June 6, 2019

U.S. Army Corps of Engineers
New England District
Maine Project Office
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SUBMITTED VIA EMAIL AND U.S. CERTIFIED MAIL #7018 0680 0001 5462 0282

Re: Sierra Club, Maine Chapter’s Supplemental Comments on U.S. Army Corps of Engineers’ Public Notice Regarding Central Maine Power Company’s Application to Construct a New High Voltage Direct Current Electrical Transmission Line and Related Facilities (File No. NAE-2017-01342)

Dear Mr. Clement:

The Sierra Club, Maine Chapter (“Sierra Club”), submits the following comments and related exhibits on the United States Army Corps of Engineers’ (“Corps”) March 26, 2019 Public Notice (“Notice”) regarding Central Maine Power’s (“CMP”) permit application to conduct work in the waters of the United States in order to construct a new High Voltage Direct Current (“HVDC”) electrical transmission line and related facilities capable of delivering up to 1,200 megawatts of electrical power from hydroelectric sources in Quebec to the New England Control Area (“CMP Transmission Project” or “Project”). These comments supplement prior comments the Sierra Club submitted on April 25, 2019 (“April 25th Comments”). As detailed in Sierra Club’s April 25th Comments and further explained below, in order to comply with the National Environmental Policy Act, an Environmental Impact Statement (“EIS”) is required for the proposed project.

I. Factors that Trigger a Mandatory Environmental Impact Statement

To determine the significance of a federal action, and whether or not to prepare an EIS, Council on Environmental Quality (“CEQ”) regulations require agencies to evaluate both the context and intensity of an action. Context refers to the significance of the action in regards to society as a

1 Although Sierra Club submits these comments after the deadline set forth in the Corps’ Notice, the Corps, through Mr. Jay Clement, notified Sierra Club that the review process remains open until a permit decision was made and that it would continue to accept and carefully consider comments after the April 25th deadline. See April 25th Comments, Attachment A.
2 40 C.F.R. § 1508.27 (2018).
whole, the affected region, the affected interests, and the locality. Both short- and long-term effects are relevant to the action’s context.

The intensity of the action is evaluated based on several factors, including, but not limited to:

1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
2. The degree to which the proposed action affects public health or safety.
3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.
5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

The scope of NEPA’s environmental effects review is broad, including consideration of direct, indirect and cumulative impacts on “ecological . . . aesthetic, historic, cultural, economic, social, or health” interests. “Indirect effects” are those “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable,” and include “growth inducing effects and

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3 Id. § 1508.27(a).
4 Id.
5 Id. § 1508.27(b).
6 Id. § 1508.8. “As a general rule, the regulations contemplate that agencies should use a broad approach in defining significance and should not rely on the possibility of mitigation as an excuse to avoid the EIS requirement.” 46 Fed. Reg. 18,026 (Mar. 23, 1981).
other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.”

“[R]easonable foreseeability means that the impact is sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.”

Additionally, agencies must consider whether their agency action would result in cumulative impacts. “Cumulative impacts” on the environment are those that “result[] from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.”

“Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

II. An Environmental Impact Statement is Required for the CMP Transmission Project

A. The CMP Transmission Project is Significant in Regards to Society as a Whole, the Affected Region, the Affected Interests, and the Locality

The first prong of analysis the Corps must do to determine whether or not to prepare an EIS is to determine the proposed project’s significance to society as a whole, the affected region, the affected interests, and the affected localities. This analysis first requires an understanding of a project’s purpose. For the CMP Transmission Project, the stated purpose of and need for the project is set forth in the Corps’ Notice—to fulfill long-term contracts for clean energy projects from the state of Massachusetts. In its application to the Department of Energy (“DOE”) for the Presidential Permit needed for this project, CMP described the project’s purpose as “delivering 1,200 MW of the clean energy generation sought by the Massachusetts [Request for Proposals for Long-Term Contracts for Clean Energy Projects] for future solicitations.” CMP is proposing to construct the HVDC electrical transmission line and related facilities to deliver up to 1,200 megawatts of electrical power from hydroelectric sources in Quebec to the New England Control Area. Placement of temporary

7 40 C.F.R. § 1508.8 (2018).
8 Dubois v. U.S. Dept. of Agriculture, 102 F.3d 1273, 1286 (1st Cir. 1996) (internal quotes omitted) (“[r]easonable forecasting ... is ... implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as crystal ball inquiry.”) (quoting Scientists’ Inst. for Pub. Info. v. Atomic Energy Comm’n, 481 F.2d 1079, 1092 (D.C.Cir.1973)).
9 40 C.F.R. § 1508.7 (2018).
10 Id.
11 Id. § 1508.27(a).
12 See Notice at 1.
13 See Application of Central Maine Power Company for a Presidential Permit for the New England Clean Energy Connect (July 26, 2017), at 89 (“DOE Application”) (Attached as Exhibit 1).
14 See Notice at 1.
and permanent fill in numerous waterways and wetlands in Maine is required to complete this project, which is why CMP is applying to the Corps for a Clean Water Act Section 404 permit.

Society as a whole is affected by climate change, which is what this project is purportedly seeking to address. However, there is serious and significant disagreement as to whether this project will result in the reduction of greenhouse gas emissions (“GHGs”). Indeed, one study found that “... increased export of hydroelectricity by Hydro Québec to the United States [which the CMP Transmission Project will facilitate] likely was a contributor to increased generation from fossil-fuel-fired sources in other regions in Canada.” Questions about whether the proposed project will reduce carbon emissions (and thus fulfill the underlying purpose of and need for the project) recently led the Maine legislature to consider a bill that would mandate an independent net carbon emissions impact study of the project. The proposed bill won widespread support in the Maine Senate, where it was endorsed by a 30-4 vote.

