

Attachment III



March 29, 2018

Mr. James R. Beyer
Maine Department of Environmental Protection
Division of Land Resources Regulation
106 Hogan Road
Bangor, ME 04401

**RE: Responses to Data Requests
New England Clean Energy Connect Project
Natural Resources Protection Act and Site Location of Development Act permit
applications**

Dear Mr. Beyer:

Central Maine Power Company (CMP) is pleased to provide responses to the Maine Department of Environmental Protection's (MDEP) November 20, 2017, and December 12, 2017, information requests associated with the Site Location of Development Act and Natural Resources Protection Act permit applications submitted by CMP on September 27, 2017, for the New England Clean Energy Connect (NECEC) project.

The attached document provides responses in two formats. The first provides responses to general questions included in the MDEP's information request. The second provides responses in tabular format to questions specific to the project natural resource maps included with the applications.

If you have any questions regarding these responses, please give me a call at (207) 626-9557 or email gerry.mirabile@cmpco.com.

Sincerely,

A handwritten signature in blue ink that reads "Gerry J. Mirabile".

Gerry J. Mirabile
Manager – Environmental Projects
Environmental Permitting
AVANGRID Networks, Inc.

Enclosures

cc: Samantha Horn, LUPC; Bill Hinkel, LUPC; Jay Clement, USACE; Christopher Lawrence, USDOE; Melissa Pauley, USDOE; Bernardo Escudero, CMP; Mark Goodwin, Burns & McDonnell; Matt Manahan, Pierce Atwood; Jared des Rosiers, Pierce Atwood
File: New England Clean Energy Connect



**Response to the
November 20, 2017, and December 12, 2017
MDEP Information Requests**

New England Clean Energy Connect (NECEC)



Prepared for:
Maine Department of Environmental Protection

March 29, 2018

ENVIRONMENTAL INFORMATION REQUEST
General Questions
November 20, 2017

- 1. Can the applicant use the entire ROW and move the line and structures to avoid wetland impacts? If the answer to the question above is no, then would the project result in fewer impacts if it was located entirely on the north side of the ROW?**

RESPONSE

CMP normally sites transmission lines and structures on one side of a corridor to retain the adjacent unobstructed corridor for future use. This practice also minimizes environmental impacts by reducing the need to locate future transmission lines in additional corridors by either expanding corridor or establishing new greenfield corridor.

Locating the line in an alternating fashion from one side of the corridor to the other to avoid certain natural resources (or to cross them at their narrowest points) would result in additional impacts due to an increase in the total number of structures required to construct the line, including more costly angle structures. These structures potentially require reinforced concrete foundations. Angle structures also require more space and clearing of low lying brush to install than single pole tangent structures. Shifting the transmission line within the corridor would also likely increase impacts from guy wire anchors, where angle structures require guying. Increasing the "footprint" of the line by installing numerous angle structures also increases the overall area of disturbed soils and the risk of erosion and sedimentation.

Aesthetics and visibility are also considered in locating transmission lines within a corridor. If future co-located transmission lines must cross over or under adjacent lines, structures must be considerably taller and larger than would otherwise be required, to maintain minimum safe conductor-to-ground clearances and conductor-to-conductor clearances.

CMP has utilized the considerable span length (averaging 1,000 feet) of the proposed HVDC transmission line to avoid or minimize direct fill impacts in protected natural resources within the corridor to the extent practicable, while maintaining reasonable structure heights to minimize visual impacts. While individual structure locations may change as design progresses, average span lengths between structures on the natural resource maps is unlikely to change significantly. CMP does not anticipate placing additional structures along the corridor or between those structures depicted in CMP's pending applications, but this will be confirmed as the design is finalized.

CMP conducted a preliminary comparative analysis of the greenfield portion of the NECEC project (Segment 1) to determine if shifting the transmission line to the north side of the ROW would result in fewer impacts to natural resources. For purposes of this comparison, access roads were not included in this analysis. This analysis considered direct wetland fill impacts (structures) conversion of forested wetlands (tree clearing).. The methodology for this analysis

was to shift the current alignment and structure locations to the northern side of the corridor. The south alignment as proposed directly impacts 0.024 acres, whereas the north alignment may impact approximately 0.022 acres. This results in a net change of -0.002 acres or -49 square feet or -4.83% in favor of the north alignment. For conversion of forested wetlands, the south alignment as proposed impacts approximately 72.48 acres, whereas the north alignment may impact approximately 77.05 acres. This results in a net change of +4.57 acres or +6.31% in favor of the south alignment. Based on these results, when comparing the south alignment (CMP's proposed option) to the north alignment, the difference in natural resource impacts is comparatively minor.

The preliminary comparative analysis described above did not include a detailed engineering review of the shifted alignment and structure locations and, as a result, direct impacts to resources on the northern alignment may not be optimized. To further refine the comparison and more accurately compare the southern alignment to the northern alignment, CMP is nearing completion on a 30% engineering design on the northern alignment. Once the engineering design work is complete (anticipated for late March), CMP will conduct an engineering feasibility and natural resource impact analysis and comparison, and will provide the results of that process to the MDEP. CMP will amend the application if a shift in alignment is warranted based on the results of this analysis.

2. The crossing of the Kennebec River at the gorge is over an Outstanding River Segment (38 M.R.S. § 480-P(8) and 12 M.R.S. § 403). The applicant will need to demonstrate that no reasonable alternative exists that would have less adverse effect upon the natural and recreational features of the river segment.

RESPONSE

Please see NRPA application Chapter 2: Alternatives, Section 2.4.1.2 and Site Law application Chapter 25, Section 25.3.1.2 for a detailed alternatives discussion for the Kennebec River Gorge. Those materials demonstrate that no reasonable alternative crossing location exists that would have less adverse effect upon the natural and recreational features of this river segment.

This crossing north of Moxie Stream between Moxie Gore and West Forks Plantation (the Preferred Alternative) is the least environmentally damaging practicable alternative and there is no reasonable alternative that would have less adverse impact on the natural and recreational features of the river segment when the Preferred Alternative is compared with the three potential alternatives: a crossing on CMP land about one mile downstream of Harris Dam (the CMP Land Alternative), a crossing near the Harris Station powerhouse (the Brookfield Alternative), and an underground alternative at the gorge crossing.

Portions of the CMP Land Alternative are bordered by conservation easements, portions would require new corridor, and that alternative would cross the upper gorge across the MPRP conserved lands. The Brookfield Alternative suffers similar issues, with the exception that the route would cross the river at Harris Dam. The CMP Land Alternative and the Brookfield Alternative would also result in greater environmental impacts due to increased transmission line length (the CMP Land and Brookfield Alternatives are 5.1 and 6.3 miles longer than the Preferred Alternative, respectively), and would result in a significant visual impact on

recreational users of the upper Kennebec Gorge and Indian Pond area. Accordingly, these alternatives would not have a less adverse effect on the natural and recreational features of the river segment than the Preferred Alternative. To the contrary, both alternatives present similar perceived visual concerns as the Preferred Alternative, and the Brookfield Alternative would be visible to all rafters and private boaters putting into the Kennebec River and most likely would be directly over the area where rafters are given instructions before launching. These alternatives therefore do not have less adverse effect on the natural and recreational features of the river segment, and are unreasonable as they would cost approximately \$30 million more than the Preferred Alternative.

The same is true of the underground alternative at the gorge crossing. The underground alternative would use horizontal directional drill (HDD) technology to cross beneath the Kennebec River Gorge, also costing approximately \$31 million more than standard overhead construction (see table below), and requiring additional facilities described in the applications (transition structures and a control building, as well as permanent roads on either side of the river, and the likely installation of a backup circuit in the event the primary circuit failed), rendering it more environmentally damaging than the Preferred Alternative.

The HDD would be approximately 2,900 feet in length and 360 feet in depth and would be utilized for the Kennebec River crossing to install a duct bank. The bore would pass beneath the river with approximately thirty feet (30') of clearance from the river bottom. The HVDC underground cable installation would require approximately fifteen hundred feet (1500') of open trenching to connect to the Cable Termination Stations on each side of the river. Upgrades on approximately fifteen miles of unimproved roads and associated bridges would be required to provide access to the Termination Stations in addition to the grading necessary for the stations and laydown area for drilling equipment. The two Termination Stations would be similar on both sides of the river, with an approximately 200 foot by 250 foot station footprint. CMP anticipates there would be significant natural resource impacts associated with these improvements.

Not only does the underground alternative therefore have an adverse effect on the natural features of the river segment and adjacent riparian areas, it also is exponentially more expensive than the Preferred Alternative and is therefore not a reasonable alternative. CMP estimated costs for the underground transmission line crossing and the overhead transmission line-three pole option. It should be noted that the overhead transmission line-three pole option is a design update to the five pole option originally submitted with the Project's applications on September 29, 2017. This redesign was completed to increase and maximize the forested buffer on both sides of the river bank and to remove three structures (3006-21, 3006-22 and 3006-23) from the line of sight of the users approaching the crossing point from upriver. The following table provides a cost estimate for both options and also provides the cost of each option as a percentage of the overall Project cost, for comparative purposes.

Alternatives	Cost (2021)	Cost as a percentage of overall Project cost
Underground Transmission Line	\$36,889,395	3.9%
Overhead Transmission Line (3 pole option)	\$6,076,287	0.6%

Not only is the Preferred Alternative the least expensive of the three alternatives, but it also has been designed to minimize impact to the P-RR subdistrict at the gorge by positioning transmission line structures outside of the P-RR subdistrict. Additionally, where terrain conditions permit, trees will be allowed to grow within the P-RR subdistrict adjacent to the gorge in areas where maximum tree heights are anticipated to remain below the conductor safety zone. Accordingly, the Preferred Alternative will have the least adverse effect on the natural and recreational features of the river segment when compared with the three potential alternatives.

- 3. At the site visit on November 13, 2017 the applicant appeared to be working on a redesign of the crossing which would reduce the number of structures near the Kennebec River, elevate the conductors farther above the river, increase the undisturbed buffer along the river. Please provide the new design as soon as possible and include photosimulations which show the view looking directly into the corridor from the river. Also, quantify the vegetation that will need to be cut in the “buffer” area of the Gorge, both during construction and maintenance activities. The Department will need to have an understanding of the height of the conductors and the wire safety zone as well as the height of the capable vegetation that currently exists. If vegetation will be removed in this area (through maintenance activities) we need to evaluate that.**

RESPONSE

In its NECEC Site Law application submitted on September 27, 2017, CMP proposed a five-structure configuration over the Kennebec River Gorge crossing. Based on the original cross section and photosimulation, three of the five structures would be within the line of sight of users on the river. A 150-foot wide forested buffer was proposed on the southeastern river bank and a 250-foot wide forested buffer was proposed on the northwestern river bank. The vertical distance from the lowest conductor to the river was 150 feet (+/-) at maximum sag based on this five-structure design.

CMP has since redesigned the Kennebec River Gorge crossing to increase and maximize the forested buffer on both sides of the river bank and to remove Structures 3006-21, 3006-22 and 3006-23 from the line of sight of users approaching the crossing point from upriver.

