



**MAINE POWER
RELIABILITY PROGRAM**
A CENTRAL MAINE POWER COMPANY PROGRAM

**SWANVILLE, MAINE
SHORELAND ZONING PERMIT
APPLICATION**

Section 254 Transmission Line Construction

Prepared for:

Central Maine Power Company
83 Edison Drive
Augusta, Maine 04336

Prepared by:



TRC Engineers, LLC
14 Gabriel Drive
Augusta, Maine 04330

May 2010

For Office Use Only
Permit#:
Issue Date:
Fee Amount: \$52.00

TOWN OF SWANVILLE
SHORELAND ZONING PERMIT APPLICATION

GENERAL INFORMATION

(Please fill out application completely. If application is not filled out completely application may be tabled. Please keep in mind that the applicant or designee must be present at the meeting.)

1. Applicants Name: Central Maine Power company c/o Mary Smith	2. Applicants Phone #: 207-626-4006
3. Applicants Address: 83 Edison Drive, Augusta, ME 04336	
4: Property Owner: Maine Electric Power Company (MEPCO)	5: Owners Phone #: Same as Applicant
6: Property Owners Address: Same as Applicant	
7: Contractors Name: To be determined	8: Contractors Phone #: To be determined
9. Contractors Address: To be determined	
10: Location of Property: Existing CMP corridor in west Swanville	11. Tax Map/Lot #: Map 9, Lots 9-5, 9-15 and 9-18

I certify that all information given in this application is accurate, all proposed uses shall be in conformance with this application and the Swanville Shoreland Zoning Ordinance. I agree to further inspections by the Code Enforcement Officer at reasonable hours.

See Exhibit 1, Agent Authorization Letter

Applicant's Signature

Date

Cynthia A. Bastrey
Agent's Signature

May 3, 2010
Date

*** SIGNATURES ARE REQUIRED IN ORDER TO PROCESS PERMIT***

13. Description of property including all proposed construction, land clearing, road building, septic systems, and wells
 (Please note that a site plan sketch is required on page 4)

The property is the existing transmission line corridor that runs approximately 2.2 miles from the Swanville/Monroe town line to the Swanville/Waldo town line. The corridor is 270' wide and currently includes one 345kV transmission line with 20 H-Frame wooden structures situated in Swanville. Also located in the corridor are: a natural gas pipeline generally on the west side of the corridor; and an AT&T cable located about 20 feet from the east side of the corridor. The corridor is largely cleared of trees throughout its length.

The proposed project is to install a new 115 kV transmission line in the corridor west of the existing line. In the northern 1.1 miles of the corridor, the new transmission line, including 10 new transmission line structures, will be located in Swanville. In the southern 1.1 miles of the corridor, the new transmission line structures will be located in Brooks. The new structures will be similar in style to the existing structures, but shorter. The project requires the removal of woody vegetation from the west side of the corridor and the use of temporary equipment access ways to install the new structures and conductors (wires).

SHORELAND AND PROPERTY INFORMATION

14. Proposed use of project: Electric power transmission	15. Estimated Cost of construction: Total = \$5.47 million Installed/Left in Place = \$1.4 million
16. Lot area: White Brk Wetland Lim Res Dist (LRD): 4.3 acres Toddy Pond Resource Prot Dist (RPD): 6.5 acres Dead Brk Trib Stream Prot Dist (SPD): 0.6 acres	17. Frontage on road: Toddy Pond Road: 270 ft. (Frost Hill Road: 665 ft.) Monroe Road: 390 ft.
18. Sq. Ft. of lot to be covered by non vegetated surfaces: White Brook Wetland LRD: 3 existing structures + 0 new structures = 75 sq. ft. (less than 1% of lot in shoreland) Toddy Pond RPD: 1 exiting structure + 1 new structure = 84 sq. ft. (less than 1% of lot in shoreland) Dead Brook Tributary SPD: 0 existing structures + 0 new structures = 0 sq. ft. (0%)	
19. Elevation above 100 yr. flood: N/A	20. Frontage on water: White Brook Wetland: 1040 ft. Toddy Pond/Wetland: 1310 ft. Dead Brook Tributary/Wetland: 240 ft.
21. Height of Proposed Structure: White Brook Wetland LRD: N/A Toddy Pond RPD: #254-342 = 65.5 ft Dead Brook Tributary SPD: N/A	22. Existing use of property: Electric power transmission line
23. Proposed use of property: Electric power transmission lines	

