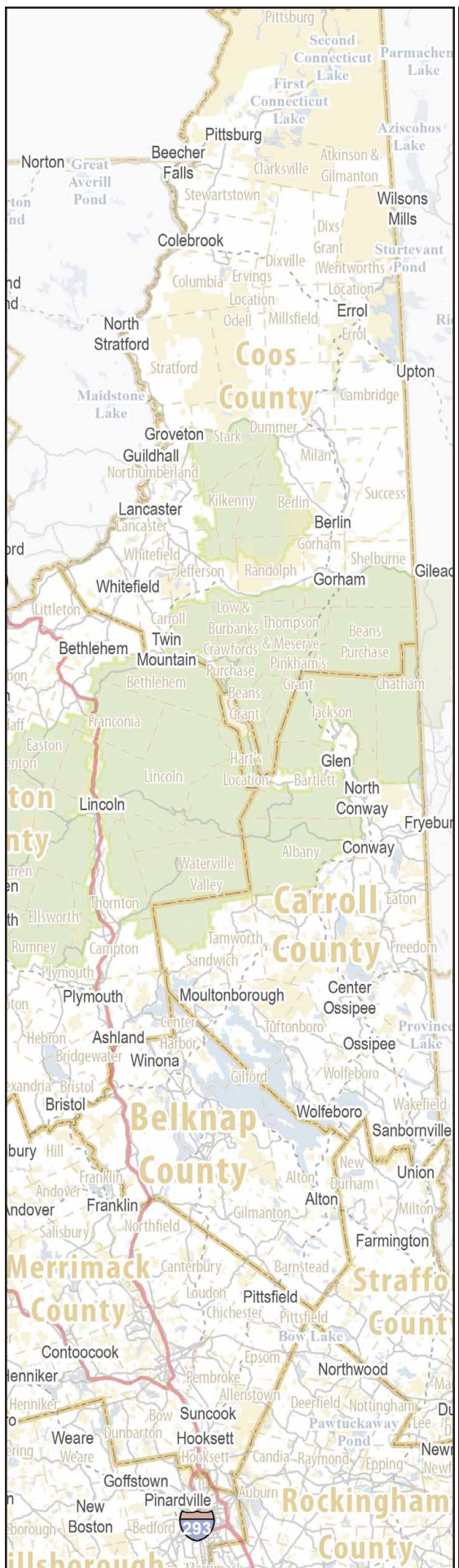




DOE/EIS-0463



FINAL
NORTHERN PASS
TRANSMISSION LINE PROJECT
ENVIRONMENTAL IMPACT
STATEMENT
VOLUME 2: APPENDICES A-K

U.S. DEPARTMENT OF ENERGY
OFFICE OF ELECTRICITY DELIVERY
AND ENERGY RELIABILITY
WASHINGTON, DC

AUGUST 2017



Department of Energy
Washington, DC 20585
August 2017

Dear Sir/Madam:

Enclosed is the final *Northern Pass Transmission Line Project Environmental Impact Statement* (DOE/EIS-0463) prepared by the Department of Energy (DOE) pursuant to the National Environmental Policy Act of 1969 (NEPA) and its implementing regulations.

The United States Forest Service (USFS) – White Mountain National Forest, United States Environmental Protection Agency (EPA) – Region 1, United States Army Corps of Engineers (USACE) – New England District, and the New Hampshire Office of Energy and Planning (NHOEP) are cooperating agencies in the preparation of the EIS.

The proposed DOE action in the final EIS is to issue a Presidential permit to the Applicant, Northern Pass LLC, to construct, operate, maintain, and connect a new electric transmission line across the U.S./Canada border in northern New Hampshire (NH).

DOE has prepared this final EIS to evaluate the potential environmental impacts in the United States of the proposed action and the range of reasonable alternatives, including the No Action alternative. Under the No Action alternative, the Presidential permit would not be granted, and the proposed transmission line would not cross the U.S./Canada border.

In addition to its Presidential permit application to DOE, Northern Pass LLC applied to the USFS for a special use permit that would authorize Northern Pass LCC to construct, own, operate and maintain an electric transmission line to cross portions of the White Mountain National Forest under its jurisdiction. The final EIS will be used by the Forest Supervisor of the White Mountain National Forest to inform the Record of Decision in regard to this requested use.

DOE will use the EIS to ensure that it has the information it needs for informed decision-making.

The final EIS will also be posted on the project EIS website, <http://www.northernpasseis.us/> and DOE's NEPA website at <https://energy.gov/nepa/listings/environmental-impact-statements-eis>.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Mills".

Brian Mills
Transmission Permitting and Technical Assistance,
Office of Electricity Delivery and Energy Reliability
U.S. Department of Energy

FINAL

**NORTHERN PASS TRANSMISSION LINE PROJECT
ENVIRONMENTAL IMPACT STATEMENT
DOE/EIS-0463**

Volume 2: Appendices A-K

**U.S. DEPARTMENT OF ENERGY
OFFICE OF ELECTRICITY DELIVERY
AND ENERGY RELIABILITY**



COOPERATING AGENCIES

**United States Forest Service – White Mountain National Forest
United States Environmental Protection Agency– Region 1
United States Army Corps of Engineers – New England District
New Hampshire Office of Energy and Planning**

August 2017

COVER SHEET

RESPONSIBLE FEDERAL AGENCY: U.S. Department of Energy (DOE), Office of Electricity Delivery and Energy Reliability

COOPERATING AGENCIES: United States Forest Service (USFS) – White Mountain National Forest (WMNF); United States Environmental Protection Agency (EPA) – Region 1; United States Army Corps of Engineers (USACE) – New England District; and New Hampshire Office of Energy and Planning (NHOEP)

TITLE: Northern Pass Transmission Line Project Environmental Impact Statement (DOE/EIS-0463)

LOCATION: Coös, Grafton, Belknap, Merrimack, and Rockingham counties in New Hampshire

CONTACTS: For additional information on this Environmental Impact Statement (EIS) contact:

Mr. Brian Mills, National Environmental Policy Act (NEPA) Document Manager
Office of Electricity Delivery and Energy Reliability, OE-20
U.S. Department of Energy
1000 Independence Ave. SW
Washington, DC 20585
Telephone: (202) 586-8267
Brian.Mills@hq.doe.gov

For general information on the DOE NEPA process, please write or call:

Mr. Brian Costner, Acting Director
Office of NEPA Policy and Compliance, GC-54
U.S. Department of Energy
1000 Independence Ave. SW
Washington, DC 20585
askNEPA@hq.doe.gov
Telephone: (202) 586-4600 or leave a message at (800) 472-2756

ABSTRACT: Northern Pass Transmission, LLC (Northern Pass) has applied to the DOE for a Presidential permit to construct, operate, maintain, and connect a 192-mile (309-km) electric transmission line across the United States (U.S.)/Canada border in northern New Hampshire (NH). This final EIS addresses the potential environmental impacts of the Project (Proposed Action), the No Action Alternative, and ten additional action alternatives (Alternatives 2 through 6, with variations). The NH portion of the Project would be a single circuit ± 320 kilovolt (kV) high voltage direct current (HVDC) transmission line running approximately 158 miles (254 km) from the U.S. border crossing with Canada in Pittsburg, NH, to a new direct current-to-alternating current (DC-to-AC) converter station to be constructed in Franklin, NH. From Franklin, NH, to the Project terminus at the Public Service of New Hampshire's existing Deerfield Substation located in Deerfield, NH, the Project would consist of 34 miles (55 km) of 345 kV AC electric transmission line. The total length of the Project would be approximately 192 miles (309 km).

PUBLIC COMMENTS: In preparing this final EIS, DOE considered comments received during the scoping period, which extended from February 11, 2011 to June 14, 2011, and was reopened from June 15, 2011 to November 5, 2013 (DOE accepted and considered all comments during the scoping period from February 11, 2011 to November 5, 2013), and the public comment period on the draft EIS (July 31, 2015 through April 4, 2016). Comments on the draft EIS were accepted during the 45-day period

following publication of EPA's Notice of Availability (NOA) in the *Federal Register* on July 31, 2015; the public comment period was extended until April 4, 2016 following publication of EPA's NOA of the supplement in the *Federal Register* on November 20, 2015. DOE held four public meetings on the draft EIS in Colebrook, NH on March 7, 2016; Waterville Valley, NH on March 9, 2016; Concord, NH on March 10, 2016; and Whitefield, NH on March 11, 2016. All comments were considered during preparation of this final EIS. Appendix L in Volume 3 of this EIS contains the comments received on the draft EIS and DOE's responses to these comments. This final EIS contains revisions and new information based in part on comments received on the draft EIS. Vertical bars in the margins marking changed text indicate the locations of these revisions and new information. Deletions are not indicated. Appendices J and K in Volume 2 and Appendix L in Volume 3 are entirely new parts of this EIS; therefore, they do not contain bars indicating changes from the draft EIS.

The EIS analyzes the potential environmental impacts of DOE issuing a Presidential permit for the proposed Northern Pass Project, which is DOE's proposed federal action. DOE will use the EIS to inform its decision on whether to issue a Presidential permit. Additionally, Northern Pass has applied to the USFS for a special use permit (SUP) authorizing Northern Pass to construct, operate, and maintain an electric power transmission line crossing portions of the WMNF. The WMNF Forest Supervisor will use the EIS to inform its decision regarding: 1) whether to issue a SUP under the Federal Land Policy and Management Act; 2) the selection of an alternative; 3) any need to amend the Forest Plan; and 4) what specific terms and conditions should apply if a SUP is issued.