On the southeastern river bank approximately 300 feet of forested buffer will be maintained, with trees within this buffer at an average mature height of 75 feet. On the northwestern river bank approximately 550 feet of forested buffer will be maintained, with trees within this buffer also at an average mature height of 75 feet. At the centerline of the river, the conductor will be approximately 200 feet above the water level at maximum sag.

Individual trees within the two forested buffers that grow to heights which encroach into the conductor safety zone will be selectively cut and removed to maintain minimum required conductor clearance. Trees and vegetation which do not encroach into the conductor safety zone will not be cut. The conductor safety zone is depicted on the Kennebec River Gorge crossing cross-section and is approximately 30 feet below the lowest conductor at maximum sag.

Advantages of the proposed 3-Structure design compared to the 5-Structure design include: fewer structures; greater vertical clearance over water; greater vertical clearance over trees; retention of trees over a larger area of forested buffer; and screened views of the transmission line structures and the cleared corridor from the perspective of river users.

CMP provided revised photosimulations and cross sections depicting the 3-pole structure redesign in an email to MDEP on December 12, 2017. Upon further conversations with LUPC, CMP is providing (attached to this submittal) revised photosimulations, dated January 22, 2018, of the 3-pole structure redesign, at a “normal view,” removing the distortion and providing a more accurate depiction of the conductor sag over the river. Additionally, the mark-up of the panoramic photos includes overlaid scale references and additional detail of the low point of the conductor sag and the assumed average of the 75-foot existing tree height. See Attachment A: Kennebec River Gorge Photosimulations.

4. The crossing of the Kennebec River below Wyman Dam is over an Outstanding River Segment (38 M.R.S. § 480-P(8)). The applicant will need to demonstrate that no reasonable alternative exists that would have less adverse effect upon the natural and recreational features of the river segment.

RESPONSE

As discussed in detail in Chapter 2 of the NRPA Application, the Preferred Route for the HVDC line was considered against Alternative 1 (HQ Legacy) and Alternative 2 (Bigelow). Alternative 2 proposes the same route at this river crossing. Alternative 1 would avoid crossing the Kennebec River below Wyman Dam, however, when considering all other criteria, the Preferred Route causes the least environmental impacts. The crossing of the Kennebec River at this location is co-located within an existing, developed CMP transmission line corridor. The proposed crossing location and design minimizes required clearing width (75 feet) and will also minimize impacts to the long-leaved bluet natural plant community.

An alternative Kennebec River crossing location would entail establishing a new corridor and river crossing, would require additional land acquisition, and would cause additional resource impacts and approximately 150 feet of new clearing width to accommodate the new line. Accordingly, no reasonable alternative exists which would have less adverse effect upon the natural and recreational features of this river segment. The current proposed alignment within the existing CMP corridor, which minimizes clearing and natural resource impacts, is the option with the least adverse effect upon the natural and recreational features of this river segment.

- 5. The crossing of the Carrabasset River is an Outstanding River Segment. The applicant needs to demonstrate that no reasonable alternative exists that would have less adverse effect upon the natural and recreational features of the river segment. Also, please provide photosimulations for this crossing, including simulations looking directly into the corridor.**

RESPONSE

As discussed in detail in Chapter 2 of the NRPA Application, the Preferred Route for the HVDC line was considered against Alternative 1 (HQ Legacy) and Alternative 2 (Bigelow). Alternative 2 proposes the same route at this crossing. Alternative 1 would avoid crossing the Carrabasset River in this location, however, when considering all other criteria, the Preferred Route causes the least environmental impacts. The crossing of the Carrabasset River is co-located within an existing CMP corridor. The proposed crossing location and design minimize required clearing (75 feet).

An alternative Carrabasset River crossing location would entail establishing a new corridor and river crossing, would require additional land acquisition, and would cause additional resource impacts and approximately 150 feet of new clearing width to accommodate the new line. Accordingly, no reasonable alternative exists which would have less adverse effect upon the natural and recreational features of this river segment. The current proposed alignment within the existing CMP corridor minimizes clearing and natural resource impacts and is the option with the least adverse effect. The requested photosimulations will be provided in a subsequent submittal.

- 6. The Sandy River in the location of the proposed crossing is an Outstanding River Segment and the applicant will need to demonstrate that no reasonable alternative exists that would have less adverse effect upon the natural and recreational features in the river segment. Also, please provide photosimulations for this crossing including simulations that look directly into the corridor from the river.**

RESPONSE

As discussed in detail in Chapter 2 of the NRPA Application, the Preferred Route for the HVDC line was considered against Alternative 1 (HQ Legacy) and Alternative 2 (Bigelow). Alternative 2 proposes the same route at this river crossing. Alternative 1 would avoid crossing the Sandy River in this location, however, when considering all other criteria, the Preferred Route causes the least environmental impacts. The transmission line is co-located within an existing CMP corridor at this river crossing. The proposed crossing location and design minimize required clearing (75 feet).

An alternative Sandy River crossing location would entail establishing a new corridor and river crossing, would require additional land acquisition, and would cause additional natural resource impacts and approximately 150 feet of new clearing width to accommodate the new line. Accordingly, no reasonable alternative exists which would have less adverse effect upon the natural and recreational features of this river segment. The current proposed alignment within

the existing CMP corridor minimizes clearing and natural resource impacts and is the option with the least adverse effect. The requested photosimulations will be provided in a subsequent submittal.

- 7. The West Branch of the Sheepscot River is over an Outstanding River Segment in the location of the proposed crossing and the applicant will need to demonstrate that no reasonable alternative exists that would have less adverse effect upon the natural and recreational features in the river segment. Also, please provide photosimulations for this crossing including simulations that look directly into the corridor from the river.**

RESPONSE

The crossing of the West Branch of the Sheepscot River is co-located within an existing CMP corridor and requires no additional tree clearing. An alternative crossing location of the West Branch of the Sheepscot River would entail establishing a new corridor and river crossing, would require additional land acquisition, and would cause additional natural resource impacts and approximately 150 feet of new clearing width to accommodate the new line.

The West Branch of the Sheepscot River is rated as an "A" river and an Outstanding River Segment in the 1982 Maine Rivers Study for its anadromous fisheries resources. The Study determined that the scenic resources of the West Branch of the Sheepscot River were not unique or significant, i.e., they did not meet a minimum standard of significance. The proposed transmission line should have a relatively minor visual impact on the West Branch of the Sheepscot River at the crossing location, since there are already multiple transmission lines in the immediate vicinity of the river crossing and the width of the maintained transmission line corridor will not change. The current alignment in the existing CMP corridor minimizes clearing and natural resource impacts and is the option with the least adverse effect upon the natural and recreational features of this river segment. Accordingly, no reasonable alternative exists which would have less adverse effect upon the natural and recreational features of this river segment. The requested photosimulations will be provided in a subsequent submittal.

ENVIRONMENTAL INFORMATION REQUEST
General Questions
December 12, 2017

- 1. Please describe the non-specular conductors. Where are these to be located, along the entire length of the project or only in certain locations?**

RESPONSE

Non-specular conductor is aluminum conductor that has had its surface either mechanically or chemically treated to reduce its reflectivity. Non-specular conductor surface has a smooth matte gray finish which blends in with the environment. Non-specular finish is typically achieved by passing the conductor through a sandblast machine in which the conductor surface is blasted with a very fine mild abrasive grit to produce this matte finish. The reflectivity and color of the finished cable is specified by ANSI C7.69 Specifications. Non-specular conductor is proposed only at the Kennebec River Gorge crossing.

- 2. How durable is the coating and does weathering change its appearance?**

RESPONSE

As described above, the process does not entail applying a coating that would weather over time, revealing a conductor surface that is more reflective. The conductor is physically altered to produce a less reflective surface, and this finish will endure for the life of the conductor. Furthermore, standard conductor is initially reflective but over a period of 2-5 years it weathers and exhibits characteristics similar to non-specular conductor.

- 3. Despite what Section 7 of the Site Location application says at the top of page 44, there are numerous structures located within 25 feet of rivers, streams, or brooks identified on the Waterbody Crossing Table. The closest one is a structure located with one-foot of Chase Stream in Moscow. For those crossings where a structure is located within 25 feet of the river, stream, or brook please provide a site-specific erosion control plan for that crossing. Also, please provide additional information on why these structures cannot be located further from these resources.**

RESPONSE

As the transmission design progresses, structure locations will be modified to maintain a minimum 25-foot setback from waterbodies to the maximum extent practicable. CMP will prepare and submit a site-specific erosion and sedimentation control plan for all structures that cannot be sited greater than 25 feet from a waterbody. A revised waterbody table will be provided in a subsequent submittal.

- 4. There appears to be some discrepancies in the Waterbody Crossing Table, particularly around the streams in mile 73 on Segment 2. The table has a crossing listed of ISTR-73-04, but I could not locate that stream on the resource maps. There is a stream labeled PSTR-73-04. Please recheck the crossing table with the resource maps to make sure they are correct.**

RESPONSE

ISTR-73-04 was delineated as part of the NECEC resource data collection, however, upon final route selection, this resource was outside the project right-of-way. Waterbodies outside of the project corridor were inadvertently included on the Waterbody Crossing Table. The table will be revised to omit those resources that are outside of the NECEC project right-of-way/CMP's ownership, and this table will be provided in a subsequent submittal.

- 5. Between Maine Yankee and structure 3027-204 there are no proposed structures and the line appears to run on existing structures. Is this correct? Are you going to utilize the existing structures?**

RESPONSE

Yes, as shown on the typical cross sections included in Attachment 1 of the Site Law application, the Section 3027 transmission line will be installed on existing lattice tower structures in this portion of Segment 5.

- 6. The Compensatory Mitigation package only deals with impacts to freshwater wetlands, IWWHs and SVPs. There is no discussion about compensation for impacts to other resources, such as cold-water fisheries or impacts to existing recreational uses of the Outstanding River Segments. The project crosses 67 rivers, streams, or brooks which contain brook trout habitat and five Outstanding River Segments and according to the vegetation management plan all vegetation over ten feet tall will be removed. While the Department has not yet made a determination whether the impacts to these resources are unreasonable there will certainly be impacts to these resources. Please provide a mitigation package to compensate for these impacts. The Department envisions this mitigation package will be the responsibility of CMP to implement, not simply providing additional ILF monies.**

RESPONSE

As stated in Section 13.0 of the NRPA Application, CMP intends to offset unavoidable impacts to natural resources through a contribution to the In-Lieu Fee ("ILF") Compensation Program. CMP used the ILF Fact Sheet as the foundation to identify those resources which have prescribed "ILF resource compensation rates" and "resource multipliers." Those resources with associated compensation formulas were identified in the Summary of Resource Impacts (Table 13-1). CMP will continue to engage the MDEP and USACE to assess project impacts to functions and values of protected natural resource areas and methods to avoid, minimize or mitigate those impacts through design, location, construction practices, ILF contribution and/or

compensatory mitigation parcels. CMP will request an interagency meeting with the MDEP and the USACE in Spring 2018 and will come to a mutually acceptable agreement on the terms of compensation for project impacts.

7. The noise report for the Fickett Road Substation states, “Without the operation of the cooling fans, the STATCOM would be under 40 dBA at the north property line...” What would the sound levels be with the cooling fans included in the modeling? In addition, the report indicates that this portion of the project may generate tonal sounds and therefore be subject to a 5-dBA penalty meaning the sound levels would need to be less 40-dBA at the nearest protected location. The noise contour map shows the 40-dBA line crossing the property line to the north and impacting PL1 and PL2. Please describe what noise mitigation measures will be taken to bring the project into compliance with the noise standard.

