MAINE POWER RELIABILITY PROGRAM

A CENTRAL MAINE POWER COMPANY PROGRAM

PLYMOUTH, MAINE

SHORELAND ZONING AND SITE PLAN REVIEW PERMIT APPLICATION

Section 3023 Transmission Line Construction
and
Section 203 Transmission Line Rebuild

Prepared for:

Central Maine Power Company
83 Edison Drive
Augusta, Maine 04336

Prepared by:

TRC Engineers, LLC
14 Gabriel Drive
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November 2009

Application Form

1. Applicant	**2. Applicant's Address**	**3. Applicant's Tel. #**
Central Maine Power Company	83 Edison Drive Augusta, Maine 04336	(207) 623-3521
4. Property Owner	**5. Owner's Address**	**6. Owner's Tel. #**
Central Maine Power Company	83 Edison Drive Augusta, Maine 04336	(207) 623-3521
7. Contractor To be determined.	**8. Contractor's Address**	**9. Contractor's Tel. #**
10. Location/Address of Property Central Maine Power Transmission Line Corridor (See Exhibit 1.)	**11. Tax Map/Page & Lot #** See Table Showing Proof of Title, Right, or Interest at Exhibit 6.	**12. Zoning District** Resource Protection (1)

13. DESCRIPTION OF PROPERTY INCLUDING A DESCRIPTION OF ALL PROPOSED CONSTRUCTION, E.G. LAND CLEARING, ROAD BUILDING, SEPTIC SYSTEMS, AND WELLS (PLEASE NOTE THAT A SITE PLAN SKETCH IS REQUIRED).
See attached application text, drawings, and maps.

14. Proposed Use of Project	**15. Estimated Cost Of Construction**
Essential Service -- Electric power transmission.	Approximately $2.7 million.

16. LOT AREA Approximately 18 acres.	**17. FRONTAGE ON ROAD (FT.)** The transmission line corridor crosses no public roads.
18. SQ. FT. OF LOT TO BE COVERED BY NON-VEGETATED SURFACES. Approximately 147 sq. ft. The transmission line structures will occupy less than 0.1% of the project area. The remainder will remain vegetated.	**19. ELEVATION ABOVE 100 YR. FLOOD** No structures will be located within the 100 year flood plain.
20. FRONTAGE ON WATERBODY (FT.) 218' at Carlton Stream.	**21. HEIGHT OF PROPOSED STRUCTURE(S)** See Table Showing Structure Heights and Types at Exhibit 4.
22. EXISTING USE OF PROPERTY Essential Service -- Electric power transmission.	**23. PROPOSED USE OF PROPERTY** Essential Service -- Electric power transmission.
Note: Questions 24 & 25 apply only to expansions of portions of existing structures which are less than the required setback	
24. A) SQ. FT. OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK AS OF 1/1/89: N/A	**25. A) CU. FT. OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK AS OF 1/1/89:** N/A
B) SQ. FT. OF EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK FROM 1/1/89 TO PRESENT: N/A	**B) CU. FT. OF EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK FROM 1/1/89 TO PRESENT:** N/A
C) SQ. FT. OF PROPOSED EXPANSION OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK: N/A	**C) CU. FT. OF PROPOSED EXPANSION OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK:** N/A
D) % INCREASE OF SQ. FT. OF ACTUAL AND PROPOSED EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK SINCE 1/1/89: (% INCREASE = $\frac{(B + C)}{A} \times 100$) N/A	**D) % INCREASE OF CU. FT. OF ACTUAL AND PROPOSED EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK SINCE 1/1/89:** (% INCREASE = $\frac{(B + C)}{A} \times 100$) N/A

Agent Authorization Letter

Introduction

The project described in these application materials is located in the Town of Plymouth's Residence and Farming District (also referred to as the Residential and Rural District in Plymouth's Zoning Ordinance) and Shoreland Zone. Those portions of the project within the Residence and Farming District are subject to Site Plan Review under Article V of the Zoning Ordinance. Those portions of the project within the Shoreland Zone require approval under Article IV, Section 5 of the Zoning Ordinance. These application materials are divided into the following parts:

Permit applications to the U.S. Army Corps of Engineers and the Maine Department of Environmental Protection (Site Location of Development permit and Natural Resources Protection Act permit) have been filed and are under review by those agencies. A request for Certificate of Public Convenience and Necessity is under review by the Maine Public Utilities Commission.

PART A:
PROJECT OVERVIEW AND DESCRIPTION

Maine Power Reliability Program Description

The Maine Power Reliability Program (MPRP) is a project proposed by Central Maine Power Company ("CMP") to upgrade Maine's bulk power system. The vast majority of Maine's bulk power transmission system was placed into service in the early 1970s and is now reaching the limits of its ability to meet the growing electrical demand of Maine customers. Since the last major transmission infrastructure was completed more than 30 years ago, the patterns of both available generation and customer load have shifted significantly. For example, population has become more concentrated in the southern part of the state, while the generation needed to serve that load is now more distant and dispersed. When these pattern changes are combined with the increasing peak demand the current transmission infrastructure in Maine will, in very few years, become inadequate. In addition, the reliability and security standards mandated by law and administered by the North American Electric Reliability Corporation (NERC), the Northeast Power Coordinating Council, Inc. (NPCC), and ISO New England (ISO-NE) have changed significantly in recent years. CMP must upgrade its bulk power system with this proposed project to meet the mandatory standards and to provide reliable electric service to Maine customers into the future.

