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October 24, 2018

Daniel Bradstreet, CEO  
City of Waterville  
Building, Electrical & Plumbing Inspections  
One Common Street  
Waterville, ME 04901

**RE: City of Waterville Land Use Permit Application, Central Maine Power Company,  
Waterville Area Transmission Project, Waterville, Maine**

Dear Dan:

CMP is planning to build a new transmission line, Section 241 and upgrade Section 281 (the existing line that is currently known as Section 241A) that extends seven miles from Benton to a new substation in Oakland (Attachment 1). The portion of the new Section 241 and the existing Section 281 within the City of Waterville is approximately 0.56 mile extending from near the Waterville Quarry Road Recreation Site to County Road and crosses Messalonskee Stream (Attachment 2 aerial map). This map provides the dimensions of the corridor, locations of structures, proposed access, streams, and wetlands and are the basis for permit applications with the MDEP and USACE. Furthermore this aerial shows the location of the expanded corridor, clearing, roads, and homes. Plan and profile maps for the portions of each line in Waterville are provided as Attachment 3. These maps are the official engineered plans for each line and provide profile views showing topography, structure heights, conductor heights and sag conditions, and ground and obstruction clearances. Attachment 4 is a schematic view of the cross-section of the corridor that shows the distances between the lines and corridor limits, and the general shape of the structures.

The transmission corridor currently has one, 115 kV line built in the 1970's and is 150 feet wide. CMP is in the process of purchasing an additional 30 feet on the eastside to expand the corridor to 180 feet wide. In the current condition (Section 281) there are eight "H" frame transmission structures in the corridor, of which three will be replaced in-kind due to deteriorated condition. For the new transmission line, Section 241, there will be a total of five new structures. Four will be steel poles that are embedded and typically backfilled with an engineered gravel mix. One structure, at the angle overlooking Messalonskee Stream will be a steel pole and will be placed on a concrete foundation. The corridor expansion requires clearing the additional 30-foot width of trees (capable species), although most of the corridor expansion is open, shrubby ground. A red maple forested wetland and mixed upland will be cleared, totaling 4,875 square feet and 2,625 square feet, respectively.

CMP is anticipating that its contractor will use Quarry Road to access the transmission corridor for the portion northeast of Messalonskee Stream and County Road will be used for that portion southwest of the stream. Tree clearing will likely be completed using low pressure track equipment such as a fellerbuncher, which avoids and minimizes ground disturbance.

Understory and shrub vegetation will not be removed and all non-capable species will be allowed to regenerate.

Per the City of Waterville Zoning Ordinance the Project is considered “Essential Services” and is required to be reviewed under the Shoreland Zone requirements since there is construction within 250 feet of Messalonskee Stream and is allowed in the Rural District if in compliance with applicable performance standards. This application address General Performance Standards that apply.

The objective of the new Section 241 transmission line construction and Section 281 improvements is to create two transmission circuits between the Heywood Road Substation in Benton, the new County Road Substation in Oakland, and the Lakewood Substation in Madison. These circuits connect local sources of electrical generation including Rice Rips and Wyman Hydro with local distributions systems.

A Site Location of Development Act and Natural Resources Protection Act combined application has been filed with the Maine Department of Environmental Protection (MDEP) and is available in the City Clerk’s office. The expected issuance date is mid-November to December 2018. An application for a General Permit Category 2 was submitted to the U.S. Army Corps of Engineers and is expected to be issued in November to December 2018. Copies of each permit will be provided as they are issued. CMP proposes to start transmission line construction, primarily clearing, in January or February 2019 with a projected energization date of November 2019.

The following attachments provide the transmission line design in support of the Shoreland Zone application:

- Attachment 1: Location Figure of the Waterville Area Transmission Project from Benton to Oakland;
- Attachment 2: Aerial maps with the transmission corridor, structures, and protected natural resources;
- Attachment 3: Plan & profile drawing for Section 241 and Plan & profile drawing for Section 281;
- Attachment 4: Schematic cross section views;
- Attachment 5: CMP Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects;
- Attachment 6: CMP Contractors & Subcontractors Oil, Hazardous Materials, and Waste
- Attachment 7: Soils map;
- Attachment 8: 100-year floodplain map; and
- Attachment 9: List of Abutters.