RESPONSE

For the Fickett Road Substation, cooling fan sound is included in the modeling results and associated figures. The above-referenced statement was intended to explain that broadband cooling fan noise (not tonal) dominates sound levels at the property line on the north side of the substation (PL2). Therefore, a 5 dBA tonal penalty was not added at this location. Mitigation measures would not be needed at this location since overall levels are modeled and anticipated to be below 45 dBA, and no tonal penalty would be added to the measured levels. Sound levels at all receivers with the fans off are modeled and anticipated to be below 40 dBA.

Note: the footnotes on Table 5-14 in the application are incorrect. The table should look like the table shown below. PL2 is dominated by non-tonal cooling fan noise, and therefore was not assessed a 5 dBA penalty.

Table 5-14: Modeled Operational Sound Levels

Modeled Receptor	Modeled Sound Level ^a (dBA)	Sound Level Requirement (dBA)
PL1 – Property Line	40.7	45
PL2 – Property Line ^b	41.9	45
PL3 – Property Line	35.9	45
PL4 – Property Line	36.4	45
PL5 – Property Line	27.5	45
PL6 – Property Line	30.7	45

(a) Modeled sound level is the substation sound level with an expected 5-dBA tonal penalty added.

(b) No tonal penalty applied to this location. Sound is dominated by cooling modules which are not tonal.

8. The noise report for the Coopers Mills Road Substation states that it is unclear whether this portion of the project will produce tonal sound, but even without a 5 dBA penalty, the anticipated sound levels will exceed the noise standards. Please analyze the sound levels from the equipment to be installed to determine if it creates tonal sound. Please describe what additional noise mitigation measure you propose to bring the project into compliance with the noise standards.

RESPONSE

As a conservative approach, it is assumed the substation will emit tonal sounds at the property line. The substation equipment (i.e., transformers and reactors) generates tones, per the MDEP definition, that could be measured at the property line when background sounds are low. For compliance demonstration, a 5 dBA penalty would be added to overall measured sound levels if a tone were present at that location, and the sound level with the penalty applied must remain below 45 dBA. Therefore, mitigation has been designed and proposed to limit sound emitted by the substation below 45 dBA minus the 5 dBA penalty (i.e., 40 dBA) at all points along the property line.

Source sound levels for the existing transformers and STATCOM equipment have been updated in the model to reflect the recently provided, vendor-specific sound levels for similar STATCOM equipment currently being installed at Coopers Mills Substation. With the change, the model-predicted sound levels are slightly higher than the previous submission. The substation property lines have also been updated to include all properties owned by CMP near the Coopers Mills Substation.

In order to limit substation sound to below 40 dBA at all property lines, walls were modeled next to the main transformer and next to the new STATCOM cooling fans. The transformer sound wall was designed to be 20 feet tall by 105 linear feet, in an "L" shape on the north and east sides of the transformer. The wall next to the STATCOM cooling fans was designed to be 10 feet tall by 70 linear feet, located on the north side of the fans. The new substation layout with the sound wall locations is depicted in Figure B-1 of Attachment B. The sound contours for the new substation layout are included as Figure B-2 of Attachment B.

The updated maximum property line sound levels are provided below in Table 1. The table includes sound levels for the substation with and without the walls. Each sound level shown in the table has been increased by 5 dBA to reflect the potential tonal penalty that could be applied when compared with the limits.

Table 1: Modeled Operational Sound Levels with Tonal Penalty

Modeled Receptor	Modeled Sound Level without Sound Walls ^a (dBA)	Modeled Sound Level with Sound Walls ^a (dBA)	Sound Level Requirement (dBA)
PL1 – Property Line	39.9	40.1	45
PL2 – Property Line	46.2	44.3	45
PL3 – Property Line	46.1	43.4	45
PL4 – Property Line	47.6	44.3	45

(a) Modeled sound level is the substation sound level including the addition of an expected 5 dBA tonal penalty.

Modeling indicates that with the two sound walls installed, the Coopers Mills Substation with the new STATCOM would remain below the MDEP sound level limits at all points along all property lines.

If subsequent modeling (using vendor-provided sound data on STATCOM equipment to be installed as part of the NECEC project) predicts that applicable MDEP sound level limits will be exceeded at any property lines, CMP will update its proposal to include sound walls. These walls would be designed to be mostly absorptive sound panels with standard sound reduction properties. Specific wall properties and dimensions will be determined during detailed design of the project.

9. Table 5-18 indicates that the predicted sound level at PL2 is 45.5-dBA and at PL3 is 45.8-dBA, however the sound contour map (figure 5.5.5) indicates that the predicted sound levels at these two property lines is near 40-dBA. Please indicate which is correct.

RESPONSE

The Modeled Sound Level shown in the various tables included an additional 5 dBA for the tonal penalty, as opposed to lowering the statutory limit (i.e., each level has been increased by 5 dBA to account for the tonal penalty if one is expected to occur). In Table 5-18 specifically, PL2 was modeled to equal 40.5 dBA, the level shown in the contour, but a 5 dBA penalty was added to this. Therefore, the sound level compared to the sound level limit shown in the table is 45.5 dBA with the penalty included, for a modeled/anticipated 40.5 dBA impact. Similarly, PL3 was increased to account for tonal sound (as was PL1). The footnote on Table 5-18 was incorrect. The correct footnote is shown below.

Table 5-18: Modeled Operational Sound Levels

Modeled Receptor	Modeled Sound Level ^a (dBA)	Sound Level Limit (dBA)
PL1 – Property Line	36.2	45
PL2 – Property Line	45.5	45
PL3 – Property Line	45.8	45

(a) Modeled sound level is the substation sound level with an expected 5-dBA tonal penalty added

As discussed in the response to information request #9 above, modeling indicates that, if needed, the installation of two sound walls would allow the Coopers Mills Substation to remain below the MDEP sound level limits at all points along all property lines.

10. Exhibit 7-3 provides information concerning impacts to IWWHs including the amount of acreage to be cleared. Please provide the cumulative amount of total of area to be cleared in IWWH.

RESPONSE

The cumulative total acreage to be cleared within all IWWHs is 22.30 acres. Exhibit 7-3 will be revised to accurately reflect the cumulative total acreage to be cleared in all IWWHs. The revised exhibit will be provided in a subsequent submittal.

11. Unlike the exhibit for IWWH, Exhibit 7-5 does not provide the amount of area to be cleared in the vernal pool habitats. Please provide the cumulative amount of area to be cleared in vernal pool habitats broken down by whether the pools are significant, potentially significant, or amphibian breeding areas.

RESPONSE

CMP will provide a response to this request concurrent with its response to the December 20, 2017, Maine Department of Inland Fisheries and Wildlife vernal pool data request provided to CMP by the MDEP.

12. The majority of the poles for the DC portion of the line are single-pole, self-weathering, structures that are approximately 100 feet tall. Will these structures be placed on a foundation or will they be placed in a drilled hole similar to other utility line structures? If they are to be placed on a foundation, please provide typical dimensions. Also, please provide typical dewatering plans for foundation holes, and site-specific plans for those structures within 75 feet of a protected natural resource.

RESPONSE

Whenever soil and loading conditions allow, structures on the DC portion of the line will be direct embed structures installed by excavating native soil, inserting the pole(s), and backfilling with suitable fill material which may include native soil, sand, rock, clean stone, concrete, and/or flowable fill (also known as controlled low strength material; flowable fill is a concrete-like mix used as non-structural fill primarily as a replacement for compacted backfill). Concrete or flowable fill will remain at or slightly above grade and the surface around the direct embed structure will be restored with native material and will cover the backfill material. The fill area for direct embed structures is approximately 40 square feet.

A number of concrete caisson-type foundations are likely to be required for angle and dead-end structures. While it is possible that some dead-end and angle structures could be direct embed structures with guy wires, CMP took the most conservative approach when estimating impacts by assuming that all angle and dead-end structures would require concrete foundations. As the design progresses, a final accounting of structures requiring concrete foundations (based on

construction access, subsurface soil profiles, structural analysis, etc.) will be performed. The fill area for concrete foundations will typically occupy approximately 80 square feet per pole.

Dewatering will be performed in all excavations containing water prior to backfill or concrete pouring activities. It is important to note that site conditions across the project vary widely and not all excavations will contain water or require dewatering. Topography and soil characteristics, as well as seasonal and weather variations, are just a few variables that can affect the presence of water and the need for dewatering, thus making it impractical to develop site specific plans for dewatering prior to construction activities. In all cases when dewatering is necessary, it will be conducted in a manner that minimizes impacts to water resources to the fullest extent practicable and maintains compliance with permit conditions and water quality standards. Such dewatering details are outlined in the attached NECEC Project Construction Dewatering Plan (see Attachment C).

13. The VCP states that there will be no accumulation of slash within 250 feet of an IWWH and impacts to scrub-shrub vegetation in and within 250 of an IWWH will be minimized. Do you mean within 250 of the wetland that creates the IWWH or do you mean 250 back from the edge of the IWWH? An IWWH includes the wetland as well as a 250-foot area around the wetland.

RESPONSE

Exhibit 10-1: NECEC Construction Vegetation Clearing Plan (“VCP”), Section 6.0 defines the IWWH as the “inland wetland complex used by waterfowl and wading birds, plus a 250 foot nesting habitat area surrounding the wetland. The nesting habitat is considered to be part of the mapped IWWH.” This definition is consistent with MDEP Regulations Chapter 305 (Natural Resources Protection Act – Permit by Rule Standards) and Chapter 335 (Wetlands and Waterbodies Protection). This section also states, “No additional buffers are proposed for IWWHs beyond this mapped habitat, and as such the vegetation maintenance restrictions apply to the mapped habitat only.”

Section 6.1 includes additional vegetation clearing restrictions within the IWWH, which (based on the definition in Section 6.0) apply only within the mapped habitat. Section 6.1, subsections g. and h. refer to accumulation of slash and impacts to vegetation “within 250 feet of the edge of the IWWH,” and “in and within 250 of the IWWH,” respectively. These subsections are inaccurate.

Consistent with the IWWH definition in MDEP regulations and in VCP Section 6.0, subsections g. and h. will be revised as follows:

g. No accumulation of slash will be left within the IWWH.

h. Impacts to scrub-shrub and herbaceous vegetation within the IWWH will be minimized to the maximum extent practicable.

A revised VCP will be submitted to MDEP in a subsequent submittal.

14. The VMP states that all woody vegetation in the wire zone, whether capable or non-capable will be cut during routine maintenance. Much of the DC line will be hung from structures that are approximately 100 feet tall, with the conductors, at the structure location approximately 75 feet above the ground. This will result in the conductors being substantially higher than other transmission lines with 45-foot tall structures. Why do non-capable species that are over ten feet tall need to be removed within 25 feet of streams and brooks, especially in that portion of the project from Beattie Township to the Forks?