CMP's 345 kV transmission system was built and put into service in 1971. Since then, power consumption has more than doubled. In recent years, both CMP and ISO-NE have identified certain reliability issues with the 345 kV system that need to be addressed.

In January of 2007, the MPRP began a comprehensive needs assessment of CMP's bulk power transmission system. The study included a 10-year forecast to evaluate the system in Maine, including a review of system reliability and performance under various system conditions and operating scenarios, as well as a needs assessment to ensure a reliable transmission system in the most cost-effective manner possible. The study identified a number of significant reliability issues with Maine's bulk transmission system, including insufficient 345 kV transmission capacity, insufficient 115/345 kV transformation capacity, and insufficient transmission support and/or infrastructure in all regions served by CMP.

After completing the needs assessment, the MPRP team studied possible solutions. This included both transmission and non-transmission alternatives.

CMP ultimately selected a primarily transmission solution (a small geographic area known as the South Portland loop will be addressed through non-transmission alternatives) based on a number of factors, including electrical performance, cost effectiveness, impacts to landowners, and Maine's environment under various forecasts of future conditions. The proposed solution consists of a network of 345 kV and 115 kV transmission lines and associated substations throughout CMP's service territory where particular needs were identified. The proposed transmission solution ranges from Eliot in the south, Rumford in the west, Warren and Searsport in the east, and Orrington and Pittsfield to the north. In all, MPRP will encompass nearly 80 Maine towns, and will obtain approvals from the Maine Public Utilities Commission, the Maine Department of Environmental Protection, and numerous municipalities.

Project Description in Plymouth

The part of the program located in Plymouth involves work in the existing transmission line corridor that traverses the southwestern portion of the Town southeasterly for approximately 0.6 miles from Detroit into Troy. The project involves:

- Rebuilding the existing Section 203 115 kV electrical transmission line. This transmission line, which currently runs on approximately 45 feet tall H-frame structures on the south side of the corridor, will be moved to the north side of the corridor and placed on single-pole structures that are typically 75 feet above ground.

- Installing a new 345 kV transmission line, to be known as Section 3023. This new transmission line will run on H-frame structures that are typically 75 feet above ground, and will be located on the south side of the existing corridor.

- Additional clearing in some portions of the existing corridor is planned. CMP will not need to acquire additional lands for this purpose; the portion of the MPRP in Plymouth will be built entirely on land that CMP already owns. See attached maps (Exhibits 1 & 3).

Please note that structure heights will vary due to varying terrain and the need to achieve spans that will avoid or minimize impacts to natural resources. See the attached table (Exhibit 4) for a description of the height and type of each structure associated with the project. Please note that

exact above-ground structure heights may vary slightly due to conditions encountered during construction of the project.

The proposed upgrades in Plymouth, as outlined above, are a part of the program to improve the reliability, safety, and security of the bulk power transmission system in Maine, while at the same time meeting the increasing demands for electrical power.

Zoning Districts Impacted

The proposed project will traverse one Resource Protection District in the Shoreland Zone, located where the corridor crosses Carlton Stream, and is otherwise located within the Residence and Farming District.

In the Residence and Farming District, the MPRP is classified under the Ordinance as a permitted use subject to Site Plan Approval by the Planning Board, pursuant to Article IV, Section 3(B)(2).

PART B

SHORELAND ZONING

Description of the Project Scope Within the Shoreland Zone

In the Shoreland Zone, the MPRP is classified under the Ordinance as an "essential service," which, pursuant to Table 1, is a permitted use in the RP district with the approval of the Planning Board. "Installation" of essential services[1] is also subject to the specific requirements of Article IV, Section 5(O)(12)(b) of the Ordinance, addressed below.

The proposed project crosses a Resource Protection District at Carlton Stream (see map at Exhibit 4). There are two structures proposed for this district, pole #237, associated with Section 3023, and pole #81, associated with the rebuilt Section 203. One structure will be removed from the district, pole #91, associated with the existing Section 203. A temporary access way will be established for the construction and removal of these poles. A small amount of tree clearing will take place within the district. Please see the relevant sections below for more detailed information.

Article IV. Districts and District Regulations

Section 5(O). Land Use Standards

1. **Minimum Lot Standards**

   Not applicable.

2. **Principal and Accessory Structures**

   Not applicable.

3. **Piers, Docks, Wharfs, Bridges, etc.**

   Not applicable.

4. **Campgrounds**

   Not applicable.

5. **Individual Private Campsites**

   Not applicable.

6. **Commercial and Industrial Uses**

   Not applicable.

7. **Parking Areas**

   There will be no parking areas associated with the project.

[1] The MPRP is not "installation" of an essential service because the essential service (electric power transmission) has already been installed in the corridor. Therefore, although Article IV, Section 5(O)(12)(b) does not apply, the MPRP meets the requirements of that Section, as discussed below.

8. Roads and Driveways

There will be no new permanent roads or driveways associated with the project. CMP has historically maintained points of access to and access ways within its corridors for use by its own vehicles for periodic routine and emergency maintenance of the corridor and transmission facilities. This practice will continue.

