



MAINE POWER RELIABILITY PROGRAM

A CENTRAL MAINE POWER COMPANY PROGRAM

MORRILL, MAINE SHORELAND ZONING PERMIT

Section 254 Transmission Line Construction

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Application Form

Agent Authorization Letter

SHORELAND ZONING PERMIT APPLICATION

Introduction

The project described in these application materials is located, in part, within Morrill’s shoreland zone. Those portions of the project within the shoreland zone require approval under Morrill’s Shoreland Zoning Ordinance. These application materials describe the proposed project, focusing on those portions within the shoreland zone, and the applicable shoreland zoning provisions. The application materials are divided into the following parts:

- Part A: Project Overview and Description – beginning on page 1
- Part B: Land Use Standards (from Section 15 of the Shoreland Zoning Ordinance) – beginning on page 7
- Part C: Approval Criteria (from Section 16(D) of the Shoreland Zoning Ordinance) – beginning on page 13
- Exhibits: Following page 16

PART A: PROJECT OVERVIEW AND DESCRIPTION

Maine Power Reliability Program Description

The Maine Power Reliability Program (MPRP) is a project 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. Central Maine Power Company must upgrade its bulk power system with this proposed project in order 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 assessed and 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 went to work to study possible solutions. This included both transmission and non-transmission alternatives, before designating its preferred solution.

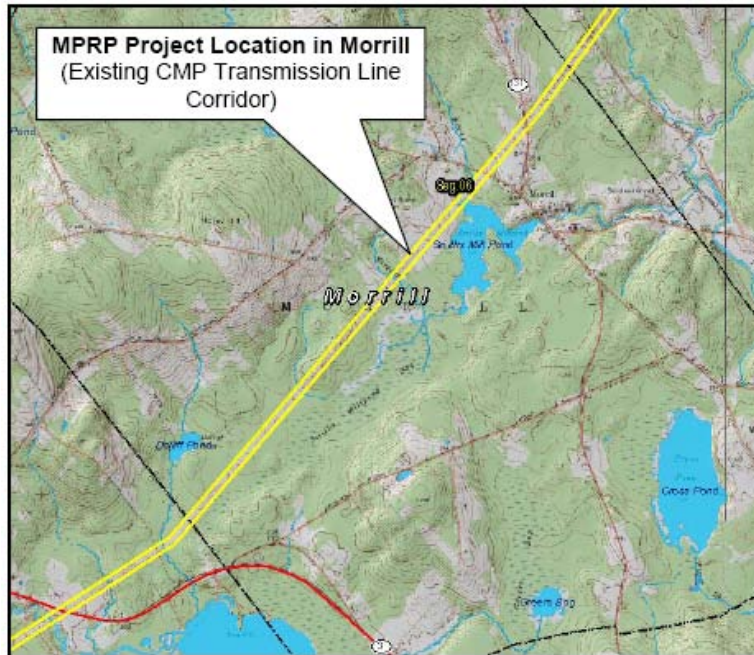
CMP ultimately selected a primarily transmission solution (a small geographic area know as the South Portland loop will be addressed through non-transmission alternatives) based on a number of factors, including electrical performance, cost effectiveness, impacts to landowners, and Maine's environment 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 require approvals from the Maine Public Utilities Commission, the Maine Department of Environmental Protection (MDEP), and numerous municipalities.

See Exhibit 1, Maine Power Reliability Program (MPRP) Project Scope Map.

The proposed upgrades in Morrill, outlined below, are a part of the MPRP and intended to help 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.

Project Description in Morrill

The project in Morrill involves construction of a new 115 kV transmission line (Segment 6, Section 254) within the existing corridor, which now includes a 345 kV electrical transmission line (Section 388). The corridor is 270 feet wide and runs about 3.6 miles from the Morrill/Waldo town line in the north to the Morrill/Searsmont town line in the south. The corridor totals approximately 116 acres (excluding public roads) and currently includes 33 H-Frame wooden pole structures with a typical pole height of 75 feet above ground. The corridor is largely cleared of trees throughout its length. Also located in the corridor are: a natural gas pipeline on the northwest side of the corridor (exact location varies); and an AT&T cable located 20 feet from the south edge of the corridor.