RESPONSE

The VMP states: "Follow-up maintenance activities during operation of the line require the removal of 'capable species', dead trees, and 'hazard trees.' Capable trees are those plant species and individual specimens that are capable of growing tall enough to violate the required clearance between the conductor and vegetation established by NERC. Due to the sag of the electric transmission lines between the poles, which varies with the distance between poles, tension on the wire, electrical load, air temperature and other variables, the required clearance is typically achieved by removing all capable species during each maintenance cycle." The HVDC transmission line spans are a much greater distance than typical existing transmission lines supported by 45-foot tall poles. As such, conductor sag and height between the two is not an equal comparison. Further, there are additional restrictions that apply to vegetation maintenance within stream buffers, specifically "within that portion of the 25-foot stream buffer that is within the wire zone (i.e., within 15 feet, horizontally, of any conductor, see Figure 1 located at the end of the VMP). In this case all woody vegetation over 10 feet in height, whether capable or non-capable, will be cut back to ground level and resulting slash will be managed in accordance with the Maine Slash Law." The reason for removal of non-capable species over 10 feet tall within 25 feet of streams and brooks within the wire zone is because they have the potential to grow into the conductor safety zone between periodic (every 4 years) maintenance cycles. Additionally, allowing the vegetation to grow taller and larger prior to its cutting or removal would entail a more intensive maintenance effort requiring heavy equipment operation, would cause increased ground disturbance, and would result in a higher risk of sedimentation as well as temporary (e.g., wetland and waterbody crossings) and secondary impacts during each maintenance cycle.

15. In the vegetation maintenance restrictions within stream buffers, the VMP states that these additional restrictions will allow for taller vegetation within the 25-foot buffer area to provide additional shading and reduce impacts. With the exception of cutting by hand, restrictions on herbicide use, and restrictions on refueling, what different practices does CMP utilize during maintenance that allows for taller vegetation to grow? The first bullet in that sections states that all woody vegetation, whether capable or non-capable will be cut.

RESPONSE

The first bullet cited in the above question (#15), further clarifies that within the **wire zone** (i.e., within 15 feet, horizontally, of any conductor) all woody vegetation over 10 feet in height, whether capable or non-capable, will be cut back to ground level. This Plan also allows for taller vegetation within the 25-foot stream buffer to remain if it is located outside of the “wire zone” (see Figure 1 located at the end of the VMP). The “wire zone” does not include the full width of the ROW.

16. In the Installation of Crossings section of the Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects, section 4.2, Installation of Culverts states, “Compaction should be done in no less than 8-inch lifts.” Should this read, “Compaction should be done in no more than 8-inch lifts”?

RESPONSE

Yes, CMP will revise this document accordingly.

17. In the Groundwater section of the application there is a discussion about abandoning groundwater wells. Do you know of any wells that will need to be abandoned as part of this project?

RESPONSE

No, the project as currently designed does not require that any groundwater wells be abandoned. The discussion was included in the application in the event of a design change that necessitates well abandonment or if a well is discovered that requires abandonment to protect groundwater or address safety concerns.

18. You will need to provide estimated quantities of construction debris and final disposal location(s).

RESPONSE

As discussed in Section 18.0 of the Site Law Application, CMP anticipates that solid waste generated from construction and demolition activities associated with the NECEC Project will be limited to land clearing and construction debris. The following table provides estimated quantities of wastes anticipated to be generated during the construction of the NECEC.

MATERIAL	Estimated Disposal Quantity (cubic yards)*
Wood (timber, slash, stumps, etc.)	30,000
Treated wood (poles, cross arms)	600
Metals (Ferrous and Non-Ferrous)	25
Porcelain Insulators	10
Food waste, plastics, common trash	50
Wooden Cable Spools & Pallets	120
Wooden Insulator Crates	8
Concrete Debris	25
Spoils (Transmission Lines)	5,700
Spoils (Substations)	31,000
Total	67,538

Note*: Wood materials associated with clearing will be sold as marketable timber, chipped for biomass facilities, manufactured into erosion control mulch (i.e., stumps), and/or chipped and spread within the Project right-of-way. CMP does not anticipate these materials to be shipped to a landfill. Wastes that will be recycled include metals, porcelain insulators, wooden cable spools, concrete debris and some plastics. Excess spoils will either be re-used on site, spread and revegetated within the right-of-way, or disposed of at an approved location.

CMP's priority is to minimize solid waste generation by implementing and utilizing environmentally responsible construction management practices. Furthermore, in the contract process for the project's general contractors, CMP will require, and provide oversight during construction to ensure, that the contractor complies with all applicable laws including the Maine Solid Waste Management and Recycling Law (38 M.R.S. § 2101 et seq.); federal hazardous waste regulations (Title 40 Code of Federal Regulations [CFR] Parts 260-279 and Part 124); and PCB regulations (US EPA Toxic Substances Control Act (TSCA) – 40 CFR 761). Under CMP's typical contract structure, demolition debris becomes the property of the contractor, which is contractually obligated to dispose of materials at an appropriate CMP-approved, state-licensed disposal facility or scrap yard. In the contract documents, CMP provides a list of owner-

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approved recycling and disposal facilities for each anticipated waste stream (See Attachment D). CMP allows the contractor to propose alternate disposal facilities, however these facilities must be pre-approved by CMP and in compliance with all applicable laws.

ENVIRONMENTAL INFORMATION REQUEST
 Natural Resource Map Questions

New England Clean Energy Connect - Natural Resource Map Data Requests			
Project Segment	Map Page	MDEP Request For Information	CMP Response
November 20, 2017 Data Request			
2	123	Map ONLY included with Data Request. This row added to the spreadsheet by the Applicant.	The arrow drawn on the map seems to request a shift in the access road to the south to avoid WET-55-01. We agree that the access road should be shifted to the south side of structure 3006-S-476 to avoid the resource. This change to the maps and impact calculations will be incorporated once 60% engineering design is complete. Development of the more detailed design may shift some structure locations and access roads project-wide. CMP will analyze all access road locations from an impact and constructability standpoint. The updated maps and impact calculations will be submitted to the agencies for review as an amendment to the application.
2	148	There is construction access that crosses wetland 66-05 which is not needed. Structure 3006-S-418 can be accessed from the west and 3006-S-417 can be accessed from the east	Agreed, this section of access road is not needed. This change to the maps and impact calculations will be incorporated in a subsequent submittal.
2	155-156	Structure 3006-S-399 could be accessed from the east, eliminating the road from 3006-S-400 and two wetland crossings	Agreed. This change to the maps and impact calculations will be incorporated in a subsequent submittal.
2	157	The construction road to 3006-S-396 could be extended to 3006-S-395 eliminating one wetland crossing	This change will not eliminate wetland impact; WET-71-100 spans the entire cleared corridor width so some wetland impact is unavoidable in this location.
2	160	The construction road to 3006-S-388 can be relocated to avoid a wetland crossing	This change will not eliminate wetland impact; WET-71-100 spans the entire cleared corridor width so some wetland impact is unavoidable in this location. This access road will be slightly shifted to the south to traverse a narrower section of the wetland. This map change and impact calculations will be incorporated in a subsequent submittal.
3	188	Impacts to wetland 85-01 could be minimized by utilizing an upland island	Agreed, impacts to WET-85-01 can be minimized by shifting the access road to the west of the HVDC line. The changes will be incorporated in a subsequent submittal.
3	190	Impacts to wetland 86-03 can be completely avoided if the access road goes around it.	Agreed, the access road will be shifted to avoid the resource in a subsequent submittal.
3	193	Impacts to wetland 87-08 could be minimized by realigning the road	Agreed, the access road will be shifted to minimize impacts in a subsequent submittal.
3	194	Impacts to wetland 88-04 could be minimized by realigning the road	This access road will be reevaluated to minimize wetland impact and reduce conflicts in traveling under the existing line. The changes will be incorporated in a subsequent submittal.
3	212	Impacts to wetlands 96-02 & 96-03 could be minimized by realigning the road	Agreed, this access road will be shifted south of the existing overhead line, to minimize impacts to both of these resources. The changes will be incorporated in a subsequent submittal.
3	202	Impacts to wetland 91-07 could be reduced by accessing structure 3006-S-287 from the opposite direction	WET-91-07 cannot be accessed from the opposite direction; the proposed access change would conflict with a railroad bed.
3	217	Impacts to wetlands 98-03, 98-04, & 98-05 could be minimized by realigning the road	Agreed, the changes will be incorporated in a subsequent submittal.
3	218	Impacts to wetland 98-06 could be minimized by realigning the road	Agreed, the changes will be incorporated in a subsequent submittal.

New England Clean Energy Connect - Natural Resource Map Data Requests			
Project Segment	Map Page	MDEP Request For Information	CMP Response
3	220	Crossing PSTR 99-05 is not in the crossing table	Confirmed, this is included in Exhibit 7-7 NECEC Waterbody Crossing Table. Due to the way the Feature ID was named and organized, it is impossible to sort the table by geographic location. The table, as presented in the application, is sorted by Segment only, however all resources are included.
3	221	Impacts to wetland 100-03 can be avoided by realigning the road	Agreed, the changes will be incorporated in a subsequent submittal.
3	223	Impacts to wetlands 101-01 & 101-02 can be avoided by realigning the road	Impacts to WET-101-01 could be avoided completely by access road realignment. Impact to WET-101-02 will remain the same because this resource extends across the entire corridor width. The map mark-up suggests that impacts to WET-101-02 can be partly avoided by hugging the treeline, however avoidance won't be possible since the access road must be located a safe distance away from the trees.
3	226	Impacts to wetland 102-04 and SVPs 102-02 & 102-03 could be minimized by realigning the road	Agreed, access in this location will be realigned to minimize impacts and avoid conflict with the existing overhead lines and structures. Changes to access and impact calculations will be incorporated in a subsequent submittal.
3	227	Impacts to wetland 103-07 could be avoided by using what appears to be an existing road that runs along the edge of the cleared ROW	Agreed, the access road will be shifted to the west side of the corridor, which will avoid WET-103-07. Changes to access and impact calculations will be incorporated in a subsequent submittal.
3	229	Structure 3009-S-221 could be accessed using an existing road in the already cleared ROW and eliminate the crossing of wetland 104-01	While it appears that the existing road could be utilized, it also appears that there is an existing snowmobile bridge over PSTR-103-02, which may not accommodate heavy equipment travel. The existing road runs parallel to ISTR-103-01 suggesting that additional stream impacts would be incurred from this change. Accessing structure 3006-S-220 as proposed in the application involves temporary fill in WET-104-01 and avoids the two stream crossings, ISTR-103-01 or PSTR-103-12, reducing impacts to the streams and risk of sedimentation.
3	237	Impacts to wetland 107-06 could be avoided by realigning the road	Agreed, the changes will be incorporated in a subsequent submittal.
3	261	Impacts to wetland 116-02 and PSVP 118-02 could be minimized by utilizing an existing road to access structure 3006-S-142 all the way through the habitats and then turning to the structure	Agreed, the changes will be incorporated in a subsequent submittal.
3	264	Impacts to PSVP 119-03 could be minimized by utilizing an existing road to access structure 3006-S-135	The current alignment has some impacts to upland portions of the 250-foot critical terrestrial habitat associated with PSVP-119-03. This access was chosen to minimize temporary fill in WET-119-03 and VP-119-04 (also located within the CTH). The access road also runs adjacent to the clearing limits, which will be impacted by clearing crews. For these reasons, CMP favors the current access layout.
3	268	Impacts to wetland 121-03 could be minimized by access structure 3006-S-126 from the opposite direction	The current access road was chosen to avoid crossing stream PSTR 121-04. For this reason CMP favors the current access road alignment.
3	269	Impacts to wetland 121-04 could be eliminated by access structure 3006-S-124 from Moose Hill Road and structure 3006-S-125 from the Turmel Road	Agreed, the changes will be incorporated in a subsequent submittal.
3	277	Impacts to wetland 125-06 could be avoided by realigning the road	Agreed, the changes will be incorporated in a subsequent submittal.
3	285	Impacts to wetland 129-02 could be avoided by realigning the road	Agreed, the changes will be incorporated in a subsequent submittal.
3	288	Impacts to wetland 130-S-01 and PSVP 130-08 could be minimized by realigning the road and utilizing an existing road along the edge of the ROW to access structure 3006-S-79	The current access road was chosen to minimize wetland impact to WET-130-01, while staying close to the clearing limits, which will be traversed by clearing equipment. CMP favors the current access road layout.
3	310	Impacts to wetland 140-06 could be avoided by realigning the road	Agreed, the changes will be incorporated in a subsequent submittal.