Temporary access ways will be established to access the project area within the shoreland zone for tree clearing, installation of pole #237 of the new Section 3023, installation of pole #81 of the rebuilt Section 203, and removal of pole #91 of the existing Section 203 (see Exhibit 4). These temporary access ways are not considered roads or driveways, and will not add any impervious surface area. This will be an ongoing process as access will be established to areas undergoing immediate construction. Determinations surrounding the exact nature of the construction of these temporary access ways will be made by the contractor in consultation with an environmental representative. All access paths are temporary and will be removed once construction is complete. General access to the corridor for construction purposes will be achieved through the construction of a temporary access way, which will be in place for more than one growing season, and will be removed once all aspects of construction in that area are complete. Access to the pole sites, either for removal or construction, will be achieved by temporary access ways which will be in place for no more than one growing season. Areas where soils have been disturbed will then be mulched with hay. Vegetation will be allowed to reestablish itself once the temporary access ways have been removed.

Measures will be taken to avoid and minimize impacts to streams and wetlands. Carlton Stream will not be crossed. Temporary access ways will be installed in uplands only, and will avoid the wetland associated with this district. Crane mats will be used wherever appropriate to minimize impacts. Some minor grading may be required to ensure mat stability and construction access safety. All such grading will be performed on a limited basis and only with prior approval by CMP's environmental representatives. Appropriate erosion controls will be installed wherever necessary.

Access ways will be installed in accordance with CMP's *"Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects,"* attached hereto as Exhibit 8.

9. Signs

There will be no signage associated with the project.

10. Storm Water Runoff

With the exception of the immediate area occupied by the support structures, there is no increase in impervious surface area associated with the transmission line, so there will be no significant storm water run-off generated from the project. All new construction will be designed to minimize storm water runoff from the site in excess of the natural predevelopment conditions.

11. Septic Waste Disposal

Not applicable.

12. Essential Services

(1) Where feasible, the installation of essential services shall be limited to existing public ways and existing service corridors (Article IV, Section 5(O)(12)(a)).

A guiding principle in the design of the MPRP transmission line upgrades has been to utilize the existing transmission line corridors to the maximum extent practicable. The location of rebuilt and new transmission lines within or adjacent to an existing corridor has multiple benefits, including the minimization of impacts to communities, individual property owners, and the environment.

Within Plymouth, the Section 3023 construction and Section 203 rebuild will occur entirely within CMP's existing right-of-way. To allow for the safe and reliable operation of this new line, some new clearing within the existing right-of-way will be required, but CMP will not need to acquire any additional property to accommodate the MPRP in Plymouth.

(2) The installation of essential services is not permitted in a Resource Protection or Stream Protection District, except to provide services to a permitted use within said district, or except where the applicant demonstrates that no reasonable alternative exists. Where permitted, such structures and facilities shall be located so as to minimize adverse impacts on surrounding uses and resources, including visual impacts (Article IV, Section 5(O)(12)(b)).

The new and rebuilt transmission lines will cross the Resource Protection District where the transmission line corridor crosses Carlton Stream. Within the corridor, CMP has, to the greatest extent practicable, sited each individual H-frame (in the case of Section 3023) and single-pole (in the case of Section 203) structure so as to avoid locating any structures within either the Resource Protection or Stream Protection districts. Due to the fact that the existing corridor crosses the RP District and the structures cannot be sited in a manner that allows the entire district to be spanned, however, two structures will be located in the RP District. Locating these two structures outside the RP would require expanding the existing transmission line corridor by acquiring additional land, creating a new corridor, or erecting taller and more substantial structures (e.g., steel towers with concrete footings) to achieve the required spans over this district.

The amount of ground disturbance associated with the planned structures will be small, i.e., limited to the immediate vicinity of the pole placements, and since the project is co-located with the existing transmission line corridor which contains structures of a similar bulk and style, locating structures within the RP District causes the least overall impact when compared with the alternatives. Thus, no reasonable alternative exists, given the overall impact of any alternatives in comparison to locating the new lines within the existing corridor. Notably, not only has CMP opted for co-location of the new lines, but this practice is favored by Plymouth's Ordinance, Article IV, Section 5(O)(12)(a), referenced above.

13. Mineral Exploration and Extraction

Not applicable.

14. Agriculture

Not applicable.

15. Timber harvesting

Not applicable.

16. Clearing of Vegetation for Development

Some clearing of vegetation will be required within the existing corridor to accommodate the project and to ensure that the project meets federal reliability and safety standards (in accordance with Article IV, Section 5(O)(16)(a) of this standard). The amount of clearing, approximately 0.4 acres, will be limited to that which is necessary for development of the project, and is generally limited to the removal of species that are capable of growing tall enough to interfere with the transmission lines (so-called "capable species"). Non-capable species are allowed to remain to ensure that the corridor is vegetated, which prevents erosion and provides wildlife habitat. No grubbing (i.e., stump removal) will take place.

Cutting work will be performed using equipment typical of logging operations, including cable and hook skidders, forwarders, tree movers, chain saws, and logging trucks. In general all trees, saplings of capable species, and sometimes tall shrubs are cut at ground level. All root systems are left intact, as the ground is not grubbed or graded. All slash (i.e., limbs, tree trunks, wood chips, etc.) from the cutting operation is disposed of in accordance with the Maine Slash Law (12 M.R.S.A. § 9333). The remaining vegetation is typically composed of scattered growth of small shrubs of non-capable species and herbaceous plants. After initial clearing, the condition of these cleared areas generally resembles that of a high-quality forestry operation. Specifically, although there is very limited height structure to the vegetation, great care is taken to prevent rutting and erosion.

