



MAINE POWER RELIABILITY PROGRAM

A CENTRAL MAINE POWER COMPANY PROGRAM

July 21, 2010

Arthur Strout, Code Enforcement Officer
Town of Windsor
P. O. Box 179
Windsor, ME 04363

RE: CMP Flood Hazard Development Permit Application for the Maine Power Reliability Program in Windsor

Dear Mr. Strout,

Attached please find one original and one copy of a Flood Hazard Development Permit Application by Central Maine Power Company (CMP) for the Maine Power Reliability Program (MPRP) in Windsor. The MPRP is an effort by CMP to upgrade its bulk power system. In Windsor this involves the installation of new transmission lines within the **floodplain** in three of the five transmission corridors (called "segments") that cross the Town: Segments 6, 10, and 15, and within the **floodway** in two of these corridors: Segments 10 and 15.

The proposed new lines will cross thirteen flood hazard areas in town, with a net increase in the number of poles installed in eleven of these. Three of the flood hazard areas are at wetlands, and so do not have floodways (with flowing water). Of the ten floodways that cross the project area, five have new structures proposed within them. The development is further described in the enclosed application forms.

Under Windsor's Floodplain Management Ordinance, this work is not considered new construction or substantial improvement of a structure, and therefore does not require a flood elevation certificate. The work is considered "minor development" and does require a Flood Hazard Development Permit for Minor Development (See Exhibit 1 for the State Planning Office's letter of determination). Additionally, because some new poles will be located in a floodway, CMP must demonstrate that the poles will not increase the base flood elevation in the community by more than one foot in any floodway.

This application is presented in three parts:

- Flood Hazard Development Permit Application forms;
- Supplemental Information that completes or supplements information requested on the forms; and
- Exhibits that provide required documentation, including maps and reports.

I have used the permit forms from the Maine State Planning Office, Flood Management Program website at <http://www.maine.gov/spo/flood/ordinances/index.htm>. Also included with the application is the required fee of \$50.00.

Please let me know if you have any questions or require additional information.

Sincerely,

Alison Truesdale
Environmental Specialist
TRC
400 Southborough Dr.
South Portland, ME 04106
Tel. 207-879-1930 x 135

Cc: Mark Goodwin, Burns & McDonnell

File # 166247/005

FLOOD HAZARD DEVELOPMENT APPLICATION

Windsor, Maine

(All applicants must complete entire application)

[60.3(c&d)]

Application is hereby made for a Flood Hazard Development Permit as required under Article II of the Floodplain Management Ordinance of Windsor, Maine, for development as defined in said ordinance. This permit application does not preclude the need for other municipal permit applications.

Owner: **Central Maine Power Company**
c/o Doug Herling

Address: **83 Edison Drive**
Augusta, ME 04336

Phone No.: **207-626-4006**

Applicant:

Address:

Phone No.:

Contractor: **To Be Determined**

Address:

Phone No.:

LEGAL DESCRIPTION

Is this part of a subdivision? Yes No If yes, give the name of the subdivision and lot number:

Subdivision: _____ Lot #: _____

Tax Map: _____ Lot #: _____

Address: _____
Street/Road Name

Zip Code: _____
Town/Zip Code

General explanation of proposed development: The Maine Power Reliability Program (MPRP) is a project of Central Maine Power Company (CMP) to upgrade the bulk electrical power system throughout much of its service area. In Windsor, the project involves construction of one new 115 kV electrical transmission line, two new 345 kV lines, rebuilding portions of four transmission lines, and the relocation and expansion of the substation.

Estimated Value of Proposed Development: \$ 137,921,304. (total project costs in Windsor, including development outside flood hazard areas.)

Proposed Lowest Floor elevation [for new or substantially improved structure]: NA

OTHER PERMITS

Are other permits required from State or Federal jurisdictions? Yes No
If yes, are these other permits attached? Yes No Not Applicable

TYPE OF DEVELOPMENT

Check the appropriate box to the left of the type(s) of development requested and complete information for each applicable line:

