

June 29, 2018

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

Ms. Naomi Kirk-Lawlor  
Land Use Planning Commission  
Department of Agriculture, Conservation and Forestry  
18 Elkins Lane  
Augusta, Maine 04330

**RE: New England Clean Energy Connect Project  
Requested and Revised Photosimulations**

Dear Mr. Beyer and Ms. Kirk-Lawlor:

Central Maine Power Company (CMP) is pleased to provide the attached photosimulations for the New England Clean Energy Connect (NECEC) project. The photosimulations, as detailed below, are being submitted in response to respective requests by the Maine Department of Environmental Protection (MDEP) and the Land Use Planning Commission (LUPC).

In MDEP's November 20, 2017 Environmental Information Request (Questions 5-7), MDEP requested additional photosimulations of Outstanding River Segments. CMP is providing the following photosimulations:

- Photosimulation 34: Carrabassett River, Anson
- Photosimulation 35: Sandy River, Farmington
- Photosimulation 36 and 37: West Branch Sheepscot River, Windsor

As a follow-up to MDEP and LUPC's May 7, 2018 Letter, and in subsequent consultation with MDEP and LUPC, CMP is submitting the following materials for the Brookfield Alternative:

- Photosimulations 38 through 41: Four views of the Brookfield Alternative from viewpoints recommended by the LUPC.
- Cross Section A: As requested by LUPC, this cross section depicts a location along the alternative route, where the corridor runs parallel and is within close proximity to the Kennebec River. Cross Section A shows that there will be no visibility of the transmission line by recreational rafters on the river.
- A viewshed is also provided for the Brookfield Alternative, as requested by LUPC.

Additional updates to existing photosimulations:

- Photosimulation 32: Kennebec Gorge Picnic Area. This photosimulation, dated June 21, 2018, was updated to show the panoramic view looking south-southwest from the river. This photosimulation differs from the January 22, 2018 panoramic view, as the January panoramic view depicts the 'normal' view output from the modeling software over the merged panoramic image, while the June panoramic image shows the angle of the conductors as distorted, similar to the effect of a fish eye lens. It should be noted that the proposed project visibility is best assessed by reviewing the normal views because there is no distortion. The normal views in both the January 22, 2018 and June 21, 2018 remain the same.
- Photosimulation 33: North of Picnic Area. This photosimulation is an update to the December 12, 2017 Kennebec Gorge 3 Structure Option. There are no substantive changes to the simulations; the only change is a correction to the titles in the upper left corner (33A through 33D).
- Photosimulations 13-15: Moxie Pond. CMP has redesigned the transmission line section along the west side of Moxie Pond. The monopole structures are 30 feet shorter than the original design. The redesign reduces the span length, with the addition of structures, to reduce structure heights to 70 feet.

CMP will be submitting a comprehensive response to the MDEP and LUPC's May 7, 2018 letter in the near future. If you have any questions regarding this analysis, please give me a call at (207) 629-9717 or email [gerry.mirabile@cmpco.com](mailto:gerry.mirabile@cmpco.com).

Sincerely,



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

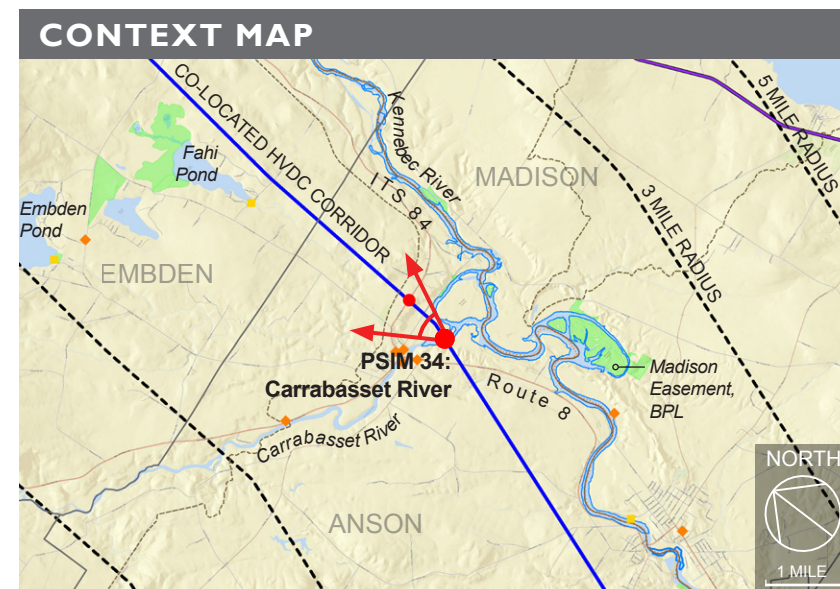
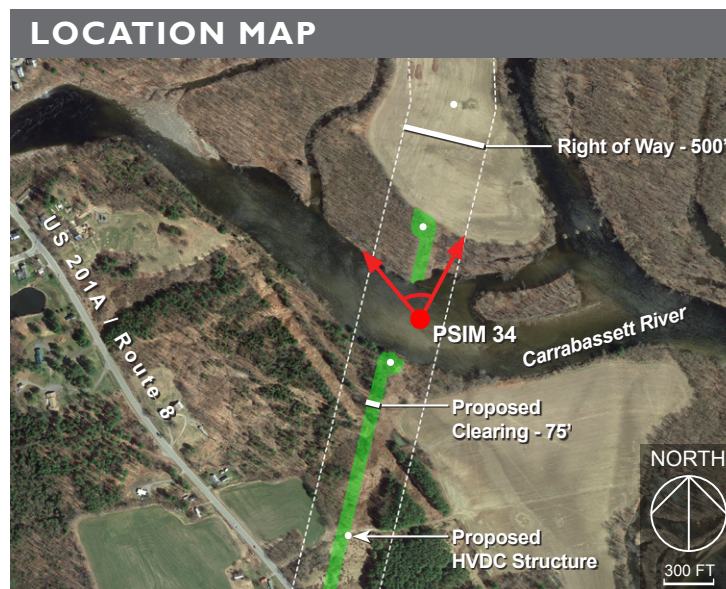
Enclosures

cc: Jay Clement, USACE; Samantha Horn, LUPC; Bill Hinkel, LUPC; 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

# PHOTOSIMULATION 34: CARRABASSETT RIVER, Anson



**Proposed Conditions:** Panoramic view looking north to northwest from the Carrabasset River in Anson toward the proposed co-located HVDC transmission line. The existing 225' wide cleared corridor will be widened by 75' on the western side to accommodate the proposed HVDC transmission line. Five proposed HVDC structures and conductors will be visible at distances of 540 feet to 3,160 feet from this viewpoint.



### TECHNICAL INFORMATION

| Typical Cross Section   | Photograph / Photosimulation Information   |                         |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
|---|--|-------------------------|-------------------------|-------------------|--------------------|--------------------------|-----|---------------|---------------------|---------------------|-------|-------------------|-------------|--------------|-------|-----------------------------|---|---|--------|
| <p>EXISTING 115 kV TYP. 45'</p> <p>PROPOSED HVDC TYP. 100'</p> <p>75' CLEARED</p> <p>150' 75' 275' 500'</p> <p>LIMIT R.O.W. TYPICAL VIEW LOOKING SOUTH LIMIT R.O.W.</p> | <table border="1"> <tr><td>Location</td><td>44.851508°, -69.885937°</td></tr> <tr><td>Viewing Direction</td><td>North to Northeast</td></tr> <tr><td>Horizontal Angle of View</td><td>67°</td></tr> <tr><td>Date and Time</td><td>04/24/18 at 2:07 pm</td></tr> <tr><td>Camera Focal Length</td><td>35 mm</td></tr> <tr><td>Camera Make/Model</td><td>Nikon D5500</td></tr> <tr><td>Photo Source</td><td>TJD&amp;A</td></tr> <tr><td>Proposed Structures Visible</td><td>5</td></tr> <tr><td>Approximate Distance to Nearest Visible Structure</td><td>540 ft</td></tr> </table> | Location                | 44.851508°, -69.885937° | Viewing Direction | North to Northeast | Horizontal Angle of View | 67° | Date and Time | 04/24/18 at 2:07 pm | Camera Focal Length | 35 mm | Camera Make/Model | Nikon D5500 | Photo Source | TJD&A | Proposed Structures Visible | 5 | Approximate Distance to Nearest Visible Structure | 540 ft |
|   | Location   | 44.851508°, -69.885937° |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
|   | Viewing Direction  | North to Northeast      |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
|   | Horizontal Angle of View   | 67°                     |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
|   | Date and Time  | 04/24/18 at 2:07 pm     |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
|   | Camera Focal Length  | 35 mm                   |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
|   | Camera Make/Model  | Nikon D5500             |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
|   | Photo Source   | TJD&A                   |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
|   | Proposed Structures Visible  | 5                       |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
|   | Approximate Distance to Nearest Visible Structure  | 540 ft                  |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
|   |  |                         |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
|   |  |                         |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |
| June 21, 2018      PAGE 1 OF 15   |  |                         |                         |                   |                    |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |        |



**Existing Conditions:** Normal view looking north from the Carrabassett River in Anson toward the existing 115 kV transmission line.

**PHOTOSIMULATION 34B: CARRABASSETT RIVER, Anson**



**Proposed Conditions:** Normal view looking north from the Carrabasset River in Anson toward the proposed co-located HVDC transmission line. The existing 225' wide cleared corridor will be widened by 75' on the western side to accommodate the proposed HVDC transmission line. Five proposed HVDC structures and conductors will be visible at distances of 540 feet to 3,160 feet from this viewpoint.

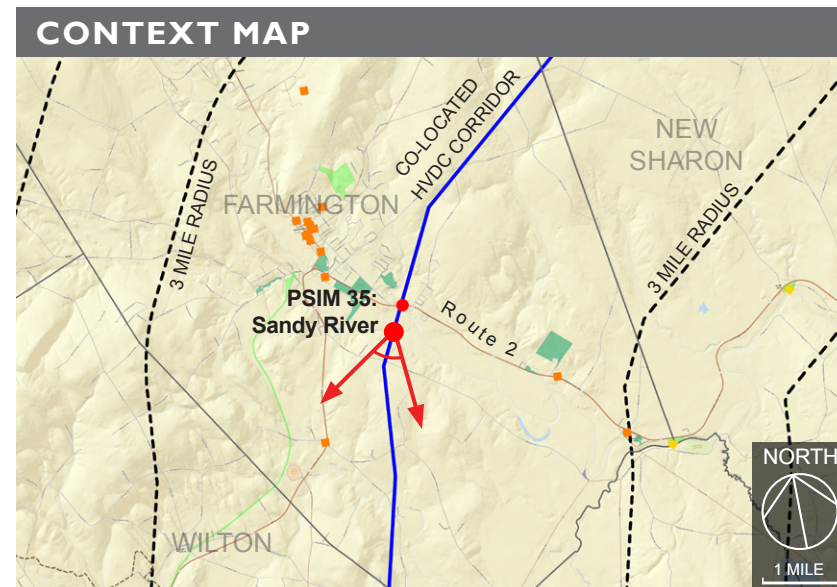
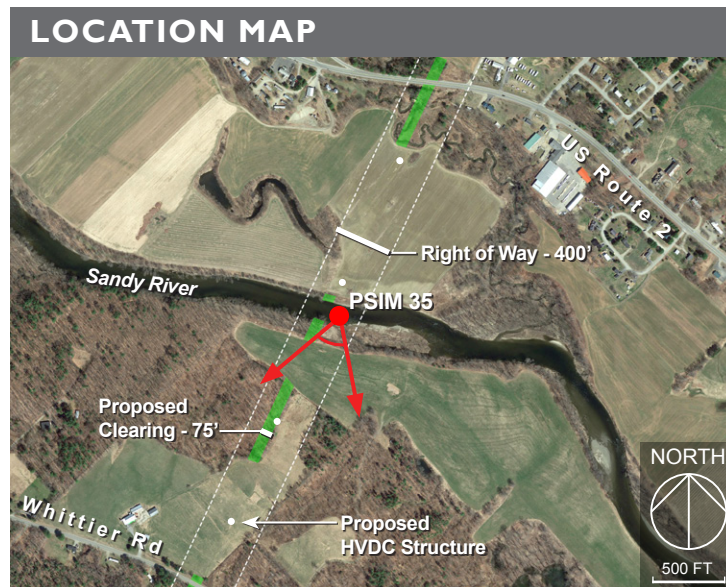
June 21, 2018

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**PHOTOSIMULATION 35: SANDY RIVER, Farmington**



**Proposed Conditions:** Panoramic view looking south to west from the Sandy River in Farmington toward the proposed co-located HVDC transmission line. The existing 225' wide cleared corridor will be widened by 75' on the western side to accommodate the proposed HVDC transmission line. Two proposed HVDC structures and conductors will be visible at distances of 825 to 1,600 feet from this viewpoint.



| TECHNICAL INFORMATION            |   |
|----------------------------------|---|
| <b>Typical Cross Section</b><br> | <b>Photograph / Photosimulation Information</b>               |
|                                  | Location: 44.649027°, -69.131998°                             |
|                                  | Viewing Direction: South to West                              |
|                                  | Horizontal Angle of View: 71°                                 |
|                                  | Date and Time: 04/24/18 at 3:32 pm                            |
|                                  | Camera Focal Length: 35 mm                                    |
|                                  | Camera Make/Model: Nikon D5500                                |
|                                  | Photo Source: TJD&A   |
|                                  | Proposed Structures Visible: 2                                |
|                                  | Approximate Distance to Nearest Visible Structure: 825 ft     |
|                                  |   |
|                                  |   |
|                                  | June 21, 2018 <span style="float: right;">PAGE 4 OF 15</span> |

**EXISTING CONDITIONS 35A: SANDY RIVER, Farmington**



**Existing Conditions:** Normal view looking south from the Sandy River in Farmington toward the existing 115 kV transmission line.