New England Clean Energy Connect - Natural Resource Map Data Requests			
Project Segment	Map Page	MDEP Request For Information	CMP Response
3	311	Impacts to PSVP-140-04 could be minimized by straightening the road and utilizing the existing disturbed area along the edge of the cleared ROW	Agreed, changes will be incorporated in a subsequent submittal.
3	316	Impacts to wetland 143-01 could be reduced by accessing structure 3006-S-12 from an extension of the access road to structure 3006-S-11	Agreed, changes will be incorporated in a subsequent submittal.
4	342	Impacts to wetlands 154-02 & 154-03 could be avoided by realigning the road.	Agreed, changes will be incorporated in a subsequent submittal.
4	354	Impacts to wetland 159-08 could be minimized by realigning the access to structure 62-97 to an area outside the wetland	Agreed, changes will be incorporated in a subsequent submittal.
4	356	Impacts to wetland 160-08 could be avoided by realigning the road	Agreed, changes will be incorporated in a subsequent submittal.
4	358	Impacts to wetland 161-16 could be minimized by relocating the road to structures 62-133, 64-258, 62-122, & 64-238 to and area outside the wetland	Agreed, changes will be incorporated in a subsequent submittal.
4	358	Impacts to wetland 161-16 could be minimized by relocating the road to structures 64-260, 64-240, 64-123, & 64-239 to and area outside the wetland	Agreed, changes will be incorporated in a subsequent submittal.
5	366	The center line of the project between structures 3027-207 and 3027-208 goes outside of the ROW owned by CMP	The corridor alignment in this location was misinterpreted during the preparation of project mapping resulting in the omission of an angle in the corridor. The corrected map will show that the project as designed remains within the ownership of CMP. Tree clearing will be required between structure 3027-208 and 3027-204. These items will be corrected as the project design progresses. Additional impacts resulting from this change and updated natural resource maps will be provided in a subsequent submittal.
5	370	Impacts to wetland 183-01 could be minimized by utilizing an existing road to access structures 3027-189 and 3027-190	The access road will be reevaluated to minimize impacts to WET-183-01.
5	381-382	There is a road between structures 3027-142 and 3027-141 that does not appear to have any way to access it. Also, the structure numbering in this section appears to be out of sequence	Access was not proposed through this wetland/stream complex (PSTR-178-01, PSTR-178-02 and WET-178-06) due to sedimentation risk and constructability of access. The access road to structure 3027-142 enters the ROW at Gardiner Road on Map 374. The access road to structure 3027-141 enters the ROW at Lothrop Road on Map 383. The structures are numbered sequentially from north to south (Coopers to Maine Yankee), but the map set is laid out from south to north, creating some confusion to the reviewer. The map set will be laid out from south to north consistent with the structure numbering to clear up such confusion.
5	405	The road to structures 3027-57 through 3027-51 is between Cooper Road and Gardiner Road and impacts to wetland 167-01 could be minimized by eliminating the access from Cooper Road	This access cannot be eliminated since it provides access to structures 3021-51 through 49. Access is not proposed between 3027-49 and 48 due to known swampy/boggy area between these two structures. Impacts are minimized in this area by avoiding access between structure 3027-49 and 48.
December 12, 2017 Data Request			
1	3	Structure within 21 feet of PSTR-00-10	As the transmission design progresses, structure locations will be modified to maintain a minimum of 25 feet from waterbodies to the greatest extent practicable. CMP will prepare and submit a site-specific erosion and sedimentation control plan for all structures that cannot be sited greater than 25 feet from a waterbody. A revised waterbody table will be provided in a subsequent submittal.
1	115	Structure within 3 feet of ISTR51-14	See discussion regarding 25-foot waterbody setback above
1	35	Structure within 12 feet of ISTR-15-05	See discussion regarding 25-foot waterbody setback above
1	26	Structure within 8 feet of ISTR-RR-11-04	See discussion regarding 25-foot waterbody setback above
1	63	Structure within 5 feet of ISTR-SRDI-28-03	See discussion regarding 25-foot waterbody setback above

New England Clean Energy Connect - Natural Resource Map Data Requests			
Project Segment	Map Page	MDEP Request For Information	CMP Response
1	13	Structure within 8 feet of PSTR-05-02	See discussion regarding 25-foot waterbody setback above
1	100	Structure within 7 feet of PSTR-45-03	See discussion regarding 25-foot waterbody setback above
1	86,87	Structure within 8 feet of PSTR-38-06	See discussion regarding 25-foot waterbody setback above
1	63	Structure within 6 feet of PSTR-SRD1-28-01	See discussion regarding 25-foot waterbody setback above
2	161, 162	Structure within 15 feet of ISTR-73-05	See discussion regarding 25-foot waterbody setback above
2	162	Structure within 20 feet of ISTR-73-06	See discussion regarding 25-foot waterbody setback above
2	159, 160	Structure within 1-foot of PSTR-72-103	See discussion regarding 25-foot waterbody setback above
2	162	Structure within 21 feet of ISTR-73-04 according to the crossing table, but I could only locate ISTR-73-06 which does have a structure near it	The waterbody crossing table included a typographic error. The correct name of the waterbody is PSTR-73-04. A revised waterbody table will be provided in a subsequent submittal.
2	148	Structure within 3 feet of ISTR-66-09	See discussion regarding 25-foot waterbody setback above
2	149	Structure within 5 feet of ISTR-66-10	See discussion regarding 25-foot waterbody setback above
2	131	Structure within 16 feet of ISTR-59-02	See discussion regarding 25-foot waterbody setback above
3	289	Structure within 15 feet of ISTR-131-01	See discussion regarding 25-foot waterbody setback above
3	307	Structure within 24 feet of ISTR-138-01	See discussion regarding 25-foot waterbody setback above
3	321, 322	Structure within 8 feet of pSTR-145-01	See discussion regarding 25-foot waterbody setback above
4	358	Structure within 15 feet of PSTR-161-01	See discussion regarding 25-foot waterbody setback above
5	366	Structure within 23 feet of ISTR-185-03	See discussion regarding 25-foot waterbody setback above
5	MULTIPLE	Many of the distances to the nearest structure on Segment 5 are thousands of feet away. Are these distances correct? There is one, the crossing of ISTR-188-01, that the closest structure is 15,388 feet away. How is this possible?	Waterbodies within the project area that are thousands of feet away from the nearest new structure on Segment 5 are located on maps 359 through 364. As shown on the typical cross sections included in Attachment 1 of the Site Law application, the Section 3027 transmission line will be installed on existing lattice tower structures in this portion of Segment 5.
March 19, 2018 Data Request			
1	11, 12	End construction road at Structure 3006-263 and access Structure from 3006-262 from opposite direction and eliminate impacts to Wetland LT-6 and PSVP LT-3.	An off ROW access road is incorrectly identified as entering the ROW near Wet-LT-12. We have eliminated this access road from consideration because it would require additional clearing and improvements in the LUPC P-RR subdistrict. Access road impacts between structure 3006-263 and 262 will be within an area impacted by clearing activities.
1	22	Move access road to avoid Wet 09-01.	We will make the suggested adjustment near WET-09-01.
1	30	Move access road to minimize impacts to Wet 0913-13 and 13-15.	We propose to eliminate the access road between 3006-218 and 3006-2017, avoiding impact to WET-13-13, WET-13-15, WET-13-16, WET-13-17, WET-13-09, ISTR-13-15 and ISTR 13-16. To access 3006-2017, the access road from 3006-16 would be extended which would impact WET-13-07 and ISTR-13-10, however this option would minimize the number of resources impacted and the overall impact (square feet) at this location.

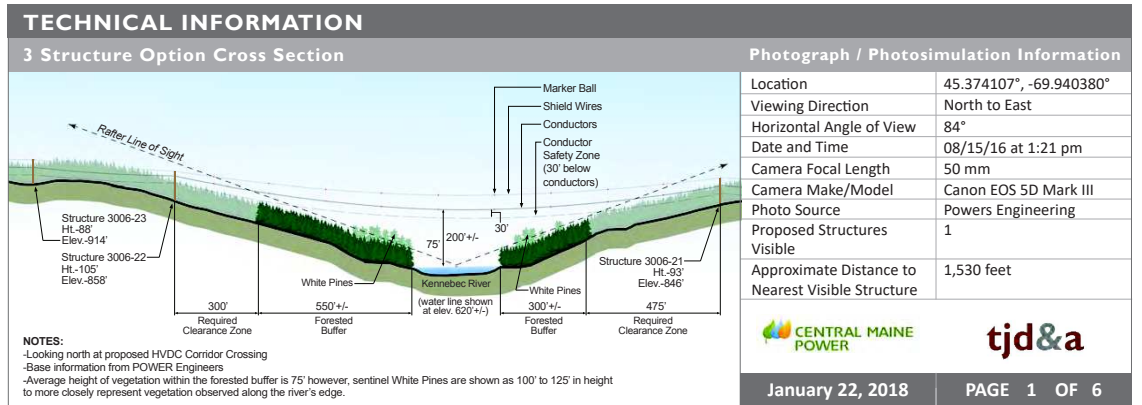
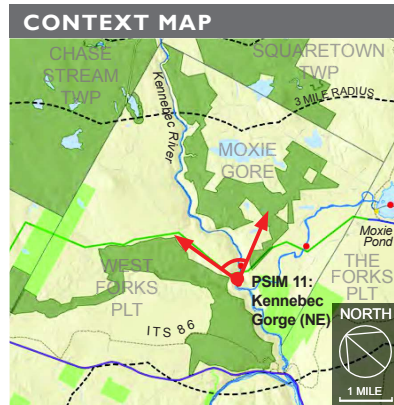
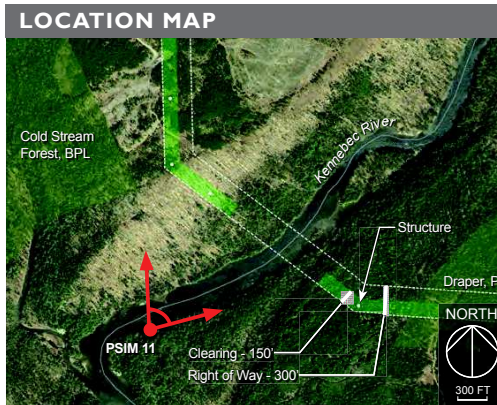
New England Clean Energy Connect - Natural Resource Map Data Requests			
Project Segment	Map Page	MDEP Request For Information	CMP Response
1	37	Move access road to avoid Wet 16-14.	The suggested access road shift would result in additional tree clearing in an area outside the clearing limit. The existing access road depicted on Map 37 shows the use of an existing road turnout off of Spencer Road. Not using the existing turnout, which would include matting the wetland, might result in contractor personnel mistakenly utilizing the turnout regardless, with additional risk to WET-16-14.
1	39	End construction road at Structure 3006-198 and access Structure 3006-197 from opposite direction and eliminate impacts to Wetland 17-11.	The current access road layout extends the access between 3006-198 and 3006-197, proposing temporary fill of timber mats in WET-17-11. An access road between 3006-196 and 3006-197 was not considered, due to the potential impact to PSTR-17-07 and PSTR-17R-03, a braided perennial stream. There is higher risk of sedimentation to this coldwater fishery from equipment tracking or soil disturbance on either side of the crossing if travel were to be permitted. The access through WET-17-11 will be matted in an area that will have been already disturbed by clearing crews and will be allowed to revegetate during the following growing season.
1	67, 68	Eliminate the construction access road in Wet-SR-30-02 and access Structure 3006-127 from an existing logging road that crosses the ROW between Structures 3006-127 and 3006-126.	It appears that the access between 3006-127 and 3006-128 is not needed and we will make this change to the maps.
1	82	Move the construction access road to minimize impacts to Wet-36-07.	We will change the access road alignment to minimize impacts to WET-36-07.
1	115	Move the construction access road to minimize impacts to Wet-51-08.	We will change the access road alignment to minimize impacts to WET-51-08.
1	90	Move the construction access road to minimize impacts to Wet-40-18.	The suggested access road shift is outside of the clearing limit and would require additional tree removal and potential ground disturbance. To minimize impact to this resource, we propose to shift the access road to the north side of the proposed centerline but remain with the clearing limits.

