards provided CMP:

    a. secures all necessary approvals from the Maine Department of Transportation, Franklin County, and Somerset County for the transportation of materials during and following construction of the proposed Project; and
    b. submits, prior to construction, written agreement(s) with state, local or private emergency services providers to ensure fire and emergency services are available at all times and at all locations of the proposed Project that are within the Commission's jurisdiction during and following construction of the proposed Project.

5. The proposed Project is consistent with the policies of the Comprehensive Land Use Plan without additional conditions.

Therefore, the Commission CERTIFIES to the Maine Department of Environmental Protection that Site Law Certification SLC-9 for Central Maine Power's proposed New England Clean Energy Connect Project, as proposed, complies with the relevant provisions of the Commission's rule Chapter 10, subject to the findings of fact, conclusions, and conditions contained herein.

CONDITIONS

1. CMP shall, for the life of the project, maintain a vegetative buffer at the Kennebec River necessary to provide visual screening (buffering) of all transmission line structures from the Recreation Protection subdistrict.

2. CMP shall install and for the life of the project maintain the vegetative plantings described in CMP's "Joe's Hole (Moxie Pond) Planting Plan" within the Recreation Protection subdistrict surrounding the Appalachian Trail.

3. CMP shall comply with its Construction Vegetation Clearing Plan and Post-Construction Vegetation Management Plan.

4. CMP shall secure all necessary approvals from the Maine Department of Transportation, Franklin County, and Somerset County for the transportation of materials during and following construction of the proposed Project.

5. Prior to construction, CMP shall submit to the Land Use Planning Commission, written agreement(s) with state, local or private emergency service providers to ensure fire and emergency services are available at all times and at all locations of the proposed Project within the Commission's jurisdiction during and following construction of the proposed Project.

Pursuant to Ch. 4 § 4.11(12)(b), a determination to approve or deny a request for certification of a Site Law application pending before the Maine Department of Environmental Protection is not final agency action and is not appealable except as part of the Department of Environmental Protection permitting decision.

DONE AND DATED AT ORONO, MAINE, THIS 8th DAY OF JANUARY 2020.

Everett Worcester, Chair

DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012 Contact: (207) 287-2811

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the

extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

II. OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

III. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

PENGAD 800-631-6989
EXHIBIT
B

GERALD D. REID
COMMISSIONER

August 26, 2020

Elizabeth Boepple
BCM Environmental & Land Law, PLLC
2 Union St, Suite 402
Portland ME 04101

James Kilbreth
Drummond Woodsum
84 Marginal Way, Suite 600
Portland ME 04101-2480

Dear Ms. Boepple and Mr. Kilbreth:

This letter serves as my decision on your clients' pending requests for a stay of the May 11, 2020, Order conditionally approving the application of Central Maine Power (CMP) to construct the New England Clean Energy Connect project (NECEC Order).

PROCEDURAL BACKGROUND

On June 5, 2020, Intervenors West Forks Plantation, Town of Caratunk, Kennebec River Anglers, Maine Guide Service, LLC, Hawkes Nest Lodge, Ed Buzzell, Kathy Barkley, Kim Lyman, Noah Hale, Eric Sherman, Mike Pilsbury, Matt Wagner, Mandy Farrar, and Carrie Carpenter (collectively West Forks) filed a motion requesting that the Commissioner stay the NECEC Order. West Forks subsequently filed supplements to its motion on June 15, 2020, and June 25, 2020. The following intervenors and intervenor groups filed supporting, opposing, and neutral responses to the West Forks Motion: Old Canada Road, Friends of Boundary Mountains, Industrial Energy Consumer Group, the Natural Resources Council of Maine (NRCM), Wagner Forest, and Western Maine Mountains & Rivers Corp. CMP filed a response in opposition to the West Forks Motion.

NRCM filed a separate application for a stay of the NECEC Order with the Board of Environmental Protection (Board) on June 10, 2020 (NRCM Motion) in conjunction with its appeal to the Board of the Commissioner-issued NECEC Order. The following intervenors and intervenor groups filed supporting and opposing responses to the NRCM Motion: Friends of

Boundary Mountains, Industrial Energy Consumer Group, AMC, Trout Unlimited, and Western Maine Mountains & Rivers. CMP filed a response in opposition to the NRCM Motion.[1]

On July 16, 2020, Board Chair Mark Draper referred the NRCM Motion to the Commissioner to allow for a single, consolidated Departmental decision with respect to both the West Forks and NRCM Motions. NRCM objected to Chair Draper's decision and filed an appeal to the full Board. Chair Draper ruled that such a decision is not appealable to the full Board.

STAY CRITERIA

The criteria for obtaining a stay of an agency's decision during an appeal are set forth in the Maine Administrative Procedure Act, 5 M.R.S § 11004. The filing of an appeal does not operate to stay a permit issued by the Department. Petitioners seeking a stay (here West Forks and NRCM) bear the burden of demonstrating that: (1) the failure to obtain a stay will result in irreparable harm to the petitioners, (2) there is a strong likelihood of success on the merits on the petitioners' appeals, and (3) the issuance of a stay will result in no substantial harm to adverse parties or the general public. Petitioners must satisfy all three parts of this test to obtain a stay. Importantly, the burden of demonstrating that the criteria are met rests with the petitioners.