**PHOTOSIMULATION 35B: SANDY RIVER, Farmington**



**Proposed Conditions:** Normal view looking south from the Sandy River in Farmington toward the proposed co-located HVDC kV transmission line. The existing 225' wide cleared corridor will be widened by 75' on the western side to accommodate the proposed HVDC transmission line. Two proposed HVDC structures and conductors will be visible at distances of 825 to 1,600 feet away from this viewpoint.

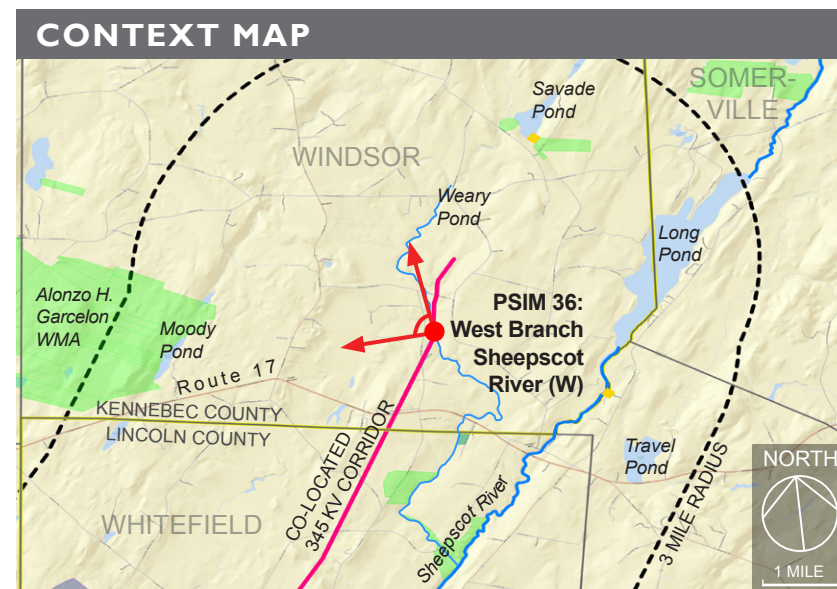
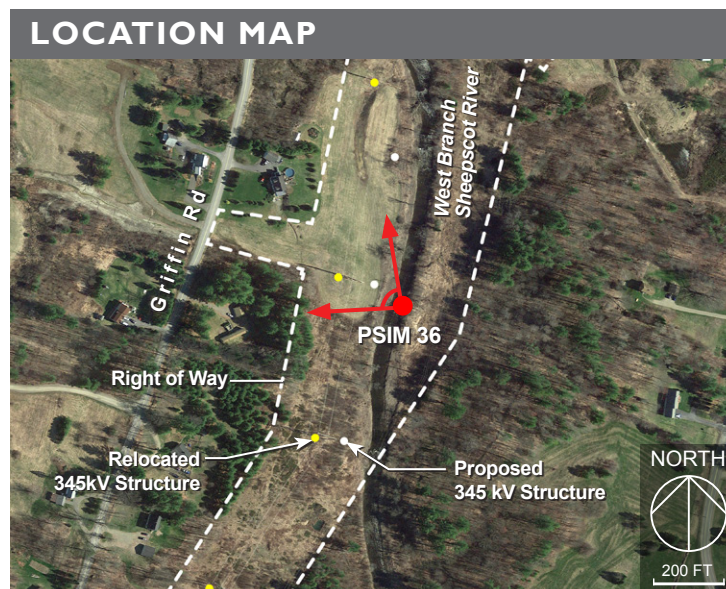
June 21, 2018



**PHOTOSIMULATION 36: WEST SHEEPSCOT RIVER (LOOKING WEST), Windsor**



**Proposed Conditions:** Panoramic view looking west to north from the West Branch Sheepscot River in Windsor toward the proposed co-located 345 kV transmission line (see continuation of this view to the north, Photosimulation 36). The existing 345 kV transmission line will be relocated 40' to the west to accommodate the proposed 345 kV transmission line. One proposed 345 kV structure and conductors will be visible approximately 112 feet from this viewpoint. No additional vegetation will be removed in this area directly adjacent to the river.



| TECHNICAL INFORMATION   |   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
|---|---|----------|-----------------------|-------------------|---------------|--------------------------|-----|---------------|---------------------|---------------------|-------|-------------------|-------------|--------------|-------|-----------------------------|---|---|----------|
| <p><b>Typical Cross Section</b></p> <p>TYPICAL VIEW LOOKING NORTH</p> | <p><b>Photograph / Photosimulation Information</b></p> <table border="1"> <tr> <td>Location</td> <td>44.282987°, -69.56534</td> </tr> <tr> <td>Viewing Direction</td> <td>West to North</td> </tr> <tr> <td>Horizontal Angle of View</td> <td>80°</td> </tr> <tr> <td>Date and Time</td> <td>04/24/18 at 5:06 pm</td> </tr> <tr> <td>Camera Focal Length</td> <td>35 mm</td> </tr> <tr> <td>Camera Make/Model</td> <td>Nikon D7100</td> </tr> <tr> <td>Photo Source</td> <td>TJD&amp;A</td> </tr> <tr> <td>Proposed Structures Visible</td> <td>1</td> </tr> <tr> <td>Approximate Distance to Nearest Visible Structure</td> <td>112 feet</td> </tr> </table> | Location | 44.282987°, -69.56534 | Viewing Direction | West to North | Horizontal Angle of View | 80° | Date and Time | 04/24/18 at 5:06 pm | Camera Focal Length | 35 mm | Camera Make/Model | Nikon D7100 | Photo Source | TJD&A | Proposed Structures Visible | 1 | Approximate Distance to Nearest Visible Structure | 112 feet |
| Location  | 44.282987°, -69.56534   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
| Viewing Direction   | West to North   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
| Horizontal Angle of View  | 80°   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
| Date and Time   | 04/24/18 at 5:06 pm   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
| Camera Focal Length   | 35 mm   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
| Camera Make/Model   | Nikon D7100   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
| Photo Source  | TJD&A   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
| Proposed Structures Visible   | 1   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
| Approximate Distance to Nearest Visible Structure                     | 112 feet  |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
|   |   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
|   |   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |
| June 21, 2018      PAGE 7 OF 15                                       |   |          |                       |                   |               |                          |     |               |                     |                     |       |                   |             |              |       |                             |   |   |          |



**Existing Conditions:** Normal view looking west from the West Branch Sheepscot River in Windsor toward the existing 345 kV transmission line.

**PHOTOSIMULATION 36B: WEST SHEEPSCOT RIVER (LOOKING WEST), Windsor**

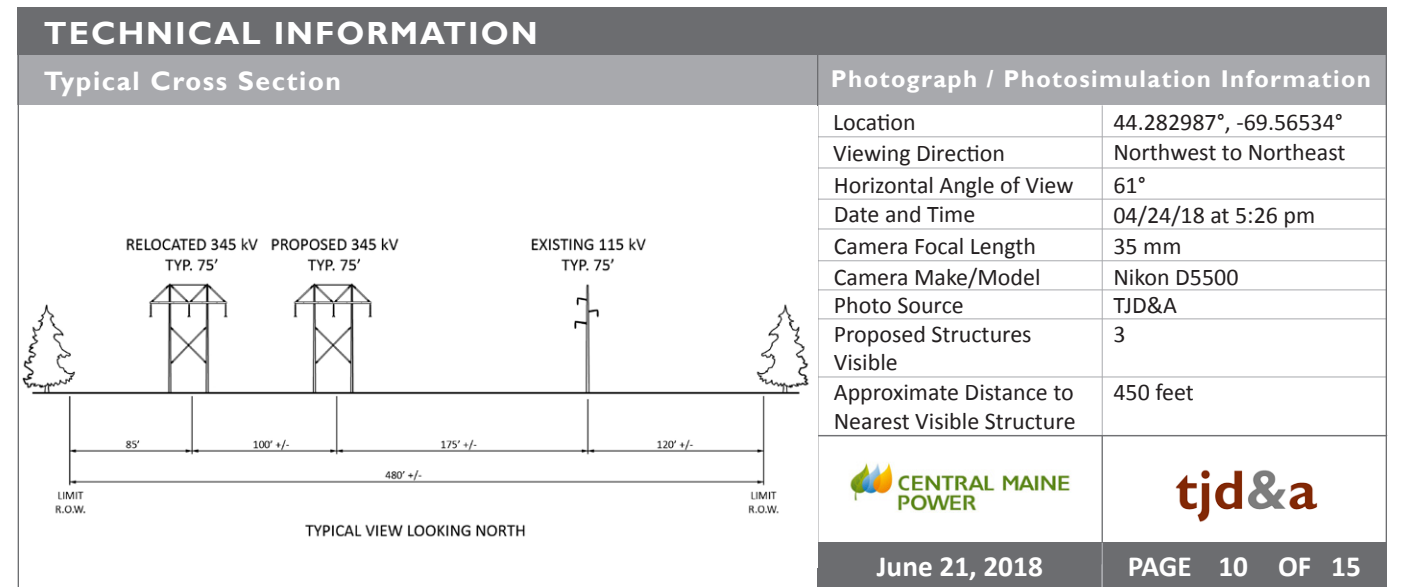
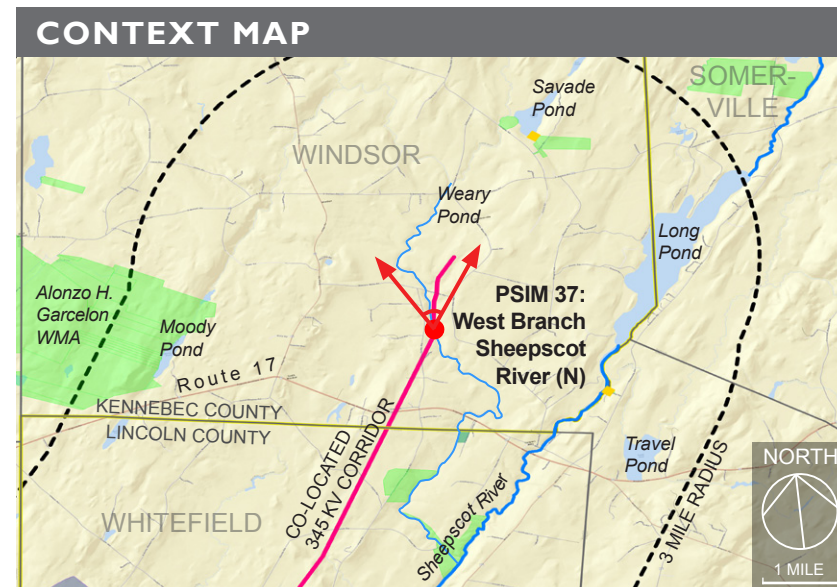
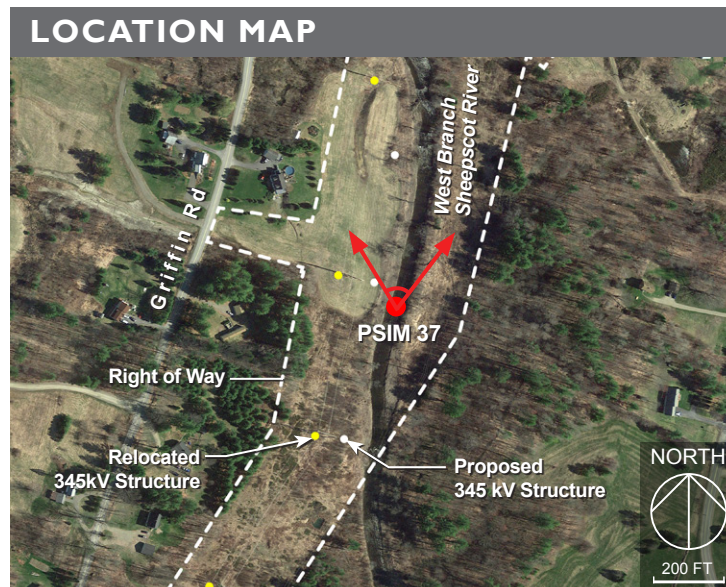


**Proposed Conditions:** Normal view looking west from the West Branch Sheepscot River in Windsor toward the proposed co-located 345 kV transmission line. The existing 345 kV transmission line will be relocated 40' to the west to accommodate the new proposed 345 kV transmission line. One proposed 345 kV structure and conductors will be visible approximately 112 feet from this viewpoint. No additional vegetation will be removed in this area directly adjacent to the river.