This project has significant regional implications beyond Maine, specifically with regard to GHGs. Contrary to CMP’s contentions, there is no evidence of regional GHG benefit from the project, and the proposed transmission line may actually cause adverse GHG effects. As discussed above, experts have questioned CMP’s claims of purported CO2 reductions and the attendant benefits to the New England region. The Corps cannot take CMP’s or Hydro Quebec’s claims regarding purported greenhouse gas reductions at face value. As Massachusetts Institute of Technology Professor Bradford Hager stated, “[w]e can’t trust Hydro-Quebec publicists to represent correctly the scientific research that their company supported about their own carbon emissions.” Professor Hager argues forcefully, with supporting authority, that claims about the significant reductions of greenhouse gas emissions large hydropower projects in Canada—the reductions that the CMP

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17 See ENERGYZT, GREENWASHING AND CARBON EMISSIONS: UNDERSTANDING THE TRUE IMPACTS OF NEW ENGLAND CLEAN ENERGY CONNECT 27–31 (October 2018) (“ENERGYZT Report”) (Attached as Exhibit 4); see also Laura Scherer and Stephan Pfister, Hydropower’s Biogenic Carbon Footprint, PLOSONE (Sept. 14, 2016) (Attached as Exhibit 5) (concluding that “[b]iogenic carbon emissions from hydropower reservoirs are far higher than previously assumed... [and] consequently, our results question the sustainability that is often associated with hydropower.”).
project is supposed to “transmit” to Massachusetts—are “dead wrong directly contradicted by scientific research sponsored by Hydro-Quebec itself.”19

The project is also significant regionally with respect to its indirect impacts on the development of local, renewable energy projects in Massachusetts and Maine.20 Studies and testimony have established that the approval of this project will reduce the need for local, renewable energy sources.21 This is a reasonably foreseeable impact that the Corps must understand as part of its NEPA analysis.

There are many interests affected by this proposed project, including the interests of the approximately 38 communities transected or adjacent to the transmission route, many of which oppose the project.22 Further the proposed project’s impacts on the environment, Maine’s natural resources, including the iconic Kennebec River, and wildlife species, directly and indirectly affect recreational and tourism interests in Maine.23 Given the number and significance of the affected interests, both in Maine and beyond Maine’s borders, this factor weighs heavily in favor of the Corps preparing an EIS.

It is indisputable that the proposed project will have significant direct and indirect impacts on the localities through which the transmission line will run and in the localities where the related transmission facilities will be built. To the extent it could given the limited information provided by

19 See id. (“To reduce total regional emissions, Hydro-Quebec should export its somewhat-dirty hydropower to neighboring New Brunswick, displacing the much dirtier power produced there from burning coal while Maine and Massachusetts pursue truly carbon-free sources. That would result in a meaningful overall decrease in overall greenhouse-gas emissions.”).
20 CMP claims that “[t]he NECEC’s ability to deliver reliable, renewably-generated electricity from Quebec will help alleviate the need to build new non-renewable generation plants, and may allow retirement of older, less efficient fossil fueled power plants.” DOE Application, at 89. The logical extension of this conclusion, however, is that the CMP Transmission project will also crowd out locally-sourced renewable energy projects like wind and solar, either in Maine or Massachusetts or both. See, e.g., ENERGYZT Report, at 23–27.
21 See ENERGYZT Report, at 23–27; see also The Issues of Large Scale Hydropower, Massachusetts Sierra Club, at 2 (“Hydropower is substantially cheaper than other forms of energy once it is installed, which stunts the growth of building new solar and wind.”) (Attached as Exhibit 6).
22 See, e.g., Rachel Ohm, Franklin County commissioners withdraw support for NECEC project, CENTRAL MAINE (Mar. 19, 2019) https://www.centralmaine.com/2019/03/19/franklin-county-commissioners-withdraw-support-for-necec-project/ (Attached as Exhibit 7).
23 See Maine Public Utilities Commission Order Granting Certificate of Public Convenience and Necessity (“PUC Order”), May 3, 2019, at 6 (Attached as Exhibit 8); see also T. Towle, Maine Department of Environmental Protection and Land Use Planning Commission Testimony (2019) (“DEP/LUPC Testimony”) (Attached as Exhibit 9).
the Corps, the Sierra Club outlined in its April 25th Comments many of the direct impacts to wetlands, vernal pools, waterways, and endangered and threatened species. It is highly likely that the direct impacts of the proposed project on the localities will be greater once the Corps informs the public of the full scope of the project.

The project also will have indirect impacts on the affected localities in the form of effects on tourism and the economies in nearby communities, as well as effects on emergency services needed to respond to potential wildfires. The Maine Public Utilities Commission (“PUC”) found that “the perpetually-cleared corridor, and the transmission line located in that corridor, will have an adverse impact on the recreational values in the area in question and, a corresponding impact on tourism and the economy in the host communities.” Thus, the proposed project is significant to society as a whole, the affected region, a multitude of affected interests, and the dozens of localities through which the transmission corridor will pass. As such, federal regulations require the Corps to perform an EIS.

B. CEQ Regulations’ Intensity Factors Strongly Support an EIS

1. The Net Adverse Impacts of the CMP Transmission Project Trigger a Mandatory EIS; Any Purported Benefits from the Project are Suspect at Best

The adverse impacts of the CMP project are discussed throughout these comments and Sierra Club’s April 25th Comments. These include direct and indirect adverse impacts, as well as cumulative adverse impacts. The variety and magnitude of adverse impacts the proposed project will cause are sufficient, without more, to trigger the Corps’ mandatory duty to prepare an EIS.