The proposed new transmission line will be located parallel to and northwest of the existing 345 kV line, and will include 34 new H-Frame wooden pole structures built to 345 kV standards, similar to those already in the corridor. New pole heights will range from approximately 65.5 feet to approximately 84 feet, with an average height of 77 feet in Morrill. Only seven of the 34 new H-frame pole structures will be located in the shoreland zone. The height of those seven structures will range from approximately 74 feet to 79 feet in height.

See Exhibit 2, Transmission Line Configuration Cross Sections, and Exhibit 3, MPRP Transmission Line Shoreland Pole Structure Information.

Additional work required to carry out these improvements includes:

- clearing of woody vegetation within CMP’s existing right-of-way that is capable of growing into the transmission line clearance zone (“capable species”), without further widening the corridor;
- use of temporary access ways for the movement of construction equipment; and
- excavation and backfilling associated with the installation and of the poles.

The work schedule for transmission line improvements in Morrill is highly dependent on securing all necessary permits and contracts and coordinating the construction in Morrill with other work on this line. At this time, work on the MPRP project is expected and be completed in 2013.

The work proposed to take place in the shoreland zone is the focus of this application.

Morrill's Shoreland Zoning Ordinance and Map

The Morrill Shoreland Zoning Ordinance is the “State of Maine Guidelines for Municipal Shoreland Zoning Ordinances...as amended through August 7, 1994...edited for use by inland communities with no coastal wetlands or tidal waters, who elect to adopt 75 foot shoreland zoning adjacent to low value and non-rated wetlands, and streams.” The Town of Morrill Shoreland Zoning Map cites an effective date of September 21, 1995 and bears the signature of the Town Clerk.

To show the proximity of CMP's transmission corridor and the proposed 115 kV transmission line to the shoreland zoning districts in Morrill, the corridor location and proposed pole locations have been superimposed on the Town's Shoreland Zoning Map using a digital Geographic Information System (GIS). This representation is as accurate as possible given the different map sources.

See Exhibit 4, Morrill Shoreland Zoning Map with CMP Corridor and MPRP Pole Locations.

Permitted Land Uses

Under Morrill's Shoreland Zoning Ordinance, electrical transmission lines are included in the definition of “essential services” (Ordinance Section 17, p 32) which, according to the Table of Land Uses (Ordinance Section 14, p 9 & 10) are a permitted use in all districts with the approval of the Planning Board, subject to specific standards in Ordinance Section 15-L, discussed below.

Shoreland Zoning Districts through Which the MPRP Will Run

The new transmission line will cross two shoreland zoning districts in five locations in Morrill:

- the 250 foot Limited Residential District on the northwest shore of Smiths Millpond; and
- the 75 foot Wetland/Stream Protection District on three streams and one wetland south of Smith's Millpond.

As the following table shows, only seven H-Frame utility pole structures proposed in Morrill will be located in a shoreland zoning district. The clearing of vegetation will be required in some of the shoreland zoning areas along the corridor and temporary access ways will run along the corridor, allowing the movement of construction equipment from one utility pole location to another.

| Shoreland Zoning District | Location | Proposed Transmission Line Development | | |
|-------------------------------------|---------------------------------------|--|------------------------|-----------------------|
| | | New Pole Structures | Clearing of Vegetation | Temporary Access Ways |
| Limited Residential (250 feet) | Northwest shore of Smiths Millpond | 2 | yes | yes |
| Wetland/Stream Protection (75 feet) | Simmons Brook | 0 | yes | no |
| Wetland/Stream Protection (75 feet) | Poland Stream | 0 | yes | yes |
| Wetland/Stream Protection (75 feet) | Unnamed stream south of Poland Stream | 0 | yes | yes |
| Wetland/Stream Protection (75 feet) | Unnamed wetland east of Doliff Pond | 5 | yes | yes |

To locate the shoreland zoning districts and MPRP development features on maps at a larger scale than the Town’s zoning map, CMP transposed the shoreland zones onto an enlarged version of a USGS map like that on which zoning appears.¹ See Exhibit 5, *Project Scope and Shoreland Zoning Maps, Maps 2 through 5*.

Exhibit 6, Project Scope and Natural Resource Maps, and Exhibit 7, Shoreland Detail Maps, show the proposed development on aerial photographs with natural resource information gathered during project planning.