Copies of the final EIS are available for public review at 30 local libraries and town halls, or a copy can be requested from Mr. Brian Mills. The EIS is also available on the Northern Pass EIS website (<http://www.northernpasseis.us/>). DOE will announce its decision on the Proposed Action in a Record of Decision (ROD) in the *Federal Register* no sooner than 30 days after the EPA publishes the NOA of the final EIS. The USFS will announce its draft decision on the Proposed Action in a draft ROD in the *Federal Register* shortly after the EPA publishes the NOA of the final EIS.

APPENDIX E
KEY OBSERVATION POINT VISUAL SIMULATIONS

APPENDIX E. KEY OBSERVATION POINT (KOP) VISUAL SIMULATIONS

The visual simulations for 22 key observation points (KOPs) are presented here to represent how the Project might appear after approximately five growing seasons. Each KOP is identified by a code that is composed of two letters representing the town where the viewpoint is located and a number representing its location within the town. After the number, a sheet designated with the lower case “a” documents the viewpoint and simulation attributes. The sheets designated with a lower case “b,” “c,” “d,” or “e” show the existing visual condition and simulated condition for various action alternatives, as indicated. The KOPs are arranged alphabetically in this appendix and their locations are shown on Map E-1.

Additional information about the visual simulations and KOPs is available on the EIS website (<http://www.northernpasseis.us/library/final-eis/visual-impact-assessment>), and in the Visual Impact Assessment (<http://www.northernpasseis.us/library/final-eis/technical-reports>).

KOP selection. These 22 KOPs represent the geographic distribution and landscape diversity of views toward the Project. They were selected from 73 photographic simulations prepared for the visual impact assessment to represent impacted views from a range of distances and landscape contexts, with some emphasis placed on designated scenic resources. These viewpoints were selected from among more than a thousand viewpoints documented photographically and with systematic field observations during both leaf-on and leaf-off conditions. In general, the contrast of lattice structures with green leaf-on conditions is higher than with the grayer leaf-off conditions. However, when there is snow cover, the transmission route becomes more apparent from greater distances. Simulation photographs were selected to represent conditions with greater visual impact.

Limitations to simulation veracity. Simulations use the best available information as of October 2015 and represent the visual condition after approximately five growing seasons. If the Northern Pass Transmission Line Project specifications change, the visual conditions may be different.

Simulation viewing notes. The simulation is properly printed on an 11-by-17 inch sheet at actual size. If viewed on a computer monitor, use the highest screen resolution. The simulated image is at the proper perspective when viewed at 23.5 inches from the eye, or at a distance of approximately twice the image height.

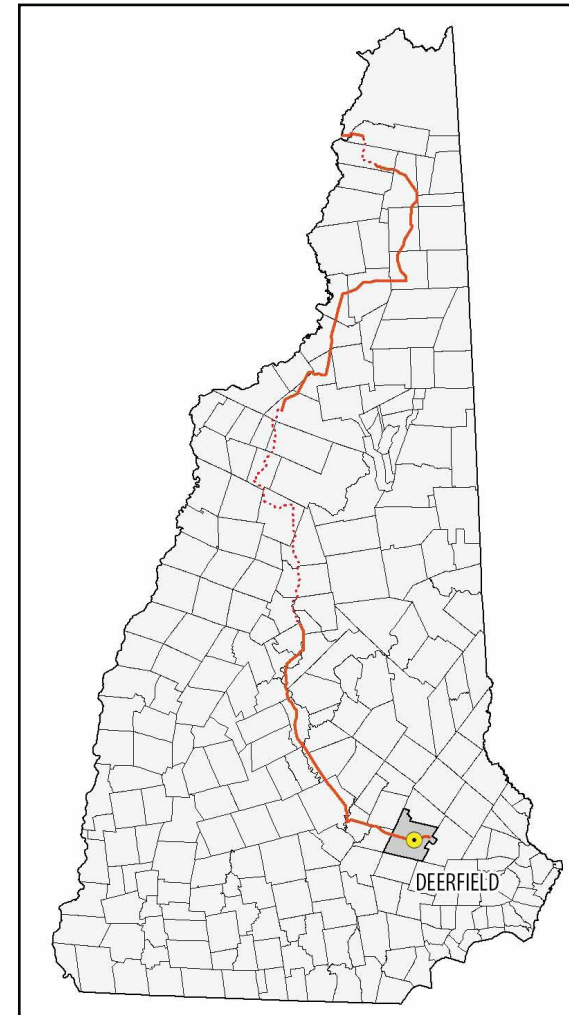
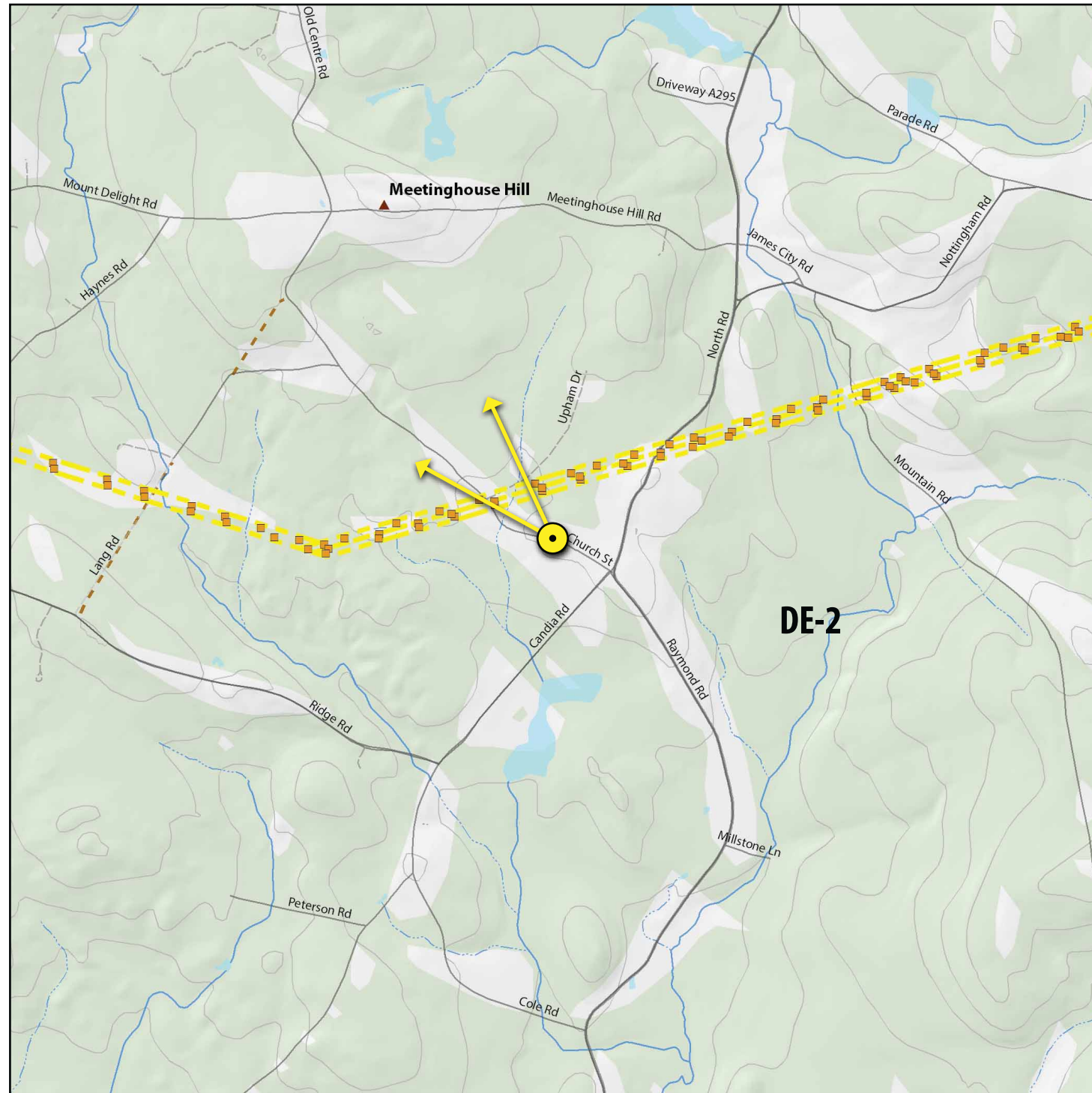


Figure 2 - Viewpoint Location
SCALE
0 20 40 60 Miles

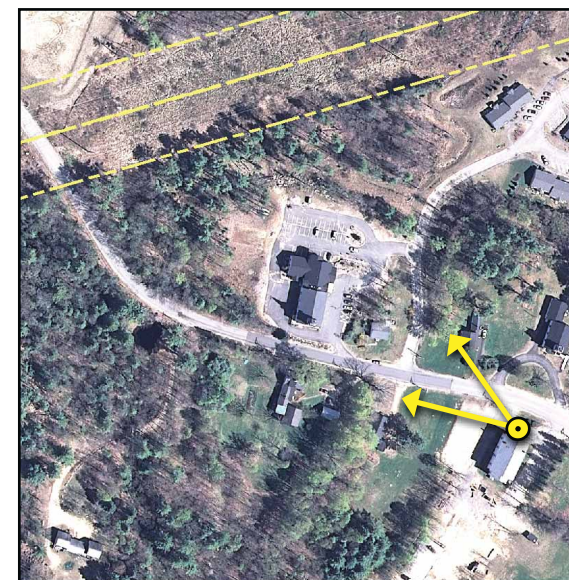


Figure 3 - Aerial Context
SCALE
0 200 400 600 Feet

General Information

Base Photograph

Date: 07-27-2016
Time: 12:55 pm
Meteorological Visibility:
Concord Airport - 10 miles
Image Size: 4,928 x 3,264 pixels

Camera Properties

Camera Make/Model: Nikon D7000
Sensor Dimensions: 23.6 mm x 15.6 mm
Lens Make/Model: Nikkor DX AF-S 35 mm
Lens Focal Length: 35 mm
35 mm Equivalent Focal Length: 52.5 mm
Approximate Angles of View:
37° wide and 25° high
Camera Height: 1.5 meters (5 feet)

Viewpoint Information

Location: Church Street, Deerfield
Latitude/Longitude: 43.133331°, -71.243102°
Viewpoint Elevation: 460 feet
Viewpoint Name: DE-2
Orientation: Looking Northwest
Looking toward Alternative 2 Mile Marker: 189
Looking toward Alternative 7 Mile Marker: 188-189

Simulation Viewing Notes

The simulation is properly printed on an 11-by-17 inches sheet at actual size. If viewed on a computer monitor, use the highest screen resolution. The simulated image is at the proper perspective when viewed at 23.5 inches from the eye, or at a distance of approx. twice the image height.