NOTE: Questions 24 & 25 apply only to expansions or portions of existing structures which are less than the required set back of 100 ft. from the lake and 75 ft from streams, rivers and wetlands. N/A

<p>24. A) Sq. Ft. of portion of structure which is less than the required setback as of 1989</p>	<p>25. A) Cu. Ft. of portion of structure which is less than the required setback: as of 1989</p>
<p>24. B) Sq. Ft. of expansions in structure which is less that required setback from 1989 to present:</p>	<p>25. B) Cu. Ft. of expansions in structure which is less that required setback from 1989 to present:</p>
<p>24. C) Sq. Ft. of expansions in structure which is less that required setback:</p>	<p>25. C) Sq. Ft. of expansions in structure which is less that required setback:</p>
<p>24. D) % increase of Sq. Ft. of actual and proposed expansions of structure which is less that the required setback: $\% \text{ increase} = \frac{B+C}{A} \times 100$</p>	<p>25. D) % increase Cu. Ft. of actual and proposed expansions of structure which is less that the required setback: $\% \text{ increase} = \frac{B+C}{A} \times 100$</p>

SITE PLAN

Please include: Lot lines, Area to be cleared of trees and other vegetation, The exact position of proposed structure including, decks, porches, and out buildings with accurate setback distances from the shoreline, side and rear property lines, The location of proposed wells, septic systems driveways and areas and amounts to be filled in or graded. If the proposal is for the expansion of an existing structure, please distinguish between the existing structure and the proposed expansion.

See Exhibit 10, Site Plan: Shoreland Zoning Districts

SCALE _____ = _____ FT.

DRAW A SIMPLE SKETCH SHOWING BOTH THE EXISTING AND PROPOSED
STRUCTURES.

Front, Side and Rear Elevation

See Exhibit 6, Existing and Proposed Transmission Line Cross Sections.

ADDITIONAL PERMITS, APPROVALS AND ORREVIEWS REQUIRED

CHECK IF REQUIRED

Planning Board Review/Approval
(Subdivision, Site Plan Review)

Board of Appeals Review/Approval

Flood Hazard Development Permit

Exterior Plumbing Permit
(Approved HHE 200 Application)

Interior Plumbing Permit

DEP Permit
(Site Location, Natural Resources Protection Act) Both required

Army Corps. of Engineers Permit
(Sec. 404 of Clean Waters Act)

OTHERS

Maine Public Utility Commission (Certificate of Need and Public Convenience)

NOTE: Applicant is advised to consult with the Code Enforcement Officer and appropriate state and federal agencies to determine whether additional permits, approvals and reviews are required.

SHORELAND ZONING PERMIT CHECKLIST

- _____ Complete Shoreland Zoning permit application (Pages 1-8)
- _____ Pay appropriate fee (Attached to application original)
- _____ Lot Area (*page 2*)
- _____ % of lot covered by non-vegetated surfaces (*Page 2*)
- _____ Height of structure (*Page 2*)
- _____ Setback from high water mark (*Page 13*)
- _____ Setback from side and rear lot lines (*Exhibit 6*)
- _____ % increase of expansions of the structure which is less than required setback (*N/A*)
- _____ Copy of interior and exterior plumbing permits (*N/A*)
- _____ Copy of deed (*Listed in Exhibit 3; provided on request*)
- _____ Elevation of lowest floor to 100 year flood elevation (*N/A*)
- _____ Copy of additional permits as required (*to be provided*)
(See pg 6)

CHECKLIST FOR FURTHER REVIEW:

- _____ Copy of file to board of appeals if variance or special exception is required
- _____ Copy of file to planning board if planning board review is required

CHECKLIST FOR SITE VISIT BY CEO:

- _____ Prior to clearing and excavation
- _____ Prior to foundation: pour
- _____ Prior to final landscaping
- _____ Prior to occupancy

APPROVAL OR DENIAL OF APPLICATION

(For office use only)

THIS APPLICATION IS: _____Approved _____Denied

Map _____ Lot _____

If denied, reason for Denial:

If approved, the following conditions are prescribed:

NOTE: In approving a Shoreland zoning permit, the proposed use shall comply with the purposes and requirements of the Shoreland zoning ordinance for the Town of Swanville.