Proposed MPRP Development by Shoreland Zoning District

1. Limited Residential (LR) District on Smiths Millpond (250’) Exhibit 5, Map 2.

The LR District includes approximately 5.2 acres of CMP corridor lands within 250’ of the Smiths Millpond shoreline shown on the USGS map. (Consistent with Zoning Map Note 2, this shoreline includes contiguous wetlands at the same elevation as the normal high water mark of the pond.)

The new transmission line will include two new H-Frame wooden pole structures in the Limited Residential District: #254-15 and #254-16, shown on Exhibit 5, Map 2.

Clearing of trees in the LR District will remove a strip of trees remaining between the existing transmission line and natural gas pipeline, an area of about 0.37 acres along the route of the new transmission line. A temporary equipment access way will be located within the corridor between the existing transmission line and the corridor boundary. The access way will require a

¹ The Morrill Shoreland Zoning map was created on a USGS topographic map at a scale of 1 inch = 2000 feet. At this scale, the map lines denoting the shoreland boundaries can represent as much as fifty feet on the ground. Therefore, the process of moving from one map scale to another includes a margin for error.

temporary crossing over Simmons Brook. Clearing and construction of the access way and stream crossing will be done in accordance with Exhibit 10, Environmental Guidelines, which are discussed under Part B, Land Use Standards.

2. Wetland/Stream Protection District (WSP) on Simmons Brook (75') Exhibit 5, Map 2.

This district includes about 0.3 acres of CMP corridor lands within 75' of the brook line shown on the USGS map, where the brook is not otherwise included within the LR District on Smiths Millpond. There will be no new pole structures and no access ways within in the district. Clearing will affect a small area of about 206 sq. ft. and will be done in accordance with Exhibit 10, Environmental Guidelines.

3. Wetland/Stream Protection District (WSP) on Poland Stream (75') Exhibit 5, Map 3.

This district includes approximately one acre of CMP corridor lands within 75' of the stream line shown on the USGS map. (Aerial photos and field surveys indicate the stream location has changed somewhat since the time of the USGS map.)

There will be no new pole structures within in this WSP District. Clearing of trees will affect a small area of about 415 sq. ft. A temporary equipment access way will be located between the existing and proposed transmission lines. The access way will require a temporary crossing over Poland Stream for which an existing crossing will be used. Clearing and construction of the access way and stream crossing will be done in accordance with Exhibit 10, Environmental Guidelines.

4. Wetland/Stream Protection District (WSP) on Unnamed Stream (75') Exhibit 5, Map 4.

This district includes about one acre of CMP corridor lands within 75' of the stream line shown on the USGS map. (Aerial photos and field surveys indicate the stream location has changed somewhat since the time of the USGS map.)

There will be no new pole structures located in this district.

Clearing of trees in this WSP District will remove the strip of trees remaining between the existing transmission line and natural gas pipeline, an area of about 0.07 acres along the route of the new transmission line. A temporary equipment access way will be located between the existing and proposed transmission lines. The access way will require a temporary crossing over the Unnamed Stream. Clearing and construction of the access way and stream crossing will be done in accordance with Exhibit 10, Environmental Guidelines.

5. Wetland/Stream Protection District (WSP) on Unnamed Wetland (75') Exhibit 5, Map 5.

This district includes approximately 5 acres of CMP corridor lands within 75' of the upland edge of the wetland. (Freshwater wetlands governed by the Town's shoreland zoning ordinance include non-forested areas of 10 or more acres that support wetland vegetation. See Ordinance Section 17, p. 32).

The new 115kV transmission line in this WSP District will include five (5) new H-Frame wooden pole structures in this WSP District adjacent to the freshwater wetland: #254-192, #254-93, #254-94, #254-95 and #254-96, shown on Exhibit 5, Map 5.

When superimposed on the Shoreland Zoning Map, MPRP Poles #254-192 and #254-196 are located on or just outside the WSP District boundary. For purposes of this shoreland zoning application, CMP assumes these poles to be within the WSP District, but recognizes they may be just outside the district boundary.