<input type="checkbox"/> 1. Residential Structure	Dimensions		Cubic Yards
<input type="checkbox"/> 1a. New Structure	_____ NA _____		_____ NA _____
<input type="checkbox"/> 1b. Add to Structure	_____ NA _____		_____ NA _____
<input type="checkbox"/> 1c. Renovations/repairs/maintenance			_____ NA _____
<input type="checkbox"/> 2. Non-Residential Structure			_____ NA _____
<input type="checkbox"/> 2a. New Structure	_____ NA _____		Number of Acres
<input type="checkbox"/> 2b. Add to Structure	_____ NA _____		_____ NA _____
<input type="checkbox"/> 2c. Renovations/repairs/maintenance			
<input type="checkbox"/> 2d. Floodproofing			
<input type="checkbox"/> 3. Accessory Structure	_____ NA _____		
<input type="checkbox"/> 4. Functionally Dependent Use:			
<input type="checkbox"/> 4a. Dock	_____ NA _____		
<input type="checkbox"/> 4b. Pier	_____ NA _____		
<input type="checkbox"/> 4c. Boat Ramp	_____ NA _____		
<input type="checkbox"/> 4d. Other	_____ NA _____		
<input type="checkbox"/> 5. Paving	_____ NA _____		
<input type="checkbox"/> 6. Conditional Use (Lobster/Fish Shed seaward of mean high tide)			
Note: Conditional Use requires add'l. information due to specific standards, public hearing, and Planning Board review.			
		<input type="checkbox"/> 7. Filling ¹	_____ NA _____
		<input type="checkbox"/> 8. Dredging	_____ NA _____
		<input type="checkbox"/> 9. Excavation	_____ NA _____
		<input type="checkbox"/> 10. Levee	_____ NA _____
		<input type="checkbox"/> 12. Mining	_____ NA _____
		<input type="checkbox"/> 13. Dam: Water surface to be created	_____ NA _____
		<input type="checkbox"/> 14. Water Course Alteration	_____ NA _____
		Note: Detailed description must be attached with copies of all applicable notifications, state and federal permits.	
		<input type="checkbox"/> 15. Storage of equipment or materials	
		<input type="checkbox"/> 16. Sewage Disposal System	
		<input type="checkbox"/> 17. Water Supply System	
		<input checked="" type="checkbox"/> 18. Other: Explain <u>Minor Development: installation of transmission structures</u>	

Attach a Site Plan – Drawn to scale with north arrow.

- Show property boundaries, floodway, and floodplain lines.
- Show dimensions of the lot.
- Show dimensions and location of existing and/or proposed development on the site.
- Show areas to be cut and filled.

Attach Statement – describing in detail how each applicable development standard in Article VI will be met.

For New Construction or Substantial Improvement also show:

- Existing and proposed grade elevations adjacent to the walls of the structure done by a Professional land Surveyor, Architect, or Engineer.
- Location and elevation of temporary elevation reference marks on the site.

Special Note:

Substantial Improvement is defined as any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. Please refer to the floodplain management ordinance, Article XIV, for more complete definitions of New Construction and Substantial Improvement.

¹ Certain prohibitions apply in Velocity Zones

The applicant understands and agrees that:

- The permit applied for, if granted, is issued on the representations made herein;
- Any permit issued may be revoked because of any breach of representation;
- Once a permit is revoked all work shall cease until the permit is reissued or a new permit is issued;
- Any permit issued on this application will not grant any right or privilege to erect any structure or use any premises described for any purposes or in any manner prohibited by the ordinances, codes, or regulations of the municipality;
- The applicant hereby gives consent to the Code Enforcement Officer to enter and inspect activity covered under the provisions of the Floodplain management Ordinance;
- If issued, the permit form will be posted in a conspicuous place on the premises in plain view; and,
- If issued, the permit will expire if no work is commenced within 180 days of issuance.

I hereby certify that all the statements in, and in the attachments to this application are a true description of the existing property and the proposed development project.

Owner: _____ Date: _____
Signature

or

Authorized Agent: _____ Date: _____
Signature

(This section to be completed by Municipal Official)

Date: Submitted _____; Fee Paid _____; Reviewed by CEO _____; Reviewed by Planning Board _____

Permit # _____ Issued by _____ Date _____

FLOOD HAZARD DEVELOPMENT PERMIT

For Minor Development

Windsor, Maine

(For Development not considered a Substantial Improvement)

This Flood Hazard Development Permit allows minor development as provided in Article V.F.3. of the Floodplain Management Ordinance of Windsor, Maine, for development in a Special Flood Hazard Area as defined in said ordinance. Development authorized by this permit must be adequately anchored to prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, be constructed with materials resistant to flood damage and be constructed by methods and practices that minimize flood damage. This permit is issued based on documentation that the information provided in the Flood Hazard Development Permit Application is in compliance with the Floodplain Management Ordinance.

