

STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

and

STATE OF MAINE  
LAND USE PLANNING COMMISSION

IN THE MATTER OF

CENTRAL MAINE POWER COMPANY  
Application for Site Location of Development  
Act permit and Natural Resources Protection  
Act permit for the New England Clean Energy  
Connect (“NECEC”)

L-27625-26- A-N  
L-27625-TB-B-N  
L-27625-2C-C-N  
L-27625-VP-D-N  
L-27625-IW-E-N

SITE LAW CERTIFICATION SLC-9

PRE-FILED TESTIMONY OF  
RON JOSEPH

ON BEHALF OF INTERVENOR GROUP 4  
(APPALACHIAN MOUNTAIN CLUB,  
NATURAL RESOURCES COUNCIL OF  
MAINE AND TROUT UNLIMITED)

February 28, 2019

## **The Fragmenting Effect of NECEC on Deer Yards**

My name is Ron Joseph and I live in Sidney, Maine. I earned a B.S degree in Wildlife Management at the University of New Hampshire in 1974. I earned an M.S. degree in Zoology at Brigham Young University in 1977. From 1978 through 2010 I worked as a wildlife biologist for the Maine Department of Inland Fisheries and Wildlife and the U.S. Fish and Wildlife Service.

Born and raised in rural Maine, I lived my dream of working in Maine as a wildlife biologist. In 1978, I began my career as a deer yard biologist for the Maine Department of Inland Fisheries and Wildlife (IFW) office in Ashland, Maine. From 1988 through 1990, I worked as the state's regional wildlife biologist in Greenville. My assistant and I spent 90 percent of our time documenting deer yards in the Moosehead Lake region and in western Maine. Our data was submitted to the Land Use Regulation Commission (LURC), which then zoned each deer yard as a P-FW (protection for fish and wildlife) on LURC maps. Now retired after a 33-year career, I can truthfully say that fighting to protect deer yards was THE single most controversial program I ever worked on. Twice timberland owners in Maine sued the State over deer yards. One case advanced to the Maine Supreme Court.<sup>1</sup> In both suits, the courts ruled in favor of the State.

Ninety-six percent of Maine is considered deer habitat but only five percent is suitable as winter deer yard habitat, and much of that has been destroyed. This knowledge comes from the many years I have spent working as a wildlife biologist in Maine. It is important to note that there is not extensive scientific literature about deer yards in Maine, so I have based much of my testimony on firsthand experience and the many conversations I have had during my lengthy career with colleagues, wardens, and guides.

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<sup>1</sup> 1982. SEVEN ISLANDS LAND COMPANY v. MAINE LAND USE REGULATION COMMISSION. Supreme Judicial Court of Maine (450 A.2d 475). Accessed at <https://law.justia.com/cases/maine/supreme-court/1982/450-a-2d-475-0.html>.

Simply stated, a deer yard (also called a “deer wintering area” or “DWA”) is habitat—mainly stands of spruce, fir, and cedar (softwood species)—where deer seek shelter from deep snows, which are half the depth of snow in hardwood stands. Dense stands of mature softwoods protect deer from severe cold winds; nighttime temperatures in deer yards are several degrees warmer than in open hardwood stands due to the “blanketing” effect of overstory softwood boughs. In short, deer yards are critical because they help deer conserve energy during Maine’s long winters when food quality and abundance are limited.

According to CMP’s Compensation Plan submitted to DEP and the U.S. Army Corps of Engineers,<sup>2</sup> the proposed transmission line would cross 22 deer yards.<sup>3</sup> Of those, CMP’s proposal would increase deer yard fragmentation in 11 deer yards by clearing multiple acres of trees.

There are numerous examples of the detrimental effect of forest conversions and fragmentation in and around deer yards. The Chub Pond deer yard, a few miles south of Whipple Pond where the transmission line would pass, has undergone numerous timber harvests within and adjacent to the deer yard. We do not know if the deer died or moved elsewhere. We do know, however, that the deer yard no longer supports wintering deer. The Mud Pond deer yard in Parkman serves as a stark reminder of their critical importance. Timber harvests within and adjacent to the Mud Pond deer yard during the winter of 1979-80 killed between 90-100 deer, according to the Maine Warden Service. Surrounded by deep snows in clear-cuts, the stranded deer died of starvation.