After construction is completed, non-capable species are allowed to grow to ensure that the corridor is vegetated, which prevents erosion and provides wildlife habitat. Over a relatively short period of time (generally within one calendar year), the newly cleared portions of the corridors will exhibit the early-successional habitat type that is typical of existing transmission line corridors in Maine.

Please see Exhibit 4.

17. Erosion and Sedimentation Control

With the exception of the immediate area around the base of the support structures there will be no increase in impervious surface area associated with the transmission line. The amount of ground disturbance associated with this project will be limited to the immediate vicinity of the pole placements and the impacts associated with access roads. CMP has developed a standard manual, "Environmental Guidelines for Construction and Maintenance Activities on Transmission line and Substation Projects" (2007), which it uses as a routine part of all transmission and substation projects. (A copy of the manual is attached as Exhibit 8.) This manual contains erosion and sedimentation control requirements, standards, and methods that will be used to protect soil and water resources during construction of the various MPRP

components. The manual was developed in consultation with the Maine Department of Environmental Protection (DEP), is based on DEP's *Maine Erosion and Sediment Control BMPs*, dated March 2003, and DEP's Chapter 500, and contains specific Best Management Practices appropriate for electric transmission line and substation construction. These guidelines will be followed in the construction of transmission lines.

18. Soils

Based on the applicant's analysis of the Soil Survey Geographic Database compiled by the United States Department of Agriculture – Natural Resources Conservation Service, soils within the transmission line corridor will accommodate the proposed MPRP construction activities. Soil constraints within the transmission line corridor will be managed and mitigated through implementation of erosion and sediment control measures, proper site and project design, and special construction procedures.

19. Water Quality

To minimize spill potential during construction, no fueling or maintenance of vehicles will be performed within 100 feet of wetlands, streams or other sensitive natural resources. After construction, the electrical transmission line corridor is maintained to encourage the growth of scrub-shrub vegetation. Trees within the corridor that are capable of growing up into the conductors ("capable species") must be removed for safety and reliability reasons. CMP uses a selective herbicide program to treat an area once every four years to maintain an early successional stage of growth. Herbicide is selectively applied (using a low-pressure backpack applicator) to capable species to prevent growth (or re-growth of a cut plant) of individual plants. CMP does not use herbicides within 25 feet of any waterbody or wetland with standing water. Crew forepersons are certified by the Maine Pesticide Control Board, and all herbicides are EPA registered. The selective use of herbicides within the transmission line corridor does not impose a threat to groundwater quality and will not impair designated uses or the water classification of any water body.

20. Archaeological and Historic Resources

Following consultation with the Maine Historic Preservation Commission (MHPC) CMP has conducted extensive investigations of potential prehistoric archaeological, historic archaeological, and historic architectural surveys along the project corridor. Survey reports have been submitted to the MHPC. The survey reports did not identify any potential prehistoric archaeological, historic archaeological, or historic architectural sites within the project corridor.

Approval Standards

(From Article IV, Section 5(P)(4))

The proposed use will:

a. Maintain safe and healthful conditions

The proposed project will maintain the same safe and healthful conditions that are already present in the transmission line corridor. The transmission line corridor and the structures within it are maintained to established industry standards so as to ensure the

safety of utility workers and the general public. Maintaining sufficient clearances around the conductors is paramount to the safe operation of the lines. These clearances are achieved through appropriate siting of the structures themselves and through vegetation maintenance practices as described above. All construction will be in accordance with CMP's transmission standards, general industry standards, and good utility practice, including all necessary liveline working clearances, strength factors, and reliability factors as governed by the National Electrical Safety Code (NESC). In all instances, the line will be designed to meet or exceed the NESC and other standards, as applicable. The transmission line and all facilities will be operated in full compliance with CMP safety standards, which fully comply with Federal Occupational Safety & Health Administration requirements.

A health concern that is sometimes expressed involves electric and magnetic fields produced by transmission lines. These fields are produced by any electric equipment or anything that carries electric current. The World Health Organization and numerous other scientific agencies around the world have studied the issue extensively. These studies have not shown that electric and magnetic fields produced by transmission lines such as those being proposed as part of the MPRP cause any adverse health effects. There is no scientific basis to project any adverse health effects as a result of the electric and magnetic fields produced by transmission lines associated with this project. Accordingly, this standard has been met.

b. Not result in water pollution erosion or sedimentation to surface waters.

As described above with respect to Ordinance Article IV, Sections 5(O)(17) and (19), the MPRP will not result in water pollution, erosion, or sedimentation to surface waters.

c. Adequately provide for the disposal of all wastewater.

There will be no wastewater disposal required for this project, and therefore this standard has been met.

d. Not have an adverse impact on spawning grounds, fish, aquatic life, bird, or other wildlife habitat.

Impacts to spawning grounds, fish, aquatic life, or other wildlife habitat will be largely avoided through the use of the existing service corridor, which has been in place for several decades. In general, given the existing landscape characteristics of the site, construction and maintenance of the project is not expected to create conditions that are not already common to the project area. It is fully anticipated that local wildlife populations will adapt and respond to any additional alterations much as they already do to ongoing land uses within the vicinity of the proposed project. Therefore, impacts to wildlife are expected to be minimal to non-existent.