This factor also requires the Corps to analyze the project’s purported benefits. The primary purported benefits to be derived from this project are a regional reduction in greenhouse gas emissions, an enhancement of regional electrical reliability, and reductions in wholesale electricity costs to the benefit of retail customers in the region. However, multiple experts in multiple different proceedings have questioned the validity of these potential benefits, especially, the project’s effects on GHG emissions. It is incumbent upon the Corps to independently analyze the

24 See generally April 25th Comments, at 14, 16–20; see also April 25, 2019 EPA Comment Letter to Corps (“EPA Comment”), at 2, 4–5 (“The proposed CMP directly impacts 4.9 acres of wetlands as well as numerous streams and vernal pools.”).
25 See EPA Comment, at 3 (stating the Corps issued the Notice prematurely, and lacked an “organized, consolidated presentation of complete project information”).
26 PUC Order, at 65.
27 See DOE Application, at 89.
28 See, e.g., ENERGYZT Report, Exhibit 4; see also Andreas Maeck et. al, Sediment Trapping by Dams Creates Methane Emission Hot Spots, Environmental Science & Technology (June 25, 2013) (Attached as Exhibit 10); Bridget R. Deemer et. al, Greenhouse Gas Emissions from Reservoir
validity of the purported benefits of the proposed project and reach its own conclusions, especially since many of the claims regarding the project’s benefits originate from entities, like CMP, that have a vested interest in the Corps authorizing the project.

We already have noted above the differing opinions regarding the validity of CMP’s assumptions regarding GHG emissions.\(^\text{29}\) It is important that the Corps analyze the GHG emissions produced by the sources of electricity the CMP project will transmit during their entire life cycle, including the emissions from construction and operation of the dams, as well as land use changes and deforestation.\(^\text{30}\) In 2012, a study examining the carbon emissions associated with the construction of a 485 MW reservoir in Northern Quebec, Canada, found that the net CO2 equivalent emission rate for a new hydro dam in a boreal forest landscape could exceed the emissions of a new natural gas facility over the first few years of the asset’s life.\(^\text{31}\) Thus, while some believe CMP’s Transmission Project may be beneficial for mitigating climate change, others disagree, finding that the project will in fact increase GHGs. This intensity factor weighs strongly in favor of the Corps preparing an EIS, whether or not one believes the project will have adverse or beneficial impacts, and, in fact, as described further below, the highly controversial nature of this debate also mandates the Corps perform and EIS.

2. The CMP Transmission Project Imposes Adverse Effects on Public Health and Safety

Determining the “degree to which [a] proposed action affects public health and safety” is crucial for the Corps.\(^\text{32}\) Power lines have been associated with wildfires for decades, and HVDC lines, like those proposed in this project, are particularly susceptible to causing fires or exacerbating existing forest fires.\(^\text{33}\) Since submitting the April 25\(^\text{th}\) Comment, the state of California confirmed that

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\(^\text{29}\) *See* April 25\(^\text{th}\) Comments, at 8 (citing several studies raising questions about the GHG emissions reductions assumptions for the CMP project).

\(^\text{30}\) “Best practices dictate that a plant’s emissions be analyzed according to a life cycle analysis (LCA) approach.” *See* Hydropower Greenhouse Gas Emissions: The State of the Research (Feb. 14, 2002), at 7 (Attached as Exhibit 12).

\(^\text{31}\) *See* Teodoru et al., *The Net Carbon Footprint of a Newly Created Boreal Hydroelectric Reservoir* (May 17, 2012) (Attached as Exhibit 13).

\(^\text{32}\) 40 C.F.R. § 1508.27(b)(2) (2018).

\(^\text{33}\) *See* Pérez-Peña, *Fires’ Toll Rises as Power Lines Come Under Scrutiny*, Sept. 2015. (Attached as Exhibit 14); *see also* Pyne, *We Need To Address the Problem that Caused the California Conflagration*, Nov. 2018. (Attached as Exhibit 15)
transmission lines caused the deadliest fire in state history.\textsuperscript{34} The devastation in California from forest fires caused by power lines has led to death, billions of dollars of losses, lawsuits, and utilities filing for bankruptcy. Several Maine entities fear the possibility of wildfires caused by the transmission lines, particularly due to rural Maine’s capacity to handle fires.\textsuperscript{35}

Not only are wildfires themselves a concern, but also the area burned by power line fires is alarming. In a study on the extent of wildfires, researchers found that fires caused by power lines were among those with the greatest total area burned.\textsuperscript{36} This study analyzed fires in southern California, where it is likely that fire response is quicker than in rural Maine; thus the total area burned from power line fires in Maine would likely be proportionally greater than this study found. Additionally, wildfires in Maine are not uncommon; in dry months like April and May, many wildfires can occur, and the western mountains are particularly subject to forest fires, as seen in 2016 when Mount Abraham, near the Appalachian Trail and the proposed transmission corridor, caught fire.\textsuperscript{37} Fires near power lines also bring with them the added concern of threats to first responders—firefighters must consider additional precautions when fighting fires near the transmission line infrastructure such as whether the line remains energized or where the fire is in relation to the lines.\textsuperscript{38}

As stated by the Maine Emergency Management Agency, “[b]ecause the forests of the State represent an enormous natural and economic resource, a major forest fire would have a long-term economic impact affecting industry, causing unemployment, serious erosion, loss of wildlife and agricultural land, and significantly impacting the tourism industry.”\textsuperscript{39} Additionally, in the summary of potential impacts associated with the similar Northern Pass project, DOE noted the project could create and/or increase risks related to fire hazards and fire support services.\textsuperscript{40} Further, as part of its analysis, the federal government created a Health and Safety Technical Report for the Northern Pass project to review the number of support services in the area.