Within this district 0.87 acres of trees between the existing transmission line and natural gas pipeline will be cleared. A temporary equipment access way will be located between the existing and proposed transmission lines. Clearing and construction of the access way and stream crossing will be done in accordance with Exhibit 10, Environmental Guidelines.

**PART B:
LAND USE STANDARDS**

Section 15 (pp. 11-25) of the Morrill Shoreland Zoning Ordinance contains the Land Use Standards discussed in this part of the application. As described below, the project proposed by CMP satisfies each of these standards.

A. Minimum Lot Standards

Not applicable.

B. Principal and Accessory Structures

Not applicable.

C. Piers, Docks, Wharfs, Bridges, etc.

Not applicable.

D. Campgrounds

Not applicable.

E. Individual Private Campsites

Not applicable.

F. Commercial and Industrial Uses

Not applicable.

G. Parking Areas

There will be no parking areas associated with the project.

H. Roads and Driveways

There will be no new permanent roads or driveways associated with the project. (See Ordinance Section 17, pp 32 and 36.). CMP has historically maintained points of access to and access ways within the corridor 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 (up to 18 feet in width), which are not considered roads or driveways and which do not add impervious surface area, will be established for use during the construction period. This will be a progressive activity in which access is established to areas of pending construction, while access ways to areas of completed construction are closed out. The nature of these temporary access routes will be determined by CMP's environmental representative and the contractor based on conditions at the site.

Exhibit 5, Maps 2-5 illustrate the temporary access ways proposed for this project.

Temporary access way will be established for general access to the corridor for construction purposes. These temporary access ways will be in place for more than one growing season, but will be removed once all aspects of construction in that area are complete. Access to 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 the impact of access ways on streams and wetlands through the use of crane mats, temporary bridges, geo-textile fabrics, and culverts, when necessary. Appropriate erosion controls will be installed. There will be no routine grubbing (removal of root systems) within wetland crossings; however, occasional root removal and minor grading may be required to ensure mat stability and construction access safety. Such grading will be performed on a limited basis and only with prior approval by CMP's environmental representatives. Streams that are too wide to cross with crane mats or temporary bridges will be avoided.

Access ways will be installed in accordance with Exhibit 10, Environmental Guidelines.

CMP's "Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects" provides greater detail about the construction practices used to meet Land Use Standards for Roads and Driveways, Essential Services, Clearing of Vegetation for Development, Erosion and Sedimentation Control and Water Quality.

I. Signs

There will be no signage associated with the project.

J. Storm Water Runoff

The permanent conversion of vegetated areas to impervious surfaces along the corridor will be limited to the transmission line poles themselves. (The wooden H-Frame pole structures have a footprint of approximately 3.1 sq ft. per pole, or 6.3 sq ft per structure.) There will be no significant storm water run-off generated from the project. All new construction will be designed to minimize storm water run-off from the site in excess of the natural predevelopment conditions.

Clearing of vegetation elsewhere in corridor will be limited to the removal of mature trees and capable species, as necessary, to allow placement of pole structures and to ensure adequate clearance between any vegetation and the conductors. The removal of understory vegetation and ground cover will occur only as needed to install a structure, to create access to the corridor, and for puller/tensioner sites. Restoration activities following construction are designed to return site contours to pre-construction conditions and to ensure that areas disturbed during construction will be revegetated as required by CMP's Environmental Guidelines, Exhibit 10.

Clearing of mature trees and capable species will alter the vegetative cover type in some areas of the transmission line corridor. After construction, the corridor will be allowed to revegetate with shrubs and a variety of broad and narrow-leaved herbaceous vegetation as is typical of transmission corridors. Generally, the conversion of a forest cover to a scrub-shrub or early successional cover type within a transmission line corridor may improve the ability of the land to absorb runoff due to the increased density of the root mass associated with the resultant vegetative cover. Vegetation along the corridor will be maintained every 4-6 years to promote this "brush" type of cover.

K. Septic Waste Disposal

Not applicable.

L. Essential Services

(1) Where feasible, the installation of essential services shall be limited to existing public ways and existing service corridors (Ordinance Section 15(L)(1), p. 18).

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 possible. The location of new transmission lines within existing corridors, as opposed to the creation of new corridors, has multiple benefits, including minimizing the impacts to communities, individual property owners, and the environment.