Attachment A
Kennebec River Gorge Photosimulations

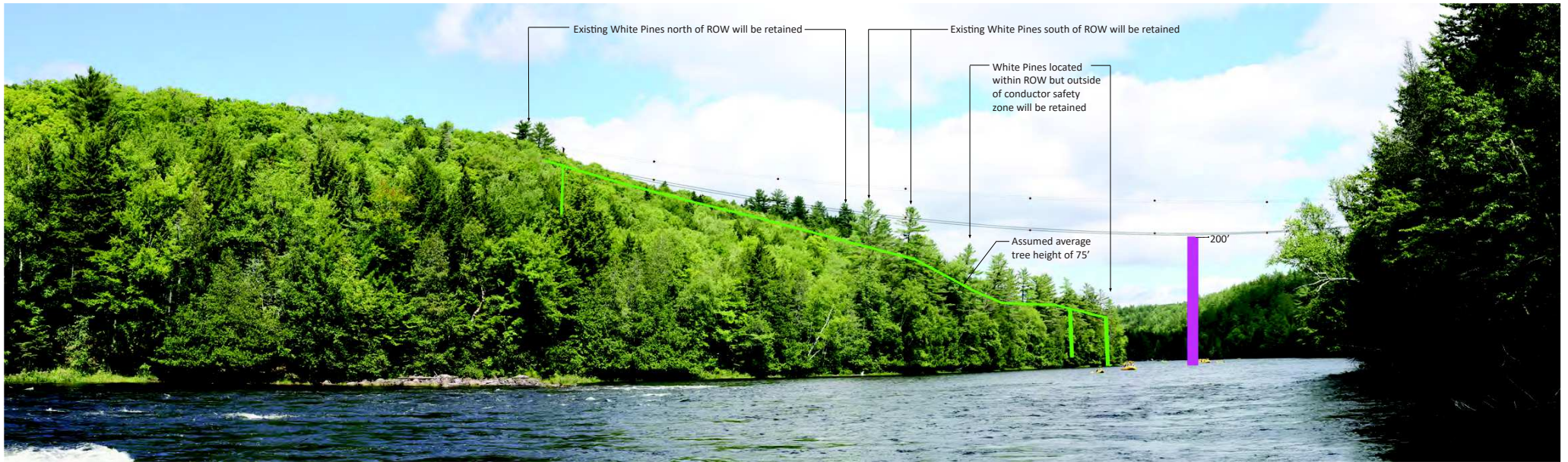
PHOTOSIMULATION 11: KENNEBEC GORGE Looking North, Moxie Gore, 3 Structure Option



Proposed Conditions: Panoramic view looking from north to east from near the picnic area on the Kennebec River, 1,400'+/- south of the proposed HVDC transmission line crossing. The top of one structure will be visible from this viewpoint at a distance of 1,530'. A forested buffer of approximately 550' will be maintained along the northwest shore between the shoreline and the closest structure. The conductors would be approximately 200' above the water level. Approximately eighteen marker balls will be placed on the shield wires. See Appendix B: Study Area Photographs for additional images.

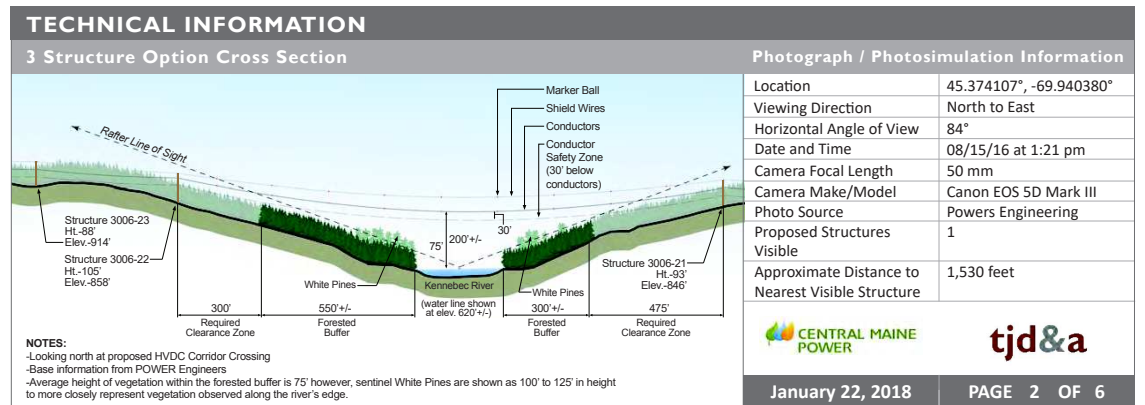
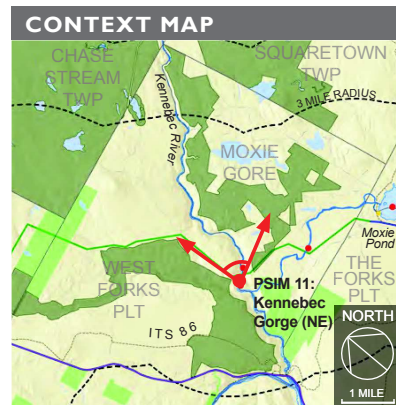
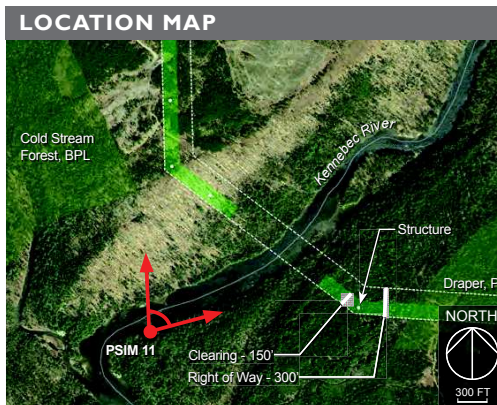


PHOTOSIMULATION 11: KENNEBEC GORGE Looking North, Moxie Gore, 3 Structure Option



Proposed Conditions: Panoramic view looking from north to east from near the picnic area on the Kennebec River, 1,400' +/- south of the proposed HVDC transmission line crossing. The top of one structure will be visible from this viewpoint at a distance of 1,530'. A forested buffer of approximately 550' will be maintained along the northwest shore between the shoreline and the closest structure. The conductors would be approximately 200' above the water level. Approximately eighteen marker balls will be placed on the shield wires and conductors above the Kennebec Gorge. Approximately twelve marker balls are visible in this photosimulation. See Appendix B: Study Area Photographs for additional images.

Scale Reference from 3D Model: The green lines represent an assumed average height of 75' for existing trees. Several white pines along the river's edge appear taller than 75' in height. The magenta line represents 200' from the water surface directly beneath the proposed conductors (lowest point in conductor sag).





Existing Conditions: Normal view looking northeast from the Kennebec Gorge.

PHOTOSIMULATION IIA: KENNEBEC GORGE Looking Northeast, Moxie Gore, 3 Structure Option



Proposed Conditions: Normal view looking northeast from near the picnic area on the Kennebec River 1,400' +/- south of the proposed HVDC transmission line crossing. The top of one structure will be visible from this viewpoint at a distance of 1,530'. The lowest point of the conductors would be approximately 200' above the water level. Approximately eighteen marker balls will be placed on the shield wires and conductors above the Kennebec Gorge.



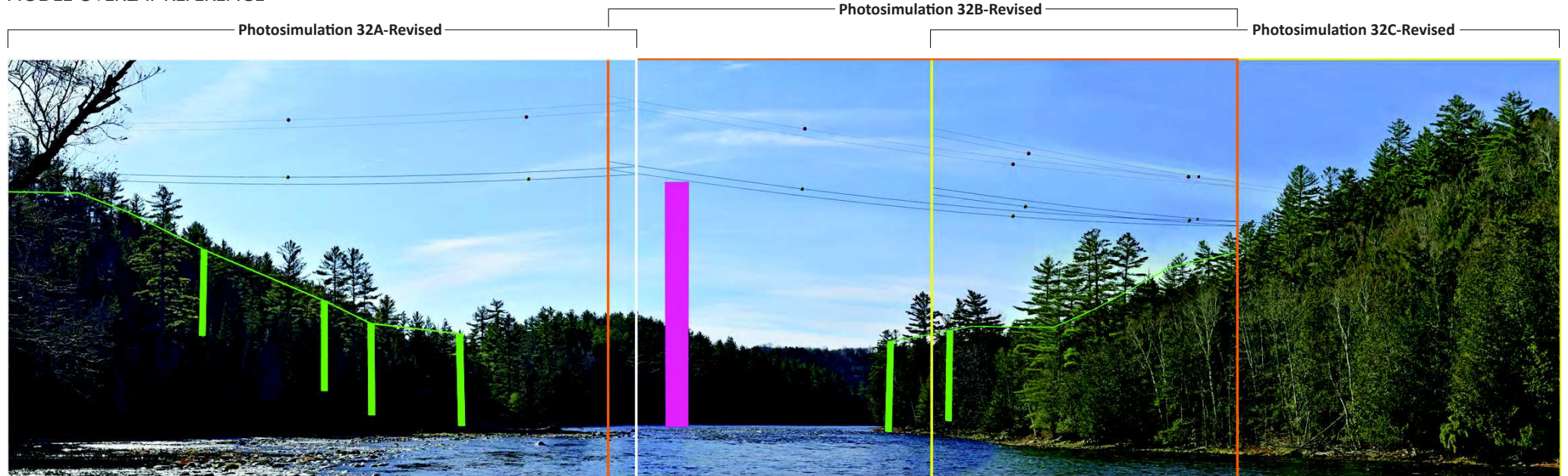
Existing Conditions: Normal view looking northeast from the Kennebec Gorge.