The transmission line corridor extends through Rural District zoning and as an Essential Service. Transmission line construction and operation is allowed if in compliance with applicable Shoreland Performance Standards and Planning Board approval.

***Essential Services:*** In order to construct the new Section 241 transmission line, CMP is expanding the existing corridor by a width of 30 feet. Typically a 115 kV transmission line requires a width of 100 feet to provide horizontal clearance between the conductors and forested communities outside the corridor. By expanding the existing corridor the need for a new “greenfield” line is eliminated reducing land needs and resource impacts. Furthermore there are no options for extending a new line from Benton to Oakland without crossing Messalonskee

Stream, therefore the stream crossing is necessary to connect the new County Road Substation with the Benton switch.

***Safe & healthful conditions:*** Safety during and after construction is a priority for CMP and its contractors. During construction CMP contractors will follow safe construction practices including having a flaggers present at Quarry and County Roads for ingress and egress of construction equipment. CMP's contractors will be required to take special care when traversing through the Quarry Road recreational area. Signage regarding awareness will be present throughout construction. Contractors will be required to communicate with recreational staff and make sure the public is aware of the construction. In general, the public is discouraged from being in the transmission corridor during construction although there is no strict prohibition. If members of the public are on site near construction they are informed of the safety issues and are requested to remain a safe distance from any active work.

During the operation phase of the transmission line, the public is generally allowed to utilize the corridor and often there are snowmobile trails and other passive recreational activities. The transmission structures and conductors do not pose any risk to the public. There are no hazardous materials or conditions that recreationalists can encounter that would otherwise be created or occur during the operational phase of the project.

***Water pollution, erosion or sedimentation in surface waters:*** Construction of the Section 241 transmission line does not require any "in stream" work. Natural vegetated buffers of shrub and understory vegetation grows to often thick conditions providing natural erosion controls. The closest work to Messalonskee stream will be clearing of vegetation within the expanded corridor. This work is completed using low pressure track equipment or sometimes hand cutting.

CMP will comply with the State of Maine Erosion Control Law and will implement its "Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects" (2016) (Attachment 5). The nearest construction to Messalonskee stream is approximately 100 feet away to the southwest. Erosion control devices will be placed between all earth work and any protected resources. CMP and its contractors will ensure that sediments do not flow off the corridor onto any properties not owned by CMP and into any protected resources.

Important components of the erosion and sedimentation control efforts include placement of erosion control devices such as silt fence, erosion control mulch berms and socks, staked hay bales, and water bars between all construction and protected resources. Upon completion of construction all exposed soils are seeded with a conservation mix and either hay or straw mulch is applied. Typically seeding is a temporary measure to stabilize the soil while vegetation regenerates naturally.

CMP has developed an erosion control guidelines document, "Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects" (2016) (Attachment 5), that specifies construction practices, erosion and sedimentation control requirements, standards, and methods that will be used to protect soil and water resources, as well as other sensitive environmental resources, during construction. In addition, CMP personnel and/or a qualified individual, to be retained by CMP or by the construction contractor, will have primary responsibility for the proper design, installation and maintenance of all erosion and sedimentation controls. These qualifications may include certification through MDEP's "Nonpoint Source Training and Resource Center". This individual will oversee and



provide guidance on the implementation of these practices throughout construction. The Guidelines (Attachment 5) will be included in bid packages and contracts for work performed on the Project to ensure the work is completed in an environmentally sensitive manner.

Implementation of these guidelines will achieve these goals:

- Minimize the extent and duration of soil disturbance;
- Protect exposed soil by diverting runoff to stabilized areas;
- Ensure proper installation of temporary and permanent erosion and sedimentation control measures (including site restoration); and
- Establish an effective erosion and sedimentation control inspection and maintenance program.

