



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

**TOWN OF WALDO, MAINE  
SHORELAND ZONING PERMIT**

**Section 254/388 Transmission Line Construction**

***Prepared for:***

Central Maine Power Company  
83 Edison Drive  
Augusta, Maine 04336

***Prepared by:***



TRC Engineers, LLC  
249 Western Avenue  
Augusta, Maine 04330

February 2009

**TOWN OF WALDO  
SHORELAND ZONING PERMIT APPLICATION  
GENERAL INFORMATION**

<b>1. Applicant</b>  Central Maine Power Company	<b>2. Applicant's Address</b>  83 Edison Drive Augusta, Maine 04336	<b>3. Applicant's Tel. #</b>  (207) 623-5321
<b>4. Property Owner</b>  Central Maine Power Company	<b>5. Owner's Address</b>  83 Edison Drive Augusta, Maine 04336	<b>6. Owner's Tel. #</b>  (207) 623-3521
<b>7. Contractor</b>	<b>8. Contractor's Address</b>	<b>9. Contractor's Tel. #</b>
<b>10. Location/Address of Property</b>  Existing right of way for transmission line corridor, from Swanville to the Morrill town lines (See Section 388 attached as Exhibit 2)	<b>11. Tax Map/Page &amp; Lot #</b>  See Deed Reference Table attached as Exhibit 4	<b>12. Zoning District</b>  Resource Protection (1) Stream Protection (3)
<b>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).</b>  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 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 require approvals from the Maine Public Utilities Commission, the Maine Department of Environmental Protection, and numerous municipalities.

**Project Description in the Town of Waldo**

The part of the program located in the Town of Waldo involves work in an existing transmission line corridor that traverses the west side of Town. In this corridor, which extends for approximately 6.2 miles from Swanville to Morrill, the project involves installing a new 115 kV transmission line (see Section 254 attached as Exhibit 2). The new transmission line will run on sixty (60) H-frame wooden structures that are typically 75 feet above ground, and will be placed on the northwest side of the existing corridor. The new line will be located along side the existing 345 kV line (Section 388) and will be of similar construction. Additional tree clearing in some portions of the existing corridor will be necessary to meet clearance and safety standards (see maps attached as Exhibit 1).

Please note that structure heights vary due to varying terrain and the need to achieve spans which will avoid or minimize impacts to natural resources. Typical above ground structure heights are described above, although some structures may exceed those heights in specific instances (see the attached table in Exhibit 3 for a description of the number of structures within specific height ranges for the new transmission line section).

The proposed upgrades in the Town of Waldo, 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.

<p><b>14. Proposed Use of Project</b></p> <p>See Property Description above</p>	<p><b>15. Estimated Cost Of Construction</b></p> <p>Approximately \$15,300,000 for the MPRP Project in the Town of Waldo</p>
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**TOWN OF WALDO  
SHORELAND AND PROPERTY INFORMATION**

<p><b>16. LOT AREA</b> CMP has right, title, and interest to approximately 200 acres within the six-mile project area in the Town of Waldo, Maine as shown in the Deed Reference table (Exhibit 4). CMP owns all 200 acres.</p>	<p><b>17. FRONTAGE ON ROAD (FT.)</b> The transmission line corridor crosses seven public roads with a corridor width of 270' at each crossing.</p>
<p><b>18. SQ. FT. OF LOT TO BE COVERED BY NON-VEGETATED SURFACES.</b> The transmission line poles will cover less than .01% of the entire corridor and project area; the remainder will remain vegetated.</p>	<p><b>19. ELEVATION ABOVE 100 YR. FLOOD</b> A portion of the project area and one pole (wooden H-frame structure) will be located within a 100-year floodplain associated with the Passagassawakeag River as discussed in greater detail on pages 6 and 7.</p>
<p><b>20. FRONTAGE ON WATERBODY (FT.)</b> See maps attached as Exhibit 1</p>	<p><b>21. HEIGHT OF PROPOSED STRUCTURE(S)</b> Above ground structure heights will range from 65-103 feet as shown in greater detail in Exhibit 3.</p>
<p><b>22. EXISTING USE OF PROPERTY</b> The property has been used as a 345 kV transmission line corridor since 1971.</p>	<p><b>23. PROPOSED USE OF PROPERTY</b> Improvements to transmission line capacity as part of the Maine Power Reliability Program</p>
<p><i>Note: Questions 24 &amp; 25 apply only to expansions of portions of existing structures which are less than the required setback</i></p>	
<p><b>A) SQ. FT. OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK AS OF 1/1/89:</b> N/A</p>	<p><b>A) CU. FT. OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK AS OF 1/1/89:</b> N/A</p>
<p><b>B) SQ. FT. OF EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK FROM 1/1/89 TO PRESENT:</b> N/A</p>	<p><b>B) CU. FT. OF EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK FROM 1/1/89 TO PRESENT:</b> N/A</p>
<p><b>C) SQ. FT. OF PROPOSED EXPANSION OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK:</b> N/A</p>	<p><b>C) CU. FT. OF PROPOSED EXPANSION OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK:</b> N/A</p>
<p><b>D) % INCREASE OF SQ. FT. OF ACTUAL AND PROPOSED EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK SINCE 1/1/89:</b>  (% INCREASE = <math>(B + C) / A \times 100</math>) N/A</p>	<p><b>D) % INCREASE OF CU. FT. OF ACTUAL AND PROPOSED EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK SINCE 1/1/89:</b>  (% INCREASE = <math>(B + C) / A \times 100</math>) N/A</p>