<u>Tax Map:</u>	<u>Lot #:</u>
R-1	5, 11, 38, 77
R-2	106, 111, 114, 131, 131A
R-3	18, 19, 24, 29, 29A-1, 29A-2, 29A-10, 29A-11, 39, 42, 43
R-6	1, 2, 3, 11, 13, 17, 18, 28A, 28B, 29, 34, 39, 40, 42, 43
R-7	1, 2, 44
R-8	9, 23A, 28, 49, 49A, 52A, 53
R-11	36, 41, 42B, 43, 44, 46, 49, 51, 61, 63

Project Description: The Maine Power Reliability Program (MPRP) is a project by CMP to upgrade Maine's bulk power system. The portion of the project within floodplains involves upgrades in Segments 6, 10, 11 and 15. The project proposes minor development in some flood hazard areas, all of which are A Zones, as described below.

Segment 6

Wetland west of Wingood Road (see Map 6-2)

There will be two double-poled transmission structures installed within this floodplain: 254-14 and 254-15. Another structure, 388-20, is a double-pole structure that is already located within the wetland.

Floodplain associated with a stream and wetlands north of the South Belfast Road (see Map 6-3)

Three new double-pole structures are proposed within this floodplain. Two structures, 254-21 and 254-22, are within the floodplain of the stream (but not the floodway), the other, 254-23, is within the wetland floodplain. There are three existing double-poled structures within the floodplain now, on Section 388. Structure 388-26 and 388-28 are outside the floodway, structure 388-27 is within the floodway of the stream.

Segment 10

West Branch Sheepscot River, 0.4 mile northwest of new substation site (see Map 10-1)

Structure 84-283 is an existing, double-poled structure that will be removed from within the floodplain and floodway in this area. The other existing structure (67-415) will remain in place within the floodway, but be renumbered 258-226. There will be three new transmission structures within the floodplain, two of which are also in the floodway. Structure 3024-8 is a double-poled structure, and 257-220 is a single pole. Structure 257-219 will be a single pole that will be outside the floodway, on the edge of the floodplain north of the river.

West Branch Sheepscot River, 0.4 miles west of Sampson Road (see Map 10-2)

One existing structure will be removed from the floodway of the river in this area: double-poled structure 84-274. Two new structures will be installed within the floodway north of the bend in the river: one each for sections 3024, and 257. Structure 3024-16 will be a double poled structure, and structure 257-211 will be a single pole. structure 258-407 is an existing single pole that will be reused and renumbered to 258-218.

West Branch, Sheepscot River 0.9 miles west of Sampson-Greely Rd intersection (see Map 10-2)

One structure will be removed from this area: a double-poled structure numbered 84-270. No structures will be installed within the floodplain or floodway.

Confluence of Dearborn Brook and West Branch Sheepscot River, 0.3 mile north of Crosby Road (see Map 10-3)

One double-pole structure, 84-259, will be removed from the floodplain but outside the floodway. Two new structures will be installed within the floodplain north of Dearborn Brook, but not within the floodway. New structure 3024-28 will be a double pole structure, and new structure 257-197 will be a single pole. Existing structure 67-394 will remain and be renumbered 258-203. This structure is not within the floodway.

Hewitt Brook, 0.7 mile south of Tyler Road (see Map 10-5)

There is currently one structure within the floodplain of Hewitt Brook, just on the edge of the floodway: structure 67-378, a single pole. This structure will remain, but be renumbered 257-180. One new structure is proposed within the floodplain north of the brook, but outside the floodway: structure 258-185 will be a single pole.

Segment 11

Confluence of tributary and West Branch Sheepscot River 0.08 mile east of Griffen Road (see Map 15-1)

Double pole structure 68-3 will be removed from the floodplain east of the river in this area. Two new structures will be installed outside the floodway, but within the floodplain: structure 392-217 will be a double-poled structure, and 68-15 will be a triple-poled structure. Structures 68-4 and 392-216 are existing structures within the floodplain, but outside the floodway, that will remain in place.

