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Memorandum

To: Commissioners

From: Stacie R. Beyer, Chief Planner

Date: December 2, 2016

Re: Commission Deliberations on the Rulemaking Petition to Remove Carroll Plantation, Penobscot County from the Expedited Permitting Area for Wind Energy Development

Background and Introduction

On January 4, 2016, the Commission received a petition to remove Carroll Plantation (Carroll) from the expedited permitting area for wind energy development (expedited area). Subsequently, the Commission received a timely request for substantive review of that petition. On September 28, 2016, the Commission held a public hearing to receive testimony and evidence from the Substantive Review Requestors, Petition Circulator, and members of the public. In addition, individuals and organizations submitted written comments and rebuttal during the publically noticed comment period. Staff requests that at its December 12th meeting, Commissioners discuss the petition and provide guidance to staff in drafting the appropriate decision documents for consideration at its February regular business meeting.

In considering what action to take on the rulemaking petition, the Commission may:

- 1) **Leave Carroll in the expedited area:** To accomplish this, the Commission would decline to adopt the rule. Staff would draft a memorandum of decision for the Commission's consideration.
- 2) **Remove Carroll from the expedited area:** To accomplish this, the Commission would decide to adopt the proposed rule. The staff would draft the adoption paperwork, including the draft rule, a basis statement, and a summary and response to comments for the Commission's consideration.
- 3) **Ask for more information:** The Commission could decide it needs additional information, in which case, the Commission would need to issue a new public notice and reopen the public record.

Summary of the Rulemaking Record

All of the pre-hearing submissions, written testimony and public comments, and the audio recordings of the hearing for the Carroll removal petition are available on the Land Use Planning Commission (LUPC) FTP site and website.

In total, the Commission received written submissions, testimony and comments from the Requestors, the Petition Circulator, 21 interested persons, and 8 governmental agencies.

This memorandum summarizes the key issues covered in those materials.

Commission Deliberation

To assist the Commission in its deliberation, staff has created decision factor summary tables, which are attached as Appendix A. The summary tables are based on the staff analysis intending to help focus the Commission's discussion on the factors that staff believes are key to the decision in this matter. In the balancing that the Commission must do in applying the removal criteria, there are a number of important factors to consider, including: progress toward the State's energy goal; wind energy potential in Carroll; potential impacts of wind energy development to natural, recreational, and scenic resources; and potential impacts to economic development and the community character of Carroll. All of these factors are listed in the summary tables.

Based on analysis of the testimony and evidence in the record, staff believes factors relating to three principal values and nine specific goals, as shown in the Factor Summary Table for Criterion B, support removal of Carroll from the expedited permitting area. In addition, staff concludes that the factors for wind energy potential and public resource values support removal (Factor Summary Table for Criterion A). Among all of these factors, there are four in particular that staff recommends be given significant weight in this matter – recreational opportunities, high value natural resources, recreational resources and scenic resources. This recommendation is based on the impacts that wind energy development could have on the high-value scenic and recreational resources in the Downeast Lakes Region of the State. How the Commission weighs these factors will be central to the Commission's decision of whether the proposed removal of Carroll from the expedited permitting area satisfies the statutory criteria.

To aid the Commission in its deliberation on this, staff has included a "guide for deliberation" at the end of this memo just before the tables. The discussion guide provides one possible path to organizing the Commission's discussion in a way that is intended to ensure full consideration of all factors of the decision making criteria in a logical manner.

Staff Analysis and Guide for Deliberation

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REVIEW OF CRITERION A

Criterion A. The proposed removal will not have an unreasonable adverse effect on the State's ability to meet the state goals for wind energy development in section 3404, subsection 2, paragraph C.

I. Framework for Review

Application of Criterion A involves developing an understanding of where the State stands with regard to achieving its goal for installed capacity of wind energy development by the year 2030. The greater the additional capacity needed to achieve this goal, the more important it is for there to be good locations available for wind power development. All areas within the existing expedited permitting area are not the same. For example, the wind resources, public resources, transmission infrastructure, and existing land uses all differ from place to place. As a result, some areas are better suited for wind power development than others. Removal of the better suited locations from the expedited permitting area could have an unreasonable adverse effect on the State's ability to meet its goal.

To illustrate the type of assessment and balancing that must be done in applying Criterion A, the Commission has explained:

“[A] place that has limited potential for energy generation and that would be subject to disproportionate impacts on public resources from wind power development is the type of place the Commission likely would find provides little value toward achieving the State's goal. This type of place likely could be removed from the expedited permitting area without having an unreasonable adverse effect on the State's ability to meet the goals for wind energy development. In contrast, a place that has the potential for exceptional power generation, even though wind power development might have some impacts on public resources or existing uses, could be the type of place the Commission would find provides significant value towards achieving the State's goals. Removal of this type of place from the expedited area might have an unreasonable adverse effect on the State's ability to meet its goals.”

Overview of the Process for the Maine Land Use Planning Commission's Review of Petitions for the Removal of Places from the Expedited Permitting Area for Wind Energy Development (Process Overview Document at 5) These examples involve hypothetical areas where evaluating whether Criterion A is satisfied is relatively straight forward; these hypotheticals are solely intended to show the balancing the Commission must undertake in applying the criteria.

As discussed below, whether the removal of Carroll from the expedited permitting area will have an unreasonable adverse effect on the State's ability to meet its 2030 wind energy goal is more complex. In evaluating whether removing Carroll would have an unreasonable adverse effect and fail to satisfy Criterion A, the first step is to assess the progress the State has made in achieving the 2030 goal. From there, the State's need for additional installed wind energy capacity in order to achieve its goal and Carroll's potential for wind energy development is balanced against the impact to local communities and public resources, together characterized as public resource values.

The evaluation of Criterion A that follows is organized according to that framework and involves a summary of testimony and accompanying staff assessment of:

- A) Progress toward the State’s 2030 energy goal,
- B) Potential for wind energy development in Carroll, and
- C) Impacts to public resource values.

II. Evaluating the Effect of Removal on the State’s Ability to Meet its Wind Energy Goal

A. Progress Toward the State’s 2030 Energy Goal

Title 35-A, Section 3404(2)(C) establishes a 2030 goal for wind energy development in the State as 3,000 megawatts (MW) of installed onshore capacity. The record contains data compiled from submissions by the Department of Environmental Protection (DEP) and the LUPC indicating that Maine currently has wind energy projects either operational, under construction, or permitted with name plate capacity of approximately 927 MW of wind energy. Therefore, to achieve its goal, the State will need an additional 2073 MW of installed onshore capacity by 2030.

In public hearing testimony, the Partnership for the Preservation of the Downeast Lakes Watersheds (PPDLW) testified that “[t]he response to the recent New England Clean Energy Request for Proposals [RFP] is a solid indication of Maine wind projects that developers are planning to build in the next four years. The proposals represent real projects that are in the advanced development stage and are projected to be online no later than 2020. The proposals received offer up approximately 2,100 MW of new Maine-sited wind energy.” PPDLW asserted that the 927 MW of existing and under construction capacity, and the 2,100 MW of capacity in “advanced planning stages” in Maine already exceeds the 2030 goal of 3,000 MW and therefore, a wind project in Carroll is not critical to meeting the 2030 goal. It is now common knowledge and the Commission can take official notice that, since the public hearing in this matter, the Soliciting Parties for the New England Clean Energy RFP have selected the successful bidders and moved to the contract award stage. There were no wind energy developments from Maine selected.

In addition, there is testimony and evidence in the record showing that the Independent System Operator (ISO-NE) for the New England bulk power transmission system currently has 3,631 MW of onshore wind capacity projects pending interconnection requests in northern and western Maine (Exhibit 6.3.3, July 19, 2016, ISO-NE). However, the record also includes public hearing testimony indicating that proposed projects in the ISO Generator Interconnection Queue do not always advance to project development. According to ISO-NE, the interconnection process consists of multiple phases including an interconnection studies phase, and, during that phase, infrastructure and upgrades are identified to ensure that the interconnection can be done reliably with no adverse impact on the existing power system. The cost of any necessary infrastructure and system upgrades to maintain system reliability are the responsibility of the project developer. According to the public hearing testimony for the Milton removal petition by Jeffrey H. Fenn, P.E., a power systems engineer with SGC Engineering, less than 5,000 MW out of a total of 65,000 MW of proposed interconnections since 1996 proceeded to the next stage of filing an interconnection application. This testimony from the Milton review has been incorporated into the record for the substantive review of the Carroll petition.

Staff Assessment: Considerable progress remains necessary for the State to achieve its wind energy goal for 2030. Although there is a substantial amount of generating capacity for Maine in the planning stages and in the ISO Interconnection Queue, it is likely that only a small fraction of that

capacity will proceed to a project development stage based on the historical data in the record. Removal of areas better suited for wind power development from the expedited permitting area will have an adverse effect on the State's ability to meet its 2030 goal.