Installation of the new 115 kV transmission line in Morrill will occur entirely within the existing CMP corridor. There will be no widening of the corridor by acquisition of additional land or by clearing of trees. Rather, the residual strip of capable species that lies along the route of the new transmission line and between areas already cleared for the existing transmission line and natural gas pipeline will be removed and replaced with shrub and herbaceous vegetation.

(2) Installation of essential services is not permitted in a Resource Protection or Wetland/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. (Ordinance Section 15(L)(2), p. 18).

The new transmission line will cross four Wetland/Stream Protection districts in Morrill. CMP has sited the new pole structures outside of the Wetland/Stream Protection districts associated with Simmons Brook, Poland Stream and the Unnamed Stream south of Poland Stream. However, because of the size of the wetland to be spanned, five (5) H-frame structures cannot be sited entirely outside of the WSP District associated with the unnamed wetland in the southern part of town. On the Shoreland Zoning Map, pole structures #254-192 and #254-196 will be located on the district boundary. Three other structures - #254-193, #254-194, and #254-195 – will be located within the WSP District. While these poles will be located in the WSP District, they will be located adjacent to, but not in, the unnamed wetland.

| <u>MPRP Pole Structure</u> | <u>In Wetland/Stream Prot. Dist.</u> |
|----------------------------|--------------------------------------|
| #254-192 | On boundary |
| #254-193 | Yes |
| #254-194 | Yes |
| #254-195 | Yes |
| #254-196 | On boundary |

See Exhibit 5, Maps 2-5.

There are no reasonable alternatives for locating the five pole structures outside of this district. The amount of ground disturbance associated with the five planned structures will be small (60 sq ft per structure).

In addition to these five pole structures, two new pole structures (#254-215 and #254-216) will be located in the Limited Residential District adjacent to Smiths Millpond.

Since all seven of these the new structures will be co-located with the existing transmission line in the same corridor, locating structures within these areas causes the least overall impact when compared with the alternatives. Avoiding these districts would require expanding or moving the existing transmission line corridor. The overall environmental and visual impact associated with either expanding the width of the existing corridor or moving the location of the corridor would be greater than the impact of the project as planned. Further, all along the corridor, including within the shoreland zone, CMP has identified natural resources (such as wetlands and significant wildlife habitats) and attempted to locate pole structures outside these resources and any associated buffers to the greatest extent practicable. This practice allows CMP to minimize impacts on surrounding resources. Finally, where unavoidable, construction in and adjacent to wetlands will be done in accordance with Exhibit 10, Environmental Guidelines, which identifies specific procedures to be followed to minimize impacts on wetlands.

M. Mineral Exploration and Extraction

Not applicable.

N. Agriculture

Not applicable.

O. Timber harvesting.

Not applicable.

P. Clearing of Vegetation for Development

Clearing to allow for the development of permitted uses is allowed in the Limited Residential District and the Wetland/Stream Protection District. (Ordinance Section 15 P, pp 22-23).

Removal of woody plant species that are capable of growing tall enough to reach within the required clearance distance between the conductors and vegetation is essential to ensure the reliability and safe operation of the transmission line. Due to the sag in the height above ground of electric transmission lines between poles, which varies with the distance between poles, tension on the wire, electrical load, air temperature and other changing conditions, the required reliability clearances are typically achieved by removing all capable species.

In Morrill, these species exist in a narrow band located between the existing transmission line and the natural gas pipeline, areas already cleared, and lie beneath the route of the new conductors.

See *Exhibit 5, Maps 2-5*.

In general, all trees and saplings of capable species and some tall shrubs are cut to ground level. Root systems are left in place. 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 scattered growth of small shrubs of non-capable species and herbaceous plants.

The temporary removal of other understory vegetation and ground cover will occur only as needed to install a utility pole structure, to create access to the corridor, and for puller/tensioner sites. (Infrequently, it may also be necessary to remove mature “danger trees” that are large enough and positioned so that they could fall into the conductors.)

After construction is completed, non-capable species will be allowed to grow back in 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.

Clearing of vegetation for construction and long term management of vegetation in the corridor will be done in accordance with Exhibit 10, Environmental Guidelines.