Project Design

The simulations for Alternative 2 through 6b are based on the best information available in March 2014. The simulations for Alternative 7 are based on the best information available on October 2015.

Alternatives Simulated from this Viewpoint

Alternative 1 - No Action

Transmission Line Information
Distance to Nearest Visible Structure: 0 feet
Number of Visible Existing Structures: 0

Alternative 2

Transmission Line Information
Distance to Nearest Visible Structure: 980 feet
Number of Visible Transmission Structures: 1

Alternatives 3, 4a, 4b and 4c

Transmission Line Information
The transmission line is buried in this view and there is no discernible visual change from the Existing Condition.

Alternatives 5a, 5b and 5c

Transmission Line Information
There is no visible change from Alternative 2.

Alternatives 6a and 6b

Transmission Line Information
Distance to Nearest Visible Structure: 980 feet
Number of Visible Transmission Structures: 1

Alternative 7 - Proposed Action

Transmission Line Information
Distance to Nearest Visible Structure: 980 feet
Number of Visible Transmission Structures: 1

Legend

- Viewpoint
- Existing PSNH ROW
- Freeway
- Major Road
- Secondary Road
- Hiking Trails
- Mountain Peaks/Natural Features
- Alternative 7 Structure

Figure 1
Viewpoint Location Map
Northern Pass Transmission Line Project
Environmental Impact Statement

SOURCE: ESRI 2011; GRANIT 2012; Burns and McDonnell 2013; USFS 2012; Ecology and Environment 2013; DeLorme Data, T.J. Boyle Associates

SCALE
0 0.25 0.5 Miles

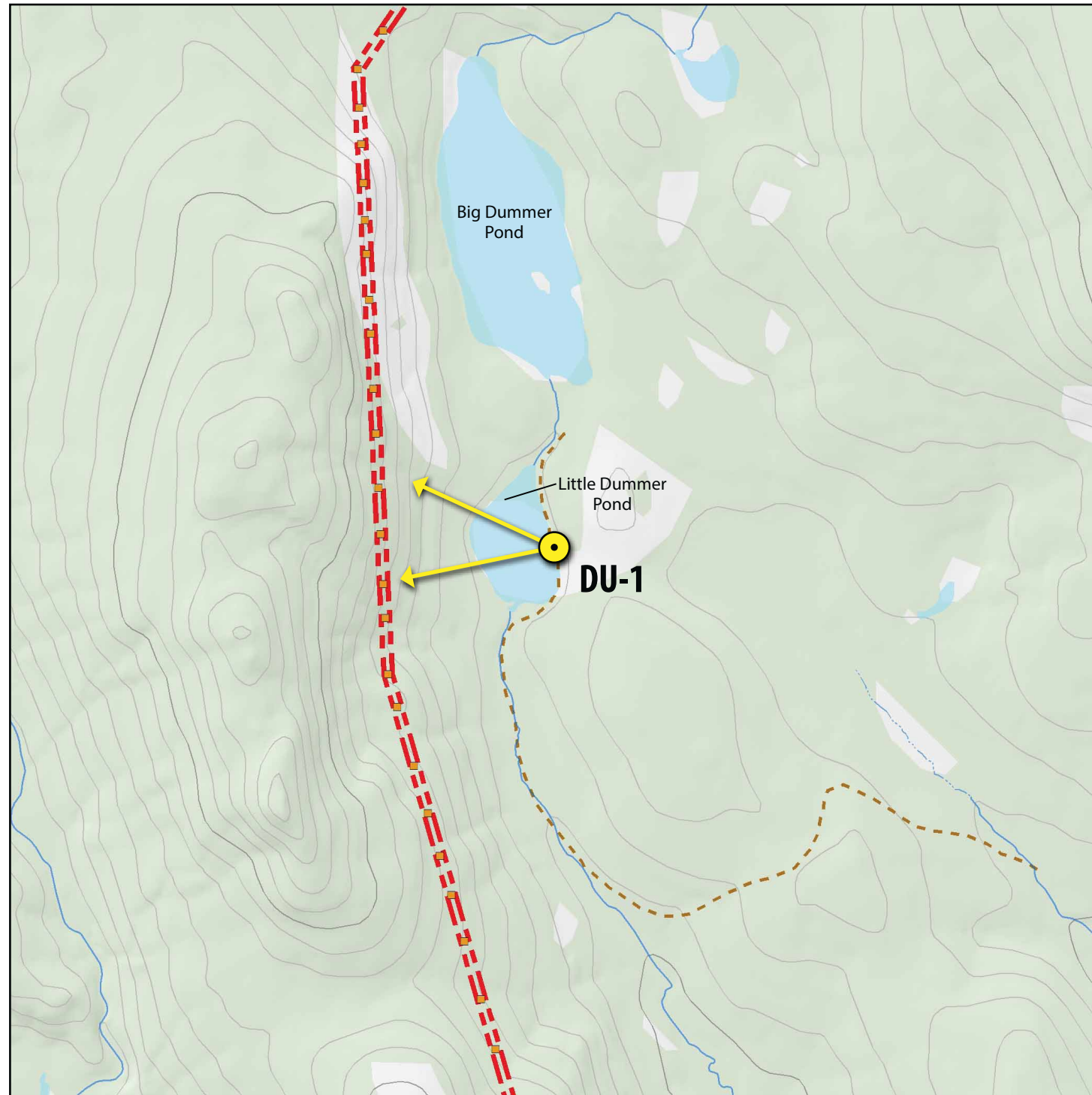












Legend

- Viewpoint
- Existing PSNH ROW
- Proposed New Northern Pass ROW
- Proposed Alternative 7 Burial
- Freeway
- Major Road
- Secondary Road
- Hiking Trails
- Mountain Peaks/Natural Features
- Alternative 7 Structure

**Figure 1
Viewpoint Location Map**
Northern Pass Transmission Line Project
Environmental Impact Statement

0 0.25 0.5 Miles



SOURCE: ESRI 2011; GRANIT 2012; Burns and McDonnell 2013; USFS 2012; Ecology and Environment 2013; DeLorme Data, T.J. Boyle Associates

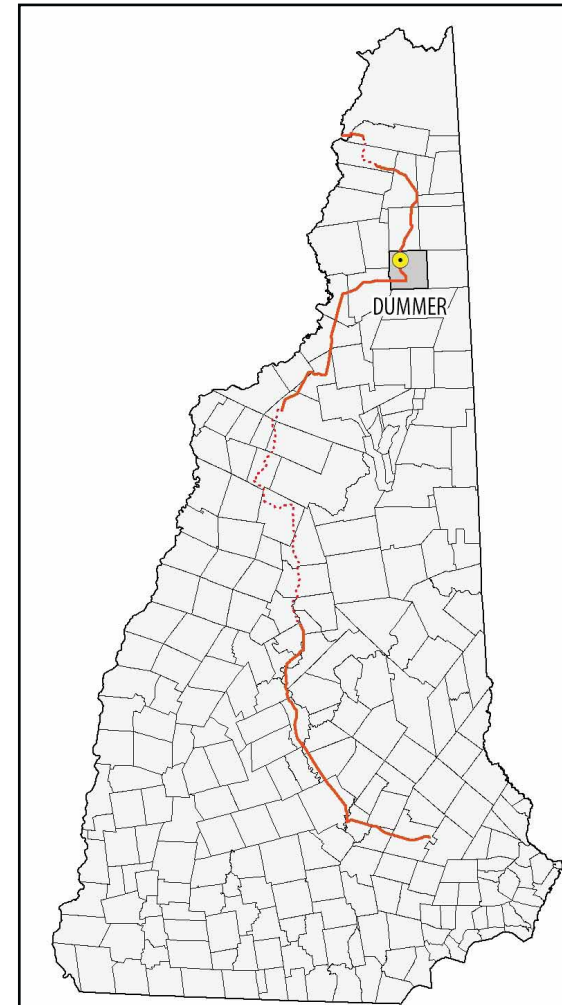


Figure 2 - Viewpoint Location

SCALE
0 20 40 60 Miles



Figure 3 - Aerial Context

SCALE
0 200 400 600 Feet



General Information

Base Photograph

Date: 10-01-2013
Time: 10:50 am
Meteorological Visibility:
Berlin Airport - .2 miles
Image Size: 4,928 x 3,264 pixels

Camera Properties

Camera Make/Model: Nikon D7000
Sensor Dimensions: 23.6 mm x 15.6 mm
Lens Make/Model: Nikkor DX AF-S 35 mm
Lens Focal Length: 35 mm
35 mm Equivalent Focal Length: 52.5 mm
Approximate Angles of View:
37° wide and 25° high
Camera Height: 1.5 meters (5 feet)

Viewpoint Information

Location: Little Dummer Pond, Dummer
Latitude/Longitude: 44.682496°, -71.28352°
Viewpoint Elevation: 1,350 feet
Viewpoint Name: DU-1
Orientation: Looking West
Looking toward Alternative 2 Mile Marker: 36
Looking toward Alternative 7 Mile Marker: 36

Simulation Viewing Notes

The simulation is properly printed on an 11-by-17 inches sheet at actual size. If viewed on a computer monitor, use the highest screen resolution. The simulated image is at the proper perspective when viewed at 23.5 inches from the eye, or at a distance of approx. twice the image height.