# PHOTOSIMULATION 37: WEST BRANCH SHEEPSCOT RIVER (LOOKING NORTH), Windsor



**Proposed Conditions:** Panoramic view looking northwest to northeast from the West Branch Sheepscot River in Windsor toward the proposed co-located 345 kV transmission line (this view is a continuation of Photosimulation 35). The existing 345 kV transmission line will be moved 40' to the west to accommodate the new proposed 345 kV transmission line. Three proposed 345 kV structures and conductors will be visible at distances of 450 to 1,250 feet from this viewpoint. Minimal vegetation removal will be required for one of the proposed 345 kV transmission structures.





**Existing Conditions:** Normal view looking north from the Sheepscot River in Windsor toward the existing 345 kV transmission line.

**PHOTOSIMULATION 37B: WEST BRANCH SHEEPSCOT RIVER (LOOKING NORTH), Windsor**



**Proposed Conditions:** Normal view looking north from the Sheepscot River in Windsor toward the proposed co-located 345 kV transmission line. The existing 345 kV transmission line will be moved 40' to the west to accommodate the new proposed 345 kV transmission line. Three proposed 345 kV structures and conductors will be visible at distances of 450 to 1,250 feet from this viewpoint. Minimal vegetation removal will be required for one of the proposed 345 kV transmission structures.



**Existing Conditions:** Normal view looking north from the West Branch Sheepscot River in Windsor toward the existing 115 kV and 345 kV transmission lines.

**PHOTOSIMULATION 37D: WEST BRANCH SHEEPSCOT RIVER (LOOKING NORTH), Windsor**



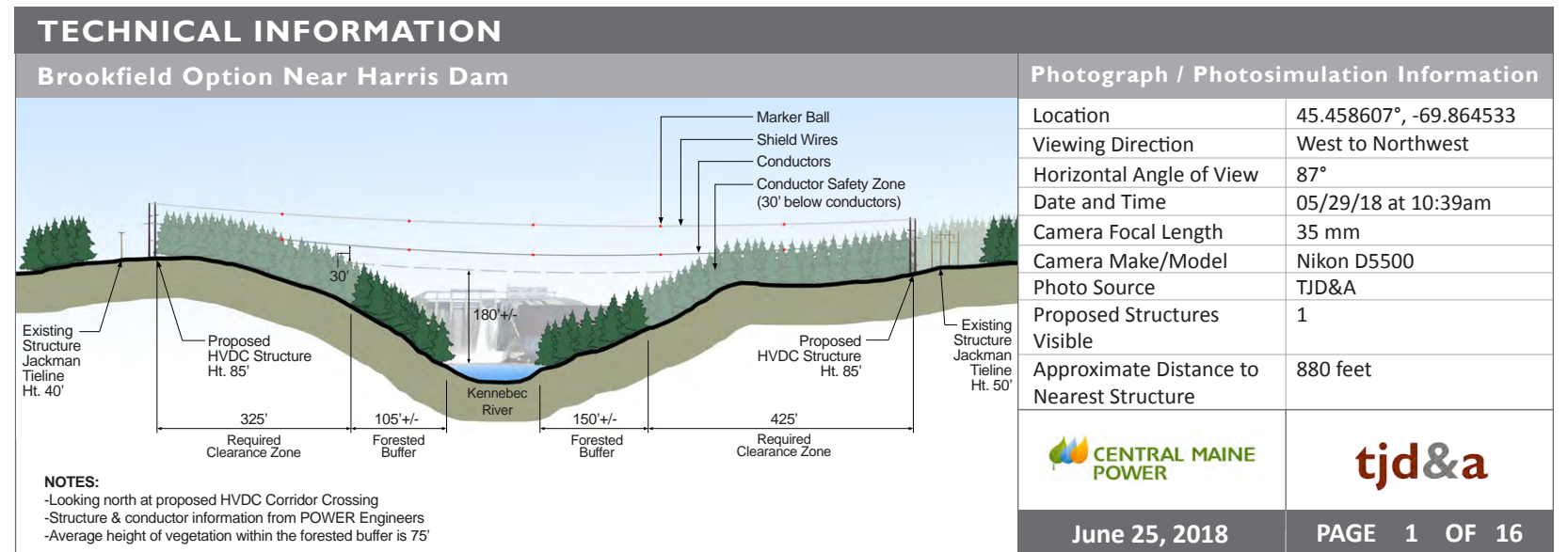
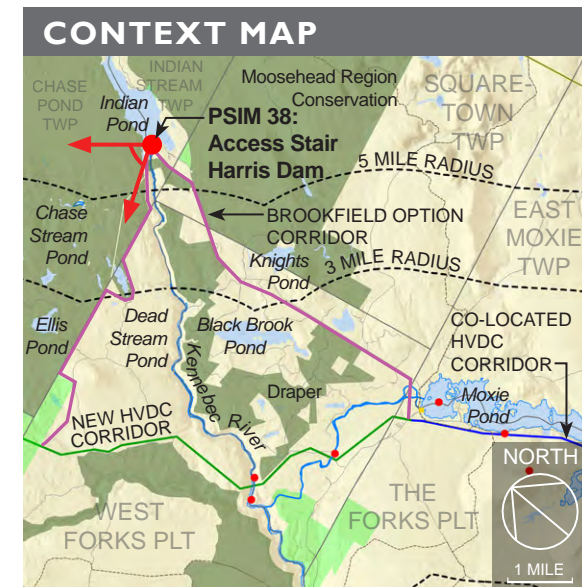
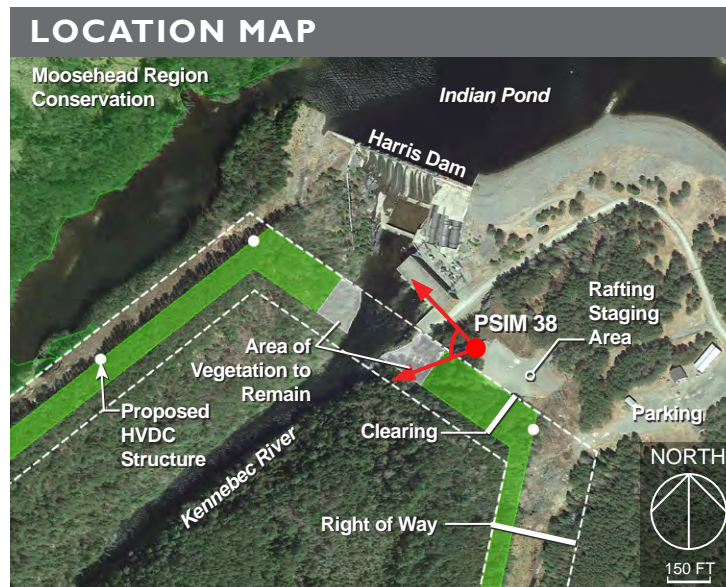
**Proposed Conditions:** Normal view looking north from the Sheepscot River in Windsor toward the proposed co-located 345 kV transmission line. The existing 345 kV transmission line will be moved 40' to the west to accommodate the new proposed 345 kV transmission line. Three proposed 345 kV structures and conductors will be visible at distances of 450 to 1,250 feet from this viewpoint. No additional vegetation will be removed on the east side of the river.



# PHOTOSIMULATION 38: BROOKFIELD OPTION - Top of Access Stair at Harris Dam, Indian Stream Township



**Proposed Conditions:** Panoramic view looking west to northwest from the top of the Kennebec River access stair adjacent to the Harris Dam. The roof of the powerhouse, a concrete sluiceway, and a portion of the Jackman Tie Line are visible in this image. One proposed 85' HVDC structure would be visible across the river approximately 880 feet from this location. The conductors would be approximately 180' above the water level. Shield wires and conductors with marker balls would pass directly over the access stairs. Approximately 325' of vegetation below the visible structure within the 150' wide corridor would be removed to maintain clearance for the conductor safety zone. Approximately 105' of vegetation would remain adjacent to the river on the northwest side, and 150' on the southeast side.





**Existing Conditions:** Normal view looking northwest from the top of the Kennebec River access stair adjacent to the Harris Dam.

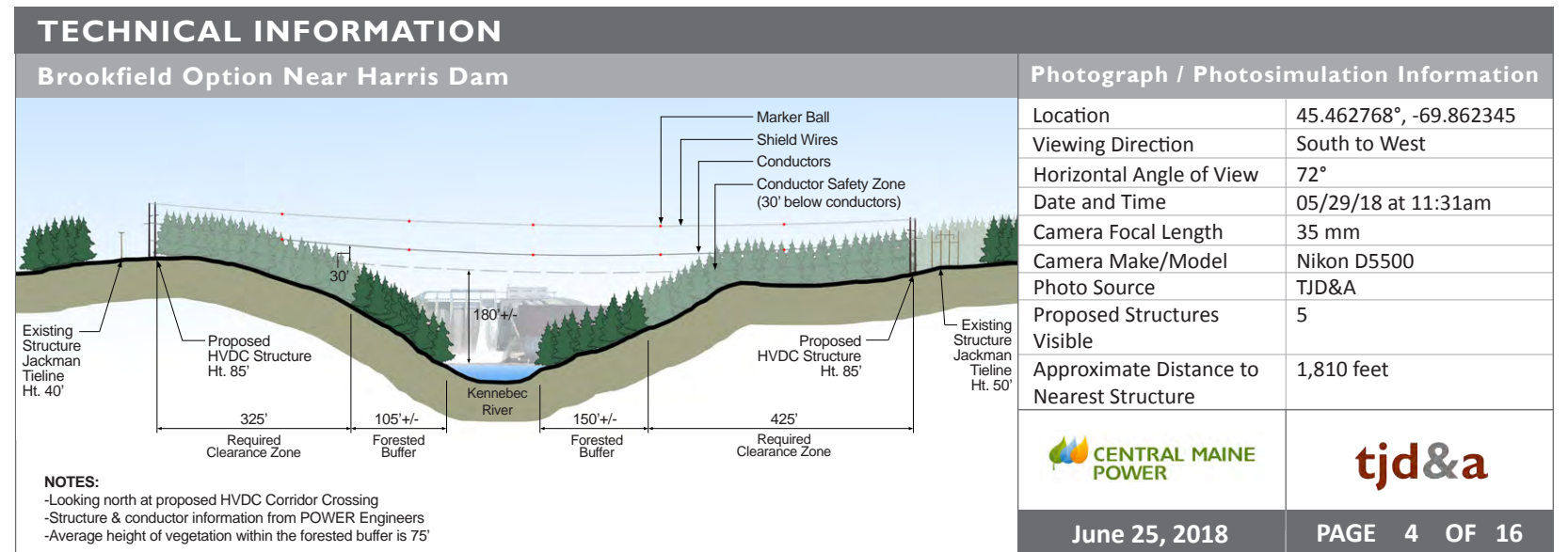
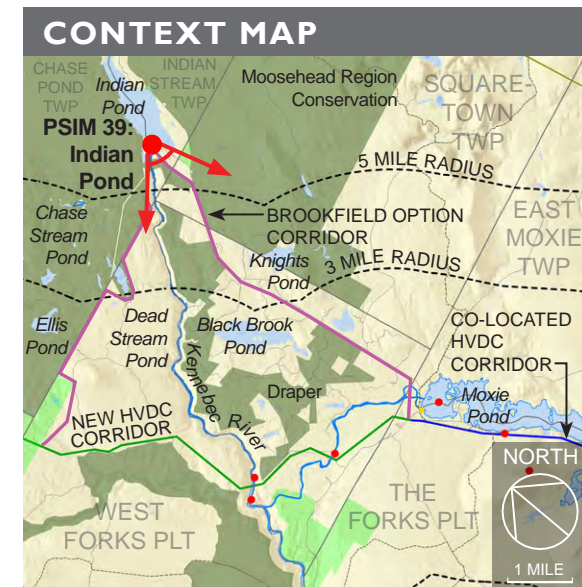
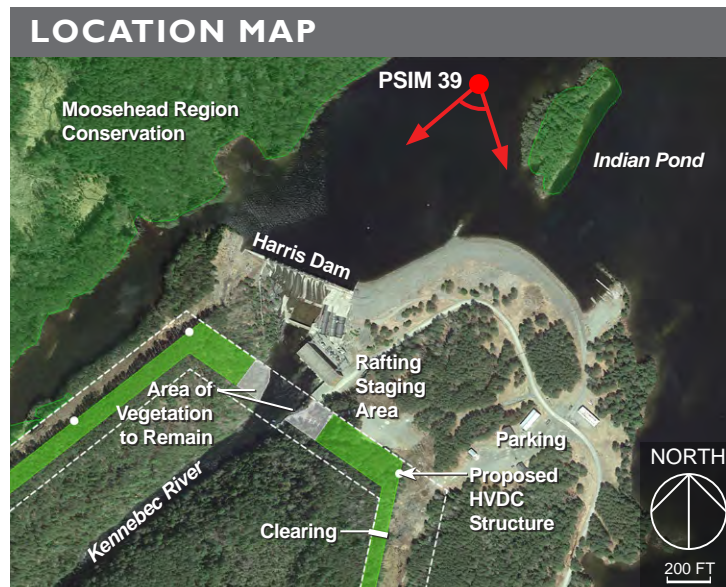


**Proposed Conditions:** Normal view looking northwest from the top of the Kennebec River access steps adjacent to Harris Dam. Due to the steep topography and required clearing, one 85' HVDC structure would be entirely visible on the north side of the river, 880 feet from this viewpoint. The proposed clearing would reveal an additional portion of the existing Jackman Tie Line transmission corridor behind the proposed structure.