Segment 15

West Branch of the Sheepscot River – Segment 15 Crossing (see Map 15-1)

Four existing double-poled structures will be removed from this area: structures 392-217, 392-219, and 88-2 will be removed from the floodplain; 392-218 will be removed from the floodway. Two double-poled structures will be installed within the floodway of the West Branch of the Sheepscot River: structures 60-12 and 88-13.

Tributary to Sheepscot River 0.4 mile south of Maxcy's Mill Road (see 15-1)

Two existing double-pole structures will be removed from the floodplain of a stream just west of the river, one from the floodplain (60-6), the other from the floodway (88-7). Four structures will be installed: three single-pole structures and one double-pole. Two of the single pole structures (60-17 and 88-18) will be within the floodway of the stream; 60-16 is a single pole that will be installed within the floodplain, 3025-12 is a double-poled structure that will be installed within the floodway.

Inlet of Moody Pond (see Maps 15-4 and 15-5)

One new single-pole structure (60-52) will be installed within the floodway of the inlet of Moody Pond. Another single-pole structure (88-52) will be installed within the floodplain. One double-pole structure (88-43) will be removed from the floodway.

Wetland north of Whitefield Town Line (see Map 15-5)

Within the floodplain of a wetland just north of the Whitefield town line, there will be two new single-pole structures installed – 88-60 and 60-60. Three double-pole structures will be removed from this floodplain – 88-51, 88-52, and 60-40.

The above information is summarized in the following table.

Summary by Flood Hazard Area							
Map #	Water Course	+ = new 0 = existing, remains - = existing, removed	Segment	Section	Pole #	Number of Poles per Structure	Flood way?
6-2	wetland west of Wingood Rd.	0	6	388	20	2	NA
6-2	wetland west of Wingood Rd.	+	6	254	15	2	NA
6-2	wetland west of Wingood Rd.	+	6	254	14	2	NA
6-3	Floodplain associated with a stream and wetlands north of the South Belfast Road	0	6	388	26	2	NA
6-3	Floodplain associated with a stream and wetlands north of the South Belfast Road	0	6	388	26	2	NA
6-3	Floodplain associated with a stream and wetlands north of the South Belfast Road	0	6	388	26	2	NA
6-3	Floodplain associated with a stream and wetlands north of the South Belfast Road	+	6	254	22	2	NO
6-3	Floodplain associated with a stream and wetlands north of the South Belfast Road	+	6	254	21	2	NO
10-1	West Branch Sheepscot River, 0.4 mile northwest of new substation site	0	10	258	226	1	YES
10-1	West Branch Sheepscot River, 0.4 mile northwest of new substation site	-	10	84	283	2	YES
10-1	West Branch Sheepscot River, 0.4 mile northwest of new substation site	+	10	257	219	1	NO
10-1	West Branch Sheepscot River, 0.4 mile northwest of new substation site	+	10	257	220	1	YES
10-1	West Branch Sheepscot River, 0.4 mile northwest of new substation site	+	10	3024	8	2	YES
10-2	West Branch Sheepscot River, 0.4 miles west of Sampson Road	0	10	258	218	1	YES
10-2	West Branch Sheepscot River, 0.4 miles west of Sampson Road	-	10	84	274	2	YES
10-2	West Branch Sheepscot River, 0.4 miles west of Sampson Road	+	10	257	211	1	YES
10-2	West Branch Sheepscot River, 0.4 miles west of Sampson Road	+	10	3024	16	2	YES
10-2	West Branch, Sheepscot River 0.9 miles west of Sampson-Greely Rd intersection	-	10	84	270	2	YES
10-3	Confluence of Dearborn Brook and West Branch Sheepscot River, 0.3 mile north of Crosby Road	0	10	67	394	1	NO
10-3	Confluence of Dearborn Brook and West Branch Sheepscot River, 0.3 mile north of Crosby Road	-	10	84	259	2	NO
10-3	Confluence of Dearborn Brook and West Branch Sheepscot River, 0.3 mile north of Crosby Road	+	10	257	197	1	NO
10-3	Confluence of Dearborn Brook and West Branch Sheepscot River, 0.3 mile north of Crosby Road	+	10	3024	28	2	NO
10-5	Hewitt Brook, 0.7 mile south of Tyler Road	0	10	67	378	1	NO
10-5	Hewitt Brook, 0.7 mile south of Tyler Road	+	10	258	185	1	NO
15-1	West Branch of the Sheepscot River – Segment 15 Crossing	-	11	392	219	2	NO
15-1	West Branch of the Sheepscot River – Segment 15 Crossing	-	11	392	218	2	YES
15-1	West Branch of the Sheepscot River – Segment 15 Crossing	-	11	392	217	2	NO
15-1	West Branch of the Sheepscot River – Segment 15 Crossing	-	15	88	2	2	NO
15-1	West Branch of the Sheepscot River – Segment 15 Crossing	+	15	60	12	2	YES
15-1	West Branch of the Sheepscot River – Segment 15 Crossing	+	15	88	13	2	YES
15-1	Confluence of tributary and West Branch Sheepscot River 0.08 mile east of Griffen Road	0	11	68	4	2	NO
15-1	Confluence of tributary and West Branch Sheepscot River 0.08 mile east of Griffen Road	0	11	392	216	2	NO
15-1	Confluence of tributary and West Branch Sheepscot River 0.08 mile east of Griffen Road	-	11	68	3	2	NO
15-1	Confluence of tributary and West Branch Sheepscot River 0.08 mile east of Griffen Road	+	11	68	15	3	NO
15-1	Tributary to Sheepscot River 0.4 mile south of Maxcy's Mill Road	-	15	60	6	2	NO