My point in mentioning these examples is to stress that the loss of deer wintering areas and the fragmentation and loss of habitat connectivity between deer wintering areas and surrounding forestland

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<sup>2</sup> 2019. Central Maine Power. Compensation Plan New England Clean Energy Connect (NECEC). P. 22. January 30

<sup>3</sup> For a list of 21 of the deer yards, minus the Upper Kennebec Deer Wintering Area, see: 2017. Central Maine Power. Site Law Application, Final. Chapter 7 – Fisheries and Wildlife, Exhibit 7-2. September 27. Accessed at [https://www.maine.gov/dep/ftp/projects/necec/applications/SiteLocation/Site%20Law%20Application\\_Final\\_9.27.17%20-%20Chapter%207-%20Wildlife%20and%20Fisheries.pdf](https://www.maine.gov/dep/ftp/projects/necec/applications/SiteLocation/Site%20Law%20Application_Final_9.27.17%20-%20Chapter%207-%20Wildlife%20and%20Fisheries.pdf). P. 139.

are THE major limiting factors for deer populations in northern, western, and eastern Maine. In northern Somerset County, a few miles west of Parlin Pond, the proposed transmission line would cross the Spencer Road in an area so depleted of deer yards, radio-collared deer summering there spend their winters at a deer yard at Harlow Pond in Guilford—a distance of about 50 miles. It is a sad commentary on the state of deer yards when the best remaining ones in the Jackman-Moose River area are in backyards of urban and suburban settings. CMP's proposed project further contributes to deer yard degradation and fragmentation.

Please bear in mind that the continued loss of our remaining deer yards has a significant economic impact on traditional Maine sporting lodges and rural communities that depend on income from deer hunters. Across western and northern Maine, sporting lodges are going out of business, in part because deer numbers are so low, hunters are turning away from Maine and traveling to NY, VT, PA, and elsewhere to hunt deer. For example, Claybrook Mountain Lodge is located in Highland Plantation in western Maine. It opened in the mid-1970s. For 20 years, the owners—Pat and Greg Drummond—earned the bulk of their yearly income from deer hunters. By the mid-1990s, as the deer population plummeted following a series of hard winters combined with the loss of deer yards, deer hunters stopped coming to the lodge. To survive economically, the couple reinvented themselves by transitioning from a hunting lodge to a cross-country skiing, moose watching, and bird watching lodge. Cobb's Camps on Pierce Pond—one of Maine's most renowned sporting lodges—located across the river from The Forks is no longer open in November due to a lack of deer following a significant loss of deer yards.

Protecting deer yards ensures healthy deer populations and boosts incomes of men and women who make a living either guiding hunters or operating sporting lodges. CMP's transmission line would further contribute to the economic decline of rural Mainers dependent on nature-based businesses. The

Sportsman's Alliance of Maine (SAM) conducted a survey of its members, and the "overwhelming majority" of its members opposed CMP's power line proposal. This caused SAM to withdraw its support for NECEC. One of the reasons for the opposition was concern about the power line's impacts on deer yards.<sup>4</sup>

CMP's impacts to the deer yard near The Forks (called the Upper Kennebec Deer Wintering Area) would be especially significant because it would occur in a region of Maine already suffering from low deer densities due to difficult winters and dearth of deer yards. In fact, this deer yard is the only remaining substantial deer yard in the entire length of CMP's proposed new stretch of corridor. That makes it incredibly important to the low numbers of deer still hanging on in the region and to the remaining guides and sporting camps that count on these deer as an economic resource. The deer yard is also critically important to support recreational deer hunting for the residents of the region.

The lack of deer yards has forced residents of The Forks to operate an emergency deer feeding station to help the animals survive the winter. A recent University of Maine study<sup>5</sup> found that forest fragmentation in deer yards breaks up habitat connectivity to the surrounding landscape and that loss of mature conifer forest is a major limiting factor on efforts to increase the numbers of deer in western, northern, and eastern Maine.

According to CMP's Compensation Plan, 39.209 acres of tree clearing would occur in the large Upper Kennebec River Deer Wintering Area.<sup>6</sup> In a June 5, 2017, letter from IFW to Lauren Johnston of Burns & McDonnell, IFW wrote "any clearing within the project area corridor could severely limit deer's ability to

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<sup>4</sup> 2018. Letter from SAM executive director David Trahan to CMP and the Maine Public Utilities Commission. November 20. Accessed at [https://www.facebook.com/permalink.php?story\\_fbid=1953413778076856&id=110003532417899](https://www.facebook.com/permalink.php?story_fbid=1953413778076856&id=110003532417899)

<sup>5</sup> 2018. Erin Simons-Legaard et al. Ineffectiveness of local zoning to reduce regional loss and fragmentation of wintering habitat for white-tailed deer. *Forest Ecology and Management*: 427(78-85). November.

<sup>6</sup> 2019. Central Maine Power. Compensation Plan New England Clean Energy Connect (NECEC). P. 22. January 30.

get across the right-of-way (ROW) to the other side of the DWA and could be a complete barrier during significant snow.”<sup>7</sup>

IFW guidelines underscore the importance of protecting deer yards from fragmentation.<sup>8</sup> CMP’s transmission line proposal does not avoid or minimize impacts to the Upper Kennebec River Deer Wintering Area. The transmission line would fragment the forest, running right through the deer yard instead of avoiding it, and will act as a deep snow barrier for deer accessing the entire softwood cover. It would also enhance access by coyotes and create a wind tunnel that would result in blowdowns, further degrading the deer yard. Blowdowns occur when deer yards are fragmented because spruce and fir growing in the interior of the stand have developed shallow root systems. Trees in the interior of the stand have been protected from strong winds by neighboring trees. Conversely, trees on the edge of the stand have more extensive root systems. Fragmenting a deer yard stand would result in additional tree losses even after the harvesting is over because the harvesting exposes more interior trees with shallow root systems to high winds. This would continue to degrade a deer yard even after harvesting is over.