# PHOTOSIMULATION 39: INDIAN POND - IMPOUNDMENT, Indian Stream Township



**Proposed Conditions:** Panoramic view looking south to west from Indian Pond Impoundment toward the Harris Dam and existing Jackman Tie Line transmission corridor. Portions of five proposed HVDC structures would be visible at distances of approximately 1,810 to 3,100 feet from this location.





**Existing Conditions:** Normal view looking southwest from Indian Pond Impoundment toward the Harris Dam.



**Proposed Conditions:** Normal view looking southwest from Indian Pond Impoundment toward the Harris Dam. Two proposed HVDC structures, corridor clearing, and conductors with marker balls would be visible looking in this direction from the southern end of Indian Pond.



**Existing Conditions:** Normal view looking west from Indian Pond Impoundment toward the Harris Dam and the existing Jackman Tie Line transmission corridor.



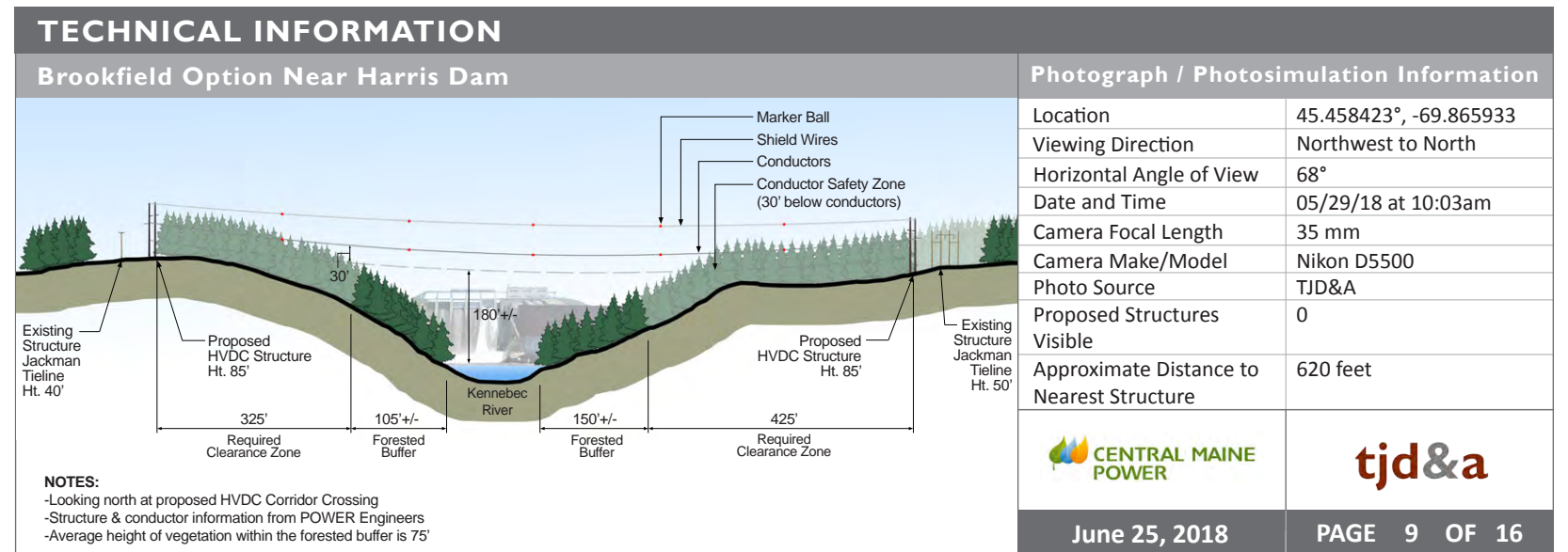
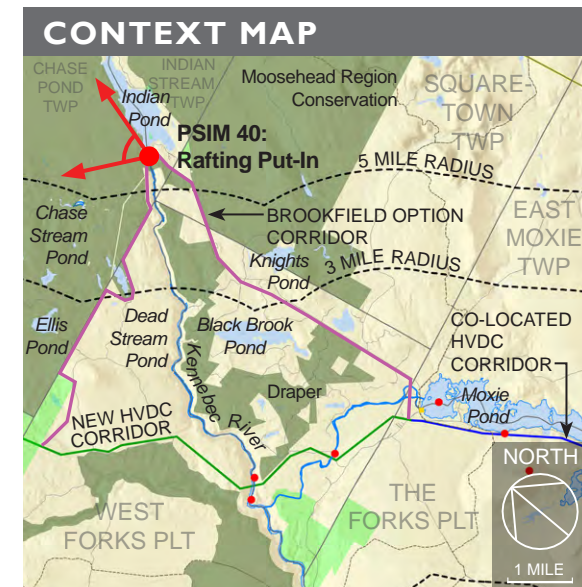
**Proposed Conditions:** Normal view looking west from Indian Pond toward the Harris Dam and the existing Jackman Tie Line transmission corridor. Three proposed HVDC structures, corridor clearing, and conductors with marker balls would be visible looking in this direction from the southern end of Indian Pond.



**PHOTOSIMULATION 40: BROOKFIELD OPTION - Rafting Put-In Location on Kennebec River, Indian Stream Township**



**Proposed Conditions:** Panoramic view looking northwest to north from the rafting launch area on the Kennebec River below Harris Dam. Due to the steep terrain and clearing limits of the proposed corridor, the closest structure on the northwest side of the river will be screened from view by existing foreground trees. The closest structure on the southeast side of the river will not be visible. Conductors with marker balls will be visible approximately 180 feet above the river. The required vegetation removal will be minimally noticeable from this location.



**EXISTING CONDITIONS 40A: BROOKFIELD OPTION**  
Rafting Put-In Location on Kennebec River - Indian Stream Township



Existing Conditions: Vertical normal view looking northwest from the rafting launch area on the Kennebec River below Harris Dam.

**PHOTOSIMULATION 40B: BROOKFIELD OPTION**  
**Rafting Put-In Location on Kennebec River - Indian Stream Township**

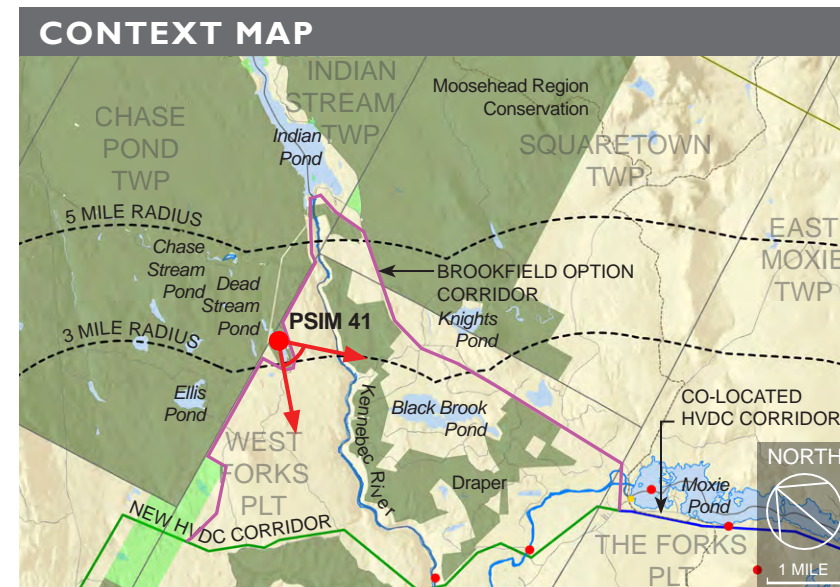
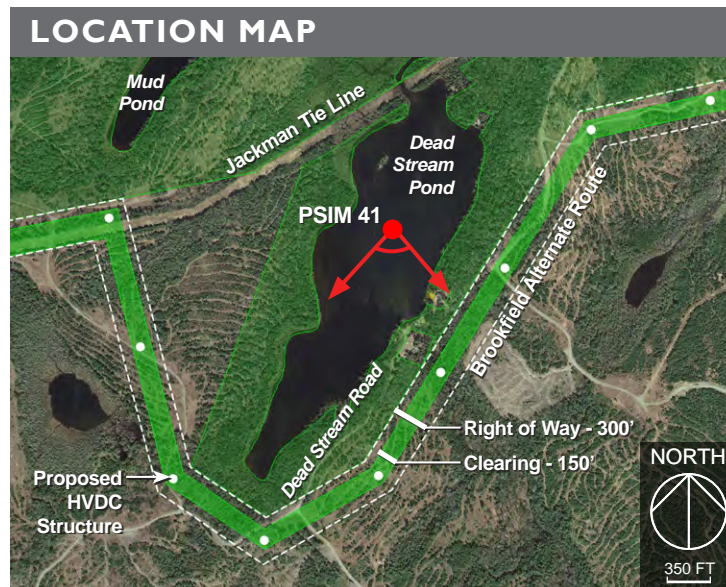


**Proposed Conditions:** Vertical normal view looking northwest from the rafting launch area on the Kennebec River below Harris Dam. Due to the steep terrain and clearing limits of the proposed corridor, the closest structure on the northwest side of the river will be screened from view by existing foreground trees. The closest structure on the southeast side of the river will not be visible. Conductors with marker balls will be visible approximately 180 feet above the river. The required vegetation removal will be minimally noticeable from this location.

# PHOTOSIMULATION 41: BROOKFIELD OPTION - Dead Stream Pond, West Forks Plt



**Proposed Conditions:** Panoramic view looking southeast to southwest toward the Brookfield Alternate Route HVDC transmission line from Dead Stream Pond in West Forks Plt. The existing Jackman Tie Line is visible from the pond looking to the north (opposite direction of this view). The top of one HVDC structure would be visible to the southeast at a distance of 1,250 feet from this viewpoint. Portions of shield wires and conductors would be visible to southwest approximately 2,700 feet from this viewpoint.



### TECHNICAL INFORMATION

#### Typical Cross Section

| Photograph / Photosimulation Information  |                         |
|---|-------------------------|
| Location                                  | 45.442243°, -69.913175° |
| Viewing Direction                         | Southeast to Southwest  |
| Horizontal Angle of View                  | 87°                     |
| Date and Time                             | 05/29/18 at 2:02pm      |
| Camera Focal Length                       | 35 mm                   |
| Camera Make/Model                         | Nikon D5500             |
| Photo Source                              | TJD&A                   |
| Proposed Structures Visible               | 1                       |
| Approximate Distance to Nearest Structure | 1,250 feet              |

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**Existing Conditions:** Normal view looking southeast from Dead Stream Pond in West Forks Plt. Approximately five camps are located on the southeast shoreline of the pond adjacent to the publicly accessible water put-in location.



**Proposed Conditions:** Normal view looking southeast toward the Brookfield Alternate Route HVDC transmission line corridor from Dead Stream Pond in West Forks Plt. The top of one HVDC structure would be visible at a distance of 1,250 feet from this viewpoint.