\textsuperscript{35} See DEP/LUPC Testimony by Town of Caratunk, 2019. (Attached as Exhibit 18).


\textsuperscript{37} See Hoey, \textit{Maine Forest Service Battles Stubborn Wildfires}, June 2016. (Attached as Exhibit 20); see also Hoey, \textit{More Than 20 Wildfires Break Out Across Maine}, April 2018. (Attached as Exhibit 21)


\textsuperscript{39} See https://www.maine.gov/mema/hazards/natural-hazards/wildfires.

\textsuperscript{40} See Northern Pass Transmission Line Project Final Environmental Impact Statement (“Northern Pass EIS”), August 2017, page 2–64 (Attached as Exhibit 23).
The unusualness of HVDC lines in Maine (especially overhead, monopole, VSC technology line) and the extreme damage that is known to occur from power line caused forest fires, means this hazard must be fully investigated.\textsuperscript{41} Due to the increased risk of fire resulting from the CMP Transmission Project and the impact on public health and safety, this intensity factor strongly weighs in favor of the Corps preparing an EIS.

3. Unique Characteristics of the Geographic Area

The Corps must consider the “unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.”\textsuperscript{42}

\textbf{a) The Proposed Project Adversely Affects Historic and Cultural Resources}

There are a number of historic and cultural resources in the project area. In CMP’s Presidential Permit application it identified over 270 resources, both below- and above-ground.\textsuperscript{43} In terms of resources that were recorded below-ground, the State Historic Preservation Office (“SHPO”) identified 29 archaeological sites directly within the project area and it further noted that CMP is required to avoid 14 of these sites during construction, and that 6 of them may be adversely affected by the project if CMP does not follow certain treatment plans.\textsuperscript{44} Over 250 above-ground resources were identified by CMP; the area analyzed for above-ground resources covers 0.5 miles surrounding the proposed project route and associated facilities.\textsuperscript{45} Following the SHPO’s review it determined several above-ground resources would be adversely affected by the CMP Transmission Line project, including the Appalachian Trail.\textsuperscript{46}

In the Northern Pass EIS, focusing on the preferred action alternative, over 400 cultural and historic resources were identified.\textsuperscript{47} However, the study area for the Northern Pass project consisted of a “one-mile wide area on either side of the center of the transmission line . . . and a one-mile radius around new above-ground facilities.”\textsuperscript{48} The Corps should adopt the one-mile radius scope in

\textsuperscript{41} When investigating the potential for wildfires caused by the lines, the Corps should also consider whether CMP has proposed any possible mitigation measures to eliminate or reduce the threat of wildfires. \textit{See} Gilmer, \textit{Mitigating Wildfire Risk with Transmission Technology}, April 2019 (Attached as Exhibit 24); \textit{see also} Metro Power Failure Caused by Distant Forest Fires, July 2013 (Attached as Exhibit 25).

\textsuperscript{42} 40 C.F.R. § 1508.27(b)(3) (2018).

\textsuperscript{43} \textit{See} DOE Application, at 77–79; \textit{see also} DOE Application Exhibit L. (Attached as Exhibit 26).

\textsuperscript{44} \textit{See} SHPO Archaeological Review (Feb. 11, 2019) (Attached as Exhibit 27).

\textsuperscript{45} \textit{See} DOE Application, at 73.

\textsuperscript{46} \textit{See} SHPO Architectural Review (Jan. 18, 2019 and March 26, 2019) (Attached as Exhibit 28).

\textsuperscript{47} \textit{See} Northern Pass EIS, at 2–68, 2–70, 3–34.

\textsuperscript{48} \textit{Id.} at 3–34.
evaluating the effects on cultural and historic resources as the DOE did for its EIS related the Northern Pass project, or provide a rational explanation for its departure from the federal government’s previous practice. Such a delineation likely will turn up resources that CMP’s more narrowly-scoped review did not. Due to the numerous historic or cultural resources found within the CMP Transmission project area, and the likely additional resources that the Corps has yet to identify, this factor heavily weighs in favor of the Corps preparing an EIS.

b) The CMP Transmission Project Will Adversely Affect Wetland Resources

Wetlands are those “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances, do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” The state of Maine has designated certain wetlands as “wetlands of special significance” which include all coastal wetlands and great ponds, as well as certain freshwater wetlands that possess various characteristics (i.e., those that contain a critically imperiled natural community or significant wildlife habitat).

Wetlands are a very significant ecosystem, providing transition zones between the terrestrial and aquatic environments. They provide important pollution filtering and species habitat; not only do waterfowl rely on wetlands, but many other species like beavers and mink also are directly dependent on wetlands for food and shelter. Not only do wetlands have outstanding natural value, but they also provide significant economic value by supporting recreational activities like hunting and fishing. Unfortunately, these outstanding resources are particularly sensitive to impacts from land uses that disturb wetland soils, think forestry and other land uses that remove vegetation.