Q. Erosion and Sedimentation Control

Except for the immediate area at the base of pole structures, there is no permanent increase in impervious surface area associated with the transmission line. The amount of ground disturbance associated with the MPRP project will be limited to areas of tree clearing, the immediate sites of pole placement and temporary equipment access routes needed to carry out the project.

CMP's written soil erosion and sedimentation control plan is included as Exhibit 10, Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects, which is used on all transmission line projects. The guidelines include specifications for the installation and implementation of soil erosion and sedimentation control measures for CMP personnel, their representatives and contractors with a single, cohesive set of erosion control specifications for the MPRP. The goals of these measures are to minimize soil movement and loss, preserve the integrity of environmentally sensitive areas, and maintain existing water quality. The manual was developed in consultation with the Maine Department of Environmental Protection and is largely based on DEP's *Maine Erosion and Sediment Control BMPs*, dated March 2003, and DEP's Chapter 500.

All bid packages and contracts for work performed on the MPRP will include these guidelines. CMP representatives will ensure that the procedures contained in this manual are followed by regularly inspecting all work and requiring corrective action when necessary.

R. Soils

Based on the applicants' 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.

S. Water Quality

In addition to the erosion and sedimentation control measures that prevent siltation of waters, CMP observes restrictions on the use of fuels and herbicides within transmission corridors.

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 transmission line corridor is maintained to encourage the growth of scrub-shrub vegetation, and vegetation species that are capable of growing up into the conductors must be removed for safety and reliability reasons. CMP uses a selective herbicide program to treat areas once every 4-5 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 pose a threat to groundwater quality.

See Exhibit 10, Environmental Guidelines.

T. Archaeological and Historic Resources

Following consultation with the Maine Historic Preservation Commission (MHPC), CMP conducted extensive investigations of potential pre-historic and historic archaeological sites and historic architectural sites along the entire project corridor that may be eligible for the National Register of Historic Places (NRHP). Survey information about historic sites has been submitted to MHPC for review and recommendations. No NRHP-eligible sites were found in the Morrill shoreland zoning districts crossed by the CMP corridor.

PART C: APPROVAL CRITERIA

The Shoreland Zoning Ordinance contains eight approval criteria, each of which is discussed in this part of the application. (Ordinance Section 16 D, p.26) As is discussed below, CMP's project satisfies all of these requirements.

The proposed use will:

1. 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 line. These clearances are achieved through appropriate siting of the structures themselves and through the vegetation maintenance practices as described in this application. All construction will be in accordance with CMP's transmission standards, general industry standards, and "Good Utility Practice," including all necessary live line 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 revolves around the 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 been unable to establish 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.

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

Because of the standards and practices CMP employs in the construction and maintenance of transmission lines, described above in relation to Roads and Driveways, Storm Water Runoff, Clearing of Vegetation for Development, Erosion and Sedimentation Control and Water Quality and supported by Exhibit 10, the transmission line project will not result in water pollution, erosion, or sedimentation of surface waters.

3. Adequately provide for the disposal of all wastewater.

There will be no wastewater disposal required for this project.

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

Adverse impacts to fish and wildlife habitat are avoided principally 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, the following habitats have been identified in Morrill. As is explained below, none of the habitats will be adversely impacted by the proposed project.

Wading Bird and Waterfowl Habitat (Limited Residential District on Smiths Millpond and Wetland/Stream Protection District on Simmons Brook)

The shoreland area around Smiths Millpond, including the CMP corridor in the LR District and the Simmons Brook WSP District, has been identified as moderate value wading bird and waterfowl habitat (WWH) by the Department of Inland Fisheries and Wildlife (DIF&W). The CMP corridor includes about 5.5 acres of the 101 acre WWH (land acres). Within these acres one transmission line and a natural gas pipeline already exist; CMP proposes to add a new transmission line. Currently, a small strip of trees remains in the corridor between the existing transmission line and the pipeline. This strip, consisting of about one-half acre, will be cleared.

CMP routinely consults with DIF&W on proposed construction within WWHs. Within these areas construction is limited or prohibited during periods of breeding and nesting activity (e.g., between April 15 and July 15 of each year of construction) to minimize potential disruptions. The removal of the remaining strip of trees within the Smiths Millpond WWH will not adversely impact this habitat as surrounding areas are already cleared. In addition, installation of the transmission line will not affect the ecological functioning of the habitat as

the existing area is predominantly emergent and shrub vegetation that contains relatively few trees. This condition will continue to exist once the project is completed.