ARGUMENTS

In support of its stay request, West Forks argues that several appeals were likely to be filed and any one of them could result in an ultimate denial of the permit application, that a citizen referendum could negate the Maine Public Utilities Commission's (PUC) approval of the project, and that the project will cause irreparable harm through the destruction of "pristine" forests and the disruption of wildlife corridors. With regard to the likelihood of success on the merits of their appeal, West Forks argues that the evidence in the record does not support the Commissioner's decision on the impacts of forest fragmentation and impacts to scenic resources, and that the conditions on the permit requiring the conservation of 40,000 acres of land are inadequate. West Forks' first supplement to its motion adds discussion of the challenges to the Commissioner's factfinding in the NRCM Board appeal and NextEra's Superior Court appeal. In its second supplemental filing, West Forks argues that a lease CMP relies upon to show title, right, or interest (TRI) in the land proposed for development is legally defective – an issue NRCM raises in its Board appeal. West Forks also states that a stay of the NECEC Order would not cause substantial harm to CMP as it has not yet received its federal approvals for the project and, in any case, an additional delay to begin construction would not cause substantial harm. Finally, West Forks asserts that a stay would cause no harm to the general public; rather, it would benefit the public if a stay were in place until the appeals are resolved and the referendum decided.

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[1] West Forks filed an appeal of the NECEC Order in Somerset County Superior Court, Docket No. SOM-AP-20-04. NextEra Energy Resources, LLC (NextEra) also filed an appeal of the NECEC Order in Kennebec County Superior Court, Docket No. KEN-AP-20-27. NRCM filed an administrative appeal of the NECEC Order before the Board. By a combined order dated August 11, 2020, the Superior Court consolidated and remanded the West Forks and NextEra judicial appeals to the Board for consideration with NRCM's pending administrative appeal.

NRCM's Motion focuses primarily on the argument in its appeal that the Board should have decided this permit application on the basis that the NECEC project meets the definition of a project of statewide significance. NRCM also argues that it is likely to succeed on its claims that the Commissioner insufficiently addressed impacts of the project and that CMP's lease of two public reserve lots lacks requisite approval. NRCM contends there will be irreparable harm if the stay is not granted, citing as support testimony it provided at the hearing about the significance of the forest and aquatic habitat that will be affected, and the impacts to its members who are outdoor guides in the area. NRCM also argues that the initiation of construction would limit its ability to address potential alternatives to the proposed project during the appeal. On the question of harm to CMP, other parties, or the public if a stay is granted, NRCM states that no harm will ensue because CMP has not obtained federal approvals and a state-wide vote on whether the PUC approval should be reversed is scheduled for November 2020.

CMP argues that West Forks has failed to meet the high bar for the issuance of a stay. CMP states that vegetation that will be cut in the construction of the transmission line would grow back if the permits are ultimately vacated. CMP further argues that the harm alleged by West Forks involves impacts to existing recreational uses, which was a topic considered during the licensing proceeding, with the Commissioner finding no unreasonable harm to those uses resulting from the NECEC project. On the likelihood of success on the merits of the West Forks appeal, CMP contends that the evidence in the record, and the analysis and conclusions in the NECEC Order, demonstrate that there will be no irreparable harm in the form of forest fragmentation and visual impacts.

In response to both the West Forks and NRCM Motions, CMP states that a stay would harm CMP because construction must begin well before any appeals are resolved in the Maine Law Court in order to meet a required in-service date. CMP contends that such a delay would risk possible cancellation of the project pursuant to its contractual in-service obligations, and a cancellation would result in harm to the general public with the loss of economic benefits of the NECEC project.

DISCUSSION

Petitioners have not carried their burden of satisfying any of the three parts of the standard for granting a stay, each of which is independently required.

I. Irreparable Harm to Petitioners

There is a contradiction at the heart of the Petitioners' arguments that undercuts their stay request. On the one hand they argue that a stay is essential to forestall the project's environmental impacts, and on the other they argue a stay will not harm CMP because construction cannot begin until two additional federal permits have been issued. Petitioners cannot have it both ways: either a stay is urgently needed or it will have no immediate, real-world impact, but both things cannot be true.[2] The Petitioners have provided no legal analysis of what, if any, construction CMP can perform before it receives its federal permits, and no factual analysis of whether and how any such construction would actually cause them harm. Without satisfactorily answering these questions, Petitioners did not carry their burden of showing irreparable harm.

The Petitioners' underlying claims of irreparable harm are also unpersuasive. They assert that the cutting of trees and other vegetation in a pristine and significant forest will harm their economic and recreational interests as users of the area. The evidence in the record supports a finding that the project would pass through an ecologically significant forest, but contradicts the claim that this forest is "pristine." The evidence shows that the project area is largely within a commercial forest that is harvested periodically and rather intensely. My observations from a visit to several locations within the proposed project site are consistent with the evidence presented. Segment 1 of the corridor (that segment with no pre-existing transmission line) would run through an area that has been harvested significantly and contains a patchwork of clearcuts, both fresh and in various stages of regeneration. It is remote, but certainly not pristine. The question is whether Petitioners would suffer irreparable harm if clearing of the corridor in this area were to begin while an appeal is pending.