Summary by Flood Hazard Area							
Map #	Water Course	+ = new 0 = existing, remains - = existing, removed	Segment	Section	Pole #	Number of Poles per Structure	Flood way?
15-1	Tributary to Sheepscot River 0.4 mile south of Maxcy's Mill Road	-	15	88	7	2	YES
15-1	Tributary to Sheepscot River 0.4 mile south of Maxcy's Mill Road	+	15	60	16	1	NO
15-1	Tributary to Sheepscot River 0.4 mile south of Maxcy's Mill Road	+	15	60	17	1	YES
15-1	Tributary to Sheepscot River 0.4 mile south of Maxcy's Mill Road	+	15	88	18	1	YES
15-1	Tributary to Sheepscot River 0.4 mile south of Maxcy's Mill Road	+	15	3025	12	2	YES
15-4, 15-5	Inlet of Moody Pond	-	15	88	43	2	YES
15-4, 15-5	Inlet of Moody Pond	+	15	60	52	1	YES
15-4, 15-5	Inlet of Moody Pond	+	15	88	52	1	NO
15-5	Wetland north of Whitefield Town Line	-	15	60	40	2	NA
15-5	Wetland north of Whitefield Town Line	-	15	88	51	2	NA
15-5	Wetland north of Whitefield Town Line	-	15	88	52	2	NA
15-5	Wetland north of Whitefield Town Line	+	15	60	60	1	NA
15-5	Wetland north of Whitefield Town Line	+	15	88	60	1	NA

Summary by Waterbody			
Water Body	# of new poles ² in: floodplain/floodway	# of poles ¹ removed from: floodplain/floodway	Net # of new poles ¹ in: floodplain/floodway
Wetland west of Wingood Rd.	2/NA	0/NA	2/NA
Stream and wetlands north of the South Belfast Rd.	2/0	0/0	2/0
Wetlands north of the South Belfast Rd.	1/NA	0/NA	1/NA
West Branch Sheepscot River	7/10	10/8	-3/2
Hewitt Brook	1/0	0/0	1/0
Tributary to West Branch Sheepscot River	1/4	2/2	-1/2
Inlet of Moody Pond	1/1	0/2	1/-1
Wetland north of the Whitefield town line	2/NA	6/NA	-4/NA

² These numbers refer to the number of poles, rather than the number of structures, as some structures have multiple poles.

The permittee understands and agrees that:

- The permit is issued on the representations made herein and on the application for permit;
- The permit may be revoked because of any breach of representation;
- Once a permit is revoked all work shall cease until the permit is reissued or a new permit is issued;
- The permit will not grant any right or privilege to erect any structure or use any premises described for any purposes or in any manner prohibited by the ordinances, codes, or regulations of the municipality;
- The permittee hereby gives consent to the Code Enforcement Officer to enter and inspect activity covered under the provisions of the Floodplain Management Ordinance;
- The permit form will be posted in a conspicuous place on the premises in plain view; and,
 - The permit will expire if no work is commenced within 180 days of issuance.

I hereby certify that all the statements in, and in the attachments to this permit are a true description of the existing property and the proposed development project.