**Existing Conditions:** Normal view looking southwest from Dead Stream Pond in West Forks Plt.



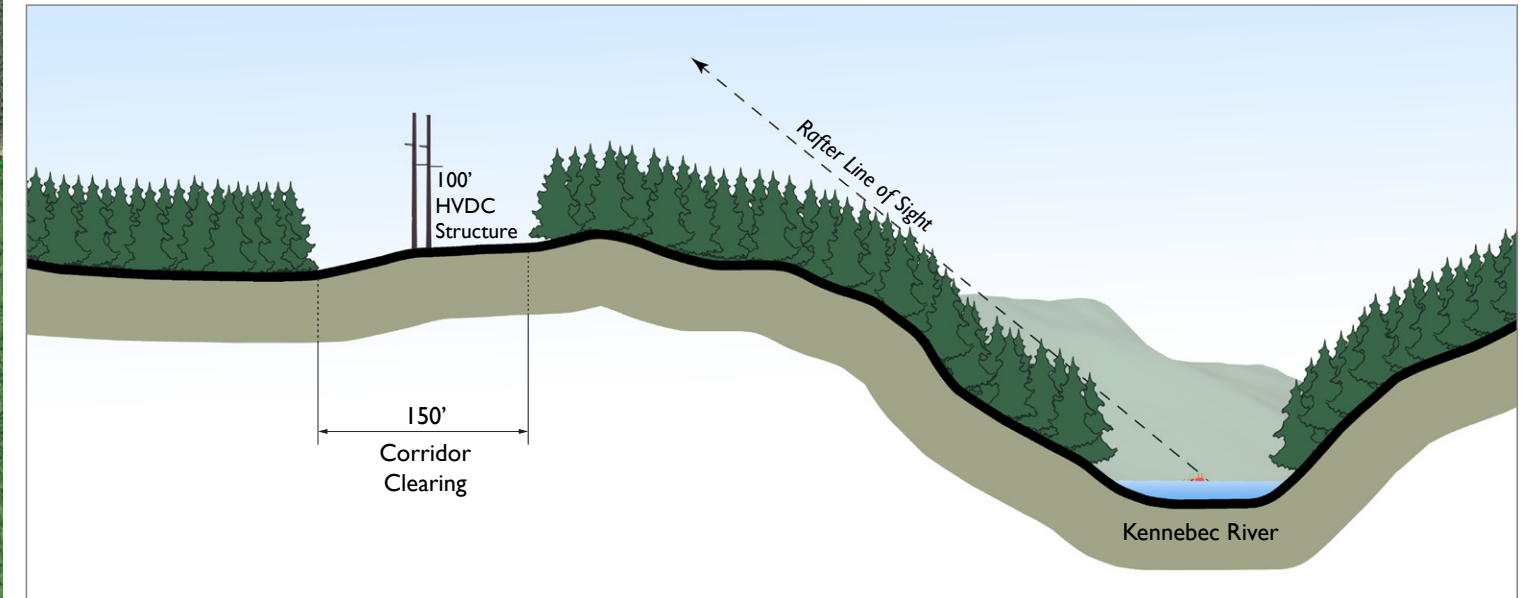
**Proposed Conditions:** Normal view looking southwest toward the Brookfield Alternate Route HVDC transmission line corridor from Dead Stream Pond in West Forks Plt. Portions of shield wires and conductors would be visible approximately 2,700 feet from this viewpoint.



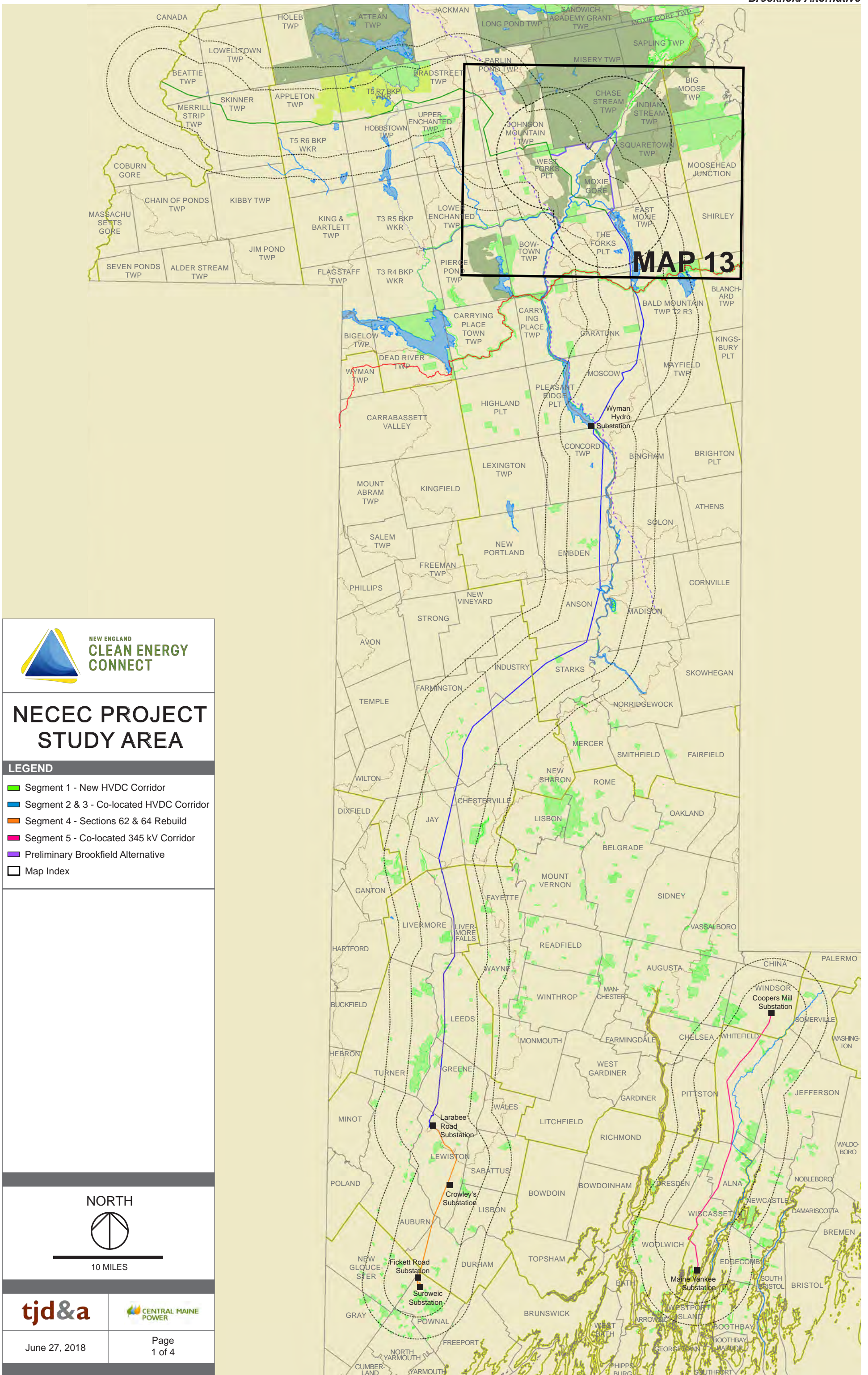
# BROOKFIELD OPTION - AERIAL & CROSS SECTION



### CROSS SECTION A



June 25, 2018



NEW ENGLAND  
**CLEAN ENERGY  
CONNECT**

## NECEC PROJECT STUDY AREA

### LEGEND

- Segment 1 - New HVDC Corridor
- Segment 2 & 3 - Co-located HVDC Corridor
- Segment 4 - Sections 62 & 64 Rebuild
- Segment 5 - Co-located 345 kV Corridor
- Preliminary Brookfield Alternative
- Map Index

NORTH



10 MILES

**tjd&a**



June 27, 2018

Page  
1 of 4



# Map 13

Preliminary Study Area Map

## LEGEND

- New HVDC Corridor
- Co-located HVDC Corridor
- Preliminary Brookfield Alternative
- Municipal Boundaries
- County Boundaries
- Conservation Lands
- Conservation Lands - Harvesting permitted
- The Nature Conservancy Lands
- ◆ Boat Launch
- Structures on National Register of Historic Places
- Structures eligible for National Register of Historic Places
- Appalachian Trail
- ITS - Interconnected Trail System
- Old Canada Road National Scenic Byway
- ✱ Scenic Byway Pull-Offs / Overlooks
- Remote Pond (R)
- Great pond (rated as "Outstanding" or "Significant"), scenic rivers and streams
- Photosimulation Location

## NOTE

This preliminary viewshed analysis is based on a conceptual layout by TJD&A generated from the potential Brookfield Option corridor provided by Central Maine Power. POWER Engineers provided locations and height of structures immediately adjacent to the Harris Dam crossing only. TJD&A assigned a typical structure height of 100' and spaced the structures 500 to 1,000 feet apart along the remainder of the proposed center line for purposes of this analysis. The structure base elevations are based on topographic information generated with DEM data from National Mapper.

## MAP INDEX

NORTH

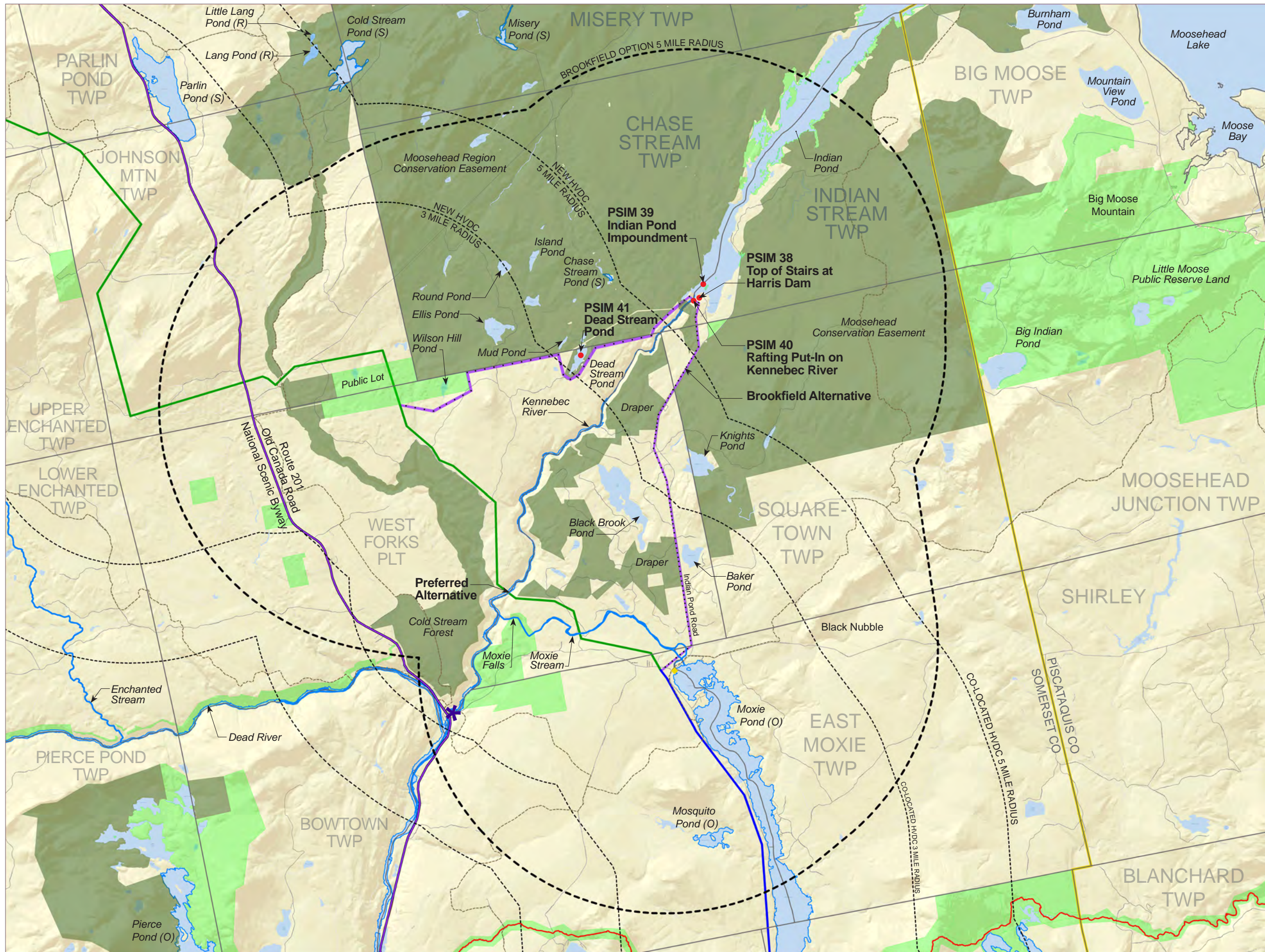
1 MILE

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# Map 13

Preliminary Topographic Viewshed

## LEGEND

- New HVDC Corridor
- Co-located HVDC Corridor
- Preliminary Brookfield Alternative
- Municipal Boundaries
- County Boundaries
- Conservation Lands
- Conservation Lands - Harvesting permitted
- The Nature Conservancy Lands
- ◆ Boat Launch
- Structures on National Register of Historic Places
- Structures eligible for National Register of Historic Places
- Appalachian Trail
- ITS - Interconnected Trail System
- Old Canada Road National Scenic Byway
- ✱ Scenic Byway Pull-Offs / Overlooks
- Remote Pond (R)
- Great pond (rated as "Outstanding" or "Significant"), scenic rivers and streams
- Photosimulation Location

## VISIBILITY

Area of potential project visibility where any portion of any structure may be visible within 5 miles.

## NOTES

This viewshed map accounts for the screening effects of topography only and shows where the viewer may see any portion of a transmission structure.

This preliminary viewshed analysis is based on a conceptual layout by TJD&A generated from the potential Brookfield Option corridor provided by Central Maine Power. POWER Engineers provided locations and height of structures immediately adjacent to the Harris Dam crossing only. TJD&A assigned a typical structure height of 100' and spaced the structures 500 to 1,000 feet apart along the remainder of the proposed center line for purposes of this analysis. The structure base elevations are based on topographic information generated with DEM data from National Mapper.