B. Potential for Wind Energy Development in Carroll

1. Regulatory History

PPDLW provided, in its pre-filed testimony, a timeline and copies of past decisions made by the Land Use Regulatory Commission (LURC), DEP, Board of Environmental Protection (BEP), and the Maine Supreme Judicial Court on a proposed wind energy project in Carroll. Over a period of time extending from March of 2011 to December of 2014, LURC and the DEP both denied separate permit applications submitted by Champlain Wind, LLC to build a wind energy development known as the Bowers Wind Project in Carroll, south of Route 6. The basis for LURC's denial of the original proposal and DEP's denial of a modified proposal was largely the same – the project's unreasonable adverse impact on the scenic character and uses related to the scenic character of multiple scenic resources of state or national significance to the south of Carroll (nine lakes in the Downeast Lakes Region). The DEP decision, denying a modified proposal that reduced the size of the project, was upheld by the BEP and the Maine Supreme Judicial Court.

Although the Carroll removal petition is a rulemaking proceeding and does not involve a permit application for an actual wind energy development, and the Commission is not bound by any previous decisions made regarding specific wind energy projects in the Plantation, staff believes that the regulatory history of wind energy development in Carroll is a factor that warrants consideration in terms of the potential for wind energy development in the Plantation. This belief is based on the record showing that the suitable area for wind energy development is limited in Carroll, the proposed Bowers Wind Project was centrally located in that area, and a majority of the proposed wind turbines for that project were located in Carroll. Testimony and evidence indicates that the only significant elevations in Carroll are located in the southern third of the Plantation, south of Route 6 (Exhibit 6.2.7, PPDLW, 3; Exhibit 6.2.7, PPDLW Exhibit A, 8; and Exhibit 6.3.4, Bureau of Public Lands (BPL), 2).

The Requestors recognized in their pre-filed testimony that “we will probably never have Wind Mills on Bowers.” They requested substantive review to ask for another chance at wind power development in the Plantation. PPDLW responded that future wind development will shift away from sites like the one in Carroll that prove difficult to permit due to the impacts on valuable resources.

PPDLW asserted and staff agrees that Carroll's regulatory history plays a role in limiting the future potential for wind energy development in the Plantation.

2. Wind Resource

A key factor in determining if a site is suitable for wind energy development is the quality of the wind resource. In pre-filed testimony, PPDLW asserted that the wind resource in Carroll Plantation is not sufficient to support an economically viable wind project. They based their comments on data from the National Renewable Energy Laboratory showing an average annual wind speed in Carroll of only 5.5 – 6.0 m/s. They quoted pre-filed testimony by EverPower Wind Holdings (EverPower) for the Milton removal petition that indicates a need for a minimum wind speed of 6.5

- 7.0 m/s for a competitive wind project. The Partnership also quotes EverPower in terms of turbine layout, and concludes that a wind project in Carroll would be hampered by the fact that its ridgeline runs east/west as opposed to the north/south layout of existing wind projects that, PPDLW stated, capture the prevailing winds of eastern Maine.

The Requestors, in rebuttal testimony, asserted that the wind resource is sufficient on the mountains in southern Carroll, based on personal observation.

The wind speed data from the National Renewable Energy Laboratory is based on landscape level modeling. It is reasonable to assume that data obtained by modeling and done on a national level is not as accurate as data obtained from actual wind speeds measurements at a particular location. There is data in the record (Exhibit 6.5.3, Table 1-Key Siting Considerations, Bowers Wind Project) that shows average annual wind speeds measured at a specific site in Carroll to be 7.5 m/s. The site specific wind data also indicates the prevailing winds at that location to be west- northwest.

In response to the site specific data, PPDLW further testified that Carroll's wind resource is just barely viable and it is further depreciated by site-related factors such as the need for any wind project to meet the State Department of Inland Fisheries and Wildlife (MDIFW) curtailment protocols to protect wildlife species, particularly threatened and endangered bats, and the previously described concern in terms of the layout of any project in Carroll.

Based on the site specific wind resource data in the record and the site related factors identified by PPDLW, staff has concluded that the wind resource in Carroll is not exceptional.

3. Transmission Capacity

Another key factor affecting a wind site's potential is the adequacy of transmission capacity. Adequacy of transmission capacity relates to the need for new transmission infrastructure to connect with the existing transmission system, and the ability of the existing transmission system to accommodate additional generation sources. Exhibit 6.5.3, Table 1-Key Siting Considerations, Bowers Wind Project, provides that there is an existing 115-kV transmission line approximately five miles from the ridgelines in southern Carroll. Based on the LUPC's knowledge of other wind energy development projects in the State, five miles is not an unreasonable length for new transmission infrastructure.

ISO-NE provided an overview of the existing transmission system and constraints in Maine. They commented that the transmission system in Maine is limited in places and faces numerous transmission security concerns, which could include lines that overheat when overloaded leading to damaged equipment. Further, the system often exceeds its ability to accommodate all the electricity produced. In some instances, ISO-NE reports having to curtail generators in the northern areas of the region because more power is being produced than the small, long transmission lines can handle safely. They conclude, "[t]he existing transmission system is at its limit with no remaining margin. Significant infrastructure is needed to integrate the quantity of proposed new wind generation in Maine."

In testimony provided at the public hearing for the Milton removal petition, Jeffrey Fenn, a power systems engineer with SGC Engineering, LLC., testified that the most constrained interface in the New England system is the Orrington-South interface, in particular, the area north of Keene Road. His testimony is supported by a March 28, 2016 ISO-NE report, *2015 Economic Study Strategic*

Transmission Analysis – Onshore Wind Integration Draft Results (“ISO Economic Study”). He noted ISO-NE comments that the major constraint that affects new wind generation is located in northern Maine. Wind energy development in Carroll would be located in northern Maine, north of the Keene Road export area.

Although wind energy development in Carroll would not require an extensive new transmission line to interconnect with the existing transmission system, it does appear that it could require extensive upgrades to the existing transmission system to overcome constraints at the Orrington-South interface. The limited transmission capacity to the south adversely affects wind energy potential in Carroll.

Staff Assessment: Given the relatively limited area in Carroll that has elevations suitable for wind energy generation; the regulatory history of wind power development in that area; the average wind speeds in Carroll, which are just above the minimum needed for a viable wind energy project; the less desirable orientation of the Plantation’s ridgelines; and the constraints in the transmission system that would impact any proposed project in the Plantation, staff believes that there is limited potential for wind energy generation in Carroll. Although there is need for additional wind energy to meet the State goal, the limited potential in Carroll weighs in favor of removing the Plantation from the expedited permitting area. Whether removal of Carroll will have an unreasonable adverse effect on the State’s ability to achieve its 2030 goal then rests on potential impacts to public resource values. Public resource values are discussed below.

C. Impacts to Public Resource Values

In applying Criterion A and evaluating the reasonableness of the impact that removal of Carroll would have on the State’s ability to meet its wind energy goal, the need and potential for wind energy development should be balanced against the impact to local communities and public resources, together characterized as public resource values. Public resource values identified in the Commission’s Comprehensive Land Use Plan (CLUP) range from natural, scenic, recreational and cultural resources to energy and economic resources.

To provide guidance on achieving the vision for its service area, the Commission has established principal values, and both broad and specific goals that address public resource values. The second statutory criteria that the Commission must consider in its decision on the Carroll removal petition – Criterion B – relates to consistency with the principal values and goals of the CLUP. Before assessing potential impacts to public resource values in general, it makes sense to first consider each of the principal values and goals of the CLUP. The Commission will then be better positioned to evaluate the overall net impact to public resource values associated with potential wind power development in Carroll and balance those impacts with wind power potential and State need. Through this balancing, the Commission can determine whether, overall, Carroll is well suited for wind energy development. If it is not well suited, the proposed removal will not have an unreasonable adverse effect on the State’s ability to meet its 2030 goal. Criterion A would then be satisfied and support removal.

Staff Assessment: Based on staff’s review of public resource values identified in the CLUP and discussed in the Review of Criterion B, Section II, below, staff believes that Carroll is not well suited for wind energy development in that the Plantation has limited potential for wind energy generation and wind energy development would have a disproportionate impact on public resource values, particularly recreational, cultural and scenic resources. Given the value of those resources

on a regional and state-wide scale, staff recommends that significant weight be given to public resource values in the overall balancing required for the final decision in this matter. Overall, staff recommends a conclusion that removal will not have an unreasonable adverse effect on the State's ability to meet its wind energy goal.

REVIEW OF CRITERION B

Criterion B. The proposed removal is consistent with the principal values and the goals in the comprehensive land use plan adopted by the Maine Land Use Planning Commission pursuant to Title 12, section 685-C.

I. Framework for Review

The CLUP contains four principal values and multiple goals. Together, the principal values are intended to define the distinctive character of the unorganized and deorganized areas of the State, but it is recognized that these values are not represented equally across all towns, plantations, and townships served by the Commission. Retaining the principal values is an objective the CLUP is intended to further. The CLUP also is intended to provide a vision for the unorganized and deorganized areas. As stated earlier, the CLUP's goals are intended to help achieve this vision.