The company proposes to mitigate impacts to the Upper Kennebec River Deer Wintering Area by preserving the remainder of the deer yard and by implementing eight deer travel corridors in the proposed right of way. However, these “corridors” will not have older stands of softwood trees because CMP will cut all trees that encroach on the overhead line, stating that its management of tree height will vary based on the height of the power line.<sup>9</sup> There is no guarantee these “corridors” would function as

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<sup>7</sup> IFW. 2017. Information Request - Quebec-Maine Interconnect Project. June 5. Pp. 4-5. Accessed on page 63 of pdf file at [http://www.maine.gov/dep/ftp/projects/necec/applications/SiteLocation/Site%20Law%20Application\\_Final\\_9.27.17%20-%20Chapter%207-%20Wildlife%20and%20Fisheries.pdf](http://www.maine.gov/dep/ftp/projects/necec/applications/SiteLocation/Site%20Law%20Application_Final_9.27.17%20-%20Chapter%207-%20Wildlife%20and%20Fisheries.pdf)

<sup>8</sup> 2012. Maine Department of Inland Fisheries and Wildlife. Recommended Performance Standards for Deer Wintering Areas in Overhead Utility ROW Projects.

<sup>9</sup> 2018. Maine IFW. Additional Clearing Restrictions within the Upper Kennebec Deer Wintering Area. Attached as Exhibit X. Pp. 1-2. December 7.

replacements for the deer yards that would be destroyed or allow effective deer movement to an intact deer yard.

In all 11 deer yards where CMP plans to clear trees, they are proposing to revegetate disturbed soils with a wildlife seed mix. CMP fails to recognize that its wildlife seed mix (which will create “food plots”) will be buried in open areas beneath 3-4 feet of snow during long Maine winters and thus will provide no benefit to the deer. In summer, when CMP’s seed mix would be available to deer, natural food is not a limiting factor.

CMP downplays the deer yard impacts in the sections of its proposed corridor that it plans to widen by claiming that “corridor construction will only widen existing, non-forested transmission line corridors by an average of approximately 75 feet.”<sup>10</sup> In its compensation plan, CMP then makes a giant leap by concluding that construction “will not significantly affect the habitat functional attributes of the DWAs intersected by the Project.”<sup>11</sup> And that after construction, deer yards “will function similarly to the way they currently do.”<sup>12</sup> This claim is preposterous. We know from University of Maine research<sup>13</sup> and my own deer yard work that the loss of deer yards and the loss of connectivity between deer yards and surrounding habitat are detrimental to deer survival. Wide, non-forested strips in deer yards are barriers to deer and the additional width of 75 feet would make them an even greater barrier. Deer can’t walk or bound through deep snows without burning precious fat reserves needed to survive until snow depths decrease in April.

In summary, as IFW’s regional biologist in Greenville from 1988 through 1990, I’m well acquainted with the habitat requirements of deer in CMP’s proposed transmission line corridor. The greatest threat to deer in western Maine continues to be the fragmentation and cumulative loss of deer yards from timber

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<sup>10</sup> 2019. Central Maine Power. Compensation Plan New England Clean Energy Connect (NECEC). P. 23. January 30.

<sup>11</sup> *Ibid.*, P. 23.

<sup>12</sup> *Ibid.*, P. 23.

<sup>13</sup> Erin Simons-Legaard et al. *Op. Cit.*

harvesting and utility rights of way. Unlike timber harvesting, the fragmentation and loss of deer yard habitat from utility line corridors is essentially permanent. This project, if approved, would be a significant and permanent additional burden to a struggling deer population in western Maine. It would cause extensive negative impacts to deer wintering areas. Given the fact that this corridor will fragment one of the few remaining deer wintering areas in the Forks region, and the lack of adequate mitigation for this and overall deer yard impacts throughout the length of the corridor, I do not believe this project meets the no undue adverse impact to fisheries and wildlife standard in the Site Law and Site Law rules (38 M.R.S. § 480-D(3), 38 M.R.S. § 484(3), and DEP rule Chapter 375 § 15).



Notarization

I, Ron Joseph, being first duly sworn, affirm that the above testimony is true and accurate to the best of my knowledge.

Date: February 27, 2019



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Ron Joseph

The above-named Ron Joseph made affirmation that the above testimony is true and accurate to the best of his knowledge.

Date: February 27, 2019



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Catherine B. Johnson, Attorney-at-law