## MAP INDEX



NORTH



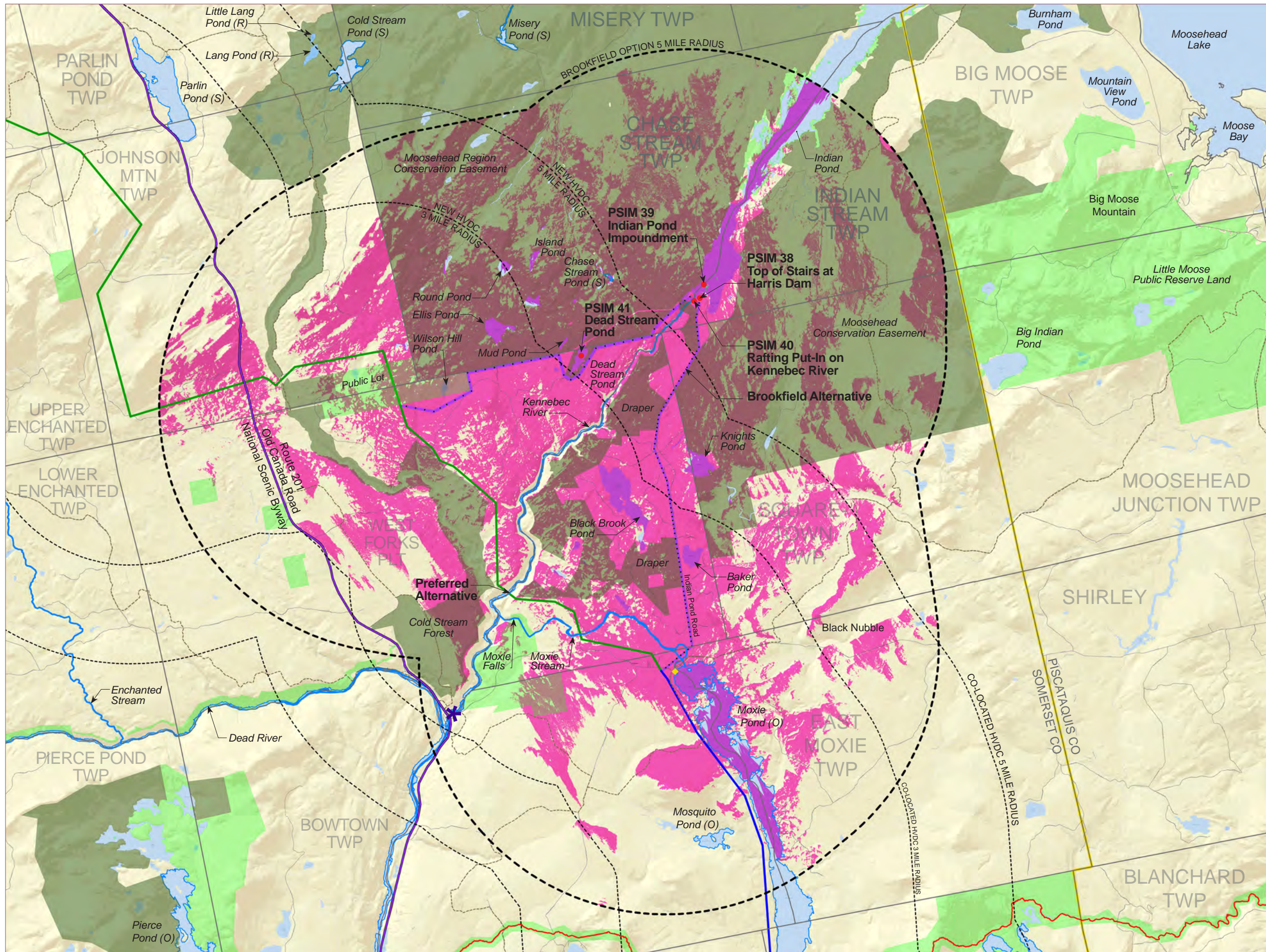
1 MILE

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June 27, 2018

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# Map 13

Preliminary Landcover Viewshed

## LEGEND

- New HVDC Corridor
- Co-located HVDC Corridor
- Preliminary Brookfield Alternative
- Municipal Boundaries
- County Boundaries
- Conservation Lands
- Conservation Lands - Harvesting permitted
- The Nature Conservancy Lands
- ◆ Boat Launch
- Structures on National Register of Historic Places
- Structures eligible for National Register of Historic Places
- Appalachian Trail
- ITS - Interconnected Trail System
- Old Canada Road National Scenic Byway
- ✳ Scenic Byway Pull-Offs / Overlooks
- Remote Pond (R)
- Great pond (rated as "Outstanding" or "Significant"), scenic rivers and streams
- Photosimulation Location

## VISIBILITY

Area of potential project visibility where any portion of any structure may be visible within 5 miles.

## NOTES

**This viewshed map:**

- Accounts for the screening effects of topography as well as 8 types of existing vegetation. Landcover data from Maine OGIS. The heights for the forest cover types are as follows.
  - Deciduous: 40'
  - Evergreen: 40'
  - Mixed: 40'
  - Scrub Shrub: 10'
  - Forested Wetland: 20'
  - Light Partial Cut: 40'
  - Heavy Partial Cut: 40'
  - Forest Regeneration: 20'
- Shows where the viewer may see any portion of a transmission structure.

This preliminary viewshed analysis is based on a conceptual layout by TJD&A generated from the potential Brookfield Option corridor provided by Central Maine Power. POWER Engineers provided locations and height of structures immediately adjacent to the Harris Dam crossing only. TJD&A assigned a typical structure height of 100' and spaced the structures 500 to 1,000 feet apart along the remainder of the proposed center line for purposes of this analysis. The structure base elevations are based on topographic information generated with DEM data from National Mapper.

## MAP INDEX

NORTH

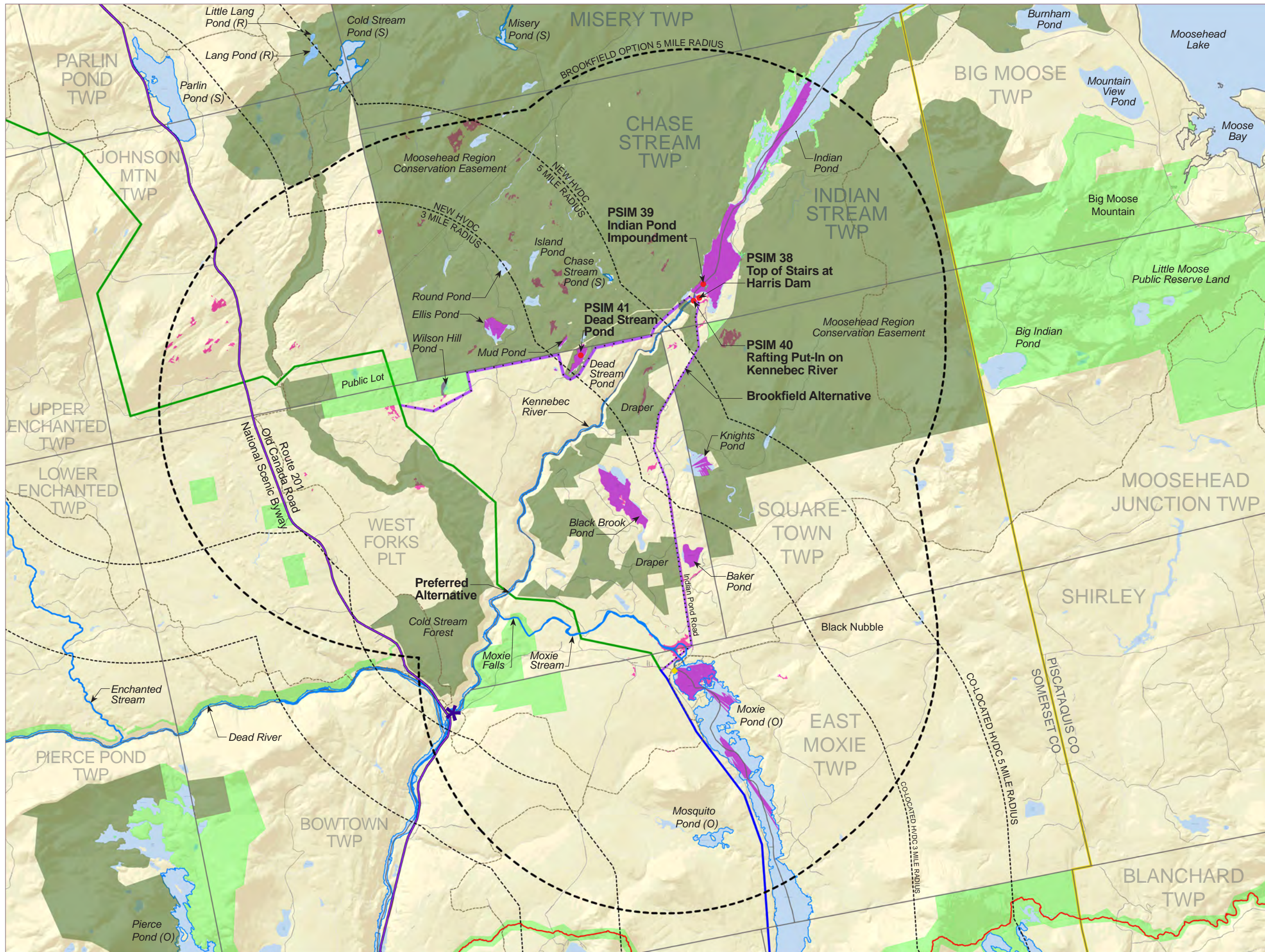
1 MILE

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



**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.

Note: The angle of the conductors shown is distorted in this panoramic view due to close proximity of viewer, similar to effect of a fish eye lens. See normal views on pages 2-7.

| LOCATION MAP  |                         | CONTEXT MAP |  | TECHNICAL INFORMATION |  | Photograph / Photosimulation Information   |  |          |                         |                   |                    |                          |     |               |                      |                     |       |                   |             |              |       |                             |   |   |          |
|---|-------------------------|-------------|--|-----------------------|--|--|--|----------|-------------------------|-------------------|--------------------|--------------------------|-----|---------------|----------------------|---------------------|-------|-------------------|-------------|--------------|-------|-----------------------------|---|---|----------|
|   |                         |             |  |                       |  | <table border="1"> <tr> <td>Location</td> <td>45.374158°, -69.940566°</td> </tr> <tr> <td>Viewing Direction</td> <td>South to Southwest</td> </tr> <tr> <td>Horizontal Angle of View</td> <td>80°</td> </tr> <tr> <td>Date and Time</td> <td>11/09/17 at 12:41 pm</td> </tr> <tr> <td>Camera Focal Length</td> <td>35 mm</td> </tr> <tr> <td>Camera Make/Model</td> <td>Nikon D5500</td> </tr> <tr> <td>Photo Source</td> <td>TJD&amp;A</td> </tr> <tr> <td>Proposed Structures Visible</td> <td>0</td> </tr> <tr> <td>Approximate Distance to Nearest Structure</td> <td>850 feet</td> </tr> </table> |  | Location | 45.374158°, -69.940566° | Viewing Direction | South to Southwest | Horizontal Angle of View | 80° | Date and Time | 11/09/17 at 12:41 pm | Camera Focal Length | 35 mm | Camera Make/Model | Nikon D5500 | Photo Source | TJD&A | Proposed Structures Visible | 0 | Approximate Distance to Nearest Structure | 850 feet |
| Location  | 45.374158°, -69.940566° |             |  |                       |  |  |  |          |                         |                   |                    |                          |     |               |                      |                     |       |                   |             |              |       |                             |   |   |          |
| Viewing Direction   | South to Southwest      |             |  |                       |  |  |  |          |                         |                   |                    |                          |     |               |                      |                     |       |                   |             |              |       |                             |   |   |          |
| Horizontal Angle of View  | 80°                     |             |  |                       |  |  |  |          |                         |                   |                    |                          |     |               |                      |                     |       |                   |             |              |       |                             |   |   |          |
| Date and Time   | 11/09/17 at 12:41 pm    |             |  |                       |  |  |  |          |                         |                   |                    |                          |     |               |                      |                     |       |                   |             |              |       |                             |   |   |          |
| Camera Focal Length   | 35 mm                   |             |  |                       |  |  |  |          |                         |                   |                    |                          |     |               |                      |                     |       |                   |             |              |       |                             |   |   |          |
| Camera Make/Model   | Nikon D5500             |             |  |                       |  |  |  |          |                         |                   |                    |                          |     |               |                      |                     |       |                   |             |              |       |                             |   |   |          |
| Photo Source  | TJD&A                   |             |  |                       |  |  |  |          |                         |                   |                    |                          |     |               |                      |                     |       |                   |             |              |       |                             |   |   |          |
| Proposed Structures Visible   | 0                       |             |  |                       |  |  |  |          |                         |                   |                    |                          |     |               |                      |                     |       |                   |             |              |       |                             |   |   |          |
| Approximate Distance to Nearest Structure   | 850 feet                |             |  |                       |  |  |  |          |                         |                   |                    |                          |     |               |                      |                     |       |                   |             |              |       |                             |   |   |          |
| <p><b>NOTES:</b></p> <ul style="list-style-type: none"> <li>-Looking south at proposed HVDC Corridor Crossing</li> <li>-Base information from POWER Engineers</li> <li>-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.</li> </ul> |                         |             |  |                       |  | <p>June 21, 2018      PAGE 1 OF 12</p>   |  |          |                         |                   |                    |                          |     |               |                      |                     |       |                   |             |              |       |                             |   |   |          |