The primary goals of erosion and sedimentation control plans are to minimize soil movement and loss, preserve the integrity of environmentally sensitive areas, and maintain existing water quality. The environmental guidelines provide CMP personnel, their representatives and contractors with a single, cohesive set of erosion and sedimentation control specifications. The guidelines are designed to provide specifications for the installation and implementation of soil erosion and sedimentation control measures while allowing adequate flexibility for application of the most appropriate measures based on site-specific conditions. CMP personnel and their representatives will ensure that the procedures contained in the guidelines are followed by regularly inspecting all work and requiring corrective action if necessary.

As required, sediment barriers will be installed, maintained, and removed, following successful re-vegetation and stabilization. Erosion control mulch berms and socks can be spread over uplands and allowed to decompose. Natural regeneration and revegetation is the preferred method for reestablishment of native vegetation. Seeding with an annual grass or conservation mix will be completed in uplands to expedite stabilization of exposed upland soils. Exposed upland soils will be seeded with either an annual rye grass or conservation mix based on the recommendations in the erosion control guidelines. Wetland soils will not be seeded.

All exposed soils will be mulched either prior to forecasted storm events, at the end of each work day, or immediately after grading. All disturbed upland areas will be mulched with hay at an application rate of two bales (summer and twice that during winter) per 1,000 square feet immediately after they have been final graded. Disturbed wetland areas will be mulched with straw. Mulch should be applied so that it does not inhibit germination.

Immediately following final grading, hay mulch will be applied to all exposed upland soils on the corridor at a rate of approximately two bales per 1,000 square feet from April 16 to October 31. Immediately, following all restoration and upon removal of construction mats, wetland soils will be mulched with straw at a rate of approximately two bales per 1,000 square feet. During winter mulch applications are doubled. Mulch should be applied to prevent erosion and sedimentation, but not applied so thick as to inhibit germination of applied seed and native species. For this reason, mulch should be applied carefully in wetlands so as to not inhibit germination of native vegetation.

A qualified environmental inspector trained and with experience in erosion and sedimentation controls will oversee all site stabilization activities are effective and that the construction areas are sufficiently restored and stabilized. This inspector will be certified by the MDEP in its Nonpoint Source Training. In addition, all erosion and sedimentation controls will be inspected after storm events and/or periods of thawing and runoff to monitor and ensure the proper

continuous function of such controls. Repairs to erosion and sedimentation control measures will be conducted as needed to ensure their continued effectiveness.

CMP's contractors must follow daily protocols for avoiding, minimizing, response, and reporting regarding petroleum spills. CMP requires that contactors follow its Environmental Control Requirements for Central Maine Power Company Contractors & Subcontractors Oil, Hazardous Materials, and Waste (Attachment 6). Of primary importance is providing containment under all equipment when parked overnight, refueling, and maintenance, which is generally achieved by placing secured tarps underneath. There are restrictions regarding the conditions when and where certain types of equipment can be parked overnight in or near a protected resource. Equipment cannot be parked or refueled in shoreland areas and stream buffers, unless those areas are considerable distances from uplands and the equipment has mobility restrictions or is in place for safety reasons. When equipment breaks down or there is a fluid leak, repairs are made on the spot, as the equipment may not be mobile or moving it would exasperate the leak. When working in wetlands all equipment is on construction mats, which will generally prevent leakage into protected resources. Each piece of equipment must have a spill kit so that crews can quickly respond to a leak and provide proper clean up. All impacted soil must be removed and disposed of at a solid waste facility. The contractors must follow MDEP requirements for reporting spills.

***Stormwater Runoff:*** The transmission corridor is a mix of native soils in forested communities and transmission corridor (Attachment 7). The conversion of forested to shrub and herbaceous communities will not create any impervious areas as such will not increase runoff. Soils that are temporarily disturbed will be graded to preconstruction contours, covered with mulch, seeded, and native vegetation regenerated.

***Spawning grounds, fish, & wildlife:*** Construction of the Section 241 transmission line we will require the clearing of approximately 7,500 square feet of forested upland and wetland communities. Of this approximately 4,875 square feet is a red maple and black ash dominated wetland. Once cleared the forested habitat is converted to a shrub and herbaceous community that continues to provide habitats for a variety of Wildlife.