CMP argues that the area cleared would regenerate as it does when it is commercially harvested, and therefore, even if the appeals were successful, any harm to Petitioners would not be irreparable. This theory, by itself, is not a full answer to the Petitioners' claim of harm. The cutting of trees and clearing of vegetation during an appeal could very well cause irreparable harm depending on the circumstances, because such activity will have immediate effects where it takes place, and those effects cannot quickly be reversed. But Petitioners have failed to explain how clearing that occurs through commercial forestland and in compliance with the numerous conditions set forth in the NECEC Order – many of which are designed to reduce or eliminate

[2] The NECEC Order approves both a Site Location of Development Act permit and a Natural Resources Protection Act permit. Both permits require, in Standard Conditions C and B respectively, as follows: "The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate." When Petitioners filed their stay requests, both a Presidential Permit and a permit from the U.S. Army Corps of Engineers were still required. The Army Corps of Engineers issued an initial proffered permit while the stay requests were pending. A Presidential Permit has not yet been issued.

the environmental and aesthetic impacts of concern to Petitioners – would cause them any concrete and specific injury. Their argument amounts to the conclusory assertion that any such clearing or construction activity would inherently cause them irreparable harm. That is not enough to justify the issuance of a stay.

II. Likelihood of success on the merits of the Petitioners' appeals

Both Petitioners have likewise failed to show a strong likelihood of success on the merits of their appeals. As to the significant portions of West Forks' and NRCM's appeals that are challenges to the factual findings made in the NECEC Order, I find that the likelihood of success with respect to those arguments is low. West Forks and NRCM challenge the findings on the practicability of the underground option and alternative routes, the impacts to brook trout habitat and forest fragmentation, and the conservation land. Petitioners made these same arguments during the processing of the application, and the evidence of potential harm to the environment received great scrutiny. The terms and conditions of the NECEC Order are supported by extensive evidence in the record, and are the product of thorough analysis by the Department's professional staff. The order's factual findings are therefore likely to be upheld on appeal.

Petitioners' argument that a November 2020 referendum vote might effectively strip the project of a required PUC approval is not relevant to the likelihood of success on the merits of the two appeals of the Commissioner's NECEC Order, and consequently to these stay requests. In any event, I take notice of a recent Maine Law Court decision addressing whether the question is within the citizens' referendum authority, and the Secretary of State's response, which together make clear the question will not be appearing on the ballot.

NRCM's Motion also argues that it has a strong likelihood of success on the merits of its claim that the Board was required to assume original jurisdiction pursuant to Chapter 2, §17 of its regulations, and 38 M.R.S. §§ 341-D(2) and 344(2-A), and that the NECEC Order is therefore invalid. The record reflects that neither NRCM nor any other party requested that the Board assume jurisdiction of the permit applications during the 20-day period for filing such a request set forth in Ch. 2, §17(A). Similarly, no party ever attempted to raise this issue in the two and a half years the applications were pending. In a proceeding where neither the Commissioner nor any party requests Board jurisdiction, the Board has discretion as to whether to assume jurisdiction, but is not required to do so. *See* 38 M.R.S. § 341-D(2) ("The board may vote to assume jurisdiction of an application if it finds that at least 3 of the 4 criteria of this subsection are met."); Chapter 2, §17(B) ("The board may assume jurisdiction over any application on its own initiative if it finds that at least 3 of the 4 criteria in section 17(C) are met."). In any event, all appeals of the NECEC Order are now before the Board, *see* fn. 1 above, and in its review of the NECEC Order the Board "is not bound by the commissioner's findings of fact or conclusions of law but may adopt, modify, or reverse findings of fact or conclusions of law established by the commissioner." 38 M.R.S. § 341-D(4)(A). Even if NRCM could show that the Board was required to assume jurisdiction over the application at the outset, which they cannot, it is difficult to see how the Board's current involvement would not render that harmless error. Accordingly, I find that there is not a strong likelihood of reversal of the NECEC approval on the basis of this argument.

NRCM also makes the argument, echoed by West Forks, that CMP failed to show adequate TRI over two lots leased from the Maine Bureau of Public Lands, and that this argument has a strong likelihood of success. NRCM contends that the lease relied on was void because it was issued by the Bureau of Public Lands in violation of statutory and Constitutional requirements. NRCM challenged the validity of the lease in the hearing record, and as I understand it is now separately challenging an amended and restated version of the lease in litigation that is pending against the Bureau of Public Lands in Kennebec County Superior Court, Docket No. CV-2020-94. If NRCM's argument indeed has merit, it presumably could pursue judicial remedies in its pending litigation to enjoin CMP's reliance on the lease. It is, however, outside the purview of this Department to determine the merits of those claims. Courts have recognized that the Department has discretion in making its determinations of TRI, and the Department's determination that a lease that on its face gives the lessee the right to construct the proposed project, absent a court ruling otherwise, is likely to be upheld. *See* Chapter 2, §11(D) ("[A]n applicant shall demonstrate to the Department's satisfaction sufficient title, right or interest in all of the property proposed for development or use."). Accordingly, I find that there is not a strong likelihood of success on the merits of this TRI argument.