Project Design

The simulations for Alternative 2 through 6b are based on the best information available in March 2014. The simulations for Alternative 7 are based on the best information available on October 2015.

Alternatives Simulated from this Viewpoint

Alternative 1 - No Action

Transmission Line Information
Distance to Nearest Visible Structure: 1,756 feet
Number of Visible Existing Structures: 3

Alternative 2

Transmission Line Information
Distance to Nearest Visible Structure: 1,756 feet
Number of Visible Transmission Structures: 6

Alternative 3

Transmission Line Information
The transmission line is buried in this view and the new ROW clearing will be visible.
Distance to Nearest Visible Structure: 1,756 feet
Number of Visible Existing Structures: 3

Alternatives 4a, 4b and 4c

Transmission Line Information
The Project is not visible from this viewpoint.

Alternatives 5a, 5b and 5c

Transmission Line Information
There is no visible change from Alternative 2.

Alternatives 6a and 6b

Transmission Line Information
The Project is not visible from this viewpoint.

Alternative 7 - Proposed Action

Transmission Line Information
Distance to Nearest Visible Structure: 1,756 feet









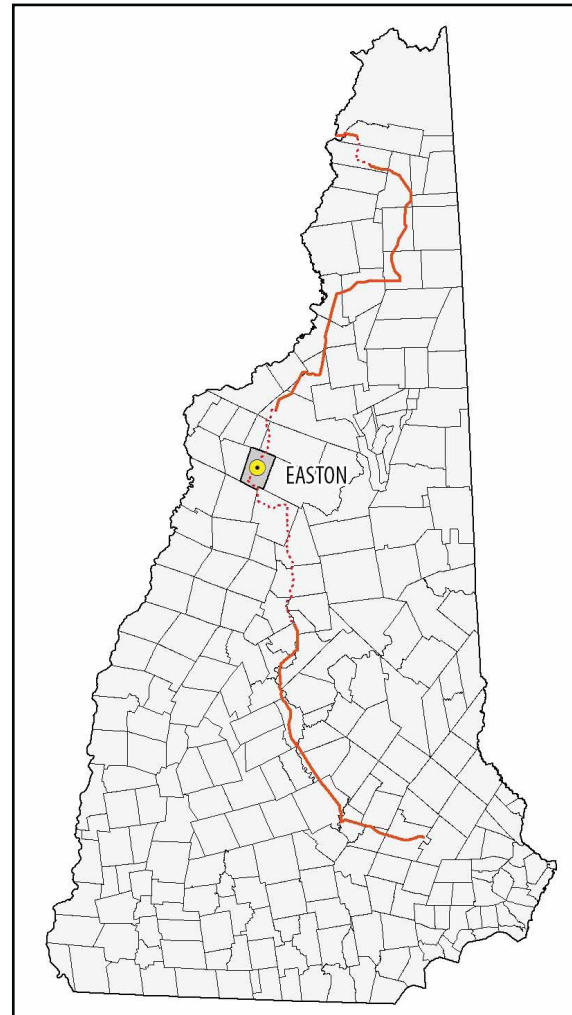
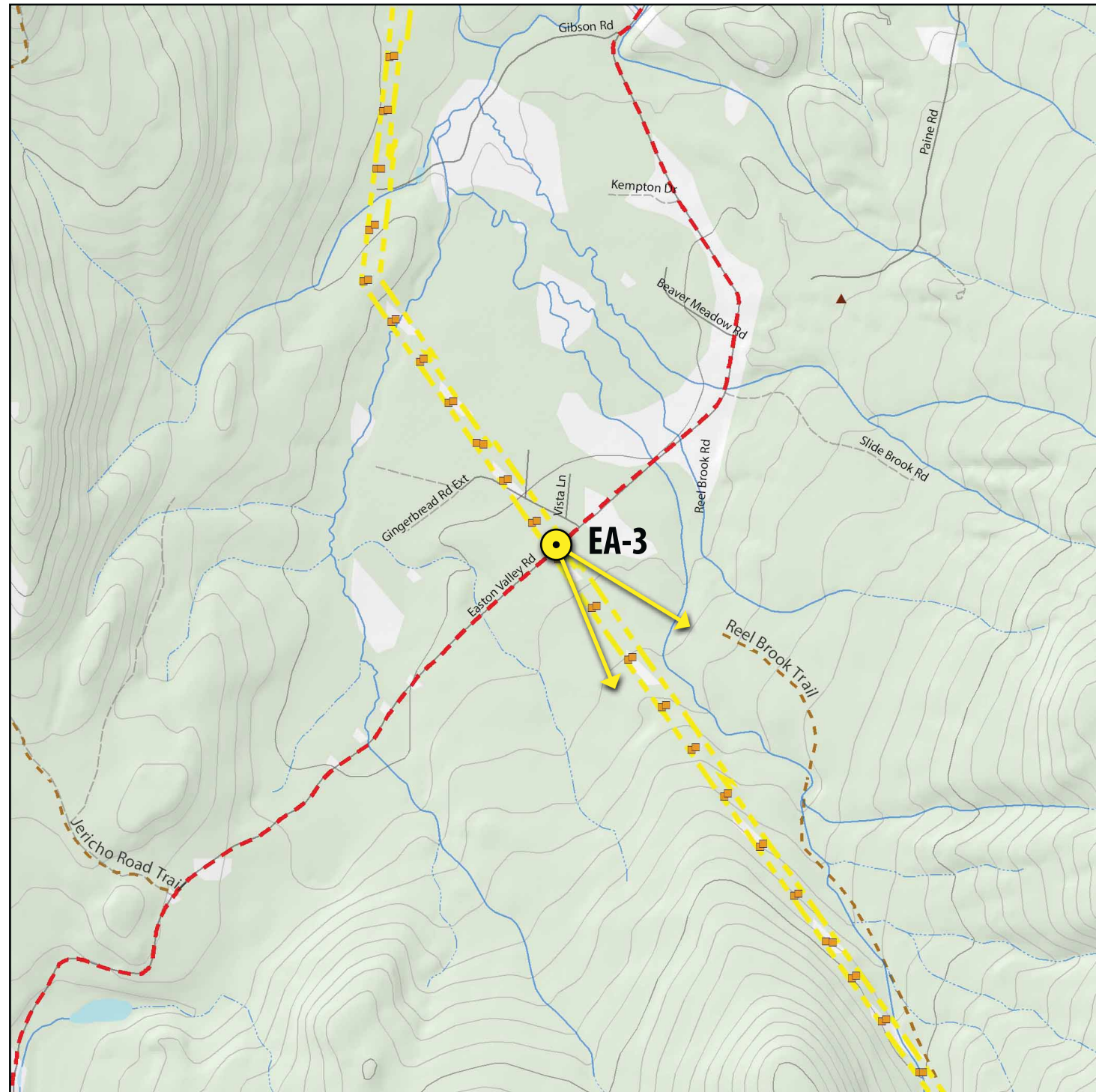


Figure 2 - Viewpoint Location
SCALE
0 20 40 60 Miles

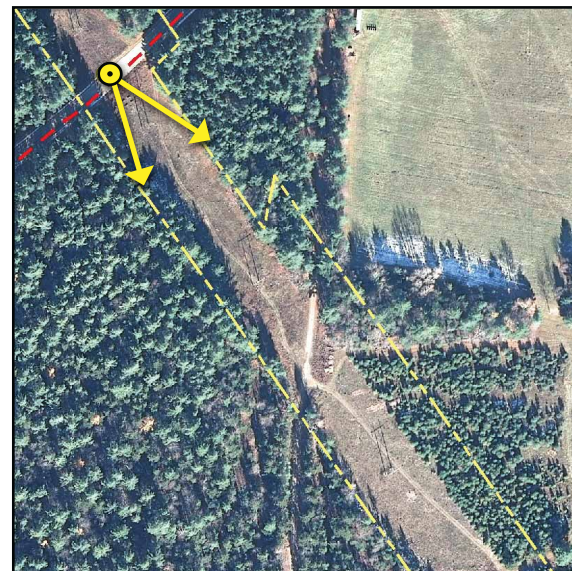
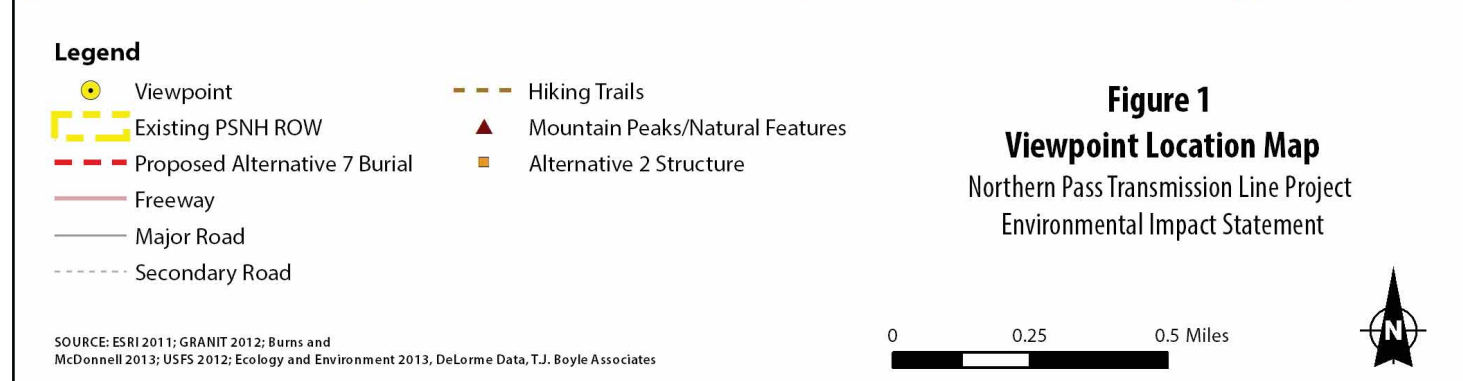