The principal values do not exist in isolation, are interconnected, and sometimes are in tension. The CLUP's goals may at times conflict with one another. Often, the specific goals of the CLUP themselves contain multiple factors that need to be weighed for consistency determinations. In some cases, important factors are included in more than one specific goal. As a result, evaluating the consistency of removal of a place from the expedited permitting area with the principal values and goals in the CLUP involves a balancing. One of the Commission's primary roles is to interpret the CLUP and apply it in a manner consistent with State statute. This is a role called upon in the application of Criterion B.

All of the principal values and some of the goals contained in the CLUP are relevant to the expedited area removal process. The CLUP divides the goals into two general categories, broad goals and specific goals. The broad goals are furthered by the specific goals; thus, the evaluation of consistency with the goals of the CLUP called for in Criterion B is achieved through review and consideration of the specific goals that are relevant to the Commission's decision on the removal petition. Goals that staff believes are irrelevant to the proceeding, for which removal would neither be consistent nor inconsistent, are listed for reference in Appendix B. The goals relevant to the CLUP consistency analysis, along with the principal values, are discussed below.

Key goals that staff believes are particularly important to the CLUP consistency analysis that follows are the goals for recreational and scenic resources. Given the evidence in the record, there is a direct correlation between the recreational resources in the Carroll area and scenic resource values. Discussion on recreational and scenic resources is contained in Criterion B, Sections II,B,2,f and g below.

II. Evaluating Consistency of Removal with the Principal Values and Goals of the CLUP

A. Consistency with the Principal Values of the CLUP

1. Economic Value of the Jurisdiction

“The economic value of the jurisdiction derived from working forests and farmlands, including fiber and food production, largely on private lands. This value is based primarily on maintenance of the forest resource and the economic health of the forest products industry. The maintenance of farmlands and the viability of the region's agricultural economy is also an important component of this value.”

In his public hearing testimony, Elgin Turner testified on the significant impact that the losses of fiber markets have had on the forest industry in the area and the positive economic benefits of wind leases, providing economic relief to forest landowners and helping them to maintain their land base. There is no indication in the record that farmlands would be impacted by wind energy development in Carroll or of a significant agricultural economy in region.

Staff Assessment: Based on the discussion above, in terms of wind energy development’s beneficial relationship with working forests, it appears that removal of Carroll from the expedited area would not be consistent with the economic value of the jurisdiction derived from working forests.

2. Diverse and Abundant Recreational Opportunities

“Diverse and abundant recreational opportunities, including many types of motorized and non-motorized activities. Unique opportunities exist for recreational activities which require or are significantly enhanced by large stretches of undeveloped land, ranging from primitive recreation in certain locations to extensive motorized trail networks. Recreation is increasingly an economic driver in the jurisdiction and the State.”

In pre-filed testimony, the Requestors listed historic recreational opportunities in Carroll including swimming, boating, playing ball, and skiing, but stated that the only current recreational opportunities are ATV riding, snowmobiling, and horseback riding. They also testified that roads constructed for wind energy development would provide access for recreation, including hunting, fishing, picnicking, weddings, and enjoying scenic views. The Requestors and other interested parties asserted that recreationalists will still use the lakes and forests after construction of a wind energy project.

PPDLW testified that Carroll and the surrounding area provide extensive recreational opportunities. They listed popular activities including paddling, camping, fishing, hunting, photography, hiking, cycling, ATV riding, snowmobiling, wildlife viewing and stargazing. In their pre-filed testimony, PPDLW described the recreational opportunities in the Downeast Lakes Region, just south of Carroll, as having “an international reputation for providing outstanding outdoor experiences in a near-wilderness setting” and noted that nine lakes that are scenic resources of state or national significance (SRSNS) and their connectivity provide a rare opportunity for extended loop-paddles. The Partnership recognized that construction of roads for a wind project may increase roads available to ATV riders and snowmobilers, but referenced user surveys in the record that they believe show

recreational users of the lakes would be less likely to use the resources after construction of a wind project.

BPL commented that the region south and east of Carroll is highly significant from a conservation standpoint, and that a large swath of land has been protected, supporting the region's capacity to provide "(predominantly) primitive, disperse recreation in remote settings." BPL also commented on water-based recreation being the "calling card" of the region, the concentration of lakes with high scenic and recreational value proximal to Carroll, the development of the Downeast Lakes Water Trail, which takes advantage of the connectivity between several of the lakes in the area, and seasonal paddling opportunities on Baskahegan Stream. They note that State-funded snowmobile and ATV trails run throughout the region, with over 25 miles of ATV trails in Carroll.

PPDLW stated that there was extensive testimony in the Bowers Wind Project record from guides and sporting camp owners who utilize the lakes in the area with their clients, and that the testimony addressed the importance of those lakes to their guiding services. PPDLW testified that any wind project sited in Carroll would severely impact recreational resources located in the Downeast Lakes Region and the businesses that rely on those resources. In support, the Commission Decision in the Matter of Champlain Wind, LLC, Denial of Development Permit DP 4889, Bowers Wind Project (DP 4889, Exhibit 6.2.7, PPDLW Exhibit A at19) includes a finding that several Registered Maine Guides and sporting camp owners from the Grand Lake Stream area testified at the public hearing in that matter and expressed concern that the visual impact of the proposed Bowers Wind Project turbines would reduce the likelihood their clients would want to return to the area and would adversely impact their businesses. PPDLW concluded that removing Carroll from the expedited area would ensure that the region continues to offer diverse and abundant recreational opportunities.

This principal value speaks to unique recreational opportunities requiring large stretches of undeveloped land, and to recreation as being an economic driver in the jurisdiction. An important consideration for this principal value is that the southern portion, which testimony indicates to be the hilliest portion, of Carroll extends into an area referred to as the 'donut hole' in the Downeast Lakes Region of Maine; a large, relatively undeveloped area that was not included in the expedited permitting area for wind energy development. Another important consideration is the unique nature of the Downeast lakes and the Downeast Lakes Region, including the vast area of conserved land, connectivity that allows for travel between lakes and extended loop-paddling, and the significant number of lakes with high scenic and recreational values. Based on evidence in the record, recreation and tourism appear to be important economic drivers in the broader region around Carroll.

Staff Assessment: Given this value's focus on large stretches of undeveloped land and unique recreational opportunities; the vast amount of conserved land in the Downeast Lakes Region; the recreational opportunities that exist in and to the south of Carroll, including unique opportunities for extended loop-paddling; the high scenic value of the Downeast lakes that could be adversely impacted by wind energy development; and user survey data in the record showing that recreational users would be less likely to use the resources after construction of a wind project, removal of Carroll from the expedited area supports this principal value. In addition, based on the unique nature and high value of the recreational opportunities, staff recommends that significant weight be given to this principal value in the balancing required to reach a decision on the removal petition.

3. Diverse, Abundant and Unique High-value Natural Resources and Features

“Diverse, abundant and unique high-value natural resources and features, including lakes, rivers and other water resources, fish and wildlife resources, plants and natural communities, scenic and cultural resources, coastal islands, mountain areas and other geologic resources.”

The PPDLW listed the high-value natural resources in and near Carroll as including lakes, ponds, streams, warm and cold-water fisheries, Bald eagle nest sites, land for hunting, forestlands, rock outcroppings and glacial eskers, as well as primitive island campsites available to the public and easement lands owned by the Downeast Lakes Land Trust. The Partnership testified that removing Carroll from the expedited area will protect the diverse, abundant and unique high-value natural resources and features of the area.

The record includes comments from the Maine Department of Inland Fisheries and Wildlife (MDIFW) and the Maine Natural Areas Program regarding fish and wildlife resources, and plants and natural communities. Details on these comments are provided in the analysis under the related habitat resources goal of the CLUP. In summary, there are endangered, threatened, and special concern species confirmed or likely to be present, there is a unique natural area, and there are several rare plant species populations in Carroll. Considering just the habitat resources goal, removal of Carroll from the expedited area would be consistent, but should not carry significant weight when balancing all of the principal values and goals of the CLUP, in that potential impacts to fish, wildlife, and plant communities can be adequately addressed during a permit application review process.

PPDLW asserted, in its pre-filed testimony, that there are several cultural sites of significance located in the area. PPDLW stated that, during the Bowers Wind Project proceedings, the Penobscot and Passamaquoddy Tribes identified several ceremonial sites within the viewshed of the mountains of southern Carroll and the Tribes were concerned about the presence of wind turbines having a harmful effect on their cultural activities at these sites. PPDLW submitted letters relating to the Bowers Wind Project, from the Passamaquoddy Tribe and the Maine Indian Tribal-State Commission to the Land Use Regulation Commission, both dated July 15, 2011, in support of their testimony. Neither the tribal nations nor the Maine Indian Tribal-State Commission submitted comments in this proceeding.