Overall, I find that the Petitioners have not demonstrated a strong likelihood of success on the merits of their respective arguments and appeals.

III. Harm to adverse parties or the general public

The parties make competing claims of harm to their interests and the general public depending on whether a stay is granted or denied. As noted above, Petitioners' failure to analyze whether and to what extent construction activities may begin before required federal permits have been issued makes it difficult to assess these claims. Putting that aside, and noting that full analysis of this issue is not necessary in light of my conclusions regarding irreparable harm and likelihood of success on the merits, I find that these considerations do not, on balance, weigh in favor of a stay of the NECEC Order.

CONCLUSION

For all the reasons set forth above, Petitioners have not made the showings necessary to justify a stay of the NECEC Order. Petitioners have failed to establish a strong likelihood of success on the merits of their respective appeals, and this criterion alone warrants denial of their stay requests. The grounds for this denial are bolstered when all three of the stay criteria, as discussed above, are considered and weighed together. Accordingly, the stay requests of the Petitioners West Forks and NRCM are denied.

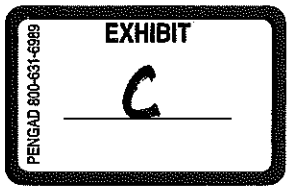
Sincerely,

Gerald D. Reid
Commissioner

cc: Cynthia Bertocci, Executive Analyst BEP Peggy Bensinger, Asst. Attorney General

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR



Sent by electronic mail only

July 16, 2020

James T. Kilbreth
Drummond Woodsum
84 Marginal Way, Suite 600
Portland, ME 04101-2480
jkilbreth@dwmlaw.com

Re: Natural Resources Council of Maine Application for a Stay

Dear Mr. Kilbreth,

On June 10, 2020, the Natural Resources Council of Maine (NRCM) requested that the Board of Environmental Protection (Board) stay the May 11, 2020 Order by the Commissioner of the Department of Environmental Protection (Department) granting permits to Central Maine Power (CMP) for the New England Clean Energy Connect project (Order). At the time this request was made to the Board, the Commissioner had already received a request to stay the Order from West Forks Plantation and others (West Forks) made on June 5, 2020, which was supplemented on June 15 and June 25, 2020. On June 19, 2020, NRCM submitted a filing to the Commissioner supporting the earlier West Forks stay request, which consisted of a copy of NRCM's stay request to the Board with a cover letter stating that the reasons for NRCM's Board request "are equally applicable here." The Commissioner and the Board have also each received multiple, and overlapping, responses to their respective stay requests from CMP and various intervenors in the underlying Department proceeding.[1]

On behalf of the Board, I am referring NRCM's stay request to the Commissioner for his consideration and ultimate decision on both that request and West Forks' earlier stay request

[1] Responses to West Forks' stay request made to the Commissioner were filed by CMP and several intervenors, including Old Canada Scenic Byway, Friends of Boundary Mountains, the Industrial Energy Consumer Group, Wagner Forest, and the Western Maine Mountains & Rivers Corp. Responses to NRCM's stay request made to the Board were filed by CMP, Friends of Boundary Mountains, the Industrial Energy Consumer Group, the Western Maine Mountains & Rivers Corp., and Appalachian Mountain Club / Maine Chapter of Trout Unlimited. Old Canada Scenic Byway and Wagner Forest sent a copy to the Board of their filings with the Commissioner. NRCM also filed a reply to CMP's Board response, which is the subject of an objection by CMP. In its opposition to NRCM's stay request to the Board, CMP argues that the Board lacks authority to stay the Commissioner's Order. The Board need not address this CMP argument as I have concluded that referral to the Commissioner is warranted for other practical considerations as outlined herein.

made to the Commissioner on June 5, 2020. For a host of reasons, this is the most efficient and appropriate course of action under the circumstances here and will allow the Commissioner to issue a single consolidated decision on the two pending stay requests on behalf of the Department.

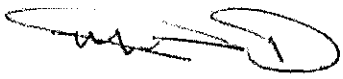
The two stay requests are directed to separate decision-making authorities within the Department but will be considered under the same provision of the Administrative Procedure Act, 5 M.R.S. § 11004. The two requests also involve overlapping arguments regarding stay criteria, and many of the same parties have responded to the two requests. Both requests ask for a stay of the Commissioner's Order on behalf of the Department, and the stay request made to the Commissioner pre-dates the stay request made to the Board.

The most logical and efficient process given the submission of competing stay requests to the two decision-making authorities within the Department is to refer the later NRCM stay request to the Commissioner for his consideration along with the earlier West Forks' request. All responses to NRCM's stay request to the Board will also be referred to the Commissioner to allow for his consideration of all arguments.

This will allow the Department to efficiently speak with a single voice as it addresses the various arguments for a stay in a consolidated fashion, and will conserve resources by avoiding duplicative efforts by the Department and the parties in addressing similar stay requests. This approach will also minimize the risk of inconsistent analysis and results by the Board and Commissioner in response to the competing stay requests.

All filings received by the Board concerning the NRCM's stay request will be transferred to the Commissioner; and the service lists, which are nearly identical, will be combined.