Figure 3 - Aerial Context
SCALE
0 200 400 600 Feet



General Information

Base Photograph

Date: 03-29-2013
Time: 9:12 am
Meteorological Visibility:
Plymouth Airport - 10 miles
Image Size: 4,928 x 3,264 pixels

Camera Properties

Camera Make/Model: Nikon D7000
Sensor Dimensions: 23.6 mm x 15.6 mm
Lens Make/Model: Nikkor DX AF-S 35 mm
Lens Focal Length: 35 mm
35 mm Equivalent Focal Length: 52.5 mm
Approximate Angles of View:
37° wide and 25° high
Camera Height: 1.5 meters (5 feet)

Viewpoint Information

Location: Easton Valley Road/NH Route 116
Crossing, Easton
Latitude/Longitude: 44.128171°, -71.793515°
Viewpoint Elevation: 1,281 feet
Viewpoint Name: EA-3
Orientation: Looking SE
Looking toward Alternative 2 Mile Marker: 95
Looking toward Alternative 7 Mile Marker: n/a

Simulation Viewing Notes

The simulation is properly printed on an 11-by-17 inches sheet at actual size. If viewed on a computer monitor, use the highest screen resolution. The simulated image is at the proper perspective when viewed at 23.5 inches from the eye, or at a distance of approx. twice the image height.

Project Design

The simulations for Alternative 2 through 6b are based on the best information available in March 2014. The simulations for Alternative 7 are based on the best information available on October 2015.

Alternatives Simulated from this Viewpoint

Alternative 1 - No Action

Transmission Line Information
Distance to Nearest Visible Structure: 129 feet
Number of Visible Existing Structures: 7

Alternative 2

Transmission Line Information
Distance to Nearest Visible Structure: 126 feet
Number of Visible Transmission Structures: 25

Alternatives 3, 4b, 4c, 5b, 5c and 6b

Transmission Line Information
The transmission line is buried in this view roadway and there is no discernible visual change from the Existing Condition.

Alternatives 4a, 5a and 6a

Transmission Line Information
The Project is not visible from this viewpoint.

Alternative 7 - Proposed Action

Transmission Line Information
The Project is not visible from this viewpoint.





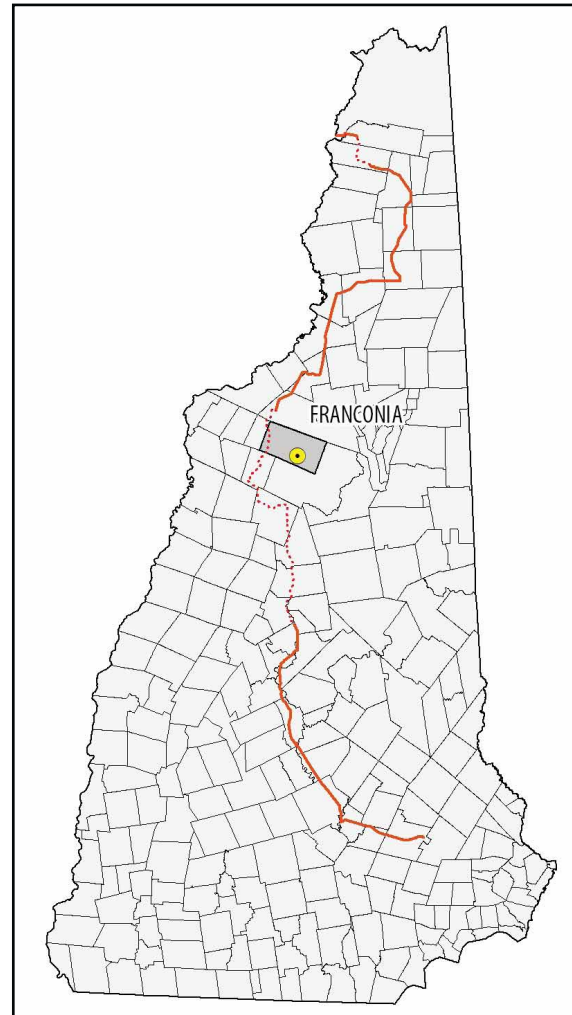
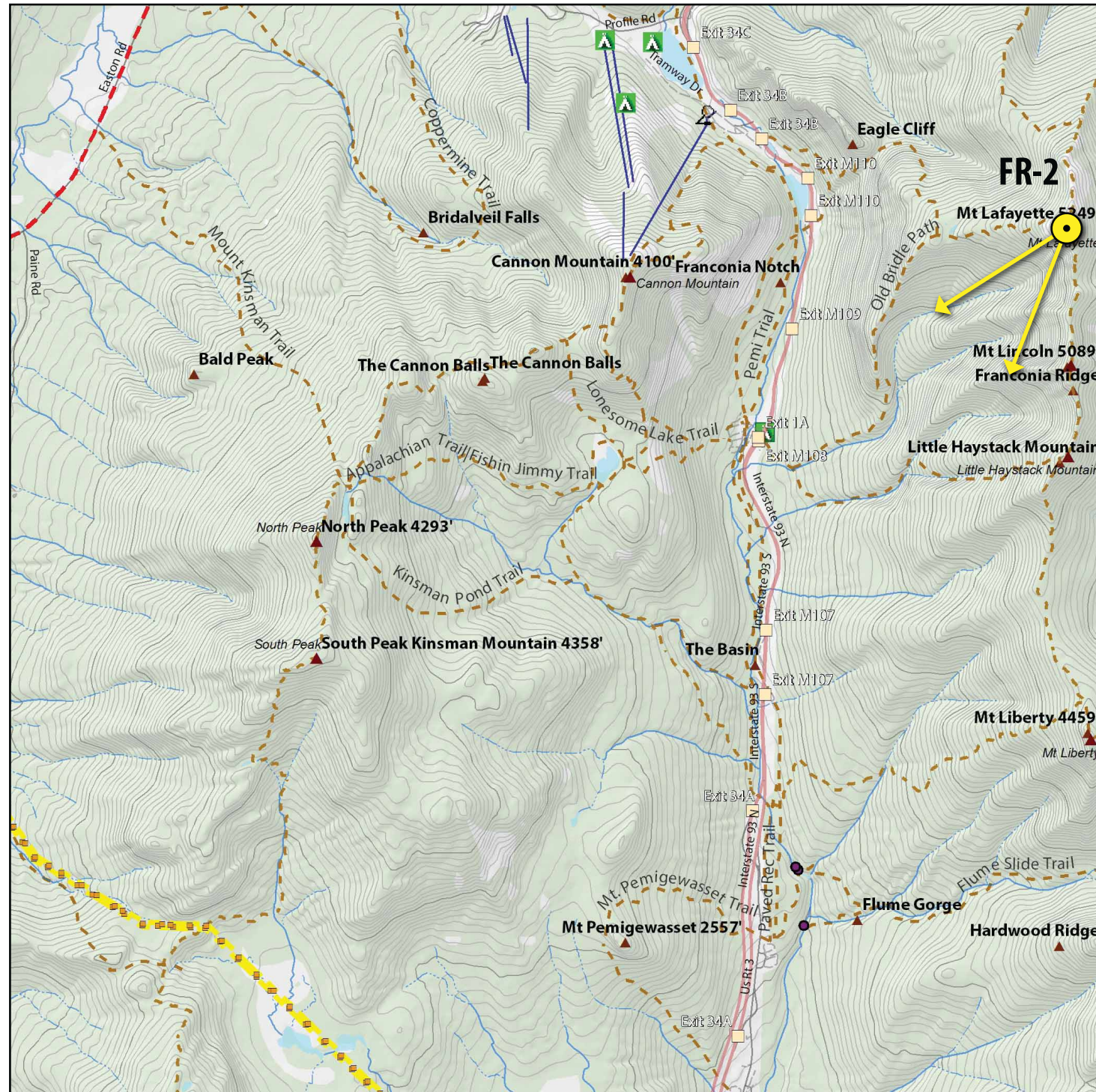