Alarmingly, over 1,000 acres of wetlands are identified within the CMP transmission line corridor and are potentially impacted by the project. The CMP project will have permanent direct impacts on 110 acres of wetlands as they will be filled or converted; some wetlands subject to permanent filling are Maine designated wetlands of special significance. By contrast, in the Northern Pass transmission project, DOE’s EIS determined that the line would have directly impacted only two

51 See Maine Department of Conservation, Maine Rivers Study, 2011 (“Maine Rivers Study”) (Attached as Exhibit 30).
52 Id.
53 Id.
54 See DEP/LUPC Testimony by J. Reardon, 2019 (Attached as Exhibit 31).
55 See DOE Application, at 46; see also CMP LUPC Certification Review, Wetlands Map, September 2018 (Attached as Exhibit 32).
56 See Notice at 9.
acres of wetlands. Due to the CMP Transmission project’s impacts on a substantial amount of wetlands, including those of special significance, this intensity factor weighs heavily in favor of the Corps preparing an EIS.

c) The Proposed Project Adversely Affects Ecologically Critical Areas

i. Many Significant Vernal Pools Exist in the Project Area

Vernal pools are “small, seasonal wetlands that provide critical breeding habitat for a number of amphibians and invertebrates and important resting and foraging habitat for many rare and endangered species.” Maine designates certain exemplary vernal pools as “Significant Vernal Pools” (“SVP”); the significance of a pool is determined by the egg count of breeding amphibians or in the presence of endangered or threatened species. Nearly 35 acres of Maine SVP habitat and over 1,400 acres of Corps jurisdictional vernal pool habitat would be permanently filled or converted because of the CMP Transmission Project. Further, of the proposed project’s jurisdictional vernal pools, the Corps determined that 49 are of “high value,” but the Corps did not specify the number of acres that the 49 “high value” pools represented. Avoiding impacts to SVPs is crucial because many amphibians are pool specific, meaning they must return to the pond in which they were born to breed. Vernal pools are often seen as critical ecological units and losing vernal pools and their surrounding habitat leads to a loss of amphibian species, a decrease in biodiversity, and cause a decline in available food for other species.

By contrast, in the Northern Pass EIS, the project area contained less than 0.5 acres of vernal pools, whereas the Corps identified more than 1,400 acres of vernal pools as directly impacted by the CMP Transmission project. Due to the sheer number of vernal pools in the project area, this intensity factor weighs heavily in favor of the Corps preparing an EIS.

ii. Designated Critical Habitat for Endangered and Threatened Species Will Be Transected by the Project Corridor

57 See Northern Pass EIS, at 2–78 Alternative 7 (Proposed Action).
58 See Jansujwicz et al., The Maine Vernal Pool Mapping and Assessment Program: Engaging Municipal Officials and Private Landowners in Community-Based Citizen Science (Sept. 25, 2013) (Attached as Exhibit 33).
59 Id.
60 Notice at 9.
61 Id.
63 See DEP/LUPC Testimony by A. Calhoun, 2019. (Attached as Exhibit 35). See also, Fact Sheet, Exhibit 34.
64 See Northern Pass EIS, at 2–78 Alternative 7 (Proposed Action); see also Notice at 9.
An agency must consider the degree to which an action may adversely affect an endangered or threatened species’ critical habitat. 65 Species’ critical habitat is comprised of areas “essential to the conservation of the species and which may require special management considerations or protection.” 66 Additionally, areas can be considered unique for purposes of NEPA analysis due to their proximity to habitats for endangered and threatened species. 67 As described in the April 25th Comments, the Atlantic salmon and Canada lynx both have critical habitat in Maine, and likely within the project area.

The Atlantic salmon is an endangered species. In 2009, a number of Maine rivers, streams, and estuary habitat were designated critical habitat for the salmon. 68 Salmon rely on clean and cool waters. The CMP Transmission project will pass over, and under, several water bodies, requiring construction and continued maintenance, which can lead to erosion and increased temperatures. Due to the species endangered status and its critical habitat being present in the project area, the Corps must take a hard look at the possible impacts the project may have on salmon’s recovery. The Corps acknowledged this need by stating it had begun consultation with the National Marine Fisheries Services (“NMFS”) relating to the salmon’s essential fish habitat. 69

The Canada lynx is a threatened species. In 2009, portions of Maine were designated as critical habitat for the lynx, including in Franklin and Somerset counties where portions of the project area are to be constructed. 70 Although lynx were historically found throughout most New England states, the species is now only found in Maine, thus its protection within the state is crucial. 71 Habitat connectivity is important for the species and the forest fragmentation seen throughout New Hampshire, Vermont, and New York is believed to be a cause of lynx decline in those areas. 72 It is self-evident that the proposed project is going to cause additional and significant habitat fragmentation in Maine.

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69 Notice at 3; see also April 25th Comment at 18.
71 See generally Ruediger et al., Canada Lynx Conservation Assessment, 2000 (Attached as Exhibit 36).
72 See generally USFS and USFWS, Canada Lynx Conservation Assessment, 2013 (Attached as Exhibit 37).
The CMP Transmission project is likely to impact both the Atlantic salmon’s and Canada lynx’s critical habitat; thus, this intensity factor weighs heavily in favor of the Corps preparing an EIS to adequately consider these impacts. By comparison, for the Northern Pass project, for which the federal government prepared an EIS, there was no critical habitat found in the project area. Here, with critical habitat in the proposed project area, an EIS, as well as full and completed ESA consultation with NMFS and Fish and Wildlife Service, is legally required.

d) Other Unique Geographic Areas Will Be Adversely Affected by the Proposed Project

NEPA requires agencies to consider all unique geographic areas when determining whether to prepare an EIS. The CMP Transmission project will impact several areas that are geographically unique, including, a national scenic byway, the Appalachian Trail and numerous significant water bodies.

The Old Canada Road National Scenic Byway, Route 201, crosses directly under the proposed route for the CMP transmission lines in several places. The CMP Transmission Project will lead to new or further expansion of corridors, eliminating trees and creating new visual pollution in the area. In addition to the Old Canada Road National Scenic Byway, numerous other scenic resources and conservation lands will be visually impacted by the project, including Androscoggin Riverlands State Park.