PHOTOSIMULATION IIB: KENNEBEC GORGE Looking Northeast, Moxie Gore, 3 Structure Option



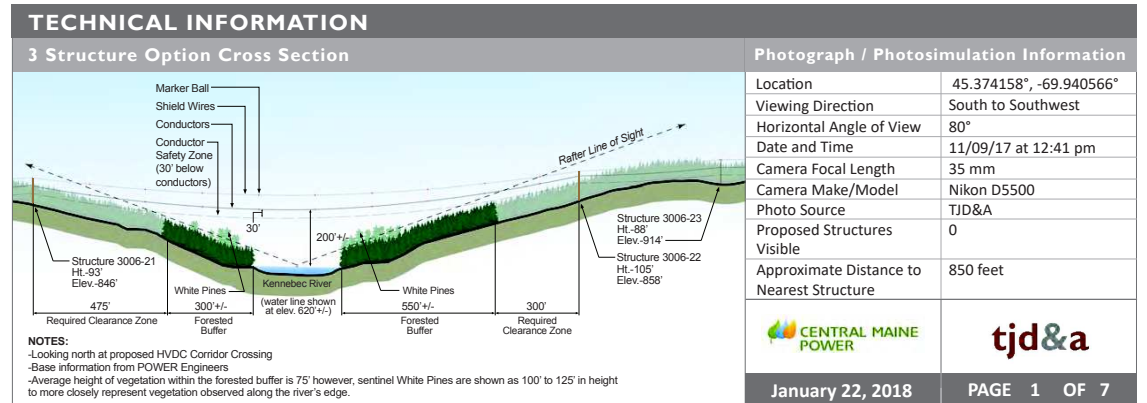
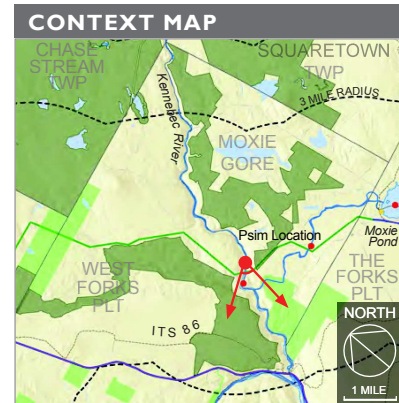
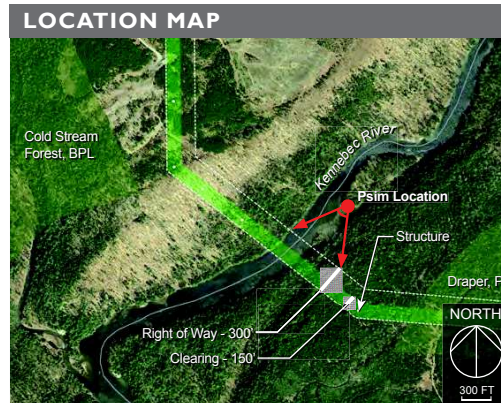
Proposed Conditions: Normal view looking northeast from near the picnic area on the Kennebec River 1,400'+/- south of the proposed HVDC transmission line crossing. The lowest point of the conductors would be approximately 200' above the water level. Approximately eighteen marker balls will be placed on the shield wires and conductors above the Kennebec Gorge.

PHOTOSIMULATION 32: KENNEBEC GORGE PICNIC AREA Looking Southwest, 3 Structure Option
MODEL OVERLAY REFERENCE



Proposed Conditions: Panoramic view looking from south to southwest from a point 750' +/- north of the proposed HVDC transmission line crossing of the Kennebec River near a rafting company picnic area. The closest structure, screened by vegetation in this view, is 850' +/- to the south. Conductors, approximately 200' above the river, will be visible to recreational boaters for approximately 1,600' approaching the crossing. Marker balls will be visible on the shield wires and conductors.

3D MODEL Scale Reference: This panoramic diagram shows the 'normal' view output from the modeling software over the merged panoramic image. Due to the relatively close (750') distance of the viewer to the proposed conductors, the lines appear similar to a "fish eye" lens (i.e. the conductors seem wider and higher over the middle of the river). In the photosimulation submitted on 12/12/17, the location of the conductors were adjusted to appear as continuous lines which resulted in the lines appearing to be approximately 25' lower than they would appear from this viewpoint. The proposed Project visibility is best assessed by reviewing the normal views because there is no distortion, see the updated images included on the following pages. Also included in the image above are scale references from the 3D Model; the magenta line represents 200' from the water surface directly beneath the proposed conductors (lowest point of conductor sag) and the green lines represent an assumed average height of 75' for existing trees within the Project corridor. Several white pines along the river's edge appear taller than 75' in height.



NOTES:
 -Looking north at proposed HVDC Corridor Crossing
 -Base information from POWER Engineers
 -Average height of vegetation within the forested buffer is 75' however, sentinel White Pines are shown as 100' to 125' in height to more closely represent vegetation observed along the river's edge.



Existing Conditions: Normal view looking south from a picnic area on the Kennebec River.

PHOTOSIMULATION 32A Revised: KENNEBEC GORGE PICNIC AREA Looking Southwest, 3 Structure Option



Proposed Conditions: Normal view looking south from a point 750' +/- north of the proposed HVDC transmission line crossing of the Kennebec River near a picnic area. The closest structure, screened by vegetation in this view, is 850' +/- to the south. Conductors over the river will be visible to recreational boaters for approximately 1,600' approaching the crossing.



Existing Conditions: Normal view looking southwest from a picnic area on the Kennebec River.

PHOTOSIMULATION 32B Revised: KENNEBEC GORGE PICNIC AREA Looking Southwest, 3 Structure Option



Proposed Conditions: Normal view looking southwest from a point 750' +/- north of the proposed HVDC transmission line crossing of the Kennebec River near picnic area. The closest structure, screened by vegetation in this view, is 850' +/- to the south. Conductors over the river will be visible to recreational boaters for approximately 1,600' approaching the crossing.

January 22, 2018

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Existing Conditions: Normal view looking southwest from a picnic area on the Kennebec River.




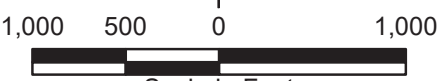

Proposed Conditions: Normal view looking southwest from a point 750' +/- north of the proposed HVDC transmission line crossing of the Kennebec River near picnic area. The closest structure, screened by vegetation in this view, is 850' +/- to the south. Conductors over the river will be visible to recreational boaters for approximately 1,600' approaching the crossing.

Attachment B
Coopers Mills Substation Noise Modeling Figures



<ul style="list-style-type: none">• Sound Sources <p>— Sound Walls</p> <p>▭ Buildings</p>	  <p>Scale in Feet</p>		<p>Figure B-1</p> <p>CMP NECEC Coopers Mills Road Substation Modeling Layout</p>
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<ul style="list-style-type: none"> — 25 dBA — 30 dBA — 35 dBA — 40 dBA 	<ul style="list-style-type: none"> — 45 dBA — 50 dBA — 55 dBA — 60 dBA 	<ul style="list-style-type: none"> — Property Line ● Property Line Receivers 		 <p>Scale in Feet</p>		<p>Figure B-2</p> <p>CMP NECEC Coopers Mills Road Substation Sound Contours</p>
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Attachment C
NECEC Project Construction Dewatering Plan

NECEC Project Construction Dewatering Plan

Construction dewatering may be necessary and may be the best option to manage stormwater or groundwater that enters a construction site on the project. Ground excavations that do not naturally drain to existing grade can trap rain and groundwater and this water must be removed from the site before certain operations can be performed safely. Stormwater and groundwater will be managed by the project with adequate treatment at discharge points to prevent sedimentation of downslope water resources.

Dewatering activities will be conducted in a manner as to:

- Prevent discharge waters from eroding soils or directly entering adjacent water resources
- Remove sediment from the collected water
- Preserve downslope natural resources and adjacent property
- Be located at a site that best achieves the necessary objectives

Considerations

Dewatering locations will be chosen at sufficient distances away from downslope water resources and on a surface that can treat or absorb the discharged waters. A well-vegetated upland buffer with a level or gently sloping terrain will be preferred as these areas provide the best filtration and/or absorption.

All dewatering activities from construction sites will be done in a manner as to not mix with oil, grease or other petroleum-based products, or with other hazardous materials. Contaminated runoff will be contained, treated, discharged or removed in accordance with all local, state, and federal permit conditions and consistent with Maine Erosion and Sediment Control Best Management Practices (BMPs). Dewatering activities will be stopped if project requirements cannot be met, i.e., if the dewatering or discharge site shows signs of erosion or instability, or if turbid water is threatening to enter or is visibly entering adjacent water resources.

Maintenance

All dewatering sites or dewatering structures will be routinely inspected by the contractor and by CMP's environmental inspectors for deficiencies, signs of erosion, or indications that discharge flows may damage the buffer vegetation or degrade the underlying soil. During the dewatering activity, the contractor will be required to continuously monitor discharge water conditions and to ascertain if additional treatment is necessary to effectively remove silt and other pollutants and to prevent erosion or sedimentation of downslope receiving waters.

Specifications

Discharged waters that are visually clear of sediment and turbidity, and have not mixed with other contaminants, will be directly discharged across a generally level, well-vegetated upland buffer, in a manner that promotes sheet flow with low energy. The Project will not discharge waters directly over bare or newly

vegetated soils, and the dewatering process will be stopped if the receiving area shows signs of instability or erosion, or if downslope waters shows signs of sedimentation or turbidity.