More specifically, within the shoreland zone in Plymouth there will be no adverse impacts on spawning grounds, fish, or aquatic life. The proposed project will not install any structures in Carlton Stream and avoids creating an access way across Carlton Stream. The proposed structure within the shoreland zone in Plymouth nearest to Carlton Stream (Section 3023's pole #237) will be set back approximately 250' from the stream, in a location similar to the existing Section 203 structure (pole #91). The conductors for

both Section 3023 and the rebuilt Section 203 will span the stream, and therefore there will be no adverse impacts to spawning grounds, fish, or aquatic life.

Approximately 0.05 acres of a deer wintering area is located within this district, and this small area will be cleared of capable species. In contrast, the deer yard is approximately 709 acres in size and is designated by the Maine Department of Inland Fisheries and Wildlife (MDIF&W) as being of "indeterminate" in value, meaning its value has not yet been evaluated. Given the overall size of the deer yard and the very small amount of clearing planned within this district, the project will have no adverse impact on the ability of the deer yard to function as it does currently.

The proposed project traverses approximately 3.0 acres of a Waterfowl and Wading Bird Habitat (WWH), which is designated as being of "high" value by the MDIF&W. Approximately 0.4 acres of this WWH will be cleared of capable species. The WWH is approximately 930 acres in size. This very small amount of clearing relative to the size of the WWH will create no adverse effects on the resource, and will not impact its ability to function as it does currently. Please see Exhibit 4.

e. Conserve shore cover and visual, as well as actual, points of access to inland waters.

The project does not impact any actual points of access to inland waters. Nor will the project obstruct or otherwise interfere with any visual points of access to any inland waters; the limited clearing required will, in fact, provide additional points of visual access to Carlton Stream. Note that the existing transmission line corridor already contains structures of a similar nature, and those who recreate on Carlton Stream are already used to seeing these structures, so the proposed project will not adversely affect views of the waterway. The proposed structure within the shoreland zone, pole #237 of Section 3023, will be set back approximately 250' from the edge of the stream, in approximately the same location as the existing Section 203 structure (pole #91). The very limited clearing (approximately 0.4 acres) of capable species within the district will be limited largely to upland areas that are not adjacent to the stream. As a result the corridor itself will continue to exhibit the same general visual character that it does currently. The corridor will continue to be maintained in a vegetated state, thereby preserving a similar degree of shore cover which currently exists.

f. Protect archaeological and historic resources as designated in the comprehensive plan.

The Town of Plymouth's Comprehensive Plan identifies no registered historical sites nor known archaeological sites within the Town. The MPRP will have no impact on any of the possible historical or archaeological sites identified in the Comprehensive Plan.

g. Will avoid problems associated with flood plain development and use.

As depicted in the attached maps, none of the proposed structures is planned to be within the 100-year flood plain.

h. Be in conformance with the provisions of Land Use Standards SubSection O.

As discussed in each of the subsections above, this project complies with all of the provisions of Land Use Standards contained in Article IV, Section 5(O) of the Ordinance.

PART C
SITE PLAN REVIEW

Article V. Subdivision and Site Planning

Section 4. General Requirements

A. Conformance with the Zoning Ordinance of the Town of Plymouth, Maine

Please see the text included in this application relating to each performance standard. CMP has applications pending before the Public Utilities Commission (PUC), the Department of Environmental Protection (DEP), and other agencies.

B. Conformance with the Comprehensive Plan

The project conforms with the Comprehensive Plan, which does not contain any requirements specific to this project. Please see the text included within this application for information on conformity with local ordinances. CMP has applications pending before the PUC and DEP, and those agencies are reviewing those applications for evidence of conformity with all state statutes and regulations.

C. Preservation of Natural and Historic Resources

1. Please see Exhibit 3. For a discussion of general construction practices as they relate to the preservation of natural resources, please see Article IV, Section 5(O)(16) and (20), and Section 5(P)(4)(d) and (f) of the Shoreland Zoning Application, above, starting on page 7. The proposed project is not on or near Plymouth or Gray (Round) Ponds.

2. There will be no streets associated with this project.

3. Extensive grading and filling will be avoided. Please see Article IV, Section 5(O)(8), page 5, for a discussion of access way construction.

4. Not applicable.

5. Not applicable.

D. Mapping

1. Boundary surveys have been conducted by surveyors licensed in the State of Maine and meet the standards of the Maine Board of Registration for Land Surveyors.

2. Please see the attached maps at Exhibit 3. A topographic survey is not being supplied with this application.

3. Please see the attached maps at Exhibit 3.

4. Please see Exhibit 10.

E. Lot Length to Width Ratios

The entire project will be constructed within the existing transmission line corridor, which is entirely owned in fee by CMP, and no new lots will be created, therefore this standard does not apply.

F. Land Not Suitable for Development

1. Wetland areas have been avoided to the extent possible through careful pole placement. However, where structures must be placed in wetlands adverse impacts will be minimized through the use of appropriate control measures. Please see the Shoreland Zoning Application, Article IV, Section 5(O)(8),(16), (17), and (19) starting on page 5.

2. No structures will be located in a 100 year flood plain.

3. No structures will be located on land with sustained slopes of 20% or greater.

G. Guarantees of Performance

This section does not apply because the MPRP is owned entirely by CMP and therefore is not "public" infrastructure,[2] and – other than reliability impacts common to all CMP customers -- there would be no detrimental impact on the Town if the MPRP is, for some reason, not completed; the PUC will not authorize CMP to begin this $1.5 billion project if it cannot be completed.