Owner: _____ Date: _____
Signature

or

Authorized Agent: _____ Date: _____
Signature

Issued by: _____ Date: _____

Permit #: _____

CERTIFICATE OF COMPLIANCE Windsor, Maine

Owner: Central Maine Power Company

Address: 83 Edison Drive

Augusta, ME 04336

Tax Map: _____ Lot #: _____

Location of Property: CMP's transmission corridors in Windsor running from the substation to the China town line, west to the Whitefield town line, and east to the Somerville town line.

The development described above has been constructed in compliance with the Floodplain Management Ordinance for Windsor, Maine.

A variance was was not required for this development.

This determination is based on: Elevation Certificate data Floodproofing Certificate data
provided by: [check appropriate box] [Required for New Construction or Substantial Improvement]

Professional land Surveyor

Name: _____

Address: _____

License #: _____

Architect

Name: _____

Address: _____

License #: _____

Professional Engineer

Name: _____

Address: _____

License #: _____

On Site Inspection by Code Enforcement Officer: _____

Code Enforcement Officer (please print)

Signature: _____ Date: _____

Flood Hazard Development Permit #: _____



MAINE POWER RELIABILITY PROGRAM

A CENTRAL MAINE POWER COMPANY PROGRAM

WINDSOR, MAINE FLOODPLAIN MANAGEMENT PERMIT APPLICATION

Segment 6: Section 254 Transmission Line Construction;
Segment 10: Sections 258 and 3024 Transmission Line Construction;
Section 67/257 Transmission Line Rebuild
Segment 15: Section 3025 Transmission Line Construction;
Sections 60 and 88 Transmission Line Rebuild

Prepared for:

Central Maine Power Company
83 Edison Drive
Augusta, Maine 04336

Prepared by:



TRC Engineers, LLC
400 Southborough Drive
South Portland, Maine 04106

July 2010

FLOODPLAIN MANAGEMENT PERMIT APPLICATION

The proposed project will cross thirteen FEMA-mapped 100-year Flood Zones. As shown on the FEMA Flood Insurance Rate Maps (FIRM) for the Town of Windsor (Community Panel No. 230251B, February 4, 1987), there are flood hazard areas associated with:

- a wetland west of Wingood Road (see FIRM 9);
- a wetland north of Route 105 (South Belfast Road), and a stream running through the latter wetland (see FIRM 9).
- the West Branch of the Sheepscot River 0.4 mile north of the new substation site and south of Route 105 (see FIRM 8);
- the West Branch Sheepscot River, 0.4 miles west of Sampson Road (see FIRM 5);
- West Branch, Sheepscot River 0.9 miles west of Sampson-Greely Rd intersection (see FIRM 5);
- Confluence of Dearborn Brook and West Branch Sheepscot River, 0.3 mile north of Crosby Road (see FIRM 5);
- Hewitt Brook, 0.7 mile south of Tyler Road (see FIRM 2);
- the West Branch of the Sheepscot River/Segment 15 Crossing (see FIRM 8);
- Confluence of tributary and West Branch Sheepscot River 0.08 mile east of Griffen Road (see FIRM 11);
- Tributary to Sheepscot River 0.4 mile south of Maxcy's Mill Road (see FIRM 8);
- Inlet of Moody Pond (see FIRM 10); and
- Wetland north of Whitefield Town Line (see FIRM 10).

All of these areas are identified as Zone A.

Transmission poles will be removed, installed, or remain in place as described in the attached Minor Development permit application form. In general, the amount of disturbed area in the immediate vicinity of the poles is estimated to be 30 square feet per pole, with structures having one, two or three poles each.

CMP proposes to install temporary accessways to cross the flood zone during construction. Measures will be taken to avoid and minimize impacts to the river, streams, and wetlands through the use of crane mats, temporary bridges, geo-textile fabrics, and culverts, if necessary.

CMP's proposed construction within this flood zone is not anticipated to have any significant impact on flood levels, given the minimal potential displacement of flood water by the

transmission line poles. In addition, the diameter of the new poles making up the H-frames would not be significantly larger than the existing poles currently located in the floodway. As such, the new poles would not result in any significant changes to flood levels. The attached Floodway Impact Study calculates that the proposed development will raise the flood level of the West Branch of the Sheepscot by 0.056 to 0.17 feet, and an unnamed tributary to the West Branch of the Sheepscot by 0.13 feet. See the Floodway Impact Study, Exhibit 2.)