Central Maine Power

August 15, 2008

Bureau of Land & Water Quality  
Division of Land Resource Regulation  
Maine Department of Environmental Protection  
17 State House Station  
Augusta, ME 04333-0017

Municipalities (various)

Federal Agencies (various)

RE: Central Maine Power Company - Maine Power Reliability Program (MPRP)  
Agent Authorization

To Whom It May Concern:

Central Maine Power Company hereby authorizes TRC Engineers, Inc. and TRC staff to act as its agent for all activities associated with the acquisition of Federal, state and local permits related to the above referenced project.

Please call me at 626-9557 or email me at [gerry.mirabile@comco.com](mailto:gerry.mirabile@comco.com) with any questions. Thank you.

Sincerely,

Gerry J. Mirabile  
Lead Analyst - Compliance

An equal opportunity employer

83 Edison Drive | Augusta, ME 04336

tel (207) 623-3521

[www.comco.com](http://www.comco.com) S:\Compliance\Shared\Environmental\Projects\Transmission Lines\Maine Power Reliability Program [MPRP]\Agent Authorization Letter.doc



## **Land Use Standards**

## SHORELAND ZONING PERMIT APPLICATION

### Zoning Districts Impacted

The proposed project will traverse two districts in the Shoreland Zone, Resource Protection (RP) and Stream Protection (SP), as follows:

**1. A Resource Protection District along White Brook near the Swanville town line (Exhibit 1, Map 1).**

The project area passes through a Resource Protection District along White Brook near the Swanville town line. A Waterfowl and Wading Bird Habitat area (WWH), rated as having “moderate” value by the Maine Department of Inland Fisheries and Wildlife (IF&W), is located within the district in the area of the transmission line corridor. For this reason no clearing or construction activity will occur in this area between April 15 and July 15. This restriction will minimize the potential disruption of avian breeding and nesting activity. Four wooden H-frame structures will be installed within the district (see pages 9 and 10 for information on “Essential Services” located within Shoreland Zoning districts), although none will be in wetland areas, and none within 130 feet of White Brook. Approximately two acres of transmission line corridor land along a four tenths-mile stretch will be cleared of “capable species” (i.e., tree species that are capable of growing into the transmission line security zone thus adversely impacting the safety and reliability of the line). Herbicides will not be used within 25 feet of the brook, or any other stream or open water wetland. Construction of the transmission line is not expected to affect the ecological functionality of the WWH, stream, or wetland as the project area is largely open with emergent and shrub vegetation, containing relatively few trees. This condition will continue once the project is completed.

**2. A Stream Protection District along Dead Brook, East Waldo Road (Exhibit 1, Map 2).**

The project area passes through a Stream Protection District along the Dead Brook west of the East Waldo Road. One wooden H-frame structure will be installed 75 feet from the brook. Approximately one-half acre of transmission line corridor land within the district will be cleared of capable species. Herbicides will not be used within 25 feet of the brook, or any other stream or open water wetland. Construction of the transmission line is not expected to affect the ecological functionality of the brook or associated wetlands as the project area is largely open with emergent and shrub vegetation containing relatively few trees. This condition will continue once the project is completed.