Sincerely,



Mark C. Draper, Chair
Board of Environmental Protection

Cc: Gerald Reid, DEP Commissioner
Service Lists in DEP and LUPC proceedings

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

GERALD D. REID
COMMISSIONER

EXHIBIT
D
PENGAD 800-631-6989

IN THE MATTER OF

CENTRAL MAINE POWER COMPANY	)
NEW ENGLAND CLEAN ENERGY	)
CONNECT	) APPLICATION FOR NATURAL
25 Municipalities, 13 Townships/Plantations,	) RESOURCES PROTECTION ACT
7 Counties	) AND SITE LOCATION OF DEVELOPMENT
L-27625-26- A-N	) ACT PERMITS
L-27625-TB-B-N	) PUBLIC HEARING
L-27625-2C-C-N	) THIRD PROCEDURAL ORDER
L-27625-VP-D-N	)
L-27625-IW-E-N	)

This Third Procedural Order (Order) sets forth rulings of the Department of Environmental Protection (Department) on matters discussed at the second pre-hearing conference held by the Department and Land Use Planning Commission (Commission) on Thursday, January 17, 2019. The main purposes of the pre-hearing conference were to discuss new information submitted since the first pre-hearing conference; to identify any changes in position of the Intervenors; to announce dates and locations for the hearing; and to set filing deadlines. This Order also sets forth certain procedures related to the hearing.

SERVICE LIST UPDATES

1. Requests for changes to the service list have been made since the Second Procedural Order. These include:
   a. A request for the addition of Phelps Turner to the service list on behalf of Conservation Law Foundation, dated November 20, 2018,
   b. A request from Brookfield Renewable to change the contact from Nicolas Bosse to Steven Zuretti, dated January 4, 2019, and one dated January 28, 2019, to add Jeffrey Talbert
   c. A request to add Elizabeth Boepple to the service list as the attorney representing Intervenor Groups 2 and 10, dated January 11, 2019.[1]

[1] On January 11, 2019, Attorney Elizabeth Beopple of BCM Environmental & Land Law, PLLC, filed an entry of appearance on behalf of Intervenor Group 2 and Intervenor Group 10, except for Intervenors Alison Quick and Courtney Fraley. On January 24, 2019, Ms. Fraley notified the Commission staff that she no longer wishes to participate as an intervenor. On January 31, 2019, Ms. Quick notified the Commission that she no longer wishes to participate as an intervenor. Consequently, Ms. Fraley and Ms. Quick have been removed from the intervenor list, and the updated service list.
In recent filings counsel for CMP and counsel for Intervenor Groups 2 and 10 discussed the rules concerning one spokesperson for each party.

d. Intervenor Group 8 requested Brian J. Murphy, NextEra's in house legal staff, be added to the Service List.

2. Other updates to the service list include:

a. A correction of the listing for Intervenor Mike Pilsbury from the Department only intervenor group to the Department and Commission intervenor group

b. A revision of the contacts for the Maine Office of the Attorney General to remove Jerry Reid.

3. The updated service list reflecting the changes outlined above is provided with this procedural order.

SUMMARY AND DISCUSSION OF CHANGES TO PROJECT

4. At the pre-hearing conference Central Maine Power (CMP) provided a brief overview of submittals on the application since the last pre-hearing conference. This was followed by the Department and Commission staff summarizing the additional information that was requested by the agencies, as well as what has been received in response to those requests. Lastly, the Department and Commission staff described the remaining pieces of requested information that are outstanding. Both the Department and the Commission agree that there is sufficient information in the permitting record to move forward with the hearing process.

5. Representatives from Intervenor Groups 1 through 4 and 6 through 10, as identified in paragraph 4 of the Department's Second Procedural Order, were present at the pre-hearing conference. Intervenor Group 5, comprised of Brookfield Energy and Wagner Forest Management, did not have a representative present at the conference. Brookfield Energy and Wagner Forest Management were contacted by counsel for the Department after the pre-hearing conference and were reminded that attendance at pre-hearing conferences is mandatory for intervenors.

6. At the pre-hearing conference, the Presiding Officer for the Department solicited comments from the Intervenors regarding any changes in position on the hearing topics or level of participation in the proceeding. Specifically, the Presiding Officer asked if any of the intervenors were interested in relinquishing their party status for that of an interested person. No intervenors made that request.

The Second Procedural Order states, "...each consolidated Intervenor group shall designate one contact person for the purpose of this proceeding.... The designated contact person will be responsible for the proper filing of documents (pre-filed testimony, exhibits, etc.) for the Intervenor group and will be the group's primary spokesperson at hearing proceedings. This does not preclude other Intervenors within the group from testifying or conducting cross-examination at the hearing."

7. Intervenor groups brought up the following issues for discussion:

   a. Request for inclusion of the topic of greenhouse gasses/climate change at the hearing

   b. Renewal of the request for maps and information more clearly describing CMP's Title, Right, and Interest

   c. Request for firm dates on when the record officially will close

   d. Request for more information to be posted on the Department website

   e. Question as to whether the hearing focuses on the 150-foot corridor or the 300-foot width of corridor in which future expansion may occur for evaluating scenic impacts

   f. Request that the hearing dates be later, and that the filing deadlines be moved back

8. The Presiding Officer made the following determinations in response to the issues brought forward:

   a. Parties who requested the addition of the topics of potential impacts to greenhouse gasses and climate change to the topics to be addressed at the hearing were provided until January 24, 2019, to submit such a request in writing, with the statutory or regulatory basis for the request. Parties who wished to respond to these requests were given until January 31, 2019 to file a response.