CODE ENFORCEMENT OFFICER

DATE

INSPECTION LIST

_____ Prior to clearing and excavation

_____ Prior to foundation pour

_____ Prior to final landscape

_____ Prior to occupancy

SHORELAND ZONING PERMIT APPLICATION

Introduction

The project described in these application materials is located, in part, within Swanville’s shoreland zone. Those portions of the project within the shoreland zone require approval under Swanville’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	Page 9
Part B:	Land Use Standards (from Section 15 of the Shoreland Zoning Ordinance)	Page 13
Part C:	Approval Criteria (from Section 16(D) of the Shoreland Zoning Ordinance)	Page 19
Part D:	Exhibits	At end of document

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 more than 80 Maine communities. In addition to the permits already granted by the Maine Department of Environmental Protection, the project will require approvals from the Maine Public Utilities Commission, Army Corps of Engineers, and numerous municipalities.

See Exhibit 5, Maine Power Reliability Program (MPRP) Project Scope Map.

The proposed upgrades in Swanville, 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.

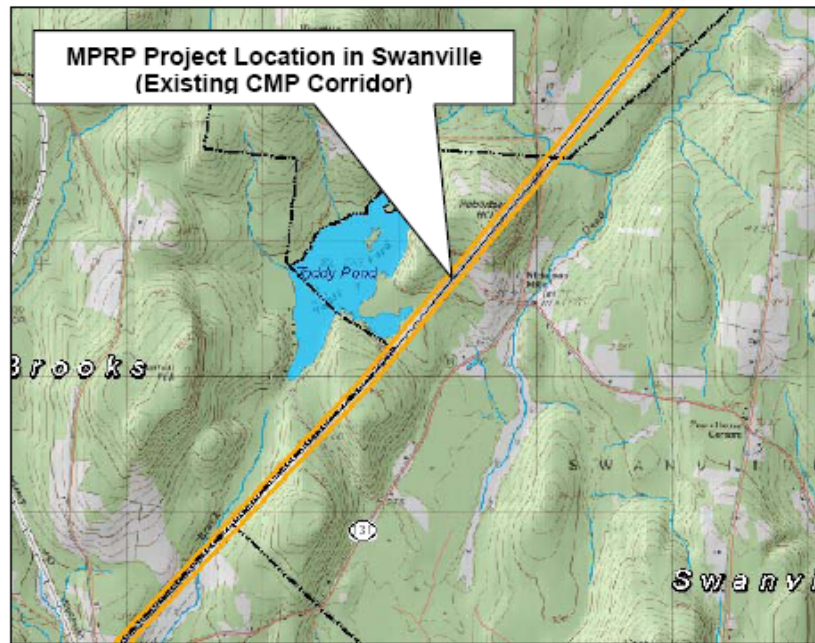
Project Description in Swanville

The project in Swanville involves construction of a new 115 kV transmission line within the existing transmission line corridor, which now includes a 345 kV transmission line. The existing transmission line (Section 388) includes 20 H-Frame wooden structures with a typical pole height of 75 feet above ground. Also located in the corridor are: a natural gas pipeline located generally on the west side of the corridor; and an AT&T cable located approximately 20 feet from the east side of the corridor. The corridor is largely cleared of trees throughout its length. The new transmission line (Section 254), to be sited west of and parallel to the existing line, will be located partly in Swanville and partly in Brooks.

The transmission line corridor in Swanville is 270 feet wide and runs about 2.2 miles from the Swanville/Monroe town line in the north to the Swanville/Waldo town line in the south. From the Swanville/Monroe town line southward approximately 1.1 miles, the entire corridor is located in Swanville. In this section of the corridor, the new transmission line will be located in

Swanville and include 10 new H-Frame structures that will range from 47.5 feet to 88 feet in height above ground.

From the 1.1 mile mark southward to the Swanville/Waldo town line, the corridor is bisected by the Swanville/Brooks town line so that a portion of corridor's width is located in the Town of Brooks. In this section of the corridor, the new transmission line will be located in Brooks. (The new line in Brooks will include 12 new H-Frame structures that will range from 52 feet to 88 feet in height above ground.)