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



**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.

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

**PHOTOSIMULATION 32D: 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.



**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.

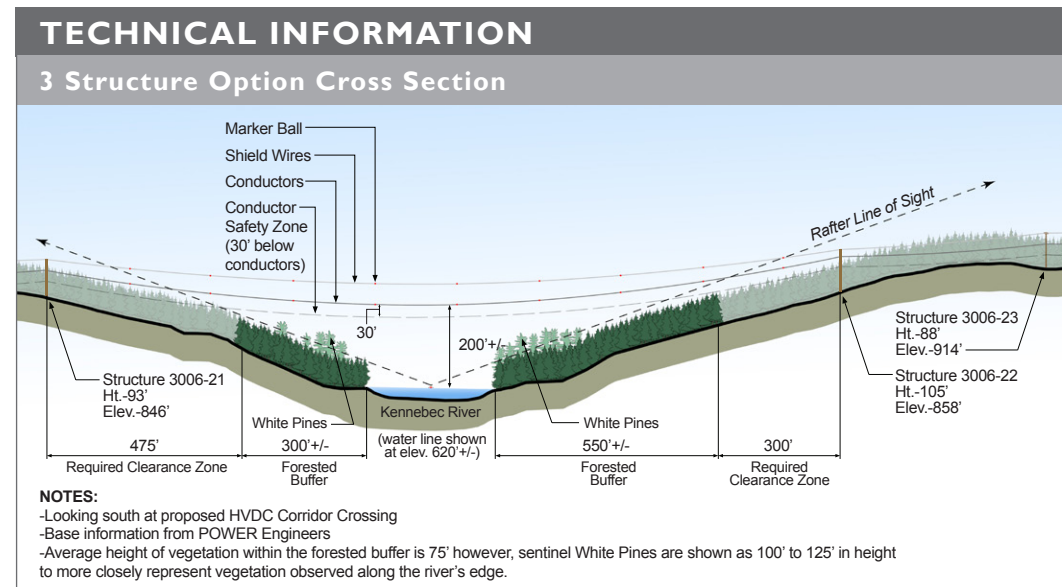
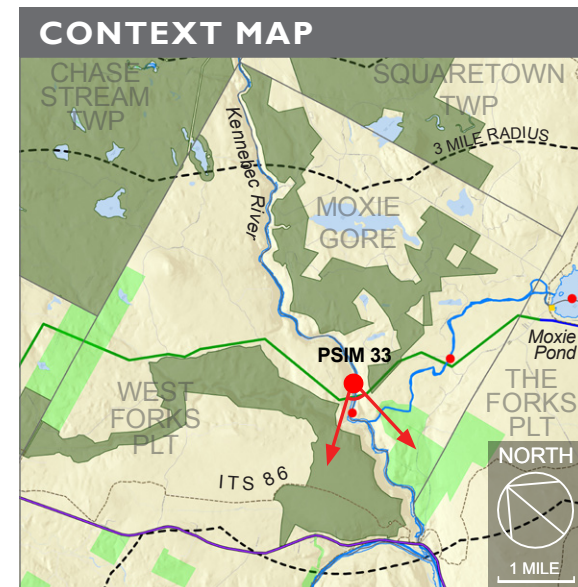
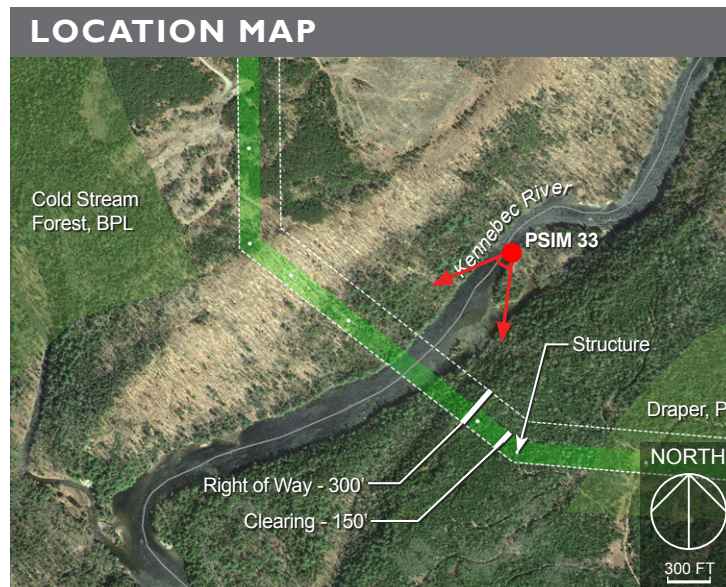
June 21, 2018

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**PHOTOSIMULATION 33: NORTH OF PICNIC AREA, 3 Structure Option**



**Proposed Conditions:** Panoramic view looking southwest from a point 1,150' +/- north of the proposed HVDC transmission line crossing of the Kennebec River, north of a picnic area. The closest structure, screened by vegetation in this view, is 1,250' +/- to the southwest. 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.



| Photograph / Photosimulation Information  |                         |
|---|-------------------------|
| Location                                  | 45.375273°, -69.939843° |
| Viewing Direction                         | Southwest               |
| Horizontal Angle of View                  | 49°                     |
| Date and Time                             | 11/09/17 at 1:40 pm     |
| Camera Focal Length                       | 35 mm                   |
| Camera Make/Model                         | Nikon D5500             |
| Photo Source                              | TJD&A                   |
| Proposed Structures Visible               | 0                       |
| Approximate Distance to Nearest Structure | 1,250 Feet              |
|   |                         |
| June 21, 2018                             | PAGE 8 OF 12            |



**Existing Conditions:** Normal view looking southwest on the Kennebec River, north of the picnic area.

**PHOTOSIMULATION 33B: NORTH OF PICNIC AREA, 3 Structure Option**



**Proposed Conditions:** Normal view looking southwest from a point 1,150' +/- north of the proposed HVDC transmission line crossing of the Kennebec River, north of the picnic area. The closest structure, screened by vegetation in this view, is 1,250' +/- to the southwest. Conductors over the river will be visible to recreational boaters for approximately 1,600' approaching the crossing.



**Existing Conditions:** Normal view looking southwest from the Kennebec River, north of the picnic area.



**PHOTOSIMULATION 33D: FROM NORTH OF PICNIC AREA, 3 Structure Option**

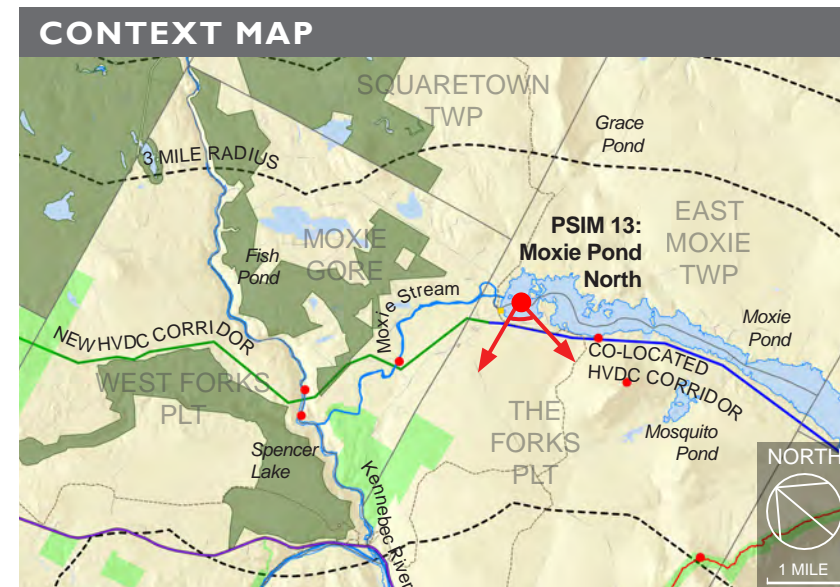


**Proposed Conditions:** Normal view looking southwest from the Kennebec River toward the proposed HVDC transmission line conductors and marker balls. Structures would be screened from view by vegetation. Conductors over the river will be visible to recreational boaters for approximately 1,600' approaching the crossing.

# PHOTOSIMULATION 13: MOXIE POND - North, East Moxie Twp



**Proposed Conditions:** Panoramic view looking southwest to west from the northern end of Moxie Pond toward the proposed co-located HVDC transmission line. The existing 150' wide corridor clearing will be widened by 75' on the western side to accommodate the new transmission line. As a result of the proposed structure height changes in the co-located HVDC transmission line, the tops of three structures and conductors will be visible at distances of 2,400 to 2,800 feet from this viewpoint. Moxie Pond is a designated scenic resource with an 'Outstanding' rating in the Maine Wildlands Lake Assessment. See Appendix B: Study Area Photographs for images.



| TECHNICAL INFORMATION                             |                         |
|---|-------------------------|
| <b>Typical Cross Section</b>                      |                         |
|   |                         |
| <b>Photograph / Photosimulation Information</b>   |                         |
| Location  | 45.347455°, -69.866723° |
| Viewing Direction                                 | South to West           |
| Horizontal Angle of View                          | 75°                     |
| Date and Time                                     | 07/25/17 at 10:32 am    |
| Camera Focal Length                               | 35 mm                   |
| Camera Make/Model                                 | Nikon D5500             |
| Photo Source                                      | TJD&A                   |
| Proposed Structures Visible                       | 3                       |
| Approximate Distance to Nearest Visible Structure | 2,400 feet              |
|   |                         |
| December 12, 2017      PAGE 1 OF 21               |                         |

**PHOTOSIMULATION 13A: MOXIE POND - North, East Moxie Twp**



**Existing Conditions:** Normal view looking southwest from the northern area of Moxie Pond toward existing 115 kV transmission line. Mosquito Mountain is visible on the left side of the image.

**PHOTOSIMULATION 13A: MOXIE POND - North, East Moxie Twp**



**Proposed Conditions:** Normal view looking southwest from the northern area of Moxie Pond toward the proposed co-located HVDC transmission line. The tops of two structures and conductors will be visible from this viewpoint at distances of 2,500 to 2,800 feet . The existing 150' wide corridor clearing will be widened by 75' on the western side to accommodate the new transmission line.

**PHOTOSIMULATION 13A: MOXIE POND - North, East Moxie Twp**



**Proposed Conditions:** Normal view looking southwest from the northern area of Moxie Pond toward the proposed co-located HVDC transmission line. The tops of two structures and conductors will be visible from this viewpoint at distances of 2,500 to 2,800 feet . The existing 150' wide corridor clearing will be widened by 75' on the western side to accommodate the new transmission line.

**PHOTOSIMULATION 13B: MOXIE POND - North, East Moxie Twp**



**Existing Conditions:** Normal view looking southwest from the northern area of Moxie Pond toward existing 115 kV transmission line.

**PHOTOSIMULATION 13B: MOXIE POND - North, East Moxie Twp**



**Proposed Conditions:** Normal view looking southwest from the northern area of Moxie Pond toward the proposed co-located HVDC transmission line. The tops of two structures and conductors will be visible from this viewpoint at distances of 2,400 to 2,500 feet. The existing 150' wide corridor clearing will be widened by 75' on the western side to accommodate the new transmission line.