Article III – Application for Permit

The following section includes the information requested in Article III of the Town of Windsor Floodplain Management Ordinance.

A. Name, Address, and Phone Number

See the Flood Hazard Development Permit Application form.

B. Map of Construction Site

The maps provided in Exhibit 3 show the extent of the MPRP in the Town of Windsor.

C. Site Plan of Existing and Proposed Development

The flood zone information from the FEMA FIRM for the Town of Windsor has been incorporated into the MPRP mapping. Exhibit 3 includes aerial photo based maps showing detailed project information in Windsor including the location of the CMP corridor, existing and proposed pole locations, proposed access ways, and flood zones.

D. Statement of Intended Use

The proposed development in the floodplain consists of construction of four new transmission lines and the rebuilding of three transmission lines within the Town of Windsor.

E. Statement of Cost

CMP estimates that construction of the proposed project within the entire Town of Windsor (and not just within the floodplain) will cost approximately \$138 million dollars.

F. Statement of Sewage System Type

Not applicable. The proposed new substation in Windsor will have a holding tank, but there will be no septic system within the flood hazard areas within the Town.

G. Specification of Dimensions

The diameter of the poles associated with the new structures proposed within the floodplains will not be significantly larger than the poles associated with the existing structures that are currently located in the floodplain. The poles associated with the structures to be installed in the corridor running from the new substation to the Somerville town line (Section 254 in Segment 6) will be smaller than the other new structures. Exhibit 4 provides a table showing the height ranges of all the proposed transmission line poles in Windsor. The maps in Exhibit 3 have labels for each structure that include the structure's designated number and height.

H - K. Elevation Information

The standards at Sections H through K apply only to the new construction or substantial improvement of “structures” as defined in the Town of Windsor Floodplain Management Ordinance. None of the transmission poles proposed within the 100-year floodplain are defined as a “structure” in the Floodplain Management Ordinance because they do not have walls or a roof. Instead, the placement of the two H-frames is defined as “minor development” under the Windsor Floodplain Management Ordinance (see the letter of determination from the State Planning Office, Exhibit 1). As such, the elevation requirements in Sections H through K do not apply to the proposed work.

L. Water Course Alteration

No poles will be placed within any flowing waters and, as such, the project will not alter or relocate the courses of the West Branch of the Sheepscot, unnamed tributaries, Hewitt Brook, or Dearborn Brook.

M. Compliance with Article VI

The project’s compliance with the Article VI Development Standards is presented in the following section.

Article VI - Development Standards

A. All Development

The transmission line poles proposed within the floodplain will be adequately anchored to prevent flotation, collapse, or lateral movement during a flood. In general, the poles are buried to a depth measuring ten percent of the total pole length plus two feet. For example, a 90-foot pole would be buried eleven feet below the ground surface. All construction will be conducted 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 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 OSHA requirements.

B. Water Supply

Not applicable.

C. Sanitary Sewage Systems

Not applicable. The proposed new substation in Windsor will have a holding tank, but there will be no sanitary sewerage system within the flood hazard areas within the Town.

D. On-site Waste Disposal Systems

Not applicable. The proposed new substation in Windsor will have a holding tank, but there will be no on-site waste disposal system within the flood hazard areas within the Town.

E. Watercourse Carrying Capacity

Not applicable.

F. Residential

Not applicable.

G. Non-residential

Not applicable.

H. Manufactured Homes

Not applicable.

I. Accessory Structures

The transmission structures do not meet the definition of “accessory structure” in Article XIII; therefore this standard does not apply.

J. Floodways

1. Transmission structures are proposed within the floodway (defined and shown on the attached maps as one half the width of the floodplain as measured from the normal high water mark to the upland limit of the floodplain) in three locations along the West Branch of the Sheepscot River, and along an unnamed tributary to the West Branch of the Sheepscot. A Floodway Impact Study conducted by a registered professional engineer (Exhibit 2) has certified that the proposed development will not raise the flood level in any of these locations by more than one foot.

2. The Floodway Impact Study is consistent with the technical criteria contained in Chapter 5 entitled “Detailed Hydraulic Analyses,” *Flood Insurance Study Guidelines and Specifications for Study Contractors*, February 2002 (amended from FEMA 37, January 1995).