The work required to install the new transmission line includes:

- clearing remaining vegetation within the corridor that is capable of growing into the transmission line clearance zone (“capable” vegetation). 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;
- use of temporary access ways for the movement of construction equipment and installation of poles and conductors; and
- excavation and backfilling associated with the installation of the poles.

See Exhibit 6, Existing and Proposed Transmission Line Cross Sections; Exhibit 7, MPRP Transmission Line Structure Information; and Exhibit 9, Project Scope and Natural Resources Maps.

The work schedule for transmission line improvements in Swanville is highly dependent on securing all necessary permits and contracts and coordinating the construction in Swanville with other work on CMP's transmission system. At this time, work on the MPRP project in Swanville is expected to begin in the first half of 2011 and be completed in 2013.

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

Swanville's Shoreland Zoning Ordinance and Map

The Swanville Shoreland Zoning Ordinance is the State of Maine Guidelines for Municipal Shoreland Zoning Ordinances, as amended through May 2006 and adopted by the Town in June 2009.

See Exhibit 8, Swanville Shoreland Zoning Map with CMP Corridor Location.

Permitted Land Uses

Under Swanville's Shoreland Zoning Ordinance, electrical transmission lines are included under the definition of "essential services" (Ordinance Section 17) which, according to the Table of Land Uses (Ordinance Section 14) are a permitted use in all districts with the approval of the Planning Board or CEO, subject to specific standards in Ordinance Section 15-L, Essential Services, discussed below.

Shoreland Zoning Districts Traversed by the MPRP

The new transmission line will cross three shoreland zoning districts in Swanville, listed from south to north:

- the 250 foot White Brook Wetland Limited Residential District on the wetland associated with White Brook near the intersection of the Swanville, Brooks and Waldo town lines.
- the 250 foot Toddy Pond Resource Protection District on the southeast shore of Toddy Pond and wetland; and
- the 75 foot Dead Brook Tributary Stream Protection District on the stream and wetland at the Swanville/Monroe Town line;

As the following table shows, only one new transmission line structure is proposed in Swanville shoreland zoning districts.

Shoreland Zoning District	Location	Proposed Transmission Line Development		
		New Structures	Clearing of Vegetation	Temporary Access Ways
Limited Residential	White Brook Wetland	0	yes	yes
Resource Protection	Toddy Pond	1	yes	yes
Stream Protection	Dead Brook Tributary/Wetland	0	yes	no

Exhibit 10, Site Plan: Shoreland Zoning Districts shows the proposed development in these shoreland areas.

Proposed MPRP Development by Shoreland Zoning District

1. White Brook Wetland Limited Residential District (Exhibit 10, Map 1)

The proposed transmission line will include no new structures located in the Limited Residential District in Swanville. Three new structures located in the Town of Brooks will be situated approximately 12 feet from the Swanville/Brooks town line. Installation of these structures will be accomplished via temporary access ways located in Swanville. Clearing of capable vegetation will remove the strip of trees remaining between the existing transmission line and natural gas pipeline, which is also situated along the town line. Most of the vegetation is located in Brooks; but minor clearing may also occur on the Swanville side of the line.

2. Toddy Pond Resource Protection District (Exhibit 10, Map 2)

The proposed transmission line will span this district and include one new transmission line structure. Structure #254-342 will be a three-pole structure approximately 65.5 feet tall and set back approximately 95 feet from the wetland edge (measured at the center line of the structure).

The estimated ground area of the proposed structure is 59 sq. ft. Clearing of capable vegetation within the district will affect an area approximately 95 ft. x 1400 ft. (about 3 acres) between the proposed transmission line and the corridor boundary. A temporary access way located generally east of the existing transmission line will serve the area during installation.

3. Dead Brook Tributary Stream Protection District (Exhibit 10, Map 3)

The proposed transmission line will span this district. Clearing of capable vegetation will remove a strip of trees remaining between the existing transmission line and natural gas pipeline, an area of about 0.27 acres in this district. No new structures and no temporary access ways will be located within the district

**PART B
LAND USE STANDARDS**

Section 15 of the Swanville 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

Not applicable

H. Roads and Driveways

There will be no new permanent roads or driveways associated with the project, although CMP will continue to maintain access points and ways suitable for routine and urgent maintenance by its own vehicles. Temporary access ways, which are not considered roads or driveways, and will not add any impervious surface area, will be established for use during the construction phase. 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.