**3. A Stream Protection District along the Passagassawakeag River (Exhibit 1, Map 5).**

The project area passes through a Stream Protection District along the Passagassawakeag River. No structures will be located within the district. Approximately one-half acre of transmission line corridor land within the district will be cleared of “capable species.” Herbicides will not be used within 25 feet of the river, or any other stream or open water wetland. Construction of the transmission line is not expected to affect the ecological functionality of the river and wetlands as the project area is largely open with emergent and

shrub vegetation containing relatively few trees. This condition will continue once the project is completed.

A 500-foot stretch of the project area is located within a 100-year floodplain associated with the Passagassawakeag River. One wooden H-frame structure will be located near the edge of the floodplain on the west side of the river, and will be 175 feet from the river at its nearest point. Construction and maintenance of the transmission line will not cause or increase flooding or cause a flood hazard to any neighboring structures. Furthermore, the project will not affect runoff or infiltration relationships as discussed on page 13.

**4. A Stream Protection District along a tributary of the Passagassawakeag River (Exhibit 1, Map 8).**

The project area passes through a Stream Protection District along a tributary of the Passagassawakeag River, which is the outlet stream from Sanborn Pond. One wooden H-frame structure will be located near the district on the west side of the stream. The structure will be more than 100 feet from the edge of the stream, and at least 60 feet from an adjacent open wetland. Approximately one-quarter acre of transmission line corridor land within the district will be cleared of “capable species.” Herbicides will not be used within 25 feet of the stream or open water wetland. The district is also within a 359-acre IF&W-zoned Deer Wintering Area (DWA) of indeterminate value. Construction of the transmission line is not expected to affect the ecological functionality of the stream, associated wetland, or DWA as the project area is largely open with emergent and shrub vegetation containing relatively few trees. This condition will continue once the project is completed.

## **Permitted Land Uses**

The MPRP is an “essential service,” which, pursuant to Section 14 and Table 1 of the Shoreland Zoning Ordinance, is a permitted use in the Resource Protection and Stream Protection districts with the approval of the Planning Board. Essential services are also subject to the specific requirements of Section 15(L) (2) of the Ordinance, addressed below.

### **Land Use Standards: Shoreland Zoning Ordinance Section 15**

#### **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, other than CMP-maintained access points and ways suitable for routine and urgent maintenance by its own vehicles. Temporary access ways, which do not add any impervious surface area, will be established for use during the construction phase (see maps in Exhibit 1). 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. In general a “temporary long-term” 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 installation, 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 through the use of crane mats, temporary bridges, geo-textile fabrics, and culverts, when necessary. Appropriate erosion controls will be installed wherever necessary. If necessary, mats will be placed parallel to the upland edge as abutments to further protect bank stability and establish stability. No extensive grubbing (grading to remove root systems) within wetland crossing areas will be done prior to mat placement. However, 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. Streams that are too wide to cross with crane mats or temporary bridges will be avoided.

#### **I. Signs**

There will be no signage associated with the project.

#### **J. 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, therefore, there will be no significant storm water run-off generated from the project.

#### **K. Septic Waste Disposal**

Not applicable.

#### **L. Essential Services**

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. Co-location of the transmission line upgrades, as opposed to the creation of new corridors, has multiple benefits, including the minimization of impacts to communities, individual property owners, and the environment.

- 1) Within the Town of Waldo, the construction of the new 115 kV transmission line will occur entirely within the existing transmission line corridor.
- 2) The corridor along which the new transmission line will run crosses a Resource Protection District at Whites Brook, and three Stream Protection districts at Dead Brook, the Passagassawakeag River, and a tributary stream of the river. Within the corridor, CMP has, to the greatest extent practicable, sited each individual H-frame structure so as to avoid, and where unavoidable to minimize, adverse impacts to surrounding uses and resources. As part of this avoidance and minimization effort, CMP has attempted to site the H-frame structures so that none are located within either the Resource Protection or Stream Protection districts. In the Town of Waldo, however, due to the fact that the existing corridor crosses one Resource Protection and three Stream Protection districts and the H-frame structures cannot be sited in a manner that allows all district to be spanned, four structures will be located in the Resource Protection District and one in a Stream Protection District. There are no reasonable alternatives for locating these structures outside these districts. 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

these districts causes the least overall impact when compared with the alternatives. Avoiding these districts would require expanding or moving the existing transmission line corridor or erecting much taller and much more substantial structures (e.g., steel towers with concrete footings) to achieve the required spans over these districts. The overall environmental and visual impacts of either of these alternatives would be greater than the impacts associated with the project as planned (see the sections related to impacts to specific Shoreland Zone Districts on pages 6 and 7 for more detailed information).