Fish Habitat (Simmons Brook, Poland Stream and Unnamed Stream)

To minimize any potential for negative impacts to stream habitat and fisheries, CMP proposes to allow vegetation to remain in place to the extent practicable and install appropriate sedimentation controls in accordance with Exhibit 10, Environmental Guidelines.

Streams will be spanned by the transmission line, and no poles will be located within the stream channels. No poles will be installed within 25 feet of the stream, and only minimal tree removal is proposed within this area. Vegetation maintenance adjacent to streams will consist of only removing those tree species that are capable of growing into the conductor safety zone during the next maintenance cycle (typically 4 to 5 years) and that are greater than 8 to 10 feet tall (capable species). Otherwise, stream side vegetation will not be disturbed during construction or during future maintenance activities, and the buffer will continue to function in a similar manner as before construction. Future maintenance activities in these areas will consist of hand removal of those capable species that are likely to encroach on the conductor safety zone within the next 4 to 5 years. The use of herbicides will not be allowed in any stream buffer areas.

Deer Wintering Areas (Wetland/Stream Protection District Unnamed Stream)

Approximately 0.2 acres of a 310 acre deer wintering area (DWA) are located within the WSP District associated with an unnamed stream. DIF&W has not designated this DWA as being either a moderate or high value DWA. As a result, this habitat is not considered to be significant wildlife habitat. No utility pole structures and no access ways will be located in the DWA. A small strip of trees within the DWA, totaling approximately 0.02 acres, will be cleared. The removal of the few remaining trees in the transmission corridor on the edge of the DWA will not adversely impact the habitat as surrounding areas have already been cleared.

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

The proposed project will take place entirely within the existing transmission line corridor, which has been largely cleared of trees for the existing transmission line, the natural gas pipeline and the AT&T cable. Only the residual strip of trees located beneath the route of the new transmission line will be cleared of woody vegetation capable of growing into the conductor safety zone. Following construction, the corridor will be maintained to promote a permanent cover of cover of lower growing shrubs and herbaceous vegetation throughout, and tree removal within the 25 foot stream shores will be limited to species that are capable of growing into the conductor safety zone during the next maintenance cycle (typically 4 to 5 years) and that are greater than 8 to 10 feet tall (capable species). Thus, a similar degree of shore cover to that which currently exists will be maintained. Since the corridor already contains structures of a similar nature, the proposed project will not significantly affect visual points of access to inland waters, and will have no impact on actual points of access to inland waters.

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

As discussed above under Archaeological and Historic Resources, surveys coordinated with the Maine Historic Preservation Commission for the MPRP project identified no National Register eligible archaeological and historic resources within Morrill's shoreland zones.

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

The transmission line corridor does not cross any designated federal flood hazard areas in Morrill (FEMA Flood Insurance Rate Map 01-07, Community #230262 A, effective September 18, 1985); nor does it include any recent flood plain soils as defined in the Ordinance (USDA Natural Resources Conservation Service, Web Soil Survey, <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>).

8. Be in conformance with the provisions of Section 15, Land Use Standards.

As discussed above under Land Use Standards, this project complies with the applicable standards in Section 15 of the Ordinance.

EXHIBIT 1

Maine Power Reliability Program (MPRP) Project Scope Map

EXHIBIT 2
Transmission Line Configuration Cross Sections

EXHIBIT 3

MPRP Transmission Line Shoreland Pole Structure Information

EXHIBIT 4

**Morrill Shoreland Zoning Map with CMP Corridor
and MPRP Pole Locations**

EXHIBIT 5
Project Scope and Shoreland Zoning Maps

EXHIBIT 6
Project Scope and Natural Resource Maps

EXHIBIT 7
Shoreland Detail Maps

EXHIBIT 8
CMP Transmission Line Corridor Abutters

EXHIBIT 9

**Proof of Right, Title or Interest
in CMP Transmission Line Corridor**

EXHIBIT 10

**Central Maine Power Company
Environmental Guidelines for Construction and Maintenance Activities on
Transmission Line and Substation Projects**