Temporary access ways 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 that 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 re-establish 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 CMP's, *Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects* (Exhibit 11). The Environmental Guidelines provide greater detail about the standards and practices used to meet resource protection standards and address the construction of access ways; stream and wetland crossings (bridges, culverts, mats, etc.); surface water diversions; structural and nonstructural erosion control measures (water bars, mulch, etc.); and site restoration standards.

I. Signs

There will be no permanent signage associated with the project.

J. Storm Water Runoff

The permanent conversion of vegetated areas to impervious surfaces in the corridor will be limited to the transmission line poles themselves. The total increase in impervious areas in the shoreland zone in Swanville will be 59 square feet in the Toddy Pond Resource Protection District. 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 pre-development conditions.

Vegetation in the corridor will continue to be maintained every 4-5 years to promote the "brush" type of cover that currently exists.

K. Septic Waste Disposal

Not applicable.

L. Essential Services

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

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 Swanville will occur entirely within the existing CMP corridor. There will be no widening of the corridor by acquisition of additional land. Rather, the new transmission line will be accommodated by the removal of

“capable” vegetation along the route of the new transmission line and between the new line and the corridor boundary.

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. (Ordinance Section 15(L) (2)).

The new transmission line will cross the Toddy Pond Resource Protection District. Because of the size of the wetland to be spanned here (over 1400 feet) one structure will be sited within district.

There are no reasonable alternatives for the proposed structure location. Since the new structures will be co-located with the existing transmission line in the same corridor, siting structures within the area causes the least overall impact when compared with the alternatives. Avoiding the district would require expanding or moving the existing transmission line corridor or using taller structures to achieve the desired spans. The overall environmental and visual impact associated with either option would be greater than the impact of the project as proposed.

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 structures outside these areas to the greatest extent practicable. This practice allows CMP to minimize impacts on surrounding resources. Construction in and adjacent to wetlands will be done in accordance with CMP’s 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 or Removal of Vegetation for Activities Other Than Timber Harvesting

In a Resource Protection District abutting a great pond, no cutting of vegetation is allowed within the strip of land extending 75 feet inland from the normal high-water line, except to remove safety hazards. Elsewhere in a Resource Protection District, the cutting or removal of vegetation must be limited to that which is necessary for uses expressly authorized in that district (Ordinance Section 15 (P)(1)).

The transmission line corridor crosses the Toddy Pond Resource Protection District. Clearing of vegetation will affect an area approximately 95 ft. x 1400 ft. (about 3 acres) in this district between the new transmission line and the corridor boundary. This includes clearing within 75 feet of the wetland edge. Woody plant species that are capable of growing tall enough to reach within the required clearance zone between the conductors and ground are a potential hazard to the safe and reliable operation of the transmission line. Therefore, this vegetation will be removed and the corridor will be subsequently maintained for shrubs and other vegetation that is not capable of growing into the conductor clearance zone.

In other shoreland districts, the clearing or removal of vegetation is allowed for the development of permitted uses (Ordinance Section 15 (P) (2)).

In the Dead Brook Tributary Stream Protection District and the White Brook/Wetland Limited Residential District, the proposed clearing is limited to the residual strip of trees left between the existing transmission line and the gas pipeline, areas that had previously been cleared. Capable vegetation will be removed over about 0.3 acres in these districts.

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. Vegetation along the corridor will be maintained every 4-5 years to promote this “brush” type of cover.

Q. Erosion and Sedimentation Control

Except for the immediate area at the base of 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 soil erosion and sedimentation control plan for the project, Environmental Guidelines (Exhibit 11), includes specifications for the installation and implementation of soil erosion and sedimentation control measures by CMP personnel, their representatives and contractors. The guidelines provide a single, cohesive set of erosion control specifications for the MPRP. The goals of these measures contained in the guidelines are to minimize soil movement and

loss, preserve the integrity of environmentally sensitive areas, and maintain existing water quality. The guidelines were developed in consultation with the Maine Department of Environmental Protection and are 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 fuel storage, vehicle/equipment parking and maintenance, and refueling activity may occur within 100 feet of a protected wetland or other waterbody. No fuel storage, vehicle/equipment parking and maintenance, and refueling activity may occur within 200 feet of a private water supply.