PPDLW also testified that traditional Maine sporting camps would be adversely impacted by wind energy development in Carroll. According to the Commission decision on the Bowers Wind Project (DP 4889 at 9), there is a sporting camp on Pleasant Lake, southeast of Carroll, and several other sporting camps whose clients regularly utilize the lakes just south of Carroll. Further details on potential impacts to Maine sporting camps are provided below. However, it is important to note here that one of the CLUP policies for recreational resources states, “[c]onsider traditional sporting camps as recreational and cultural resources, worthy of protection from incompatible development and land uses, and give special consideration to sporting camps in the Commission’s development standards, and in its review of rezoning petitions and development proposals within the immediate vicinity of a sporting camp.”

The record does not contain evidence of unique, high-value rivers, coastal, mountain, or other geologic resources.

Central to the decision on this principal value are the potential impacts of wind energy development in Carroll on a significant number of high value lakes and scenic resources. Just to the south of Carroll, there are nine lakes that the record shows are rated as outstanding or significant for their value as scenic resources and that could be adversely impacted by wind energy development in Carroll (DP 4889 at 17). Further, PPDLW testified that these resources are more valuable than nine individual lakes because they are interconnected by an extensive network of water passages and short portages, and are dotted with islands that host primitive campsites. PPDLW testified that this network of lakes and campsites provides visitors with a rare opportunity for extended loop-paddles, traversing several scenic lakes. They asserted that few such opportunities exist in Maine.

As stated earlier, the Bowers Wind Project was denied by LURC and the DEP based largely on the potential impact of the proposed project on the scenic resources of state or national significance. According to PPDLW, user surveys conducted for the Bowers Wind Project applications show that if a wind project were built in Carroll the public's enjoyment and use of the Downeast lakes would suffer. PPDLW concluded that any expedited wind project in Carroll would impose its greatest negative impacts on the Downeast lakes, a region of the state that, PPDLW asserted, the legislature specifically intended to protect. PPDLW based its assertion of the legislative intent on a letter to the Land Use Regulation Commission regarding the Bowers Wind Project written by Maine Audubon, The Appalachian Mountain Club and the Natural Resource Council of Maine, all members of the Governor's Task Force on Wind Power Development and involved with drafting the proposed expedited permitting area boundaries. A quote from that letter, provided by PPDLW, reads in part, "[t]he proposed area (i.e. southern Carroll Plt) lies at the very northern edge of a large area around the Downeast lakes that was intentionally excluded from the expedited area because it represents a broadly treasured landscape with significant conservation values..."

The CLUP notably describes the Downeast Lakes Region as an area encompassed by Route 1 to the south and east, *Route 6 to the north*, and Interstate 95 to the west. It further states that... "[a] unique combination of geology, natural forces and climate have combined to produce an area of unparalleled natural resources and values. Lakes abound with names like Pocumcus, Wabassus and Sysladobsis, reminiscent of the area's Indian heritage. Stands of white birch, eastern hemlock and white pine attest to the economic importance of the natural resources that first drew settlers hundreds of years ago" (CLUP at 54).

Staff Assessment: There are multiple natural resource components included in this principal value, which are also included in separate but related specific goals of the CLUP. For a full discussion of natural resources and features, please see the analysis of each component of this principal value in Section II,B,2 below. Overall, however, staff believes the record evidence shows there are abundant and unique high-value natural resources in and south of Carroll, particularly the large number of lakes rated as outstanding or significant scenic resources, and that wind energy development in Carroll would have a significant adverse impact on the value of those resources. Therefore, removal of Carroll from the expedited permitting area is warranted and would be consistent with this principal value. Due to the extent and uniqueness of the high value resources, staff recommends that significant weight be given to this principal value.

4. Natural Character

“Natural character, which includes the uniqueness of a vast forested area that is largely undeveloped and remote from population centers. Remoteness and the relative absence of development in large parts of the jurisdiction are perhaps the most distinctive of the jurisdiction's principal values, due mainly to their increasing rarity in the Northeastern United States. These values may be difficult to quantify but they are integral to the jurisdiction's identity and to its overall character.”

In pre-filed testimony, PPDW provided that “Carroll Plt is located in an area of LUPC jurisdiction that is ... sparsely developed. In 2000, the US Census Bureau counted only 59 households and a population of 1441. Carroll has no retail businesses, no grocery stores or filling stations. The nearest town of any size is Lincoln, 25 miles to the west. As motorists travel along State Route 6 through (Carroll’s Main Street, its only major road), they enjoy a close view of Bowers Mountain and its associated hills.” Further they state that the southern third of the Plantation has some year round residences and a number of secluded camps, and that the faces of the hills and mountains that form the only ridgeline appear wild and remote. Peter and Mary Jane Fisher commented that Carroll’s hills create a large portion of the horizon surrounding the Downeast Lakes Region.

BPL commented that Carroll is situated in a generally low region of the State, though modest hills and mountains rise in the Plantation’s southern half, below State Route 6. As previously noted, BPL described the region south and east of Carroll as highly significant from a conservation standpoint in that it has been the focus of major conservation work protecting the character and recreational opportunities of a large swath of land, underpinning the region’s capacity to provide “(predominantly) primitive, disperse recreation in remote settings.” Their comments describe the region as being heavily forested and having an undeveloped character providing opportunity for “...primitive recreational experiences in which solitude and scenic beauty are notable values.”

Staff Assessment: Evidence in the record indicates that Carroll is relatively undeveloped and remote, and the region, particularly just to the south of the Plantation, is characterized by vast undeveloped forest land. Grid-scale wind energy development on the higher elevations in the southern part of Carroll would alter the scenic quality of the region’s natural resources and adversely impact the natural character of the area. Therefore, it appears that removal of Carroll from the expedited area would be consistent with the natural character principal value.

B. Consistency with the Goals of the CLUP

The specific goals of the CLUP are grouped into four broad categories, two of which contain goals relevant to the present analysis – Development Goals and Natural and Cultural Resources Goals.

1. Development Goals

a. Location of Development

“Guide the location of new development in order to protect and conserve forest, recreational, plant or animal habitat and other natural resources, to ensure the compatibility of land uses with one another and to allow for a reasonable range of development opportunities important to the people

of Maine, including property owners and residents of the unorganized and deorganized townships.”
(Goal I.A.)

The result of the Commission’s decision on the Carroll removal petition will determine whether or not wind energy development will be an allowed use in Carroll, which provides an opportunity for the Commission to proactively guide the location of windpower development. In considering this goal, the CLUP includes helpful language on siting waste disposal, energy and utility facilities. The CLUP recognizing that, “[g]enerally speaking, these facilities are best located in areas on the edge of the jurisdiction with good existing road access but low natural resource values” (CLUP at 142). A CLUP policy on the location of development guides development to areas near existing towns and communities (CLUP at 6).

A number of Carroll residents, landowners, and interested persons commented that wind energy development is consistent with the land uses and activities in the area, which they stated include several wind projects, and would provide an opportunity for a form of economic development that makes sense. However, PPDW, supported by evidence including the user surveys in the record, testified that wind energy development would not be compatible with recreational and scenic uses of the Downeast lakes and the Downeast Lakes Region, and would have an adverse impact on existing sporting businesses and the tourism economy in the area. The closest wind projects to Carroll are located to the northeast of the Plantation, north of Route 6, and some distance to the west. Existing wind projects are not located immediately to the south of Carroll.

Carroll is located adjacent to an organized town and has good existing road access with Route 6 bisecting the Plantation. The area, however, cannot reasonably be characterized as having low natural resource values based on the previous discussion of natural resources and as further detailed below under the specific goals for recreational resources and scenic resources. In addition, it is important to note that the southernmost portion of Carroll extends into the area referred to as the “donut hole,” an area that was excluded from the expedited permitting area to protect the Downeast Lakes Region. This region is known for its vast lake resources and the recreational opportunities they provide. It is recognized by the CLUP as a unique region within the Commission’s service area (CLUP at 54). One interested person, Frederick Costlow, commented that the area south of Route 6, including portions of Carroll, Lakeville, and Kossuth, are considered part of the Downeast Lakes Region. He stated that, even though Carroll does not have a lake with high scenic value within its borders, its proximity to the lakes makes it part of the lake area.

There is a 115kV transmission line in close proximity to the southern portion of Carroll. Therefore, wind energy development in the Plantation would not require an extensive new transmission line to interconnect with the existing system. However, based on the earlier analysis on transmission capacity, it appears that a new wind project could require extensive upgrades to the existing transmission system to overcome constraints at the Orrington-South interface. The limited transmission capacity to the south adversely impacts development suitability for Carroll.

Staff Assessment: Given the high recreational, cultural and scenic resource values in the area, particularly the Downeast lakes and sporting camps that utilize those lakes, the incompatibility of wind energy development in Carroll with those resources and uses, and the existing transmission system constraints, it is reasonable to conclude that Carroll is not a suitable location for wind energy development and removal of Carroll from the expedited area is consistent with the location of development goal.

b. Economic Development

“Encourage economic development that is connected to local economies, utilizes services and infrastructure efficiently, is compatible with natural resources and surrounding uses, particularly natural resource-based uses, and does not diminish the jurisdiction’s principal values.” (Goal I.B.)