Figure 2 - Viewpoint Location
 SCALE
 0 20 40 60 Miles

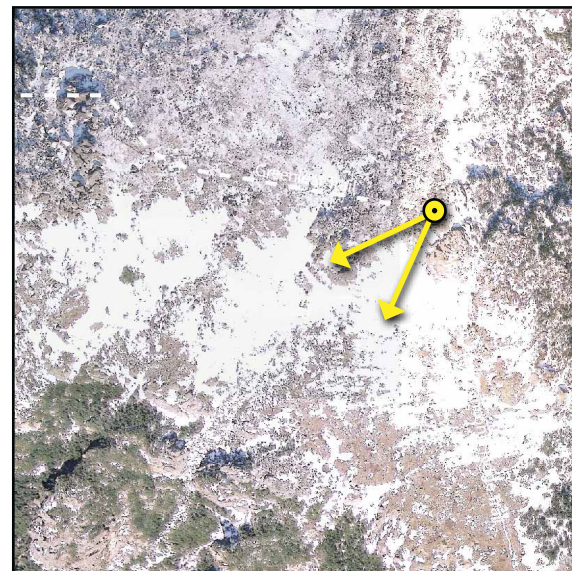
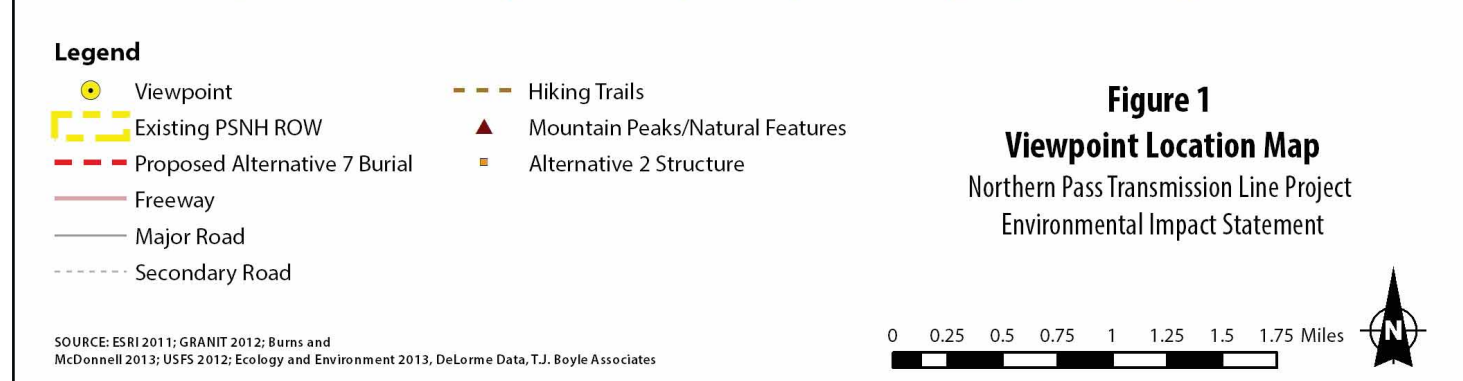


Figure 3 - Aerial Context
 SCALE
 0 200 400 600 Feet



General Information

Base Photograph

Date: 04-06-2013
 Time: 12:58 pm
 Meteorological Visibility:
 Plymouth Airport - 10 miles
 Image Size: 4,928 x 3,264 pixels

Camera Properties

Camera Make/Model: Nikon D7000
 Sensor Dimensions: 23.6 mm x 15.6 mm
 Lens Make/Model: Nikkor DX AF-S 35 mm
 Lens Focal Length: 35 mm
 35 mm Equivalent Focal Length: 52.5 mm
 Approximate Angles of View:
 37° wide and 25° high
 Camera Height: 1.5 meters (5 feet)

Viewpoint Information

Location: Mount Lafayette, Franconia
 Latitude/Longitude: 44.160832°, -71.644507°
 Viewpoint Elevation: 5,235 feet
 Viewpoint Name: FR-2
 Orientation: Looking Southwest
 Looking toward Alternative 2 Mile Markers: 98-99
 Looking toward Alternative 7 Mile Markers: n/a

Simulation Viewing Notes

The simulation is properly printed on an 11-by-17 inches sheet at actual size. If viewed on a computer monitor, use the highest screen resolution. The simulated image is at the proper perspective when viewed at 23.5 inches from the eye, or at a distance of approx. twice the image height.

Project Design

The simulations for Alternative 2 through 6b are based on the best information available in March 2014. The simulations for Alternative 7 are based on the best information available on October 2015.

Alternatives Simulated from this Viewpoint

Alternative 1 - No Action

Transmission Line Information
 Distance to Nearest Visible Structure: 35,433 feet
 Number of Visible Existing Structures: 6

Alternative 2

Transmission Line Information
 Distance to Nearest Visible Structure: 35,412 feet
 Number of Visible Transmission Structures: 16

Alternatives 3, 4a, 4b, 4c, 5a, 5b, 5c, 6a and 6b

Transmission Line Information
 The transmission line is buried in this view and there is no discernible visual change from the Existing Condition.

Alternative 7 - Proposed Action

Transmission Line Information
 The Project is not visible from this viewpoint.





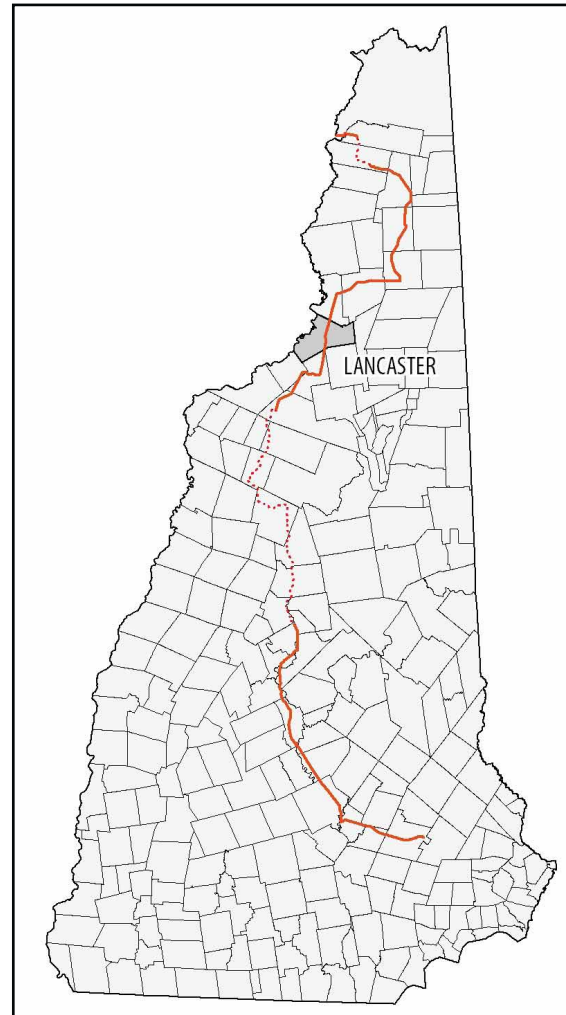
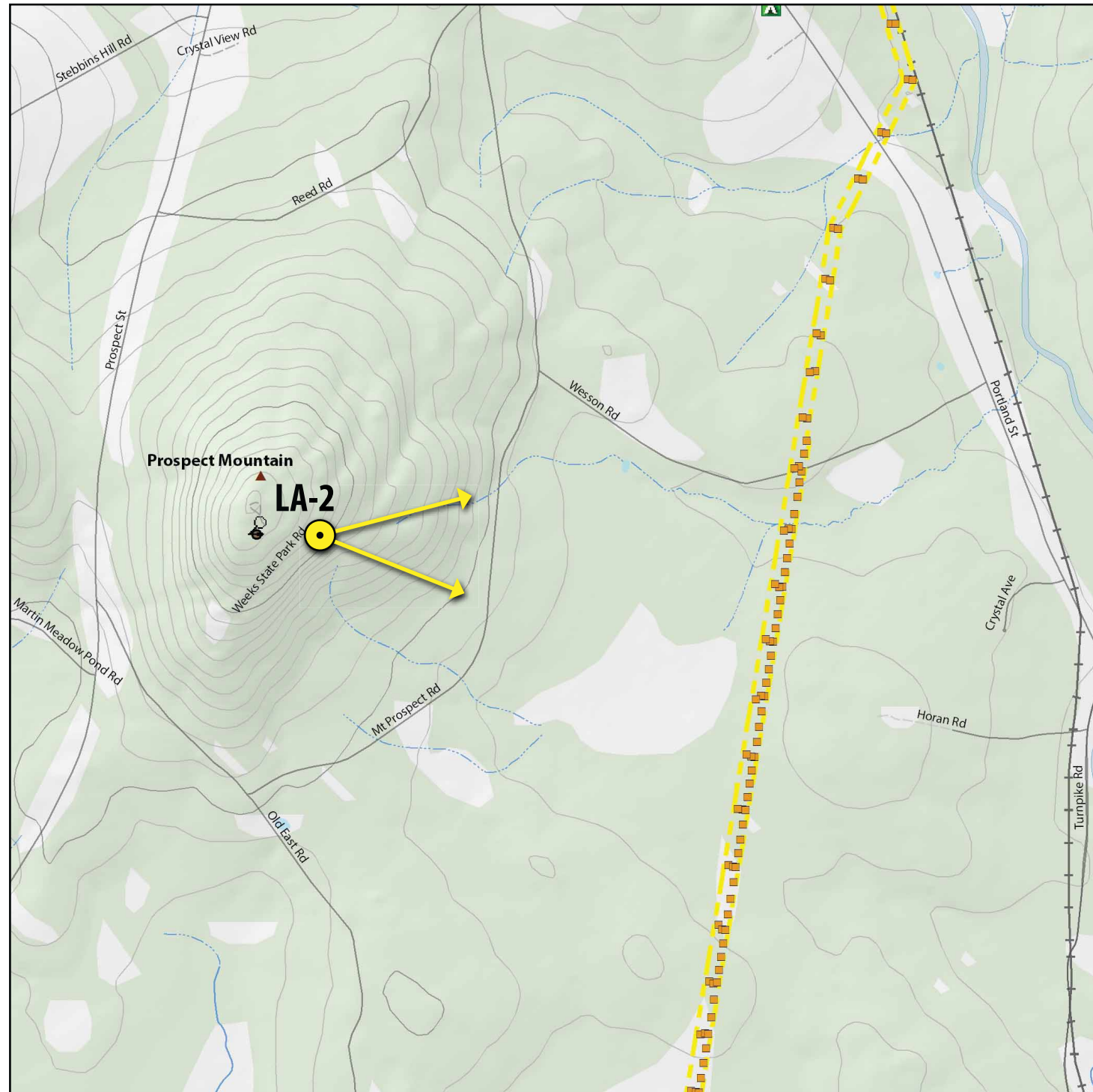