      Intervenor Group 4 submitted a timely written request that the issue of potential impacts on greenhouse gas emissions be included in topics to be addressed at the hearing. Group 4 contends that the topic is relevant because CMP must demonstrate that it has met the "no adverse effect on the natural environment" standard of 38 M.R.S. § 484(3). Group 4 notes that Chapter 375 § 2, which elaborates on Section 484(3), directs the Department to consider all relevant evidence in determining whether the proposed project would cause an unreasonable alteration of climate. Group 4 argues that in CMP's application it represents that the proposed project would reduce regional greenhouse gas emissions with a direct benefit to Maine, and because CMP is representing these stated benefits as part of the need for the project the intervenors should be allowed to present evidence on the issue.

      While not strictly speaking a response to the request filed by Intervenor Group 4, Intervenor Groups 2 and 10 filed a statement of support to the request that the net greenhouse gas emissions issue be added to the list of topics to be addressed at the hearing.

      CMP submitted a timely written response, maintaining that net greenhouse gas emissions should not be considered as one of the hearing topics. CMP contends that

the language in 38 M.R.S. § 484(3) pertaining to adverse effects from a project is aimed at potential impacts nearby, in the municipality in which the project would be located or neighboring municipalities. CMP points to the language in Chapter 375 § 2 which focuses on a project's potential to change climatic characteristics such as rainfall, fog and humidity patterns in the vicinity of the project. CMP argues that Chapter 375 § 1 limits the Department's considerations with respect to air quality issues to a review of point or non-point sources of chemical pollutants or particulate matter from the project.

The Presiding Officer has determined that net greenhouse gas emissions will not be added as a topic to be addressed at the hearing, however the parties may submit written evidence on this issue into the record. The issue can be adequately addressed through written submissions. The topics for the hearing have been set since October 5, 2018, and the addition of a topic at this time would significantly delay the proceeding.

CMP stated in its application that the reduction of greenhouse gas emissions will be a benefit of the project and CMP presents such a reduction as a rationale for the construction of the project. The parties and the general public will be allowed to submit evidence with regard to these statements in the application, which may include, for example, comments, data, and reports, until the close of the record. The Department will determine the relevance of submitted evidence to its review under the Site Location of Development Act, the Natural Resources Protection Act, and the pertinent regulations interpreting those laws, including the No Adverse Environmental Effect Standards rule, Chapter 375, and the Wetlands and Waterbodies Protection rule, Chapter 310 §§ 5(A) & 9(A).

If a party determines it is necessary to respond to evidence submitted near the time the record closes, that party may request that the Presiding Officer exercise her discretion to leave the record open for the limited purpose of the filing of such a response.

b. The Department has sufficient information regarding Title, Right, and Interest to proceed with the hearing. However, there was a previous request from an Intervenor for more detailed information delineating Title, Right, and Interest and the Intervenor stated it has not yet been provided. CMP stated it would provide the service list with a map outlining its Title, Right and Interest evidence as soon as it can finish putting it in the requested format.

c. As discussed during the pre-hearing conference the Department and Commission have different regulatory provisions and practices regarding the close of the record. At a minimum, the record will be open through the last day of the hearing. A final decision on the close of the record will be made in a subsequent procedural order.

d. The Department will continue its efforts to update and add pertinent information to the Department's website regarding the NECEC project. Substantive permitting materials will be included as well as public comments that have not yet made it onto the site. However, the Department will not be putting every email, phone call record, and meeting note onto the website because the Department does not have the resources to complete this work. All public documents in the administrative record can be viewed by members of the public in person by making an appointment to view the printed materials in the Bangor office.

e. The hearing will be limited to the proposal from the applicant for the current 150-foot wide corridor. Evidence concerning impacts of a potential transmission line using the 300-foot wide corridor will not be admitted as such a project has not been proposed and is not before the Department and the Commission.

f. The Department and the Commission determined that the hearing should not be postponed. In response to concerns about the timeline of the proposed deadlines for pre-filed testimony the Presiding Officer determined that the deadlines would be pushed back to give the intervenors additional time. The new deadlines are outlined in paragraph 22 of this order. The hearing dates will remain the same, and are described in paragraphs 9,10, and 11 of this order.

ROLE OF DEPARTMENT and COMMISSION

9. The Department and the Commission have separate roles with regard to review of the proposed Project. By holding a joint hearing, both agencies intend to facilitate efficient review and avoid the need for duplicative testimony by the same parties and interested members of the public in different proceedings. In the Second Procedural Order the Department identified the topics that would be covered as part of the Department's portion of the hearing. Separately, in its Second Procedural Order, the Commission identified Scenic Character and Existing Uses, and the Alternatives Analysis, as the two hearing topics for which in the Commission seeks factual testimony relevant to its review. The multi-day hearing will be arranged so that the hearing topics of the Commission are scheduled for the same day. The remainder of the hearing will be to cover the rest of the Department-related topics. A more detailed hearing schedule will be made available in advance of the hearing.