#### **M. Mineral Exploration and Extraction**

Not applicable.

#### **N. Agriculture**

Not applicable.

#### **O. Timber harvesting.**

Not applicable.

#### **P. Clearing of Vegetation for Development**

Some clearing of vegetation will be required within the service corridor to accommodate the project and ensure that the project meets federal reliability and safety standards. The amount of clearing will be limited to that which is necessary for development of the project, and is generally limited to removal of species that are capable of growing tall enough to interfere with the transmission lines (so-called “capable species”), and, in some instances, the occasional removal of mature “danger trees.” Danger trees are trees that are large enough and juxtapositioned in such a manner that they could fall into the conductor, thereby posing a severe reliability risk. The removal of danger trees is a relatively infrequent activity. 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.

The cutting work is 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.

See attached maps in Exhibit 1 and the sections related to specific Shoreland Zone Districts on pages 6 and 7 for more detailed information.

#### **Q. Erosion and Sedimentation Control**

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. 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 which is attached as Exhibit 5). 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 largely 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.

#### **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. If concrete foundations for specific poles should need to be constructed, soil borings will be conducted and the foundations will be designed in accordance with soil characteristics.

#### **S. 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 pose a threat to groundwater quality.

#### **T. Archaeological and Historic Resources**

Following consultation with the Maine Historic Preservation Commission (MHPC) CMP has conducted extensive investigations of potential pre-historic archaeological, historic archaeological and historic architectural surveys along the project corridor. Survey reports

have been submitted to the MHPC and can be provided to the Town if requested. TRC confirmed, on behalf of CMP, that these surveys documented no archaeological or historic resources within the project area in the Town.

### **Approval Standards: Shoreland Zoning Ordinance Section 16D**

#### **The proposed use will:**

##### **1. Maintain safe and healthful conditions**

The project will maintain the same safe and healthful conditions which 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 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 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. Accordingly, this standard has been met.

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

As described above with respect to Shoreland Zoning Ordinance Sections 15(J) and (S) on pages 9 and 11, the MPRP will not result in water pollution, erosion, or sedimentation to surface waters.

##### **3. 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.

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

Impacts to wildlife, scenery, and unique critical areas are 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. Identified significant wildlife habitats and natural areas, such as vernal pools and rare plant locations, will be avoided and minimized to the extent practicable through careful siting and placement of poles. Once installed the transmission line structures, due to the minimal amount of ground surface area they occupy, will have no significant impact on these critical natural areas. Significant wildlife habitats and natural areas will be avoided to the greatest extent practicable during construction, including measures that are taken to ensure any impacts will be minimal and temporary. Thus, this standard has been met. See attached maps (Exhibit 1, maps 1, 2, 5, and 8) and the discussion of impacts to specific Shoreland Zone Districts on pages 6 and 7) for more detailed information.

**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 corridor, and 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. The corridor will continue to be maintained in a vegetated state, thereby preserving a similar degree of shore cover which currently exists.

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

As discussed above on page 11 with respect to Shoreland Zoning Ordinance Section 15(T), the project will not impact any archaeological and historic resources designated in the comprehensive plan.