The record includes conflicting testimony relating to the potential impacts of the removal petition on economic development and the economy in the region.

The Requestors, as well as other interested persons, testified on the importance of new economic development for the Plantation and the need for local jobs, especially with the decline in the forest industry and manufacturing. The Requestors also commented that zoning laws should not be changed causing unnecessary burden on businesses that could provide opportunity in the area. They asserted that positive impacts of economic development (wind energy jobs and tax revenue) outweigh any negative impacts on scenic character. As stated above, Elgin Turner testified on the significant impact that the losses of fiber markets have had on the forest industry in the area and the positive economic benefits of wind leases, providing economic relief to forest landowners and helping them to maintain their land base.

PPDLW, supported by Costlow, commented that the local economy is unusually dependent on tourism and concludes that a wind energy development in Carroll would cause irreparable damage to the existing tourism economy. They asserted that economic benefits from a wind project would be limited (providing only 3 permanent jobs) while the scenic/ economic damages would be significant. They also referenced the PPDLW and Kleinschmidt user surveys, which, they believe, show a wind project in Carroll would have significant impacts on the quality of resource users’ experience and their likelihood of returning. PPDLW concluded that traditional Maine sporting camps will suffer; professional guides will suffer; small businesses will close; and jobs will be lost.

Route 6, a State maintained road, bisects the Plantation, and the record shows an existing network of land management roads is present throughout the area. An existing 115 kV transmission line is located nearby. Wind energy development in Carroll could utilize this infrastructure efficiently.

In describing the Downeast Lakes Region, the CLUP reads, “Today, the forest and fisheries continue to sustain the unique community in and around Grand Lake Stream Plantation. This community has more Registered Maine Guides than any place in Maine. These professionals provide a vital link between visitors and the complex ecosystem of lakes, marshes, woodlands, bogs and their wildlife in an area scientists recognize as one of unmatched biodiversity” (CLUP at 54). One of the CLUP policies for recreational resources states, “[c]onsider traditional sporting camps as recreational and cultural resources, worthy of protection from incompatible development and land uses, and give special consideration to sporting camps in the Commission’s development standards and in its review of rezoning petitions and development proposals within the immediate vicinity of a sporting camp.”

The Commission decision on the Bowers Wind Project (DP 4889 at 19) states,

“[w]itnesses for the PPDLW included several Registered Maine Guides and sporting camp owners from the Grand Lake Stream area, which is about 18 miles from the [Bowers Wind Project, (BWP)] area, who utilize the lakes within 8 miles of the BWP to guide their clients, primarily for the purpose of recreational fishing. They all expressed the concern that the

visual impact of the BWP turbines would reduce the likelihood their clients would want to return to the area and thus adversely impact their businesses...

During the two public sessions of the evidentiary hearing on June 27 and June 28, 2011 several other Registered Maine Guides and sporting camp owners from the Grand Lake Stream area testified as to the importance of the lakes in the project area to their businesses. They stated concerns similar to those of the PPDW witnesses about the adverse impact the BWP would have on the segment of their business that relies on guests utilizing the lakes within 8 miles of the project. They explained that their livelihood depends on the natural beauty of this area, and stated that some of their clients had expressed negative reactions to the views of the Stetson Mountain Wind Project turbines from Baskahegan Lake.”

Staff Assessment: Recreation appears to be an important economic driver in the broader region around Carroll. However, there is no evidence in the record that removal of Carroll from the expedited area would encourage additional recreational development or growth in the regional tourism industry. Keeping Carroll in the expedited permitting area, allowing wind energy development in the Plantation, would encourage wind energy development that would be connected to the local economy, and would utilize services and infrastructure efficiently. Wind power is compatible with forestry and some types of surrounding recreational uses, such as snowmobiling, ATV riding, and hunting. However, wind energy development is not compatible with the high-value natural resources in the area, or surrounding uses that are more dependent on those natural resources, particularly the scenic resources. Specifically, wind energy development would not be compatible with the Downeast lakes, and scenic and cultural resources associated with those lakes. It is also not compatible with the recreational uses of the Downeast lakes including guided fishing trips that depend on the natural resource values and contribute to the regional economy. Based on earlier staff assessments in this analysis regarding principal values, it appears that wind energy development would diminish most of the jurisdiction’s principal values. Given the significance and extensive public use of the natural resources in the Downeast Lakes Region, it makes sense to give more weight to ensuring compatibility with those resources and furthering the principal values of the CLUP. Therefore, the staff believes removal of Carroll from the expedited area would be consistent with the economic resources goal.

c. Site Review

“Assure that development fits harmoniously into the existing communities, neighborhoods and the natural environment.” (Goal I.C.)

The Commission decision on the Bowers Wind Project (DP 4889 at 9) describes the region around Carroll as generally undeveloped, currently forested, and with commercial forestry as its dominant land use. DP 4889 further details that an existing network of land management roads is present and the effects of past and current timber harvesting are evident throughout the area. Aside from the roads and skidder trails, the project area is mostly undeveloped with sparsely located year-round and seasonal properties.

According to PPDW, the US Census Bureau counted 59 households and a population of 1441 for the Plantation in 2000, and there are no retail businesses, grocery stores or filling stations. PPDW testified that, as motorists travel along State Route 6 (Carroll’s Main Street, its only major road), they enjoy a close view of Bowers Mountain and its associated hills.

Staff Assessment: An important question associated with consideration of this goal is whether construction of a grid-scale wind energy development would fit harmoniously into the community and the neighborhoods in and around Carroll. In the CLUP, site review is discussed in Section 4.3.C (CLUP at 64) and this discussion focuses on ensuring harmonious fit through the permitting process. The site review policies in the CLUP largely focus on requirements and objectives achieved through the application of permit review standards. With regard to wind power, since the last revision of the CLUP, the DEP now regulates grid-scale wind energy development in the unorganized and deorganized areas of the State. Although DEP administers a statutory standard in the Site Location of Development Law that requires harmonious fit, it does not appear that this statutory provision and DEP administration of it fully captures and advances the Commission’s site review goal, with a focus on existing communities and neighborhoods, in addition to the natural environment. As a result, consistency with this goal cannot be achieved solely through reliance on the permitting process.

There is little testimony and evidence in the record from local residents and the community regarding how wind energy development in Carroll would fit with existing neighborhoods in the area. Although, generally speaking, grid-scale wind energy projects do not fit harmoniously with existing rural residential communities and neighborhoods, leading to removal being consistent with this goal, it is staff’s opinion that less weight be given to the site review goal given the lack of specific evidence regarding incompatibility in this case.

2. Natural and Cultural Resources Goals

a. Air and Climate Resources

“Protect and enhance the quality of air and climate resources throughout the jurisdiction.” (Goal II.B.)

Wind power’s beneficial effect on air and climate resources through the displacement of fossil fuel based energy generation and reduction in greenhouse gas emissions is well known. The CLUP acknowledges those benefits and recognizes wind power as “the most significant renewable source of electricity that is economically viable at the utility scale” (CLUP at 187). Given the higher bar associated with certain permitting standards applicable to wind energy projects that are located outside the expedited permitting area, it seems reasonable that removal of a place from the expedited area will discourage the development of wind energy facilities.

Staff Assessment: Given the air quality benefits of wind energy generation, staff believes removal of Carroll from the expedited area would not be consistent with the goal of protecting and enhancing the quality of air and climate resources in the Commission’s service area.

b. Cultural, Archaeological and Historic Resources

“Protect and enhance archaeological and historical resources of cultural significance.” (Goal I.D.)

Based on the Maine Historic Preservation Commission’s (MHPC) review of the petition, there are no known archaeological resources within Carroll. However, MHPC commented that there has never been any survey work for these resources in the Plantation. Regarding above ground resources, MHPC noted 3 properties previously determined to be National Register eligible in their

review. Portions of the Plantation were surveyed for buildings during the Stetson I Wind project development. The MHPC CARMA database shows one eligible property on State Route 6, the Carroll Congregational Church, and a group of three eligible farm buildings located on the North Road. MHPC did not raise any concerns about the potential impact of wind energy development on the National Register eligible properties in Carroll.

One interested person commented that there has not been proper evaluation for old Indian sites on mountain tops in Maine. Lenny Murphy commented that there were reasons for Indian use of high mountain areas and typical archaeological surveys focus investigations on low land sites along waterways. He raised concern that construction of a wind energy development could disturb unidentified archaeological sites.