Additionally, the Appalachian Trail (“Trail”), a national scenic trail and historical resource eligible for listing on the National Register of Historic Places, is directly impacted by the CMP transmission lines. The lines will pass directly over the Trail at two spots near “Joe’s Hole,” located along Moxie Pond near The Forks. In addition to crossing the Trail, the transmission lines will be visible at many other locations along the Trail. The Trail, despite its significance, faces numerous environmental threats including impacts from energy development, climate change, and invasive

73 See 40 C.F.R. § 1508.27(b)(3) (2018).
74 See, e.g., CMP LUPC Certification Review, Viewshed Maps, September 2017 (“Viewshed Map”) (Attached as Exhibit 38).
75 See DEP/LUPC Testimony by Old Canada Road Group, 2019 (Attached as Exhibit 39).
76 See CMP, Letter Relating to Visual Renderings and Related Attachments, October 2018 (Attached as Exhibit 40).
77 See CMP LUPC Certification Review, Appalachian Trail-Viewpoint Simulations, September 2017 (Attached as Exhibit 41); see also CMP Site Law Application, AT-Inventory of Scenic Resources (Attached as Exhibit 42).
species. The CMP Transmission project will add to already existing and additional future threats to the Trail, one of this country’s natural treasures.

Further, the CMP Project will cross over or near multiple “outstanding” or “significant” water bodies. In its Visual Simulation, CMP identifies numerous “Great Ponds that are rated as outstanding or significant,” several of which are very close to the CMP project corridor including the Rock Pond, Whipple Pond, and Moxie Pond. In addition to these Great Ponds, the transmission lines will pass near, over, or under several important rivers and streams, including the Kennebec, Dead, Carrabassett rivers. The Maine Rivers Study, prepared by the Maine Department of Conservation, U.S. Department of Interior, and National Park Service, designated the Kennebec River as “outstanding” due to its high habitat quality and quantity, species diversity and abundance, presence of endangered species and high recreational importance. The Maine Rivers Study also considers the Dead and Carrabassett Rivers to be “outstanding.” Numerous interested parties have raised concerns regarding the proposed project’s impacts on water resources and related recreational and environmental interests.

In the Northern Pass EIS, the federal government noted National Byways, trails, and state protected rivers that would be impacted by the proposed project. These similar impacts are present for the CMP Transmission project, thus this intensity factor weighs heavily in favor of the Corps preparing an EIS to fully understand all impacts to unique geographic areas, and to allow the public to provide input regarding these exceptional natural areas.

4. The CMP Transmission Project is Indisputably Highly Controversial

Important in the Corps’ determination of whether or not to prepare an EIS is the “degree to which the effects on the quality of the human environment are likely to be highly controversial.” As detailed in the Sierra Club’s April 25th Comments, the direct and indirect effects on the quality of the human environment from this proposed project are being hotly contested and thus meet the standard for controversy triggering a mandatory EIS. There is no question that “substantial dispute

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79 See Viewshed Maps, Exhibit 38.
80 See Maine Rivers Study, Exhibit 30.
81 Id.
82 See Town of Caratunk Testimony, Exhibit 18; J. Reardon Testimony, Exhibit 31; DEP/LUPC Testimony by R. Merchant, 2019 (Attached as Exhibit 43); DEP/LUPC Testimony by J. Preisendorfer, 2019 (Attached as Exhibit 44).
83 40 C.F.R. § 1508.27(b)(4) (2018).
84 See April 25th Comments, at 7–9.
exists as to the size, nature, or effect of the [CMP Transmission Project].”85 Those disputes have played out in numerous forums and regulatory bodies in Maine and Massachusetts, including:

- Maine Department of Environmental Protection (“DEP”) proceeding on CMP’s applications for a Site Location of Development Law permit and a Natural Resources Protection Act permit, and for Clean Water Act Section 401 certification.86
- Maine Public Utilities Commission (“PUC”) hearing on CMP’s Certificate of Public Convenience and Necessity (“CPCN”).87
- Maine Land Use Planning Commission (“LUPC”) hearing for certification pursuant to the Site Location for Development Law.88
- Massachusetts Department of Public Utilities (“DPU”) hearing seeking approval of a long-term contract for procurement of Clean Energy Generation, pursuant to Section 83D of An Act Relative to Green Communities, St. 2008, c. 169, as amended by St. 2016, c. 188, § 12.89

In the Maine DEP proceeding, testimony, including some expert testimony, was presented both in favor and in opposition to the proposed project.90 In granting several environmental groups’ request to hold a public hearing, DEP stated, “the scope and scale of the proposed project is very large, the proposed transmission line would cross rivers that are designated in the Natural Resources Protection Act as outstanding river segments, and the proposed transmission line would cross the Appalachian Trail in multiple locations.”91

85 Foundation for N. Am. Wild Sheep v. U.S. Dep’t. of Agric., 681 F.2d 1172, 1181 (9th Cir. 1982).
86 See generally Maine Department of Environmental Protection, New England Clean Energy Connect, https://www.maine.gov/dep/land/projects/necec/index.html. In response to a FOIA request from the Sierra Club, the Corps stated that all of the public documents contained on the DEP’s website dedicated to the CMP Transmission Project are also in the Corps’ files.
88 See generally Maine Department of Agriculture, Conservation, and Forestry, LUPC Site Law Certification, https://www.maine.gov/dacf/lupc/projects/site_law_certification/slc9.html. In response to a FOIA request from the Sierra Club, the Corps stated that all of the public documents contained on the LUPC’s website dedicated to the CMP Transmission Project are also in the Corps’ files.
91 See November 17, 2017 DEP Letter to Various Environmental Groups, at 1–2 (Attached as Exhibit 45).
In the Massachusetts DPU proceeding, the Massachusetts Attorney General has challenged one of the fundamental assumptions of the long-term contracts that the proposed project is being built to fulfill—that the supplied electricity will be incremental to historical average deliveries. As the Corps’ Notice stated, the CMP project is for the purpose of fulfilling the very contracts that are being challenged by the Massachusetts AG; this factor alone demonstrates the project’s highly controversial nature.