**7. Will avoid problems associated with floodplain development and use.**

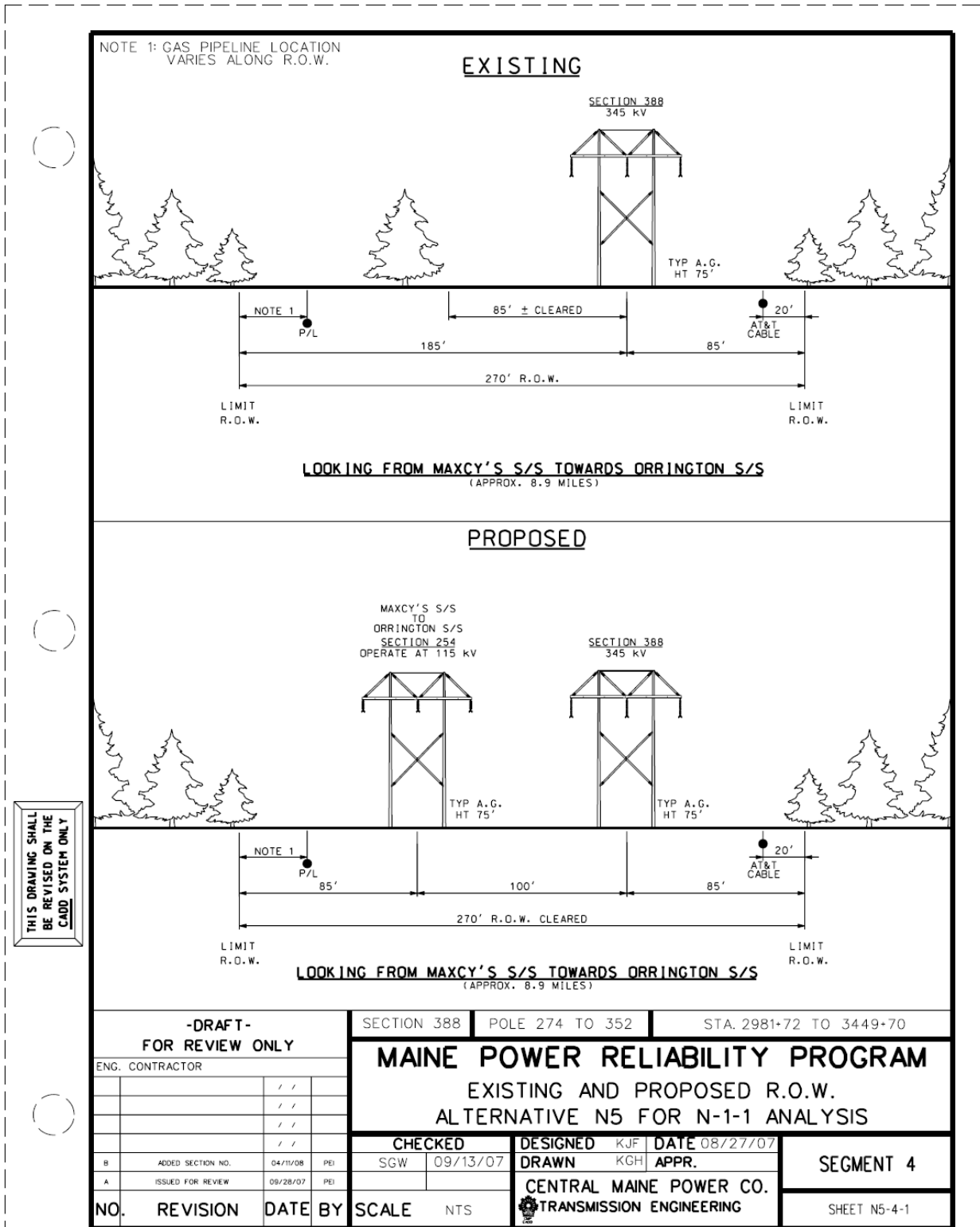
As depicted on the attached maps (Exhibit 1, map 5), a portion of the project area and one wooden H-frame structure is within a 100-year floodplain associated with the Passagasswakeag River. Because of the nature of a transmission line and the minimal additional impervious surface associated with the project, construction and maintenance of the proposed transmission line will not cause or increase flooding or cause a flood hazard to any neighboring structures. Furthermore, the program will not affect runoff or infiltration relationships. Thus, the project will avoid problems associated with floodplain development and use.