Staff Assessment: Removal of Carroll from the expedited area will protect archaeological and historic resources from any potential adverse impacts during construction and operation of a wind energy project, supporting a finding that removal is consistent with the historic resources goal. However, staff suggests that the development permit application (if filed in the future) is the appropriate venue to evaluate specific risks of wind energy development to historic resources, as that type of review relies on specific site plan details and the risks are fully addressed under the Commission’s rules for evaluating development permits. Therefore, it makes sense to give limited weight to this goal in the Commission’s balancing of all principal values and goals because the protection of the historic resources in Carroll can be adequately addressed during a permit review process. Removal of Carroll from the expedited area is not necessary to ensure protection of historic resources in Carroll.

c. Energy Resources

“Provide for the environmentally sound and socially beneficial utilization of indigenous energy resources where there are not overriding public values that require protection.” (Goal II.E.)

The CLUP, while recognizing the statutory changes with respect to wind energy development in the expedited permitting area, continues to provide for the environmentally sound and socially beneficial utilization of indigenous energy resources where there are not overriding public values that require protection. (CLUP at 13). The CLUP explains that it seeks to accommodate energy generation installations that are consistent with the State’s energy policies, are suitable for the proposed locations, and designed to minimize intrusion on natural and cultural resources and values. (CLUP at 13).

Other than wind energy development, no potential projects utilizing indigenous energy resources have been identified in the record for Carroll. Removing Carroll from the expedited permitting area would make projects using an indigenous energy resource, specifically wind, for renewable energy production no longer an allowed use in the Plantation. By itself, this does not appear to be supportive of environmentally sound and socially beneficial utilization of indigenous energy resources. Therefore, the Commission’s consistency determination on this goal hinges on whether the Commission decides there are overriding public values that require protection.

Staff Assessment: Unless the Commission determines that there are overriding public values that require protection, staff believes granting the removal petition is not consistent with this goal.

d. Forest Resources

“Conserve, protect and enhance the forest resource in a way that preserves its important values, including timber and fiber production, ecological diversity, recreational opportunities, as well as the relatively undeveloped remote landscape that it creates.” (Goal II.F.)

As stated earlier in this analysis, there is testimony in the record to indicate that wind energy development can enhance the value of and help to maintain the working forest. Also, it can increase access for certain land-based recreational activities such as snowmobiling, ATV riding, and hunting.

PPDLW commented that delivering construction equipment, turbines and blades to the top of the ridgeline for construction of a wind energy development in Carroll would require a network of wide roads, and those roads would be visible on the landscape when viewed from State Route 6. They asserted that such construction would diminish the sense of an undeveloped remote landscape. Wind energy development in Carroll would not preserve the relatively undeveloped remote landscape created by the forest resource.

Staff Assessment: Based on testimony in the record regarding the benefits of wind energy development for the working forest, staff believes removal of Carroll from the expedited area would not be consistent with the forest resources goal.

e. Plant and Animal Habitat Resources

“Conserve and protect the aesthetic, ecological, recreational, scientific, cultural and economic values of wildlife, plant and fisheries resources.” (Goal II.H.)

Goal relating to plant resources:

The Maine Natural Areas Program identified an eccentric bog at Lindsey Brook Bog, and several rare plant populations mapped in Carroll. Two of the rare plant populations are located at Bowers Mountain. Given its low-lying location, it is not likely that Lindsey Brook Bog would be adversely impacted by wind energy development. Staff believes that potential impacts to individual rare plant populations can be effectively dealt with at the permitting stage since the decision making criterion for plant resources is the same in either case.

Goal relating to fish and wildlife resources:

The Requestors commented that wind energy development can have a positive impact on wildlife because new growth of vegetation following construction can be a food source for certain wildlife species.

The Maine Department of Inland Fisheries and Wildlife (MDIFW) provided a review of wildlife species and habitats in Carroll, including a list of 10 endangered, threatened, and special concern species that are confirmed or likely to be present in Carroll. The list provided by MDIFW includes one federally listed threatened bat species, the Northern Long-eared Bat; one State endangered bat species, the Little Brown Bat; and one State threatened bat species, the Eastern Small-footed Bat. The list also includes four bat species of special concern. There has not been a bat hibernaculum identified in the area. In general, the wildlife species and habitats included in MDIFW’s review are not unique to Carroll.

According to MDIFW, wind energy turbines operating without appropriate operational curtailment practices have impacted endangered, threatened, and special concern bats in Maine. The agency concluded, without measures for avoidance and minimization of impacts, including appropriate operational curtailment, windpower development puts Maine's vulnerable bat species at greater risk. MDIFW's curtailment recommendations are based on project and resource specific considerations, research on effective procedures for avoiding and minimizing bat fatalities, and other relevant factors. They also take into account agency objectives for the protection of the State's seven at-risk species in consideration of their particular needs and characteristics, including but not limited to migration routes and patterns, seasonal activities, associated behaviors, population trends, life history requirements, etc. Potential direct and indirect impacts from windpower development on bats, as well as other wildlife resources identified in the MDIFW review, are not unique to Carroll.

Staff Assessment: There is an increased risk of bat mortality from collisions with operating wind turbines. Given that bat activity is seasonal and activity patterns are site specific, and given that project-specific operational curtailment and other best practical mitigation techniques can reduce the risk of bat mortality, staff believes that potential impacts to bat species are best addressed using site specific data during a permit review process. Based on the staff analysis, it is reasonable to conclude that removal of Carroll from the expedited area will be consistent with the habitat resources goal, specifically by eliminating wind energy development as an allowed use, and protecting habitat resources from impacts associated with wind energy development. By itself, it makes sense to give less weight to this goal in the Commission's balancing of all principal values and specific goals because protection of habitat resources in Carroll can be adequately addressed during a permit review process. Removal of Carroll from the expedited area is not necessary to ensure protection of the plant and animal habitat resources in the Plantation.

f. Recreational Resources

“Conserve the natural resources that are fundamental to maintaining the recreational environment that enhances diverse, abundant recreational opportunities.” (Goal II.I.)

In pre-filed testimony, the Requestors listed historic and current recreational opportunities in Carroll including ATV use, snowmobiling, swimming, boating, camping, playing ball, skiing, and horseback riding. They also stated that roads constructed for wind energy development would provide access for recreation, including hunting, fishing, picnicking, weddings, and enjoying scenic views. The Requestors and other interested parties asserted that recreationalists will still use the lakes and forests after construction of a wind energy project.

PPDLW also provided, in their prefiled testimony, that the Carroll area has abundant recreational opportunities including fishing, hunting, ATV riding, hiking, snowmobiling, stargazing, camping, boating, paddling, wildlife viewing and photography. They asserted that, while the construction of a wind project may increase roads available to ATV riders and snowmobilers, user surveys have repeatedly shown that those who recreate in this area would be less likely to use the resources if a wind project were present. The Bowers Wind Project user surveys prepared by Kleinschmidt and the Downeast Lakes User Survey prepared by PPDLW are included in the record for this proceeding.

BPL described Carroll as being situated in a generally low region of Maine, though modest hills and mountains rise in the Plantation's southern half below State Route 6. Although Carroll does not

include state or federally-owned recreation assets, it is adjacent to nature-based outdoor recreation assets including two public reserved land properties located in Lakeville and Webster Plantation; State-funded snowmobile and ATV trails, with over 25 miles of ATV trails in Carroll; the Duck Lake Public Lands; and a large block of properties conserved by non-profit entities and the State supporting the region's capacity to provide primitive, dispersed recreation in remote settings. BPL commented that water-based recreation is the "calling card" of the region. Its comments identified a concentration of ponds and lakes with significant recreational values including a number of lakes that score high on the State's Wildlands Lake Assessment with scenic values rated as outstanding or of statewide significance. BPL found that the high quality value of the lakes in the vicinity has led to a tradition of use, including fishing, camping, and boating. Specifically mentioned in BPL's review is the Downeast Lakes Land Trust's recently developed Downeast Lakes Water Trail based on ancient canoe routes and utilizing nine water-access campsites provided by the land trust, as well as having additional access to BPL and Passamaquoddy Tribe maintained campsites. The agency notes that the water trail takes advantage of the connectivity of several lakes in the area. Lastly, BPL commented that Baskahegan Stream provides seasonal paddling opportunities.

The Commission decision on the Bowers Wind Project (DP 4889 at 24) found,

"[t]he effect of the [Bowers Wind Project (BWP)] is also particularly adverse as the record shows that the 9 lakes collectively represent water trails that receive significant use as recreational resources by the public, including the clients of guides and sporting camp owners from the Grand Lake Stream area. As users travel through the 9-lake waterway, there would be repeated views of the BWP turbines. The fact that some of the 9 lakes are connected only by a shallow stream or a portage trail (e.g. Scraggly to Shaw Lake), is not compelling since the Commission considers portaging a common practice in following canoe trails. Such evidence includes the testimony of guides and sporting camp owners, the AMC canoe guide, and the testimony of NRCM."