All contractors and subcontractors working on behalf of CMP are required to comply with CMP's *Environmental Control Requirements for Contractors and Subcontractors – Oil and Hazardous Material*, included as Exhibit 12. These require that storage, transport, and use of oil, hazardous materials and wastes be in accordance with best management practice and applicable local, state, and federal regulations; that uncontrolled spills or releases to the environment be avoided; and that sufficient spill cleanup and containment supplies be maintained on-site to control releases of oil, hazardous materials or wastes. The requirements also include specific procedures for spill reporting.

After construction, the electrical transmission line corridor is maintained to encourage the growth of scrub-shrub vegetation. 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 and nozzles to minimize drift) to capable species to prevent growth (or re-growth of a cut plant) of individual plants. In sensitive resource areas, CMP uses only products with low potential for mobility and low persistence in the environment. CMP does not use herbicides within 25 feet of any waterbody, wetland with standing water, significant vernal pool depressions, or certain other sensitive resource areas. In addition, CMP does not use herbicide within 100 feet of springs and known private wells and intakes, or within 200 feet from public water supply wells and intakes. No herbicides are stored, mixed, or loaded within 100 feet of any wetland or surface

water. Crew forepersons are certified by the Maine Pesticide Control Board, and all herbicides are EPA registered and DEP approved. The selective use of herbicides within the transmission line corridor does not pose a threat to groundwater quality. For more information, see the Vegetation Management Practices for MPRP at Exhibit 13.

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 Swanville 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 (EMF) 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 the Land Use Standards and supported by CMP's Environmental Guidelines (Exhibit 11) and Environmental Control Requirements (Exhibit 12), 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 Swanville shoreland zones. As is explained below, none of the habitats will be adversely impacted by the proposed project.

Inland Wading Bird and Waterfowl Habitat (IWWH)

The shorelands around Toddy Pond wetland and White Brook wetland, including sections of the CMP corridor, have been identified as moderate value inland wading bird and waterfowl habitat (IWWH) by the Department of Inland Fisheries and Wildlife (DIF&W).

The CMP corridor adjacent to the White Brook wetland in Swanville includes about 4.3 acres of the 18.4 acre IWWH. This section of the corridor is largely cleared, except for the residual strip of trees and shrubs between the existing transmission line and the gas pipeline. This strip will be cleared to accommodate the new transmission line, affecting less than 0.1 acres of the IWWH.

The CMP corridor in Swanville adjacent to Toddy Pond wetland includes about 6.5 acres of the 22.6 acre IWWH. Within this section of corridor, one transmission line and associated cleared zone already exist. CMP proposes to add a new transmission line west of the existing line. This will include the removal of capable species from the remaining uncleared corridor and the installation of one three-pole structure. The area to be cleared includes approximately three acres in the IWWH.

CMP routinely consults with DIF&W on proposed construction within these habitat areas. Construction is limited or prohibited during periods of breeding and nesting activity (i.e., between April 15 and July 15 of each year of construction) to minimize potential disruptions. The removal of capable vegetation within these areas will not adversely impact these habitats as much of the surrounding area is already cleared and/or characterized by predominantly emergent and shrub vegetation. This condition will continue to exist once the project is completed.

Stream Habitat and Fisheries (Dead Brook)

Field studies for the MPRP identified Dead Brook as a perennial stream supporting both coldwater and warmwater fisheries. 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 11, Environmental Guidelines.

The stream will be spanned by the transmission line, but no poles will be installed near the stream and only minimal tree removal is proposed in this area. Vegetation maintenance adjacent to streams will consist of removing only 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, streamside 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. The use of herbicides will not be allowed within 25 feet of a stream.

Deer Wintering Areas (DWA)

The CMP corridor near Toddy Pond includes about 7.9 acres of a 123.2 acre deer wintering area (DWA) designated by DIF&W as being of indeterminate value.

Within this habitat, one transmission line and associated cleared zone already exist. CMP proposes to add a new transmission line west of the existing line. This will include the removal of capable species from the remaining uncleared corridor and the installation of one structure. The area to be cleared includes about three acres in the DWA.

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. Following installation of the new transmission line, the corridor will be maintained to promote a permanent cover of cover of “non-capable” shrubs and herbaceous vegetation throughout. 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 should 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 Swanville'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 Swanville (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/WebSoilSurvey.aspx>).

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.