No work is proposed in the stream and the nearest earthwork is approximately 100 feet away, on the southwest side of the stream. CMP and its contractors will implement the appropriate erosion and sedimentation controls in order to protect water quality within the wetland and stream.

A small amount of fill impacts will result from the construction of the transmission structures. There will be three transmission structures on Section 281 that will be replaced and for Section 241 there are five new transmission structures. Each of these will require a nominal amount of fill within upland areas.

***Wastewater:*** Construction of the transmission line does not require the use of any water sources with the exception that sometimes spraying water is needed to control dust. The construction and operation of the transmission lines does not generate any wastewater.

***Conserve shoreland vegetation:*** During construction within the Shoreland Zone tree species, i.e. capable species (growing more than ten feet tall), will be removed. Clearing is restricted to the Shoreline Zone on the northeast side of Messalonskee stream and there is no need for any vegetation removal within any other portions of the corridor. All midcanopy (small trees < 4" in diameter and understory vegetation will remain undisturbed. All non-capable vegetation is

allowed to regenerate up to a height of ten feet. CMP contractors will control capable species and individuals to maintain a safety setback from the conductors. Hand cutting and selective herbicide spraying is completed on a four-year rotation as part of CMP's vegetation management program. As is seen on all CMP transmission lines shrub and understory vegetation is often thick and robust and provides excellent wildlife habitat.

***Conserve visual and access to surface waters:*** The new transmission line will not block any scenic views of the stream. There will be one additional transmission structure and conductors within 100 feet of the stream that will be visible from the nearby subdivision, but otherwise the view will not be obstructed.

There are no direct access points, including docks, boat launches, and portages to Messalonskee Stream from the CMP corridor. Recreationalists using the transmission corridor may access the stream banks for activities such as fishing and this access will not be restricted or altered once the transmission line is built.

***Archaeological & historic resources:*** Archeologists from TRC Engineers and Independent Archaeology Consultants completed all necessary surveys and subsurface testing for the Waterville Area Transmission Project, including any potential sites along Messalonskee Stream in order to comply with Section 106 of the National Historic Preservation Act. This work was approved by the Maine Historic Preservation Commission (MHPC) and was required as part of the USACE permitting. Surveys of prehistoric and historic archaeology showed that there are no archaeological resources within the transmission corridor within the City of Waterville.

TRC Engineers architectural historian completed a survey of all potential historic properties and structures (> 50 years old) within one-half mile of the transmission corridor. This study determined that there are no historic structures or properties potentially eligible for listing on the National Register of Historic Places within one-half mile of the corridor in Waterville and Oakland.

***Floodplain:*** There are no transmission structures, grading or fill activities within the hundred year flood plain along Messalonskee Stream (Attachment 8). As such there are no adverse impacts to flooding.

***Public Notice:*** Attachment 9 provides a list of abutters for which public notices can be provided. These abutters have been contacted through the MDEP permitting process and were invited to a public informational meeting held in May 2018 at the Fairfield Community Center.

### **Summary**

CMP proposes to construct a new 115 kV transmission line to be known as Section 241 and upgrade the existing 115 kV line, Section 281 to create a double circuit between the Benton switch and the County Road Substation, which is replacing the Rice Rips Substation in Oakland. This work has been designed to improve electric service reliability, reduce the duration and frequency of outages, and provide CMP with flexibility to manage electrical loads and maintenance. These transmission lines connect two important sources of hydro-power into the Waterville area and ultimately connect all the neighboring communities including Augusta. CMP will expand the existing transmission corridor by a width of 30 feet to accommodate the new Section 241 line, thereby eliminating the need to create a new corridor. In order to provide clearance from the conductors and the corridor limits capable vegetation including trees and tall shrubs are cleared, which including clearing a forested area within the Messalonskee Stream Shoreland Zone.

Daniel Bradstreet  
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Please contact me (620-3844 or [mchristopher@trcsolutions.com](mailto:mchristopher@trcsolutions.com)) with any questions or comments and I will be happy to provide you with any additional information that you need.

Sincerely,



Mark W. Christopher, MS, CWB  
Project Manager

Enclosures

cc: Adam Marquis, Jenna Overgaard, Liliane Yungi, TRC File 284473.0000