Staff Assessment: Based on the testimony of the Requestors, PPDW, other interested persons, and BPL, there are diverse recreational opportunities in the area, particularly in the Downeast Lakes Region. It is clear from the record that the natural resources important to maintaining the recreational environment that supports those opportunities are the Downeast lakes, especially those with scenic values rated as outstanding or of statewide significance, as well as the vast area of conserved forest land that exists in the region. The weight of the evidence in the record, including several user surveys, indicates that wind energy development in Carroll would impact the natural resources on which many of the recreational opportunities rely. Of significance is the likely adverse impact on the scenic value of the Downeast lakes used extensively by the public for fishing, boating and camping. Based on this, staff has found that removal of Carroll from the expedited permitting area would be consistent with the recreational resources goal, and, given the high value and uniqueness of the recreational resources, particularly relating to the scenic value and connectivity of the lakes, staff recommends this goal be given significant weight in considering all of the principal values and goals of the CLUP.

g. Scenic Resources

"Protect the high-value scenic resources of the jurisdiction by fitting proposed land uses harmoniously into the natural environment." (Goal II. J.)

The Requestors commented that every development, including wind energy projects, have scenic impact, asserting that there isn't anything unique about the potential impacts of wind energy development in Carroll on Maine's scenic resources. Further, they stated that changes in views due to wind energy development are not an adverse impact on scenic character. Scenic resources that they identified in pre-filed testimony include Mt. Katahdin, Almanac Mountain, Patty's Falls, and Vinegar Hill. Regarding the lakes south of Carroll, the Requestors testified that users will not be impacted by wind energy development. They concluded there is so much scenery and challenging navigation in certain places that users do not have time to look up at the mountains or sky line.

PPDLW testified that just to the south of Carroll, adjacent to the land area in the Plantation they believe is most likely to be developed for wind power, lie nine lakes that the State has recognized as outstanding or significant for their value as scenic resources. PPDLW further testified that, in the Kleinschmidt user survey, the people who recreate on the lakes within 8 miles of where turbines could be located in Carroll, assign the lakes high scenic value and expect a high quality experience when they visit the area. Evidence in the record shows that turbines located in the southern portion of Carroll would be visible from these high value scenic resources. PPDLW concluded that, based on the user survey, if there are turbines visible from the lakes, the Downeast Lakes Region will lose its unique allure and many visitors will recreate elsewhere.

In response to the Requestor's comments that lake users would not be impacted by views of wind turbines, one interested person, Gaby Egle, submitted rebuttal comments indicating that, even if a users' back is towards the turbines, the reflections of these structures will be visible on the water and the sound, traveling far over water, would detract from the feeling of being in nature. In support of these comments, Egle submitted a number of photographs showing the reflections of wind turbines on the surface of a lake. However, these photographs do not depict a wind energy development located in Carroll, and it is not clear that construction of a wind project in that Plantation would result in reflections of turbines on the lake(s) or adverse noise impacts on recreational users.

In support of the scenic resource goal, the CLUP has a list of policies to guide Commission decisions. These include policies to regulate land uses in order to protect natural aesthetic values and prevent the incompatibility of land uses, and, specifically, to identify and protect areas that possess scenic features and values of state or national significance (CLUP at 18). Under the water resources goal, the CLUP includes policies to protect the recreational and aesthetic values associated with water resources, and to conserve and protect lakes which provide significant public recreational opportunities (CLUP at 18). The Downeast lakes have natural aesthetic values, possess scenic values of state or national significance, and provide significant public recreational opportunities. In addition, the record shows that wind energy development in Carroll is not compatible with the recreational uses of those lakes.

Staff Assessment: Staff has concluded that the area south of Carroll, the Downeast Lakes Region, has scenic resources that are of high value, based on credible testimony and evidence in the record. Staff recognizes these high-value scenic resources are also scenic resources of state or regional significance. While the scenic impact standard of the Wind Energy Act would apply to a proposed project in the expedited area, and potential impacts could be addressed during an individual permit application review, protection of the high-value scenic resources, in this case, is important at the landscape/planning level, as well. This is due to the location of the suitable area for wind energy development extending into the Downeast Lakes Region, the number of high-value resources that would potentially be impacted, and the connectivity of those resources in the regional landscape.

The record indicates that the scope and scale of the impacts associated with wind energy development in Carroll on the typical viewer, and the public's continued use and enjoyment of the lakes would be significant. The value of the resources and the incompatibility of wind energy development with those resources are sufficient to conclude that removal of Carroll from the expedited area is warranted and consistent with the scenic resources goal. In addition, for the reasons discussed above, staff recommends that significant weight be given to this goal when considering all of the factors in reaching a final decision on the removal petition.

h. Water Resources

“Preserve, protect and enhance the quality and quantity of surface waters and groundwater.”
(Goal II.K.)

PPDLW stated in its pre-filed testimony that Carroll hosts Getchell, Lindsay and Wallace Brooks, all of which, they asserted, provide habitat for native populations of brook trout. In addition, they commented that the brooks flow southward from the Getchell/ Bowers ridgeline and would be vulnerable to siltation caused by construction activity for any future wind energy development. Based on surveys conducted for the Bowers Wind Project, there are numerous intermittent and perennial streams, wetlands and vernal pools in Carroll. Portions of two small lakes, Lowell Lake and Mill Privilege Lake are located on the western and southern borders of the Plantation, respectively.

Staff Assessment: Staff suggests that the development permit application (if filed in the future) is the appropriate venue to evaluate specific risks of wind energy development to water resources, as that type of review relies on specific site plan details and the risks are fully addressed under the Commission's rules for evaluating development permits. Removal of Carroll from the expedited area, such that wind energy development will no longer be an allowed use, will protect surface and groundwater from any potential adverse impacts during construction and operation of a wind energy project, supporting a finding that removal is consistent with the water resources goal. However, it makes sense to give limited weight to this goal in the Commission's balancing of all principal values and goals because the protection of the water resources in Carroll can be adequately addressed during a permit review process. Removal of Carroll from the expedited area is not necessary to ensure protection of surface and groundwater resources in Carroll.

i. Wetland Resources

“Conserve and protect the ecological functions and social and economic values of wetland resources.” (Goal II.L.)

Similar to most other areas in Maine, mapped wetlands and streams are located throughout Carroll. Detailed wetland delineation surveys will be conducted as part of any permit application and any proposed project will need to minimize adverse impacts on wetland resources.

Staff Assessment: Staff suggests that the development permit application (if filed in the future) is the appropriate venue to evaluate specific risks of wind energy development on wetland resources, as that type of review relies on specific site plan details and the risks are fully addressed under the Commission's rules for evaluating development permits. Removal of Carroll from the expedited area, such that wind energy development will no longer be an allowed use, will protect wetlands from any potential adverse impacts during construction of a wind energy project, supporting a

finding that removal is consistent with the wetland resources goal. However, it makes sense to give limited weight to this goal in the Commission's balancing of all principal values and goals because the protection of the wetland resources in Carroll can be adequately addressed by applying wetland protection standards during a permit review process. Removal of Carroll from the expedited area is not necessary to ensure protection of wetland resources in Carroll.

GUIDE FOR DELIBERATION

In the discussion above, staff has offered its assessment of the evidence as it relates to the key factors that must be considered when evaluating whether the two statutory removal criteria have been satisfied. The application of each criterion involves a balancing of the key factors.

Since public resource values promoted by the Commission's principal values and goals need to be individually considered under Criterion B, and public resource values also are relevant to the application of Criterion A, the following discussion begins with Criterion B.

Step 1: Application of Criterion B

For Carroll to be removed from the expedited permitting area, the Commission must find “[t]he proposed removal is consistent with the principal values and goals in the [CLUP].”

The above discussion of Criterion B includes the principal values and the goals in the CLUP staff identified as relevant, accompanied by an assessment of each. The staff assessment includes how staff believes different factors should be weighted in the required balancing. In its consideration of the principal values and the goals of the CLUP (see Criterion B discussion above), staff's assessment is that potential impacts to recreational opportunities, high-value natural resources and natural character are such that removal of Carroll would be consistent with the associated principal values, and potential impacts on economic development, community character, historical resources, habitat resources, recreational resources, scenic resources, water resources and wetland resources are such that removal would be consistent with the related CLUP goals. Staff suggests that significant weight be given to recreational opportunities, high-value natural resources, recreational resources, and scenic resources in the balancing that needs to be done to reach a decision on the removal petition. Key to reaching that recommendation is the value and character of the Downeast Lakes, and the extent to which wind energy development poses adverse impacts on those lakes. Wind energy development in Carroll has the potential to adversely impact nine scenic resources of state or national significance and to negatively affect the public's continued use and enjoyment of those resources. From a landscape view, the importance of the natural resources in the Downeast Lakes Region is significant.

Staff's assessment also found that potential benefits to the economic values of the working forest are such that removal of Carroll would be inconsistent with the associated principal value, and potential benefits to air and climate resources, energy resources, and forest resources are such that removal would be inconsistent with the related CLUP goals. However, staff recommends that these do not carry as much weight as the principal values and goals supporting removal as described above, leading to a recommendation that Criterion B has been met. All of the factors and relative weighting presented by staff are summarized in the tables in Appendix A.