Section 5. Pre-Application Review

To the extent that the pre-application and other review procedures may apply, CMP requests waiver of those provisions pursuant to Article V, Section 11.

Section 6. Minor Subdivisions

Not applicable.

Section 7. Major Subdivisions

Not applicable.

Section 8. Cluster Subdivisions

Not applicable.

Section 9. Site Plan Review

B. Submissions

1. The site plan can be found at Exhibit 3. Please note the following:
   - Names of abutting landowners can be found at Exhibit 6.
   - A table of proposed structure types and above ground heights can be found at Exhibit 5.
   - A description of erosion and sedimentation control practices can be found at Exhibit 8.

[2] Note that "public facility" is defined as "any facility . . . owned, leased, or otherwise operated, or funded by a governmental body of public entity." Article IV, Section 5(Q).

2. Supporting Documentation.
    - Evidence of title to the site can be found at Exhibit 7.
    - A description of the proposed uses of the site can be found in the introduction to the Application.
    - A summary of existing easements placed on the property can be found at Exhibit 7.
    - The methods for solid waste disposal can be found at Exhibit 9.
    - The Applicant has applications pending before the Maine Department of Environmental Protection and the Army Corps of Engineers. The Applicant has also filed for a Certificate of Public Convenience and Necessity with the Maine Public Utilities Commission.
    - The project is estimated to start during the second half of 2010, and is estimated to be completed by 2013.
    - As noted in Article V, Section 4(G), above, performance guarantees do not apply to the MPRP.
3. The application fee has been submitted with this application.

Section 10. Design and Construction Standards

A. General

There will be no roads or streets associated with this project.

B. Street Design Standards

Not applicable.

C. Street construction standards.

Not applicable.

D. Storm Water Design Standards

As noted above, the Maine Department of Environmental Protection has determined that a stormwater analysis is not required for the transmission line portion of the MPRP. With the exception of the immediate area around the base of the support structures, there is no increase in impervious surface area associated with the transmission line. Therefore there will be no significant storm water run-off generated from the project. No adverse impacts to abutting or downstream properties will be created. Since the project is being located within the existing transmission line corridor, stormwater will be retained using the existing natural features of the site. All new construction will be designed to minimize storm water runoff from the site in excess of the natural predevelopment conditions. See also the Shoreland Zoning application, Article IV, Section 5(O)(8),(10), and (17), starting on page 5, as well as Exhibit 8.

E. Storm Water Construction Product Standards

None of the construction elements listed in this section will be used with the project.

F. Parking and Entrance Standards

There will be no parking or loading areas associated with the project. There will be no traffic generated by nor affected by the project.

G. Buffers and Screening

1. The project is located entirely within the existing transmission line corridor, and runs through a heavily wooded area of the Town. The transmission line corridor and associated structures have been in place for decades. At the completion of the project the project site and adjacent properties will continue to experience conditions which are substantially similar to those which currently exist. A natural vegetative buffer, consisting of non-capable species, similar to that which currently exists, will continue to be maintained within the corridor. There will be no adverse impacts or nuisances on the site or on adjacent properties as a result of the project.

2. a. The project will maintain buffering and screening conditions between varying uses similar to conditions which currently exist.

   b. There are no roads associated with the project, and there are no roads adjacent to or intersecting the project.

   c. There are no parking areas, garbage collection areas, or loading areas associated with the project.

   d. There will be no debris associated with the site as the site will continue to be characterized by a scrub-shrub environment adjacent to a heavily forested environment.

3. The project will be constructed entirely within the existing transmission line corridor, which already contains similar compatible structures. The project crosses no public streets. As a result abutting properties and those traveling on public streets will continue to experience conditions similar to those which currently exist.

4. There will be no fencing associated with the project, and all screening and buffer areas will be maintained by CMP.

H. Additional Requirements

1. See Exhibit 8 for a copy of CMP's "Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects," which demonstrates compliance with this section.

2. There are no permanent roads being constructed in association with this project. There will be no debris deposited in any street right of way or utility easement. Within the transmission line corridor, in general, all trees, saplings of capable species, and sometimes tall shrubs are cut at ground level. All root systems are left intact, as the ground is not grubbed or graded. All slash (i.e., limbs, tree trunks, wood chips, etc.) from the cutting operation is disposed of in accordance with the Maine Slash Law (12 M.R.S.A. § 9333).

3. There will be no streets or street signs associated with the project.

4. There will be no streets associated with the project.

Article VI. Telecommunications and Towers

Not applicable.

Article VII. General Regulations

Section 1. Frontage

The project will not have frontage on a street. Where the project crosses a tributary of Carlton Pond the transmission line corridor has a width of 218 feet.

Section 2. Location of Accessory Structures

Not applicable.

Section 3. Appurtenant Open Space

Not applicable.

Section 4. Density

Not applicable.

Section 5. Exempted Lots

Not applicable.

Section 6. Corner Lots and Clearance

Not applicable.

Section 7. Projections

Not applicable.

Section 8. Height Exceptions

Article VII, Section 8 of the Town of Plymouth Zoning Ordinances, as amended on March 31, 2009, states, in part: "In the case of other structures not used for human occupancy, standing alone, these structures shall be limited to 45' and setback requirements of Article IV will be increased to 105% of the height of the structure." This provision does not apply to the MPRP work in Plymouth because such structures do not stand alone. That is, the transmission lines and towers are part of a comprehensive electrical transmission system comprised of thousands of interconnected towers, so no single tower can be described as "standing alone." In fact, each tower is physically connected to the other towers by the transmission lines (the conductors) themselves.