DATES AND LOCATIONS OF THE HEARING

10. The Department's hearing will be held from Monday, April 1 through Friday, April 5, 2019. The purpose of the hearing is for the Department to receive testimony related to certain specified approval criteria and standards relevant to the Natural Resources Protection Act and the Site Location of Development Act. The specific criteria were outlined in paragraph 7 of the Second Procedural Order.

11. The joint portion of the hearing with Commission and Department staff will be held on April 2, 2019. This portion of the hearing will be focused on the Commission's review criteria but because there is overlap with the Department's review criteria the Department will also be participating in this session.

12. There will be two evening sessions for public testimony. These will be held on April 2 and April 4, 2019. The public testimony session on April 2, 2019 will be for testimony related to the Commission's role in certifying whether the proposed Project is an allowed use within the P-RR subdistrict. The public testimony session on April 4, 2019 will be for testimony related to the Department's criteria.

13. The timing of the hearing sessions and an agenda will be provided in a future notification to the parties and in the public hearing notice.

14. The hearing will be held on the University of Maine campus in Farmington, Maine. Different portions of the hearing will take place in different locations on campus due to facility availability. Information regarding the exact location of the meeting rooms for each segment will be provided in advance of the hearing.

15. At the pre-hearing conference, some of the intervenors expressed concern as to whether the number of days scheduled for the hearing would be sufficient for all witnesses' testimony and cross-examination. The Department is in the process of scheduling back-up or overflow days for the hearing in the event time or weather requires additional days. The Presiding Officer requests that parties set aside April 8, 10, and 11 for this purpose, however, the intent is to complete the hearing on April 5.

16. Parties who will require technology or special equipment to be available during the hearing should coordinate their needs by February 28, 2019 with Mr. Jim Beyer at the Department at 207-446-9026 or at NECEC.DEP@maine.gov.

PRE-FILED TESTIMONY

17. All parties must submit the testimony of their witnesses in writing in advance of the hearing, by the deadlines listed below. This written testimony must be sworn. Written testimony is sworn if the witness declares by oath or affirmation that the testimony is true and correct to the best of the witness's knowledge and belief. Pre-filed rebuttal testimony will be allowed but must be limited to responding to the pre-filed direct testimony of other witnesses. All rebuttal testimony must identify the direct testimony to which it is responding. The pre-filing of testimony allows all parties, the Department staff, counsel for the Department, and the Presiding Officer to review the testimony in advance and come to the public hearing prepared to ask questions in an efficient and focused manner.

18. As described in Paragraph 9 of this Order, the Commission will be evaluating a narrower scope of criteria than the Department. It is acceptable to have the pre-filed testimony for a witness participating in both the Department and Commission portions of the hearing contained in one document however the document must clearly state which portion of the pre-filed testimony relates to the Commission topics, preferably by being placed in its own section of the written testimony. An assumption will be made that if testimony is not specifically identified as Commission testimony, it is submitted for the Department's portion of the hearing.

19. Unless otherwise requested and approved all filings must be made electronically in Adobe PDF format by e-mail to the entire service list. In addition, pre-filed testimony to the Department must include an original and four paper copies. The Commission pre-filed testimony requirements are slightly different. Please review the Commission's Third Procedural Order for more details on filing pre-filed testimony with the Commission.

20. The scope of the pre-filed testimony is limited to the criteria as outlined under "Hearing Topics," in paragraph 7 of the Department's Second Procedural Order.

21. Any exhibit that a party wishes to introduce into the administrative record must be attached to pre-filed testimony. The Presiding Officer may allow the introduction of an exhibit at the public hearing that was not pre-filed based on a showing of good cause or if the exhibit is being introduced for impeachment purposes. Reduced versions of oversized exhibits may be pre-filed, with the full-size exhibit presented at the public hearing. It is the responsibility of the parties to label exhibits numerically, starting at 1, in a manner that allows them to be easily identified and referenced. For example, CMP should label its exhibits as "CMP Exhibit _." An Intervenor Group may use its group number or it may use a shorthand name for its group, followed by the exhibit number.

22. Deadlines for pre-filed testimony were discussed at the second pre-hearing conference. At the conference, some intervenors orally requested a postponement of the hearing and the filing deadlines so that the parties would have additional time to formulate their pre-filed testimony. At the pre-hearing conference the Commission and the Department denied the request to postpone the hearing but moved the filing deadlines back to allow the parties additional time. At the conference the Commission and the Department postponed the deadlines to the following dates: February 15th for the list of witnesses and witnesses' topics, February 21 for pre-filed direct testimony, February 28 for any objections to pre-filed direct testimony, and March 21 for pre-filed rebuttal testimony.

    On February 1, 2019, Intervenor Groups 2 and 10 submitted to the Department a Motion for Reconsideration of the decisions on the request to postpone the hearing and the deadlines for the pre-hearing filings. The motion requested that the Department postpone the hearing for at least 30 days and provide corresponding postponements of the filing deadlines. On February 4, 2019, the Department received a letter from Intervenor Group 4 supporting the Motion for Reconsideration. Intervenor Group 4 requested a longer time

frame for the filing of pre-filed direct and rebuttal testimony and at least three weeks between the deadline for rebuttal testimony and the commencement of the hearing.