**PHOTOSIMULATION 13B: MOXIE POND - North, East Moxie Twp**



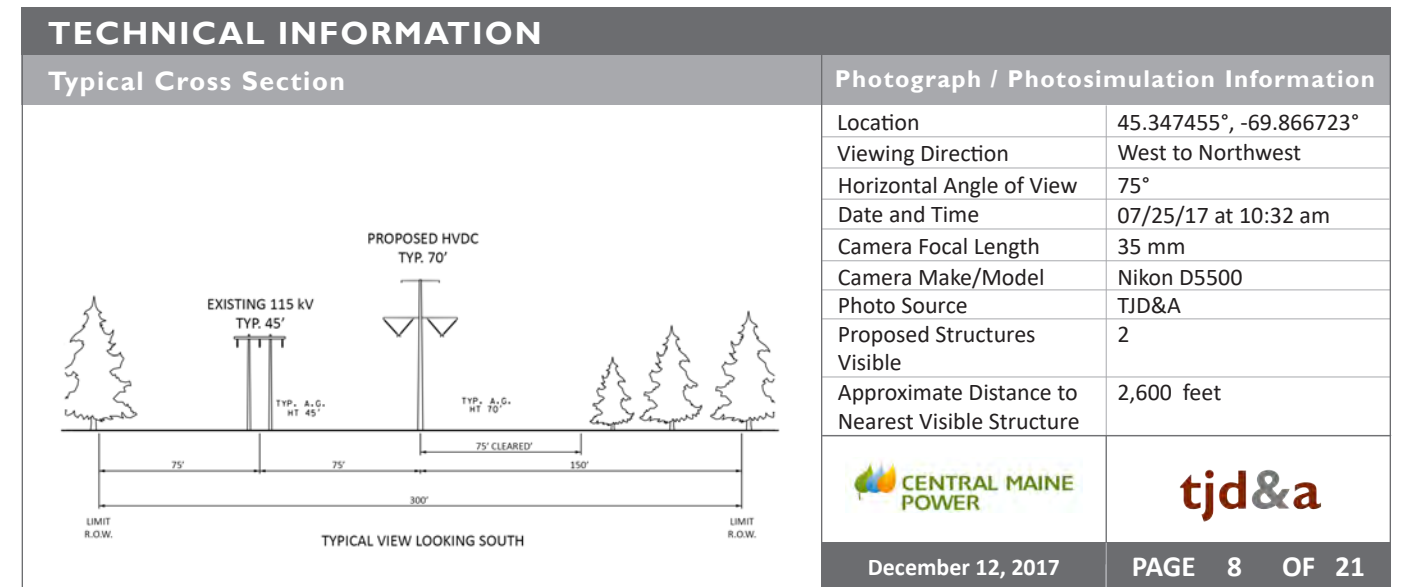
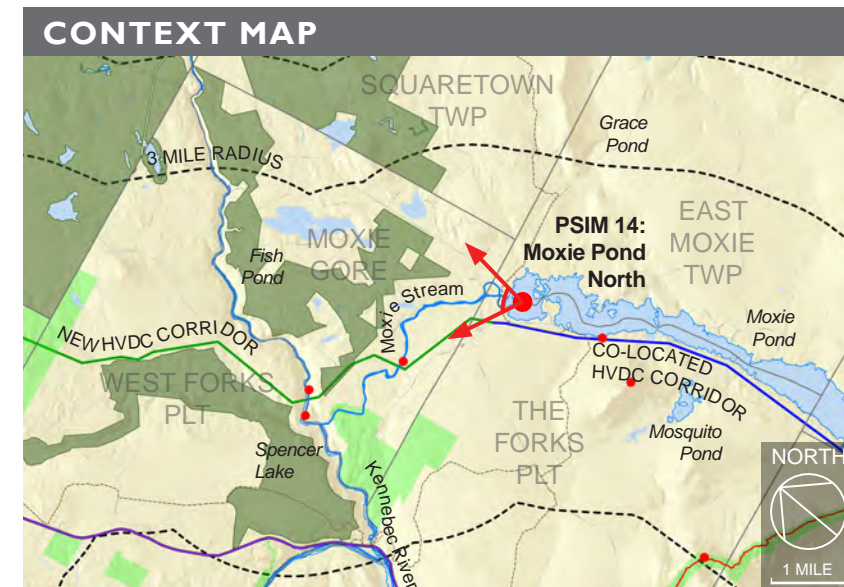
**Proposed Conditions:** Normal view looking southwest from the northern area of Moxie Pond toward the proposed co-located HVDC transmission line. The tops of two structures and conductors will be visible from this viewpoint at distances of 2,400 to 2,500 feet. The existing 150' wide corridor clearing will be widened by 75' on the western side to accommodate the new transmission line.



# PHOTOSIMULATION 14: MOXIE POND - North, East Moxie Twp



**Proposed Conditions:** Panoramic view looking west to northwest from the northern end of Moxie Pond toward the proposed co-located HVDC transmission line. The existing 150' wide corridor clearing will be widened by 75' on the western side to accommodate the new transmission line. As a result of the proposed structure height changes in the co-located HVDC transmission line, two structures and conductors will be visible at distances of 2,600 to 3,400 feet from this viewpoint. Moxie Pond is a designated scenic resource with an 'Outstanding' rating in the [Maine Wildlands Lake Assessment](#). See Appendix B: Study Area Photographs for images.



**PHOTOSIMULATION I 4A: MOXIE POND - North, East Moxie Twp**



**Existing Conditions:** Normal view looking west from the northern area of Moxie Pond. The existing 115 kV transmission line is screened by vegetation.

**PHOTOSIMULATION 14A: MOXIE POND - North, East Moxie Twp**



**Proposed Conditions:** Normal view looking west from the northern area of Moxie Pond toward the proposed co-located HVDC transmission line. One structure and conductors will be visible from this viewpoint at a distance of 2,600 feet. The existing 150' wide corridor clearing will be widened by 75' on the western side to accommodate the new transmission line.

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**PHOTOSIMULATION I 4A: MOXIE POND - North, East Moxie Twp**



**Proposed Conditions:** Normal view looking west from the northern area of Moxie Pond toward the proposed co-located HVDC transmission line. One structure and conductors will be visible from this viewpoint at a distance of 2,600 feet. The existing 150' wide corridor clearing will be widened by 75' on the western side to accommodate the new transmission line.

**PHOTOSIMULATION I4B: MOXIE POND - North, East Moxie Twp**



**Existing Conditions:** Normal view looking northwest from the northern area of Moxie Pond toward existing 115 kV transmission line. The boat launch at the north end of Moxie Pond and Coburn Mountain are visible on the right side of the image.

**PHOTOSIMULATION I4B: MOXIE POND - North, East Moxie Twp**



**Proposed Conditions:** Normal view looking southwest from the northern area of Moxie Pond toward the proposed co-located HVDC transmission line. One structure and conductors will be visible from this viewpoint at a distance of 3,400'. The existing 150' wide corridor clearing will be widened by 75' on the western side to accommodate the new transmission line.

**PHOTOSIMULATION 14B: MOXIE POND - North, East Moxie Twp**

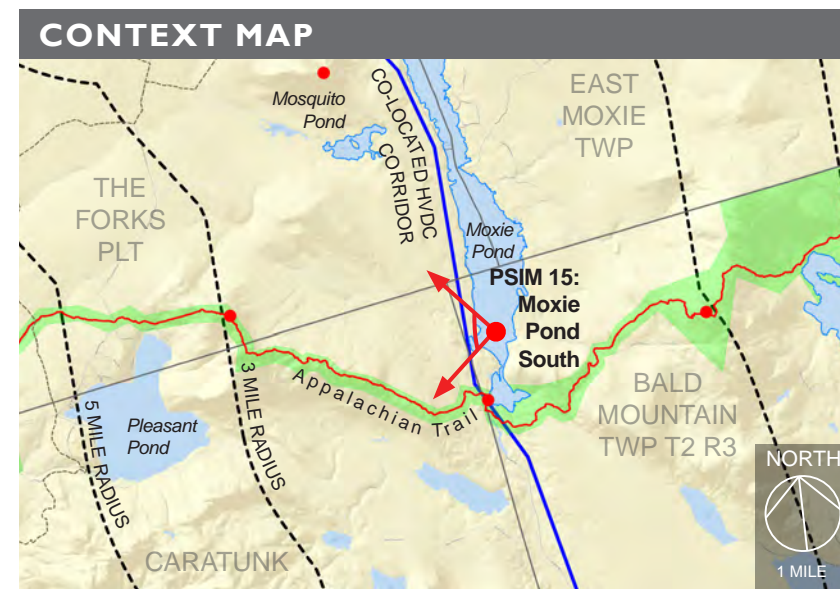
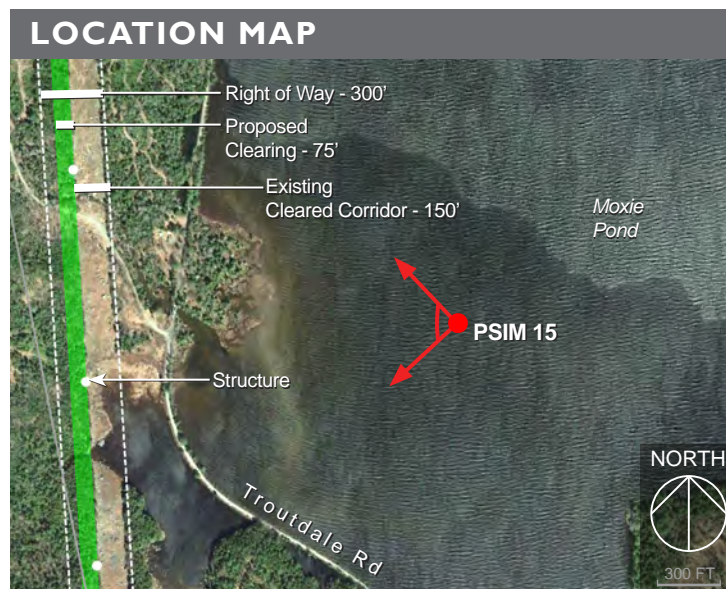


**Proposed Conditions:** Normal view looking southwest from the northern area of Moxie Pond toward the proposed co-located HVDC transmission line. One structure and conductors will be visible from this viewpoint at a distance of 3,400'. The existing 150' wide corridor clearing will be widened by 75' on the western side to accommodate the new transmission line.

# PHOTOSIMULATION 15: MOXIE POND - South, Bald Mountain Twp T2 R3



**Proposed Conditions:** Panoramic view looking southwest to northwest from the southern area of Moxie Pond toward the proposed co-located HVDC transmission line. The clearing will be widened by 75' on the western side of the existing 150' wide 115 kV transmission line corridor to accommodate the new transmission line. Portions of the widened corridor will be visible in two areas of the pond where the existing corridor is already visible; at the southern end north of Joes Hole as shown in this image and near Black Narrows. As a result of the proposed height changes in the co-located HVDC transmission line, one structure is visible through a clearing and the tops of two structures will be visible above the tree line from this viewpoint at distances of 2,000 to 2,700 feet. The majority of the structures and conductors will be screened by shoreline vegetation. Moxie Pond is a designated scenic resource with an 'Outstanding' rating in the [Maine Wildlands Lake Assessment](#). See Appendix B: Study Area Photographs for additional images.



| TECHNICAL INFORMATION                             |                         |
|---|-------------------------|
| <b>Typical Cross Section</b>                      |                         |
|   |                         |
| <b>Photograph / Photosimulation Information</b>   |                         |
| Location  | 45.264145°, -69.826440° |
| Viewing Direction                                 | Southwest to Northwest  |
| Horizontal Angle of View                          | 82°                     |
| Date and Time                                     | 07/25/17 at 8:46 am     |
| Camera Focal Length                               | 35 mm                   |
| Camera Make/Model                                 | Nikon D5500             |
| Photo Source                                      | TJD&A                   |
| Proposed Structures Visible                       | 3                       |
| Approximate Distance to Nearest Visible Structure | 2000 feet               |
|   |                         |
|   |                         |
| December 12, 2017      PAGE 15 OF 21              |                         |



**PHOTOSIMULATION 15A: MOXIE POND - South, Bald Mountain Twp T2 R3**



**Existing Conditions:** Normal view looking west from the southern area of Moxie Pond towards the existing 115 kV transmission line.

**PHOTOSIMULATION 15A: MOXIE POND - South, Bald Mountain Twp T2 R3**



**Proposed Conditions:** Normal view looking west from the southern area of Moxie Pond toward the proposed co-located HVDC transmission line. The clearing will be widened by 75' on the western side of the existing 150' wide 115 kv transmission line corridor to accommodate the new HVDC transmission line. One structure and the top of another structure are visible above the existing transmission line structures and conductors at distances of 2,000 to 2,200 feet.

**PHOTOSIMULATION 15A: MOXIE POND - South, Bald Mountain Twp T2 R3**



**Proposed Conditions:** Normal view looking west from the southern area of Moxie Pond toward the proposed co-located HVDC transmission line. The clearing will be widened by 75' on the western side of the existing 150' wide 115 kv transmission line corridor to accommodate the new HVDC transmission line. One structure and the top of another structure are visible above the existing transmission line structures and conductors at distances of 2,000 to 2,200 feet.



**Existing Conditions:** Normal view looking northwest from the southern area of Moxie Pond.

**PHOTOSIMULATION 15B: MOXIE POND - South, Bald Mountain Twp T2 R3**



**Proposed Conditions:** Normal view looking northwest from the southern area of Moxie Pond toward the proposed co-located transmission line. The change in vegetation due to the widening of the cleared corridor will be slightly less visible looking in this direction. A portion of the top of one structure will be visible at a distance of 2,700 feet, but mostly screened by vegetation.

**PHOTOSIMULATION 15B: MOXIE POND - South, Bald Mountain Twp T2 R3**



**Proposed Conditions:** Normal view looking northwest from the southern area of Moxie Pond toward the proposed co-located transmission line. The change in vegetation due to the widening of the cleared corridor will be slightly less visible looking in this direction. A portion of the top of one structure will be visible at a distance of 2,700 feet, but mostly screened by vegetation.