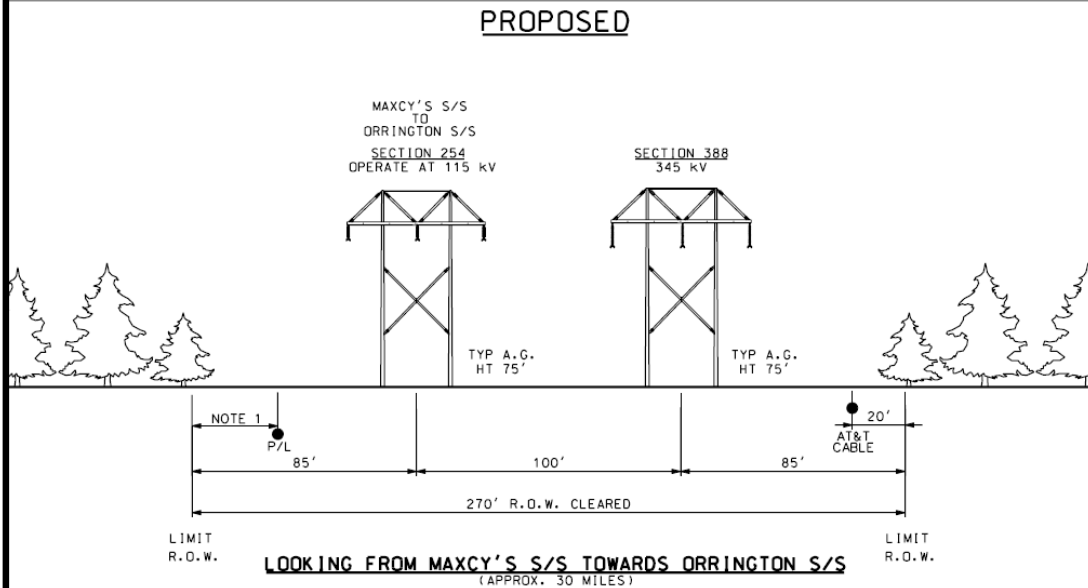
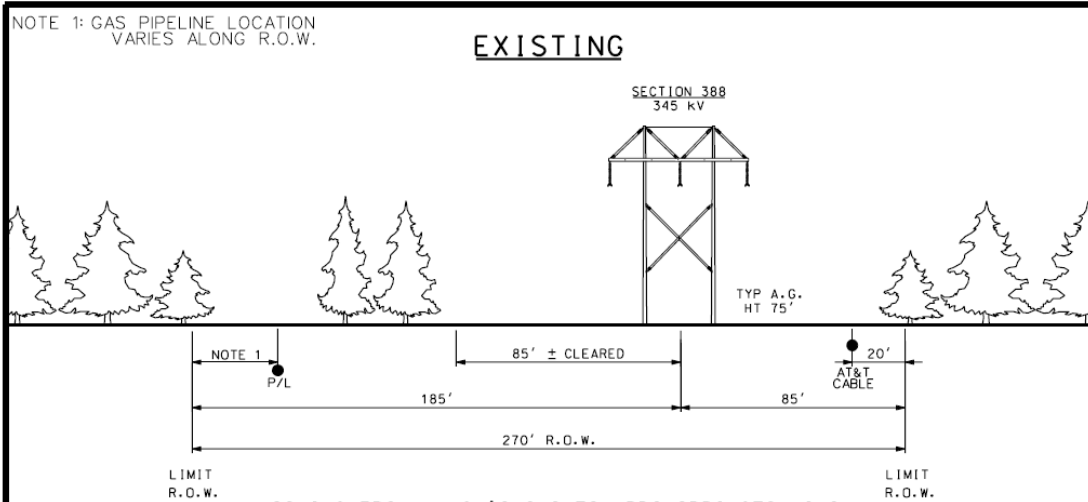
**8. Be in conformance with the provisions of Section 15, Land Use Standards.**

As discussed above with respect to Shoreland Zoning Ordinance Sections 15(A) through (T), above, this project complies with all of the provisions of Section 15 of the Shoreland Zoning Ordinance.

**EXHIBIT 1**  
**Transmission Line Corridor on Topo Maps, Sensitive Habitat, and  
Hydrographic Features**

**EXHIBIT 2**  
**Transmission Line Configuration Cross Sections**





THIS DRAWING SHALL BE REVISED ON THE CADD SYSTEM ONLY

<b>-DRAFT- FOR REVIEW ONLY</b>				SECTION 388	POLE 7 TO 274	STA. 1394+00 TO 2981+72
ENG. CONTRACTOR				<b>MAINE POWER RELIABILITY PROGRAM</b>		
				EXISTING AND PROPOSED R.O.W.		
				ALTERNATIVE N5 FOR N-1-1 ANALYSIS		
				CHECKED	DESIGNED KJF	DATE 08/27/07
B	AIDED SECTION NO.	04/11/08	PEI	SGW	09/13/07	DRAWN KGH
A	ISSUED FOR REVIEW	09/28/07	PEI			APPR.
NO. REVISION DATE BY				SCALE NTS		SEGMENT 6
				CENTRAL MAINE POWER CO.		SHEET N5-6-2
				TRANSMISSION ENGINEERING		

**EXHIBIT 3**  
**New Transmission Pole Height Ranges**

**Above Ground Height Range for New Transmission Poles**

<b>Town</b>	<b>Pole Height (in feet)</b>	<b>Number of Poles</b>
<b>Waldo (Section 254)</b>	61 - 70	9
	71 - 80	25
	81 - 90	15
	91 - 100	9
	101 - 110	2
	<b>Total</b>	<b>60</b>

**EXHIBIT 4**  
**Abutting Landowners and CMP Deed Reference Table**

## **EXHIBIT 5**

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