With this as a basis for discussion, the following questions are offered to provide a framework for the Commission's consideration of Criterion B.

1. Does the Commission agree with staff's assessment of the principal values and goals noted above and summarized in the table in Appendix A?
 - a. If NO, which values and goals should be weighted differently? What weight should they receive?

- b. If YES, proceed to question 2.
2. When taken together with all other values and goals, would removal of Carroll be consistent with the principal values and the goals of the CLUP, leading to a decision that removal Criterion B has been met?
 - a. If YES, proceed to Step 2, Application of Criterion A;
 - b. If NO, removal of Carroll from the expedited permitting area would not be consistent with the principal values and the goals of the CLUP, Criterion B has not been met, and the Commission should stop the removal rulemaking. There is no need to proceed to Step 2 and consider Criterion A.

Step 2: Application of Criterion A

For Carroll to be removed from the expedited permitting area, the Commission must find “[t]he proposed removal will not have an unreasonable adverse effect on the State’s ability to meet the state goals for wind energy development” for 2030.

Review of Criterion A also involves assessment and balancing. Staff’s assessment is that the State still needs considerable installed capacity to meet the 2030 goal, but that Carroll has limited potential for wind energy development. Whether removal of the Plantation will have an unreasonable adverse effect on the State’s ability to achieve its 2030 goal relies on whether Carroll is well suited for wind power development when balancing its wind power potential and the need for additional megawatts of installed capacity, with the potential impacts to public resource values.

In its consideration of public resource values as part of its review of the principal values and the goals of the CLUP (see Criterion B discussion), staff’s assessment is that wind energy development in Carroll will have significant, therefore disproportionate, impacts on public resource values, in particular high-value recreational, cultural and scenic resources in the Downeast Lakes Region, leading to a conclusion that Carroll is not well suited for wind power development. On that basis, staff recommends overall that removal of Carroll from the expedited area would not have an unreasonable adverse impact on the State meeting its wind energy goal and that Criterion A has been met.

The following questions are offered to provide a framework for the Commission’s consideration of Criterion A:

1. Does the Commission agree with the staff’s assessment of the Criterion A factors as noted above and summarized in the table in Appendix A?
 - a. If NO, which factors should be weighted differently? What weight should they receive?
 - b. If YES, proceed to question 2.
2. Considering evidence in the record, including evidence related to recreational, cultural, and scenic resources, are the collective impacts to public resource values

disproportionately harmful when compared to Carroll's wind energy potential and the State's need for additional installed capacity to meet its 2030 goal?

- a. If YES, the proposed removal of Carroll from the expedited permitting area will not have an unreasonable adverse effect on the State's ability to meet its 2030 wind energy goal, Criterion A has been met, the petition should be granted, and Carroll should be removed from the expedited area;
- b. If NO, the proposed removal of Carroll from the expedited permitting area will have an unreasonable adverse effect on the State's ability to meet its 2030 wind energy goal, Criterion A has not been met, the petition should not be granted, and Carroll should remain in the expedited area.

Both Criterion A and Criterion B must be met for the petition to be granted, and for Carroll to be removed from the expedited permitting area.

Appendix A

Substantive Review
Petition to Remove Carroll Plantation from the Expedited Permitting Area

Factor Summary Tables

Maine Land Use Planning Commission
Substantive Review of the Carroll Removal Petition
Factor Summary Tables

Background

The following summary tables are intended to be a visual guide to organize key factors and assist the Commission in reviewing the staff analysis for the Carroll removal petition. The tables are not intended to be used as a mathematical comparison of the total number of factors in each column. The Commission's decision on the petition will involve a weighing of all of these factors taken together in balance with one another. Different factors may be given different weight.

In general, all of the factors that staff believes are relevant to the Carroll removal petition are shown in the tables. Certain factors in the tables are shown in grayed text. Staff suggests those factors be given the least weight when considering the record evidence, all of the relevant goals in the CLUP, and the decision making criteria of the Wind Energy Act. Factors that staff recommend be given the most weight are shown in bold text. For reference, the first column of the tables provides the section and page numbers of the deliberation memo that contain a more detailed analysis of the factors under each criterion. A condensed version of the key questions from the Guide for Deliberation is provided after each table for the Commission's consideration in reaching a decision on each of the decision making criterion for the removal petition.

Maine Land Use Planning Commission

Substantive Review of the Carroll Removal Petition, Factor Summary Table

Criterion B

To remove Carroll from the expedited permitting area, the Commission must find: “The proposed removal is consistent with the principal values and the goals in the [CLUP] ”

Memo Reference	Supports Removal from the expedited area	Supports Retention in the expedited area
Sec. II, A, 1; pg. 10		Economic Value
Sec. II, A, 2; pg. 10	Recreational Opportunities	
Sec. II, A, 3; pg. 12	High-value Natural Resources	
Sec. II, A, 4; pg. 14	Natural Character	
Sec. II, B, 1,a; pg. 14	Location of Development	
Sec. II, B, 1,b; pg. 16	Economic Development	
Sec. II, B, 1,c; pg. 17	Site Review (Community Character)	
Sec. II, B, 2,a; pg. 18		Air and Climate Resources
Sec. II, B, 2,b; pg. 18	Historic Resources	
Sec. II, B, 2,c; pg. 19		Energy Resources
Sec. II, B, 2,d; pg. 20		Forest Resources
Sec. II, B, 2,e; pg. 20	Habitat Resources	
Sec. II, B, 2,f; pg. 21	Recreational Resources	
Sec. II, B, 2,g; pg. 22	Scenic Resources	
Sec. II, B, 2,h; pg. 24	Water Resources	
Sec. II, B, 2,i; pg. 24	Wetland Resources	

Key Questions:

- Given the value and character of the recreational resources in the Downeast Lakes Region, should more weight be given to the recreational opportunities value and recreational resources goal, when weighing all of the principal values and goals of the CLUP?
- Given the value and public use of the scenic resources in the Downeast Lakes Region, should more weight be given to the high-value natural resources value and scenic resources goal when weighing all of the principal values and goals of the CLUP?
- When taken together with all other values and goals, would removal of Carroll be consistent with the principal values and the goals of the CLUP, leading to a decision that Criterion B has been met?
 - If YES, proceed to Criterion A.
 - If NO, Criterion B has not been met, the petition should not be granted, and Carroll should remain in the expedited area.

Substantive Review of the Carroll Removal Petition, Factor Summary Table

Criterion A

To remove Carroll from the expedited permitting area the Commission must find: “The proposed removal will not have an unreasonable adverse effect on the State’s ability to meet the state goals for wind energy development in section 3404, subsection 2, paragraph C.”

Memo Reference	Supports Removal from the expedited area	Supports Retention in the expedited area
Sec. II, A; pg. 5		Progress Toward Goal
Sec. II, B; pg. 6	Wind Energy Potential	
Sec. II, C; pg. 8	Public Resource Values	

Key Questions:

- Are the impacts to natural resources and recreational resources associated with wind energy development in Carroll disproportionately harmful when compared to the opportunity to make progress toward the state goal for wind energy development?
 - If YES, Criterion A has been met, the petition should be granted, and Carroll should be removed from the expedited area;
 - If NO, Criterion A has not been met, the petition should not be granted, and Carroll should remain in the expedited area.

Substantive Review of the Carroll Removal Petition, Factor Summary Table

Appendix B

CLUP Provisions Not Relevant to Consideration of Removal Criteria

I. Development Goals

D. Infrastructure

Goal: *Ensure that infrastructure improvements are well planned and do not have an adverse impact on the jurisdiction's principal values.*

E. Development Rate, Density and Type

Goal: *Ensure that development is of a rate, density and type conducive to maintaining the jurisdiction's principal values.*

F. Affordable Housing

Goal: *Facilitate the provision of affordable housing in appropriate locations to households with a full range of incomes.*

G. Land Conservation

Goal: *Encourage the long-term conservation of select areas of the jurisdiction that are particularly representative of its cultural and natural values, including working forests, high-value natural resources and recreational resources.*

II. Natural and Cultural Resource Goals

A. Agricultural Resources

Goal: *Conserve and protect working farms, encourage the development of new farming enterprises, and conserve agricultural soil resources.*

C. Coastal Resources

Goal: *Protect and conserve the special natural and cultural resources of coastal islands and mainland townships, and help sustain the traditional resource-based economies of these areas.*

G. Geologic Resources

Goal: *Conserve soil and geological resources by controlling erosion and by protecting areas of significance.*

Substantive Review of the Carroll Removal Petition, Factor Summary Table

III. Compliance Goals

Goal: Administer an effective education and enforcement program in regard to the laws, regulations and standards of the Commission in order to ensure landowner and public awareness and compliance.

IV. Cooperative Initiatives

Goal: Encourage landowner initiatives and cooperative efforts which further the Commission's objectives of protecting natural resources and guiding growth through nonregulatory or voluntary actions.