Figure 2 - Viewpoint Location
SCALE 0 20 40 60 Miles

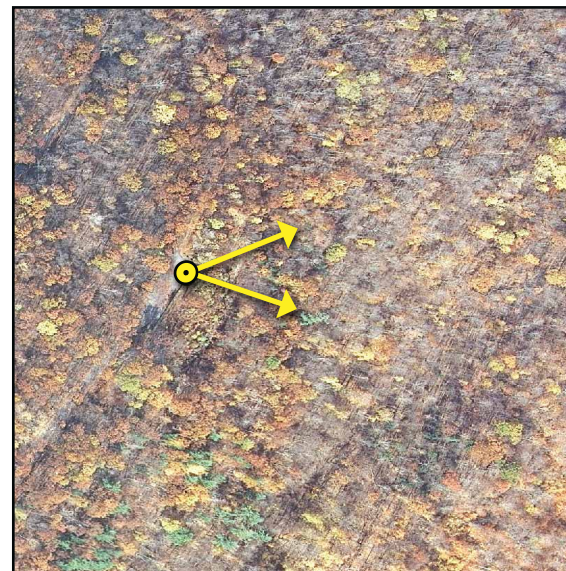


Figure 3 - Aerial Context
SCALE 0 200 400 600 Feet

Legend

- Viewpoint
- Existing PSNH ROW
- Proposed Alternative 7 Burial
- Freeway
- Major Road
- Secondary Road
- Hiking Trails
- Mountain Peaks/Natural Features
- Alternative 7 Structure

Figure 1
Viewpoint Location Map
Northern Pass Transmission Line Project
Environmental Impact Statement

SCALE 0 0.25 0.5 Miles

General Information

Base Photograph

Date: 04-18-2014
Time: 2:48 pm
Meteorological Visibility:
Berlin Airport - 10 miles
Image Size: 4,928 x 3,264 pixels

Camera Properties

Camera Make/Model: Nikon D7000
Sensor Dimensions: 23.6 mm x 15.6 mm
Lens Make/Model: Nikkor DX AF-S 35 mm
Lens Focal Length: 35 mm
35 mm Equivalent Focal Length: 52.5 mm
Approximate Angles of View:
37° wide and 25° high
Camera Height: 1.5 meters (5 feet)

Viewpoint Information

Location: Weeks State Park, Lancaster
Latitude/Longitude: 44.450291°, -71.567901°
Viewpoint Elevation: 1,875 feet
Viewpoint Name: LA-2
Orientation: Looking East
Looking toward Alternative 2 Mile Marker: 63
Looking toward Alternative 7 Mile Marker: 63-64

Simulation Viewing Notes

The simulation is properly printed on an 11-by-17 inches sheet at actual size. If viewed on a computer monitor, use the highest screen resolution. The simulated image is at the proper perspective when viewed at 23.5 inches from the eye, or at a distance of approx. twice the image height.

Project Design

The simulations for Alternative 2 through 6b are based on the best information available in March 2014. The simulations for Alternative 7 are based on the best information available on October 2015.

Alternatives Simulated from this Viewpoint

Alternative 1 - No Action

Transmission Line Information
Distance to Nearest Visible Structure: 5,985 feet
Number of Visible Existing Structures: 15

Alternative 2

Transmission Line Information
Distance to Nearest Visible Structure: 5,981 feet
Number of Visible Transmission Structures: 34

Alternative 3

Transmission Line Information
The transmission line is buried in this view and there is no discernible visual change from the Existing Condition.

Alternatives 4a, 4b and 4c

Transmission Line Information
The Project is not visible from this viewpoint.

Alternatives 5a, 5b and 5c

Transmission Line Information
There is no visible change from Alternative 2.

Alternatives 6a and 6b

Transmission Line Information
The Project is not visible from this viewpoint.

Alternative 7 - Proposed Action

Transmission Line Information
Distance to Nearest Visible Structure: 5,981 feet
Number of Visible Transmission Structures: 37







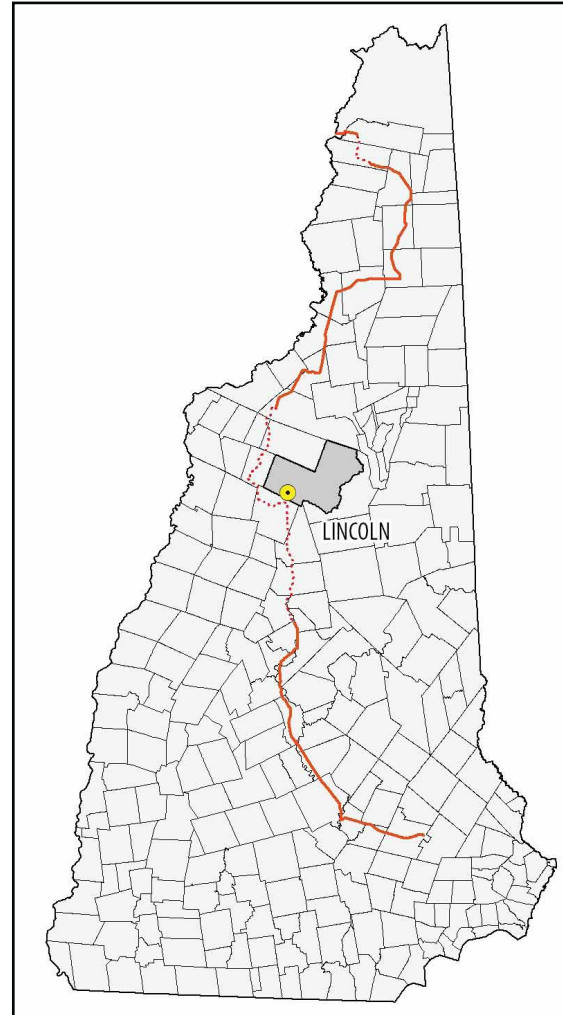
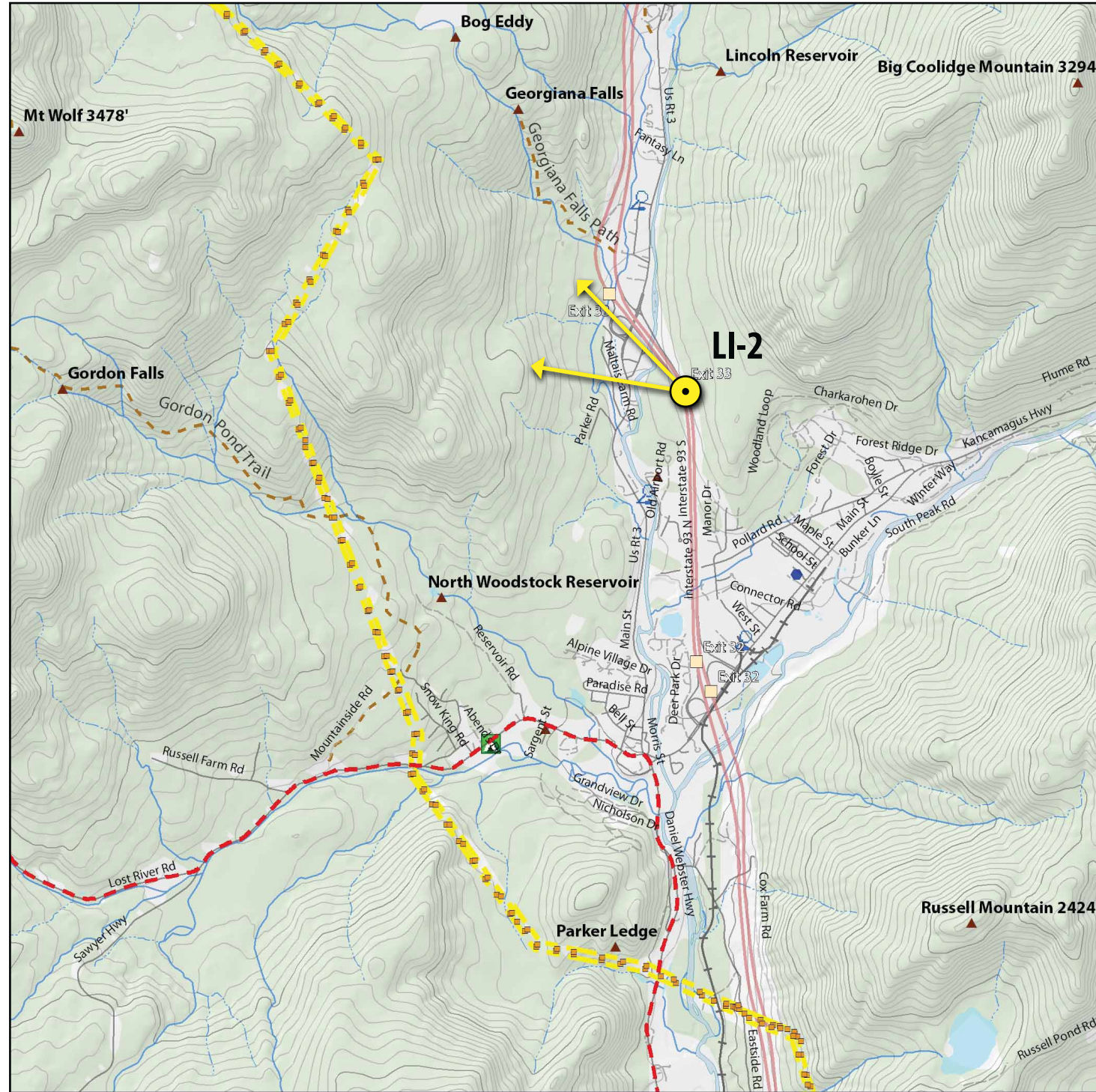
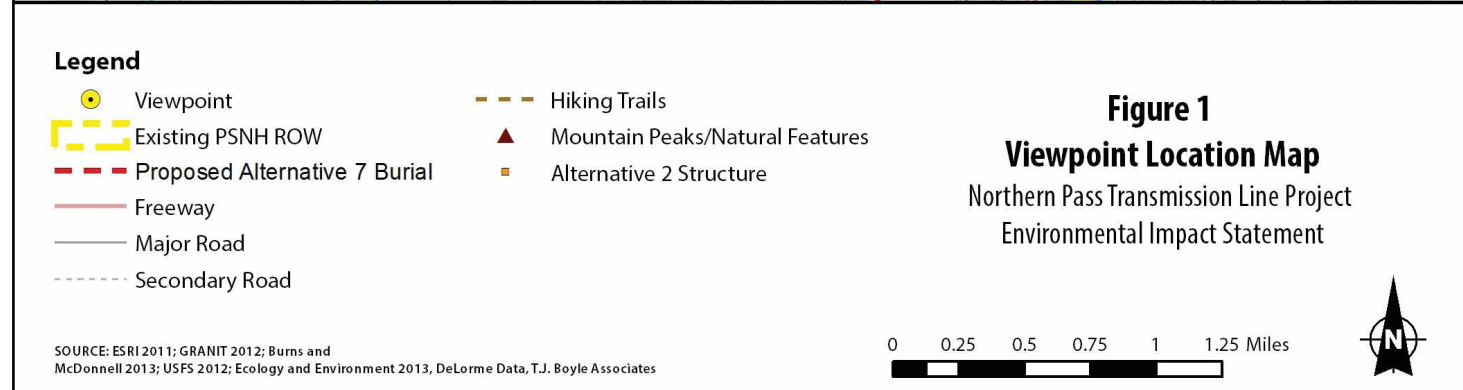