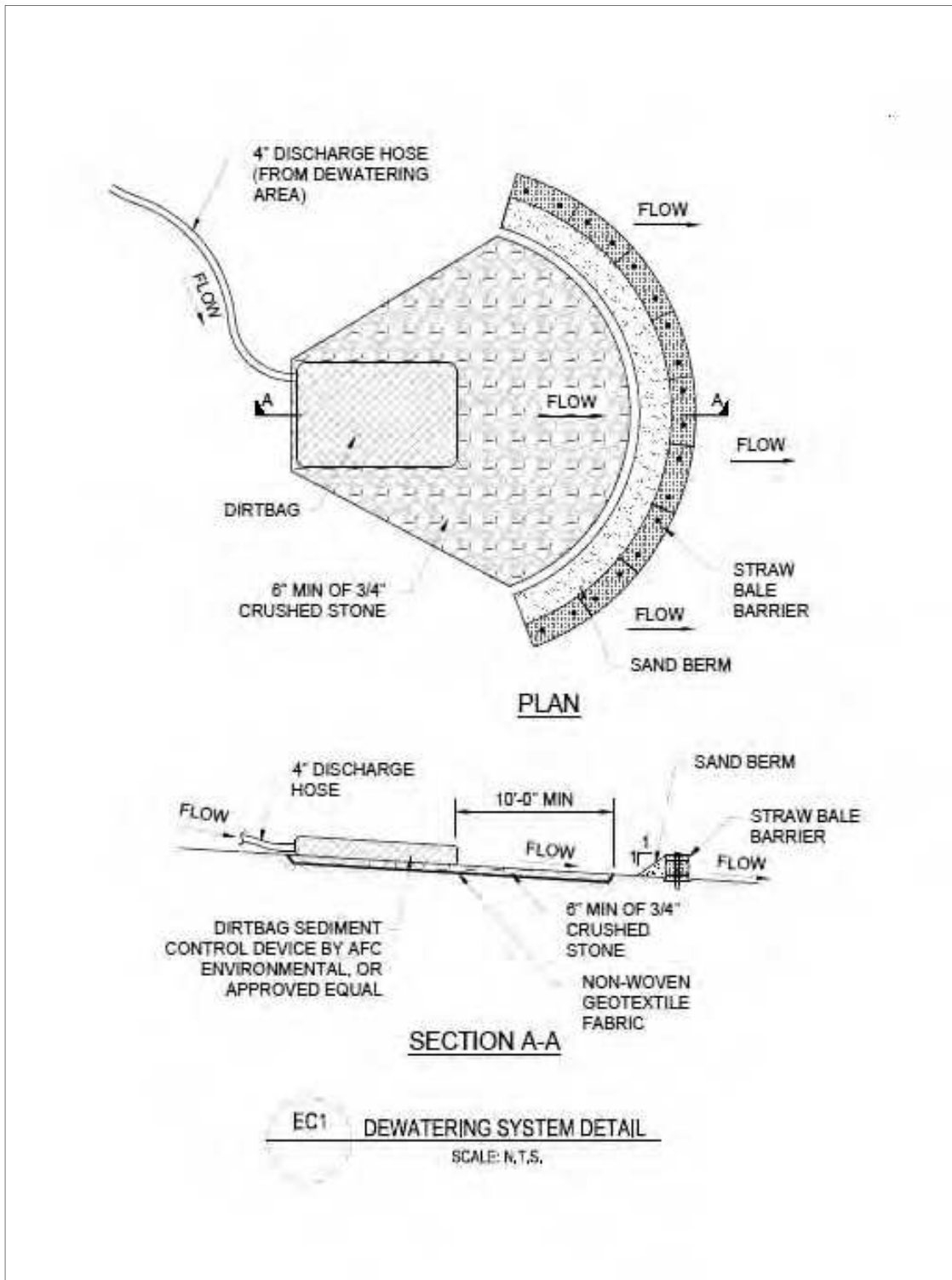
The following techniques will be considered based on the site conditions and to best facilitate the water removal process:

- Installation of diversion ditches or berms to minimize or prevent offsite stormwater runoff from entering the excavated area.
- Excavations and disturbance areas will be limited to only what is necessary for the current task and the excavated material will be placed on the upslope side of the work site.
- The water removal process may include, but may not limited to, drainage through stabilized channels, mechanical pumping, siphoning or use of a bucket from construction equipment.
- All channels, swales and ditches used for discharge will be adequately stabilized so that flow velocities do not cause erosion and instability. Stone lining or check dams are options for channel stabilization and energy dissipation.
- Dewatering activities will be avoided during forecasted heavy rain events to the extent practicable.

To best facilitate the sediment removal process, the following options may be used as standalone techniques or in combination, and will be considered and implemented as appropriate based on site-specific conditions:

- Use of a fabric bag (silt sack or dirt bag) to filter pumped water to be located within or near a vegetated upland buffer or natural depression, or within a temporary basin or sediment trap, generally constructed in the shape of a corral (either earth material, haybales, or erosion control mix berms) with silt fence and or geotextile fabric lining. See Figure 1.
- An excavated pit or settling pond for dewatering discharge may be dug where site conditions allow.
- Portable storage tanks may be brought onsite to store and treat larger volumes of water that require longer settling periods.
- If water quality/treatment objectives cannot be achieved with various dewatering methods, onsite discharge will not occur and off-site disposal via a pump truck may be necessary. Approval of the off-site disposal location will be required by CMP.

Figure 1. Typical Dewatering System



Note: Alternatives to the crushed stone underlayment include well vegetated surfaces and erosion control mulch. Straw bale barriers may be replaced by silt fence, erosion control mulch, or a combination thereof. Sand berms and geotextile fabric may be used as necessary to prevent turbid discharges to receiving waters.

Attachment D
CMP Waste Types and Approved Disposal Facilities

CMP Waste Types and Approved Disposal Facilities

Table 1: Types of Construction Wastes and Intended Disposal Methods

MATERIAL	DISPOSAL METHOD	CMP PROPOSED FACILITIES			
Excess Soil and Rock Material	Reuse on site for fill or construction needs or as off-site commercial fill or road base material, as practical	Waste Management Crossroads Landfill 357 Mercer Road Norridgewock, ME 04957 207-634-2714 207-562-7999	Juniper Ridge Landfill 2828 Bennoch Road Old Town, ME 04468 207-394-4372	Casella Waste Systems, Inc. Hampden landfill 358 Emerson Mill Road Hampden, ME 04444 207-862-4200	CPRC Recycling a.k.a. Commercial Paving 2 Gibson Road Scarborough, Maine 04074 207-883-3325
Untreated Wood (poles, timber, slash, stumps, etc.)	Remove for sale, recycling, on-site chipping and spreading, or off-site disposal	Contractor to propose			
Treated wood (poles, crossarms)	Transfer to Contractor or third parties or dispose of	Aggregate Recycling Corp. 434 Dow Highway (Rt. 236) Eliot, ME 03903 800-639-7303	Casella Waste Systems, Inc. Juniper Ridge Landfill 2828 Bennoch Road Old Town, ME 04468 207-394-4372	Waste Management Crossroads Landfill 357 Mercer Road Norridgewock, ME 04957 207-634-2714 207-562-7999	
Wooden Insulator Crates	Place in landfill as daily cover or waste	Casella Waste Systems, Inc. Juniper Ridge Landfill 2828 Bennoch Road Old Town, ME 04468 207-394-4372	Casella Waste Systems, Inc. Hampden landfill 358 Emerson Mill Road Hampden, ME 04444 207-862-4200	Contractor Alternate	
Wooden Cable Spools & Pallets	Reconditioned and/or reused	Stuart Irby Company 977 West River Rd. Waterville, ME 04901 207-872-7921	Contractor Alternate		

MATERIAL	DISPOSAL METHOD	CMP PROPOSED FACILITIES			
Scrap Cable Metals (Ferrous and Non-Ferrous) Aluminum	Recycled via third party or reused by CMP as the opportunity avails itself	E. Perry Iron & Metal 115 Lancaster Street Portland, ME 04101 207-775-3181	Maine Metals Recycling Co. 522 Washington Street Auburn, ME 04210 207-786-3531	Schnitzer Northeast-NEMR, LLC 25-39 Somerset St. Portland, ME 04101 207-772-8329	Contractor Alternate
Aerosol Cans	Recycled				
Paper	Recycled via third party or reused by CMP as the opportunity avails itself	FCR / Pine Tree Waste Owned by Casella Waste Systems, Inc. (various Maine locations) Local Contact Pine Tree Waste Services 87 Pleasant Hill Road Scarborough, ME, 04074 207-883-9777	Contractor Alternate		
Porcelain Insulators	Crushed and used as road sub-base material	CPRC Recycling a.k.a. Commercial Paving 2 Gibson Road Scarborough, Maine 04074 207-883-3325	Aggregate Recycling Corp. 434 Dow Highway (Rt. 236) Eliot, ME 03903 800-639-7303	Contractor Alternate	
Concrete Debris	Reuse as road sub-base or utilize/dispose of as inert fill				

MATERIAL	DISPOSAL METHOD	CMP PROPOSED FACILITIES			
Redeemable drink containers	Redeemed for recycling	Contractor to propose			
Paint Waste (Non-Hazardous)	Shipped to licensed MSW landfill, transfer station, or incinerator	Casella Waste Systems, Inc. Hampden landfill 358 Emerson Mill Road Hampden, ME 04444 207-862-4200	Contractor Alternate		
Food waste, plastics, common trash	Shipped to licensed MSW landfill, transfer station, or incinerator	Casella Waste Systems, Inc. Hampden landfill 358 Emerson Mill Road Hampden, ME 04444 207-862-4200	Contractor Alternate		
Housing Demolition Debris (asphalt roofing, painted wood and plywood, junk /abandoned cars, special or hazardous waste)	Waste will be managed on a case specific basis depending on the type of waste and the specific generation location	Veolia 218 Canton St Stoughton, MA 02072-2219 (781) 341-6080	Waste Management Crossroads Landfill Street Norridgewock, ME Zip 207-562-7999	Contractor Alternate	
PCBs	Any PCBs found on the site will be managed according to applicable Federal (TSCA) and State regulations	Contractor shall use one of the facilities in Table 2 that are approved by CMP			
Asbestos	Shipped to approved landfill	Contractor to propose			
Lead Paint chips or debris (not adhered to equipment)	Incinerated or otherwise managed as hazardous waste	Contractor shall use one of the facilities in Table 2 that are approved by CMP			
Mercury Containing Switches	Shipped to approved recycling facility	Contractor to propose			

Table 2: CMP-Approved Hazardous Waste Disposal Facilities

Company Name	Location	EPA ID #	CMP Material Disposed Of
Chemical Waste Management, Inc.	Model City, NY	NYD049836679	Oily Debris \geq 50 ppm PCB
Clean Harbors LLC	Ashtabula, OH	OHD986975399	PCB-Contaminated Electrical Equipment
Cyn Oil Corporation	Stoughton, MA	NHD981211832	Waste Mineral Oil <50 ppm PCB
Enpro Services of Maine	South Portland, ME	MED019051069	Gasoline Contaminated Debris
Enviro-Safe Corporation	Lowell, MA	CCC	Lead Acid Batteries and Spent Chemicals
General Chemical Corporation	Framingham, MA	MAD019371077	Lead Acid Batteries
Jones Environmental Services Northeast, Inc.	Lowell, MA	MAD047075734	Spent Chemicals
Pollution Control Industries	East Chicago, IN	IND000646943	Aerosol Cans, Gasoline Filters, Waste Paint, acetylene cylinders, petroleum distillates
Safety Kleen Systems - KY	Smithfield, KY	KYD053348108	Spent Chemicals, waste paint materials, aerosol cans, acetylene cylinders
Spring Grove Resource Recovery	Cincinnati, OH	OHD000816629	Electrical Equipment PCB Contaminated
Trans-Ind Inc.	Richmond, VA	VAD988224002	Electrical Equipment PCB Contaminated and non-PCB
Trans-Cycle Industries, Inc.	Pell City AL	ALD983167891	Electrical Equipment PCB Contaminated, Waste Mineral Oil \geq 50 ppm PCB, Mineral Oil \geq 500 ppm PCB, Oily Debris \geq 50 ppm PCB
Concorde Specialty Gases, Inc.	Eatontown, NJ	NA	Sulfur Hexafluoride (SF ₆) Gas