In addition to expert disagreement on multiple aspects of this proposed project, the CMP Transmission project is highly controversial among the general public. The Maine PUC noted that it received more than 1,350 public comments, most of which opposed the project “primarily on the grounds the Project will result in irreparable harm to the environment and scenic values of western Maine, harm to wildlife, and negative impacts on regional tourism.” The indisputable highly controversial nature of the proposed project in Maine and beyond Maine’s borders mandates an EIS from the Corps.

5. The Proposed Project Presents Uncertain Effects and Unknown Risks

“A project may have significant environmental impacts where its effects are “highly uncertain or involve unique or unknown risks.” As discussed throughout these comments and in the April 25th Comments, the CMP Transmission project involves several categories of effects that are either highly uncertain or involve unknown risks. Most notably, the proposed project’s effect on greenhouse gas emissions is highly uncertain, with some scientific studies indicating the import of electricity from Canadian hydropower projects will increase CO2 emissions, while other studies suggesting it will reduce those emissions. Perhaps the best illustration of this uncertainty is the legislation currently proposed in the Maine Legislature that seeks an independent climate impact study on the proposed project. A related uncertainty is the effects of the proposed project on New England regional sources of renewable energy, such as solar and wind projects. Some argue that the new transmission line will allow greater access of these types of project to the electric grid, while others argue that the long-term contracts facilitated by CMP project will discourage local renewable development in Maine and Massachusetts.

The proposed project also presents highly uncertain effects on local economies, specifically related to impacts on tourism and recreation-based businesses. The Maine PUC found “the effects of the Project on scenic and recreational values, and the associated impacts on tourism and the economies

92 See Initial Brief of the Office of the Attorney General (‘AG Brief”), at 17–30 (Attached as Exhibit 46).
93 PUC Order, at 16.
94 Blue Mountain Biodiversity Project v. Blackwood, 161 F.3d 1208, 1213 (9th Cir. 1998) (citing 40 C.F.R. § 1508.27(b)(5)).
of communities in proximity to the Project, . . . will be adverse.”95 However, it is not certain what the magnitude of those adverse effects will be.

The project also presents unique and unknown risks to wildlife. The transmission lines and associated infrastructure pose unique risks because the project passes through critical habitat for two ESA-listed species. By comparison, the Northern Pass project, even though it had the potential to affect ESA-listed species, did not implicate ESA-designated critical habitat. Likewise, the proposed project presents unknown risks to ESA-listed species and other wildlife, including protected eagles, bull trout, moose, and pine marten.96 While it is possible to speculate regarding the types of harms the proposed project could cause to wildlife, until more is known regarding the populations of the affected species and their proximity to the project corridor, the degree and magnitude of the potential harm is unknown.

The project also presents unknown risks related to wildfire threats. The Maine PUC recognized the lack of available data and information related to these public safety risks and the ability of local emergency services to respond; accordingly, it ordered CMP to “provide direct and clear information to the affected community about how CMP (1) has dealt with fire and medical support issues in comparable rural areas of its system and (2) plans to deal with fire and medical support issues in the context of the NECEC.”97

Simply put, there are multiple, highly uncertain effects and unique or unknown risks associated with this proposed project; this factor alone (much less in combination with other intensity factors) triggers the Corps’ mandatory duty to do an EIS.

6. Hundreds of Resources Listed or Eligible for Listing in the National Register of Historic Places Are Within the CMP Transmission Corridor

When determining whether to prepare an EIS, NEPA requires agencies to consider “the degree to which [an] action may adversely affect . . . [resources] listed in or eligible for listing in the National Register of Historic Places [(“NRHP”)] or may cause loss or destruction of significant scientific, cultural, or historical resources.”98 The NRHP is the United States’ official list of places determined

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95 PUC Order, at 6.
96 See Biasotto and Kindel, Power Lines and Impacts on Biodiversity: A Systematic Review (April 27, 2018) (Attached as Exhibit 47); see also DEP/LUPC Testimony by J. McMahon, 2019. (Attached as Exhibit 48).
97 PUC Order, at 50.
to be worthy of preservation; in order to be placed on the registry, the resource is evaluated for age, integrity, and significance.  

In CMP’s Presidential Permit application to DOE, it identified over 100 resources that were listed or eligible for listing in the NRHP within the CMP Transmission project area. Some of these NRHP listed or eligible resources include the Appalachian Trail, Arnold Trail to Quebec, and various barns and farmsteads; importantly, the SHPO noted that the Appalachian Trail and a few other resources would be adversely affected by the CMP Transmission project. By contrast, in the Northern Pass EIS, only 20 sites were listed or eligible for listing in the NRHP. Due to the vast number of NRHP listed or eligible resources located along the CMP corridor, including those that may be adversely affected, this factor weighs heavily in favor of the Corps’ need to prepare an EIS.

7. Federally Endangered and Threatened Species May Be Adversely Affected by the Proposed Project

In determining whether to prepare an EIS, the Corps must consider the “degree to which the action may adversely affect an endangered or threatened species.” As described in the April 25th Comments, there are four Endangered Species Act (“ESA”) listed species in the project area—the Atlantic salmon, Canada lynx, northern long-eared bat, and the small whorled pogonia.