K. Enclosed Areas Below the Lowest Floor

Not applicable.

L. Bridges

Not applicable.

M. Containment Walls

Not applicable.

N. Wharves, Piers and Docks

Not applicable.

**EXHIBIT 1:
LETTER OF DETERMINATION**



JOHN ELIAS BALDACCI
Governor

MARTHA E. FREEMAN
Director

**Maine Floodplain Management Program
Environmental Review
CMP - Maine Power Reliability Project**

To: Richard Paquette, Jr.
TRC
400 Southborough Drive
South Portland, Maine 04106

1. Dates:

Submitted Date: 3/20/09

Review Date: 4/22/09

2. Community: Statewide

3. Project Name or I. D. Central Maine Power Company
Maine Power Reliability Project

4. Submitted By: Richard Paquette, Senior Environmental Scientist

5. Reviewed By:

Sue Baker, State Floodplain Coordinator

6. Funding Sources: Private – No federal money

7. Type of Project: New/replacement electricity transmission lines

8. Floodplain Map Enclosed? No

9. Reviewer comments:

Based on the material you have submitted, portions of this project will be in a mapped Special Flood Hazard Area as designated on FEMA's Flood Insurance Rate Maps. Portions of the project may also be located in the floodway.

For this type of project, I offer the following guidance:

Local Floodplain Ordinance

It is important to always refer to the local Floodplain Management Ordinance to be sure the community has not adopted any standards that are more restrictive than the state standards, however, the following comments summarize the requirements in most local floodplain ordinances.

The Local FPM Ordinance will require that “all necessary permits have been obtained from those federal, state and local government agencies from which prior approval is required by federal or state law”, prior to the local FPM permit being issued.

All developments in areas of special flood hazard shall meet the following applicable standards (Article VI-1.4):

1. be designed or modified and adequately anchored to prevent flotation (excluding piers and docks), collapse or lateral movement of the development resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
2. use construction materials that are resistant to flood damage;
3. use construction methods and practices that will minimize flood damage; and,
4. use electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during flooding conditions.

Floodway Impact

If transmission line poles are being replaced within the floodway, and the new poles are same diameter, then it will not be necessary to obtain a “no rise” certification. If new poles are being proposed within the floodway, then an engineer must certify to one of two standards below, depending on whether there is a mapped floodway:

- For projects located in zone A and AE, with no regulatory floodway designated on the FIRM, an engineer’s certification is needed to demonstrate that the project will not cause any more than a one foot rise in the base flood elevation. In Maine, half the width of the floodplain (on each side of the river, brook, or stream) is considered the default floodway.
- For projects located in a designated floodway, the applicant must demonstrate, with an engineer’s certification, that the project will not cause any rise in the BFE.

Other considerations for work in a floodplain include the use of Best Management Practices for erosion control, timing construction for drier times of year, and storing equipment out of the floodplain or above the flood elevation.

Type of Local Permit

Transmission lines and poles do not meet the definition of a “structure” under the NFIP, however, it is considered “development” so a local “minor” development permit is appropriate.

Thank you for the opportunity to review this project. Please do not hesitate to contact the Maine Floodplain Management Program at 287-3261 if we can provide additional guidance or assistance.

**EXHIBIT 2:
FLOODWAY IMPACT STUDY**

**EXHIBIT 3:
FLOODPLAINS AND FLOODWAYS MAPS**

EXHIBIT 4: POLE HEIGHT RANGES

	Number of Poles Within Height Ranges							
	Segment 6		Segment 10			Segment 15		
Height Range	Section 254	Section 388	Section 257	Section 258	Section 3024	Section 88	Section 60	Section 3025
41-50	1	0	2	3	0	1	1	0
51-60	7	0	2	2	0	1	1	0
61-70	16	0	15	12	4	26	29	3
71-80	1	0	13	9	20	20	21	16
81-90	3	0	4	5	14	12	8	15
91-100	0	2	0	0	7	2	0	8
101-110	0	3	0	0	0	0	2	1
111-120	0	1	0	0	0	0	0	2
121-130	0	0	0	0	0	0	0	1
131-140	0	0	0	0	0	0	0	0
141-150	0	0	0	0	0	0	0	0
Total # Poles	28	6	36	31	45	62	62	46

**EXHIBIT 5:
AGENT AUTHORIZATION**