Although these height and setback limits therefore do not apply to this project, the following discussion summarizes the height of the structures in Plymouth and their setbacks.

Height

The proposed project's transmission line structures in Plymouth will have a typical above ground height of 75', and range in height from approximately 65.5' to approximately 84' above ground. As noted in the introduction to this application, the MPRP must be built in order to comply with federal requirements for electric power reliability and safety. The proposed MPRP structure heights in Plymouth are necessary to achieve federally required clearances to ensure safety and

reliability, while accounting for varying terrain and avoiding or minimizing impacts to sensitive resources wherever possible.

Setback

As noted above, the proposed structures for both Section 3023 and the rebuilt Section 203 will be typically 75' above ground. The Section 3023 H-frame structures will be set back approximately 72' from the edge of the right-of-way to the nearest portions of the structures on the ground. The rebuilt Section 203 single-pole structures will be set back approximately 50' on center from the edge of the right-of–way. The proposed side setbacks meet all federal regulations and industry standards for safety and reliability. In addition, transmission line structure failures are extremely rare. Over the past 20 years CMP has experienced only one case of a 115 kV structure falling to the ground, and in that case the failed structure remained within the transmission line corridor. If a transmission line structure of the type being proposed in Plymouth were to fail it is highly unlikely that it would impact the area outside the transmission line corridor, due to the associated guying and the fact that the structures are linked to each other by the conductors.

The Plymouth Zoning Ordinances impose a side and rear yard setback of 15 feet. Article IV, Section 3(D)(2). Thus, the MPRP work in Plymouth will meet the applicable setback requirement.

Section 9. Beach Construction

Not applicable.

Section 10. Campgrounds

Not applicable.

Section 11. Manufactured Housing/Mobile Homes

Not applicable.

Section 12. Manure Spreading or Disposal

Not applicable.

Section 13. Erosion and Sedimentation Control

Please see Exhibit 8, CMP's "Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects," which demonstrates compliance with this section.

Section 14. Mineral Exploration

Not applicable.

Section 15. Performance Standards—Pollution, Noise, and Fire Controls

A.) There will be no discharge, emission, or release in the atmosphere of any materials which could constitute any type of pollution.

B.) There will be no odors or fumes of any kind generated by the site once construction is complete.

C.) There will be no noxious gasses generated from the site.

D.) No buildings are associated with the project.

E.) Noise levels will not exceed 60 decibels at the edge of the right of way. For electric transmission lines, audible noise (AN) is relative to conductor (wire) size. Central Maine Power (CMP) has selected conductor sizes that under dry conditions are designed to be noise free. Under adverse weather conditions (e.g., very high humidity and storm conditions) these same conductors will emit only a slight crackling sound. AN is produced when protrusions on the conductor surface – particularly water droplets on or dripping off the conductors -- cause the electric field intensity at the conductor surface to exceed the breakdown strength of air. The AN increase from MPRP transmission lines results from the partial electrical breakdown of air around the conductors. In small volumes near the surface of the conductors, energy and heat are dissipated. Part of this energy is in the form of small local pressure changes that result in AN. This AN can be characterized as a hissing, crackling sound; therefore, AN from transmission lines is typically a foul-weather/wet conductor phenomenon.

Based on the modeling of AN done by Dr. William Bailey of ExPonent® for the MPRP, it was determined that the sound produced by the conductors at the edge of the transmission corridor ROW will be a maximum of about 40 decibels during foul weather (comparable to a quiet office) as the result of the proposed upgrades.

Section 16. Road Construction

There will be no roads associated with the project.

Section 17. Soils

Based on the applicant's analysis of the Soil Survey Geographic Database compiled by the United States Department of Agriculture – Natural Resources Conservation Service, soils within the transmission line corridor will accommodate the proposed MPRP construction activities. Soil constraints within the transmission line corridor will be managed and mitigated through implementation of erosion and sediment control measures, proper site and project design, and special construction procedures.

The MPRP is not a commercial or industrial development, or other similar intensive land use, and therefore no on-site investigation by a licensed soil professional is required.

Section 18. Water Quality Protection

There will be no location, storage, or discharge of any materials as a result of the project. As a result there will be no nuisances or harm caused to waters or plant, animal, or aquatic life as a result of any location, storage, or discharge of materials associated with the project.

Article VIII. Special Regulations

Section 1. Non-Conforming Uses

Not applicable.

Section 2. Accessory Uses

Not applicable.

Section 3. Sludge Distribution

Not applicable.

Section 4. Automobile Graveyards and Junkyards

Not applicable.

Section 5. Signs

There will be no signs associated with the project.

Article IX, Section 7. Permits Issued by the Planning Board

Each of the items listed here has been addressed in Article IV, Section P(5) of this application, starting on page 8, and each pertains to the project within the Shoreland Zone as well as the Residence and Farming District.