The Atlantic salmon Gulf of Maine population was listed as an endangered species under the ESA in 2009. In February 2019, the government issued a final recovery plan for the species. Water quality and the health of riparian buffers are essential for the health of the salmon. The CMP Transmission project will likely negatively impact waterways and species that rely on them, like the Atlantic salmon, thus hindering efforts for species recovery.

The Canada lynx was listed as a threatened species under the ESA in 2000 and is also a Maine species of concern. Lynx rely on forested habitats, thus maintaining a range of forest age classes

100 See DOE Application, at 3–79; see also DOE Application Exhibit M (Attached as Exhibit 49).
102 40 C.F.R. § 1508.27(b)(9).
103 See 74 Fed. Reg. 29,343 (June 19, 2009).
105 See generally J. Reardon Testimony, Exhibit 28.
and continuous habitat is important for its recovery.\(^{107}\) With the impending effects of climate change, some fear lynx will retreat north to Canada due to temperatures increasing and a loss of deep snow habitat; however, maintaining connected habitats offers one of the best chances of retaining the species in Maine.\(^{108}\)

The northern long-eared bat was listed as threatened in 2015.\(^{109}\) In addition to listing the species, a 4(d) rule was implemented to further protect the bat.\(^{110}\) This rule prohibits all forms of “take,” including purposeful and incidental, in areas where the species hibernates. Bats face direct and indirect effects due to transmission line construction—including electrocution, barriers to movement, habitat fragmentation, site avoidance/abandonment, disturbance, and behavioral modifications.\(^{111}\) The CMP Transmission Project will not only increase the amount of lines throughout existing corridors, but also introduce a new large 53.5-mile cleared corridor through currently undeveloped land, adding lines to the area.\(^{112}\)

The small whorled pogonia, a rare orchid, was listed as a threatened plant species in 1994.\(^{113}\) Significantly, habitat loss due to development is the primary threat to this species.\(^{114}\) Again, the CMP project will expand existing corridors and create a large 53.5-mile corridor that will remove nearly 1,000 acres.

Additionally, while it is no longer an ESA listed species, the bald eagle remains federally protected under the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act (“Eagle Act”). Activities that can “take” an eagle, including killing or disturbing an individual, are prohibited without a permit.\(^{115}\) Disturb is defined as an action that can cause (1) a decrease in a species productivity, by interfering with its breeding behavior, and (2) nest abandonment.\(^{116}\) In a review of transmission line impacts on biodiversity, one study found that distance from power lines was “the most important factor determining the choice of nest and rest sites” of migratory birds.\(^{117}\) Further, raptors are particularly susceptible to electrocution, and some believe these electrocutions are the

\(^{107}\) See generally Vashon et al., Diurnal Habitat Relationships of Canada Lynx in an Intensively Managed Private Forest Landscape in Northern Maine (2008). (Attached as Exhibit 51).

\(^{108}\) See generally Maine Department of Inland Fisheries and Wildlife Canada Lynx Assessment, 2012. (Attached as Exhibit 52).


\(^{111}\) See generally Manville II, Impacts to Birds and Bats Due to Collisions and Electrocutons, 2016. (Attached as Exhibit 53).

\(^{112}\) See Notice at 1.

\(^{113}\) See 59 Fed. Reg. 50,852 (Oct. 6, 1994).

\(^{114}\) See generally USFWS, Small Whorled Pogonia Factsheet, 2016. (Attached as Exhibit 54).

\(^{115}\) See 74 Fed. Reg. 46,835 (Sept. 11, 2009).

\(^{116}\) 50 C.F.R. § 22.3 (2018).

\(^{117}\) See Power Lines and Impacts on Biodiversity, Exhibit 47.
main cause of population decline. The Eagle Act explicitly references the utility sector’s impacts on the species noting that utilities that kill eagles through collisions and electrocutions from contact with power lines may obtain Programmatic Permits for ongoing take. With the utility sector’s impacts being highlighted by USFWS, the Corps must take a hard look at CMP’s transmission project’s impact on both bald and golden eagles.

Endangered and threatened species are likely to be impacted by the CMP Transmission Project. By comparison, for the Northern Pass Project, the federal government prepared an EIS when similar ESA listed species—including the Canada lynx and northern long-eared bat—had potential occurrences in the project area. Accordingly, this intensity factor strongly weighs in favor of the Corps preparing an EIS, in addition to initiating and completing legally sufficient ESA consultation with NMFS and FWS, to fully understand the impacts facing ESA listed species, as well as other affected wildlife.

CONCLUSION

The CMP Transmission Project, like the Northern Pass Transmission Project before it, requires an EIS. Even though the significance of the proposed project is enough by itself to require an EIS, nearly all of the intensity factors the Corps is required by regulation to consider also mandate the agency prepare an EIS. The Sierra Club looks forward to reviewing the draft Environmental Assessment (if the Corps choses to do one in advance of an EIS) and/or the EIS scoping document when the Corps releases it, and to providing further comments once the Corps makes all of the relevant information available to the public.

Sincerely,

Alice Elliott
Director
Sierra Club, Maine Chapter

Encl.: CD with Exhibits

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118 Id.
120 Although the Corps must engage in ESA consultation with NMFS and FWS, that process cannot be used as a substitute for the Corps’ independent analysis of the potentially significant impacts of the proposed project on ESA-listed species in the area. See National Wildlife Federation v. Babbitt, 128 F. Supp. 2d 1274, 1302 (E.D. Cal. 2000) (requiring an EIS under NEPA even though a mitigation plan satisfied the ESA).
CC via email only: EPA, Region 1
Representative Seth Berry
Senator Brownie Carson
Sandra Howard, Say NO to NECEC
Sue Ely, Natural Resources Council of Maine