The Department is denying the Motion for Reconsideration insofar as it requests the postponement of the hearing, and in light of the limited changes contained in the recent filings by CMP, and in consideration of the challenging scheduling and logistical considerations associated with scheduling a multi-day hearing. However, the Department is postponing by one-week the deadline for filing written direct testimony and the deadline for filing any objections. The filing deadlines for the list of witnesses and witness topics and the deadline for the submission of written rebuttal testimony remains the same as was stated at the January 17th pre-hearing conference. The additional information filed by CMP subsequent to the January 17th pre-hearing conference is consistent with the information described by the Department and Commission staff at the conference. The quantity of pages in the filing reflects in part that CMP has filed clean versions of the amended documents as requested by the parties, the Commission, and the Department.

The schedule for the Commission will parallel that established by the Department in its Third Procedural Order.

The filing deadlines are now as follows:

1. Witness list and topics to be covered by each witness: **February 15, 2019**
2. Pre-filed direct testimony: **February 28, 2019**
3. Any objections to pre-filed direct testimony: **March 7, 2019**
4. Pre-filed rebuttal testimony: **March 21, 2019**

WITNESSES

23. All witnesses submitting written, pre-filed testimony must attend the hearing and be available for cross-examination. Witnesses will be sworn prior to giving their testimony at the hearing.

24. It is the responsibility of each party to keep its witnesses informed regarding the public hearing schedule and to ensure that their witnesses maintain maximum flexibility during the hearing as the agenda may change.

25. The intervenor groups and CMP provided estimates of the number of witnesses they plan to have testify at the hearing. Intervenor Group 5 was not present at the pre-hearing conference, but subsequently stated that it will have one witness. At this time the total estimated number of witnesses is 62 witnesses.

26. A witness list must be provided to the Presiding Officer by February 15, 2019. This list must include the name of the witness, the topic area(s) to be covered by the witness, and any special requests concerning the witness's ability to testify, such as any relevant physical disabilities. Parties are encouraged to voluntarily provide and suggest witness panels for witnesses that have testimony similar in nature.

27. As a reminder, the purpose of the hearing is to provide information to the Department to inform a decision on the CMP application. To accomplish this in a fair and efficient manner, time allotments will be in place for both direct and cross examination of witnesses." for witnesses who have similar testimony. As stated above, parties are encouraged to voluntarily create witness panels for testimony similar in nature, and the Presiding Officer may require and assign the use of "witness panels" where appropriate. Witnesses will not be permitted to cede time assigned to them to other witnesses. Parties with similar areas of interest may wish to divide topics so that each topic can receive more detailed attention.

28. All witnesses submitting pre-filed testimony will briefly summarize their direct testimony at the hearing. The summary is expected to be succinct and provide context of what is included in the pre-filed direct testimony. It will not be an opportunity to introduce new information or to provide every detail that is included in the pre-filed testimony as all parties, agency staff, and the Presiding Officer will have already read the pre-filed testimony.

29. The summary of direct testimony will be followed by cross-examination by the other parties and questions from Department staff, counsel to the Department, and the Presiding Officer. A limited amount of re-direct and re-cross may be allowed by the Presiding Officer if time permits.

30. During these evening sessions, members of the public may provide oral testimony. Pre-filing of testimony is not required for members of the public. Members of the public wishing to testify will be sworn and are subject to cross examination and questions from parties, Department staff, counsel for the Department, and the Presiding Officer.

31. Officers of any organization or business that is an intervenor may not testify as a member of the public in the evening portion of the hearing. Officers wishing to testify must pre-file their testimony and must testify as part of the daytime portion of the hearing during that intervenor's time allotment. Members of an intervenor organization or business who are not officers may testify during the evening portion of the hearing in their individual capacity.

32. Due to the nature of its organizational structure, Trout Unlimited requested clarification on the issue of officers testifying during the pre-hearing conference. Trout Unlimited followed up with a letter submitted on January 24, 2019 explaining its organizational

structure. In response to Trout Unlimited's questions, the Department has determined that the 33 people who comprise the Maine State Council of Trout Unlimited will not be allowed to testify as part of the general public because they are representative members of the organization having the decision-making capacity to petition for leave to intervene, which they achieved in this proceeding. Additionally, the Maine State Council's Executive Committee of Trout Unlimited and the staff assigned to this matter (Mr. Reardon) will also not be allowed to testify as a member of the general public. Other members may testify during the public testimony portion of the hearing.

EX PARTE COMMUNICATIONS

33. No person may communicate directly or indirectly with the Presiding Officer or the Commissioner concerning any issue of fact, law, or procedure, except upon notice and opportunity for all parties to participate. This ban on ex parte communications does not prohibit the Presiding Officer from having the aid and advice of counsel and Department staff. Any persons seeking information about the hearing process or substance may contact Mr. Jim Beyer at the Department at 207-446-9026 or at NECEC.DEP@maine.gov.

Dated: February 5, 2019

Susanne Miller
Presiding Officer