EXHIBIT 1
Project Overview Map

EXHIBIT 2
Transmission Line Configuration Cross Section

EXHIBIT 3
Maps Showing Project Scope and Natural Resources

EXHIBIT 4
Maps Showing Project Scope Within the Shoreland Zone

EXHIBIT 5
Table Showing Structure Heights and Types

EXHIBIT 6
Table of Project Abutters

Exhibit 7
Table Showing Proof of Title, Right, or Interest

Exhibit 8
CMP's "Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects"

EXHIBIT 9
Methods for Solid Waste Disposal

Once the project is constructed there will be no waste generated at the site. CMP anticipates that solid waste generated from the proposed project will be limited to minimal land clearing and construction debris. This debris is inert, non-hazardous material that will be handled in accordance with the Maine State Solid Waste Management and Recycling Law (38 M.R.S.A. § 2101 *et seq.*).

All of the existing Section 203 transmission line poles and associated crossarms and hardware will be removed as a result of the proposed 115 kV line rebuild along the project corridor. Removed poles and crossarms will either be donated to private entities or shipped to an approved special waste landfill for disposal. CMP requires recipients of surplus treated wood to sign a Pole Transfer Agreement, in which they agree to utilize the treated wood beneficially in accordance with Maine DEP Regulations Chapter 418 (Beneficial Reuse), as well as any other applicable federal, state, and local laws. This Agreement also obligates recipients to accept full responsibility for the use and proper disposal of these treated wood items. In this way, CMP alerts treated wood recipients of management requirements so that this material is utilized in a way that does not adversely affect any natural resources.

Wood cut and cleared from the MPRP right of way will be limited to capable species, i.e., tree species that grow tall enough that they are capable of growing into the safety zone beneath conductors (wires). All merchantable wood will be hauled off and sold for lumber or firewood. All other woody material will be managed in compliance with the Maine Slash Law (12 M.R.S.A. §§ 9331-9338). All other wood waste generated in the process of land clearing will be shipped off site to be used as fuel at an appropriate licensed boiler, provided to a licensed chip processing plant, or donated to a facility to be utilized in the production of erosion control mulch.

The project will generate other construction-related debris during the construction phase. Waste electrical system and construction process components such as scraps of cable, cable spools, and ceramic insulators will be generated. Most of these materials will be recycled or reused. Small amounts of waste plastic containers for oils and lubricants, broken filters and belts, and damaged tires, etc., will be generated from the use of construction equipment. Construction and managerial staff will generate some incidental waste such as paper, bottles, cans, plastics, and food scraps. All of these materials will be recycled or shipped to a licensed landfill, transfer station, or incinerator. Contractors will hire a licensed waste management company for the collection and disposal or recycling of such incidental waste. Please refer to the table on the following page.

MPRP Solid Waste Disposal Plan	
MATERIAL	**DISPOSITION**
Wood (timber, slash, stumps, etc.)	Chipped on site or hauled off site to boiler, chip plant, or mulch production facility
Treated wood (poles, crossarms)	Donated or landfilled in licensed special waste landfill
Galvanized Steel	Maine Metals Recycling (Auburn)
Porcelain Insulators	Commercial Paving Recycling Corporation, Scarborough (CPRC), crushed and used as road sub-base material
Food waste, plastics, common trash	Shipped to licensed MSW landfill, transfer station, or incinerator
Redeemable drink containers	Redeemed for recycling
Ferrous Metals	Maine Metals Recycling
Wooden Cable Spools & Pallets	Stuart C. Irby Company (Waterville) for reuse
Wooden Insulator Crates	Shipped to licensed MSW landfill, transfer station, or incinerator
Paper	Recycled thru FCR Goodman (various Maine locations)
Scrap Cable	Maine Metals Recycling
Aluminum	Maine Metals Recycling
Concrete Debris	CPRC for use in road sub-base

Exhibit 10
Maps Showing Soil Types

Based on the applicant's analysis of the Soil Survey Geographic Database compiled by the United States Department of Agriculture – Natural Resources Conservation Service, soils within the transmission line corridor will accommodate the proposed MPRP construction activities. Soil constraints within the transmission line corridor will be managed and mitigated through implementation of erosion and sediment control measures, proper site and project design, and special construction procedures (See Exhibit 7).
Soils found within the project area include:

Dixmont Very Stony Silt Loam – *Coarse-loamy, isotic, frigid Aquic Haplorthods*
Map symbol = D
Dixmont soils consist of very deep, moderately well drained and somewhat poorly drained soils formed in glacial till on till plains and ridges. Depth to bedrock is greater than 60 inches. The seasonal high water table is typically 7 to 16 inches from the surface on slopes less than 8 percent, and 16 to 40 inches from the surface on slopes greater than 8 percent. Slopes range from 0 to 25 percent, but are typically between 3 and 15 percent. Dixmont soils are hydrologic group C soils, and are potentially highly erodible land.

Bangor Silt Loam – *Coarse-loamy, isotic, frigid Typic Haplorthods*
Map symbol = B
Bangor soils consist of very deep, well drained soils on till plains and ridges, and are formed in glacial till. Depth to bedrock is greater than 60 inches, and there is no seasonal high water table within 40 inches of the surface. Some areas are very stony. Bangor soils are hydrologic group B and C soils, depending on slope. Slopes range from 0 to 25 percent, with slopes less than 15 percent classified as potentially highly erodible land and slopes greater than 15 percent classified as highly erodible land.

Mixed Alluvial Land
Map symbol = Mn
Mixed alluvial land includes soils that have formed in alluvial deposits along river floodplains. There are no proposed structures located in soils of this type.