Figure 2 - Viewpoint Location
SCALE 0 20 40 60 Miles



Figure 3 - Aerial Context
SCALE 0 200 400 600 Feet



General Information

Base Photograph

Date: 09-17-2013
Time: 1:21 pm
Meteorological Visibility:
Plymouth Airport - 10 miles
Image Size: 4,928 x 3,264 pixels

Camera Properties

Camera Make/Model: Nikon D7000
Sensor Dimensions: 23.6 mm x 15.6 mm
Lens Make/Model: Nikkor DX AF-S 35 mm
Lens Focal Length: 35 mm
35 mm Equivalent Focal Length: 52.5 mm
Approximate Angles of View:
37° wide and 25° high
Camera Height: 1.5 meters (5 feet)

Viewpoint Information

Location: White Mountain Trail Byway, Lincoln
Latitude/Longitude: 44.057196°, -71.682446°
Viewpoint Elevation: 938 feet
Viewpoint Name: LI-2
Orientation: Looking Northwest
Looking toward Alternative 2 Mile Marker: 100
Looking toward Alternative 7 Mile Marker: n/a

Simulation Viewing Notes

The simulation is properly printed on an 11-by-17 inches sheet at actual size. If viewed on a computer monitor, use the highest screen resolution. The simulated image is at the proper perspective when viewed at 23.5 inches from the eye, or at a distance of approx. twice the image height.

Project Design

The simulations for Alternative 2 through 6b are based on the best information available in March 2014. The simulations for Alternative 7 are based on the best information available on October 2015.

Alternatives Simulated from this Viewpoint

Alternative 1 - No Action

Transmission Line Information
Distance to Nearest Visible Structure: 10,491 feet
Number of Visible Existing Structures: 5

Alternative 2

Transmission Line Information
Distance to Nearest Visible Structure: 10,155 feet
Number of Visible Transmission Structures: 8

Alternative 3

Transmission Line Information
The transmission line is buried in this view and there is no discernible visual change from the Existing Condition.

Alternatives 4a, 4b, 4c, 5a, 5b, 5c, 6a and 6b

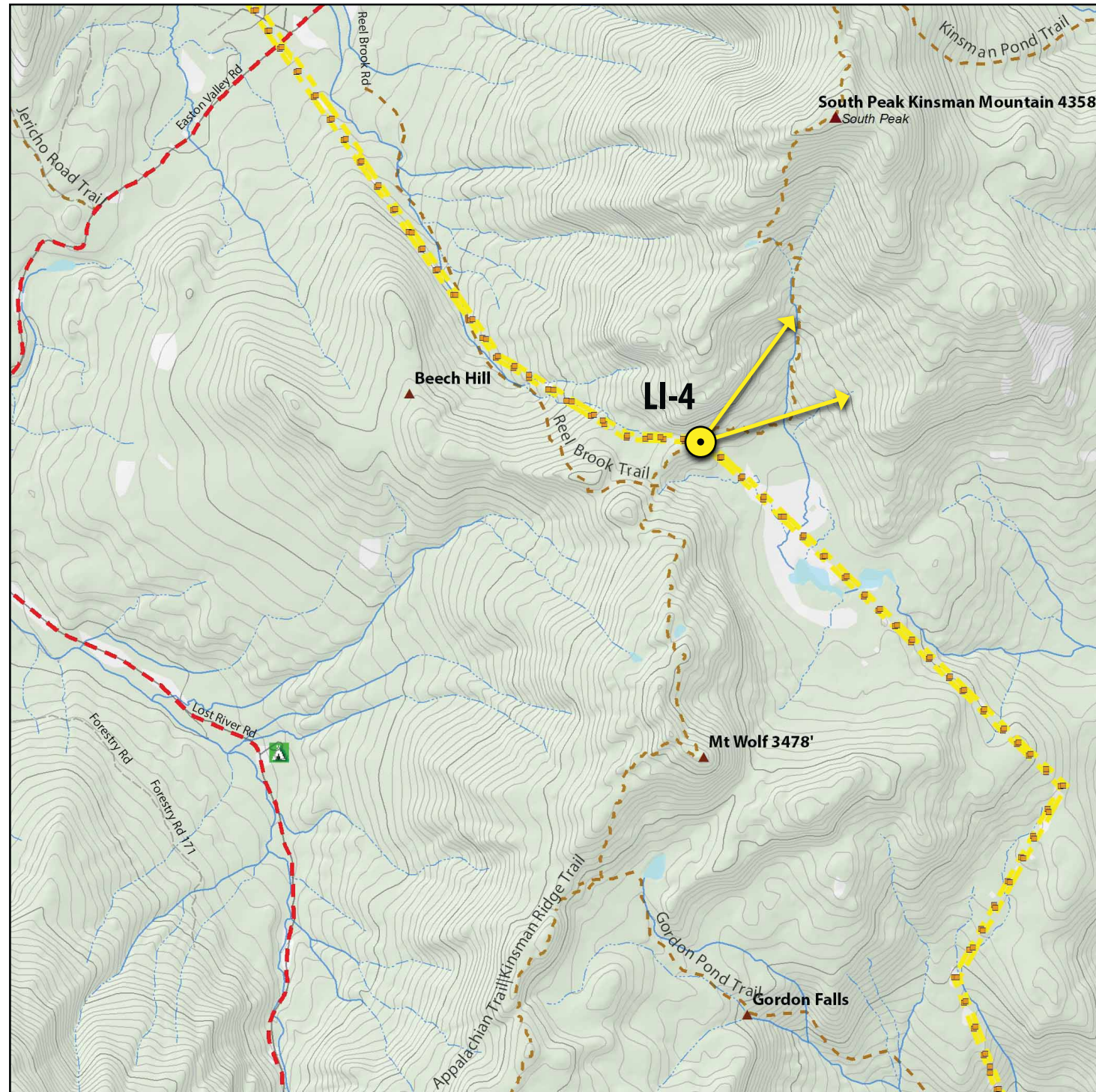
Transmission Line Information
The Project is not visible from this viewpoint.

Alternative 7 - Proposed Action

Transmission Line Information
The Project is not visible from this viewpoint.







- Legend**
- Existing PSNH ROW
 - Proposed Alternative 7 Burial
 - Freeway
 - Major Road
 - Secondary Road
 - Hiking Trails
 - ▲ Mountain Peaks/Natural Features
 - Alternative 2 Structure

**Figure 1
Viewpoint Location Map**
Northern Pass Transmission Line Project
Environmental Impact Statement

SOURCE: ESRI 2011; GRANIT 2012; Burns and McDonnell 2013; USFS 2012; Ecology and Environment 2013; DeLorme Data, T.J. Boyle Associates

SCALE
0 0.25 0.5 0.75 1 1.25 Miles

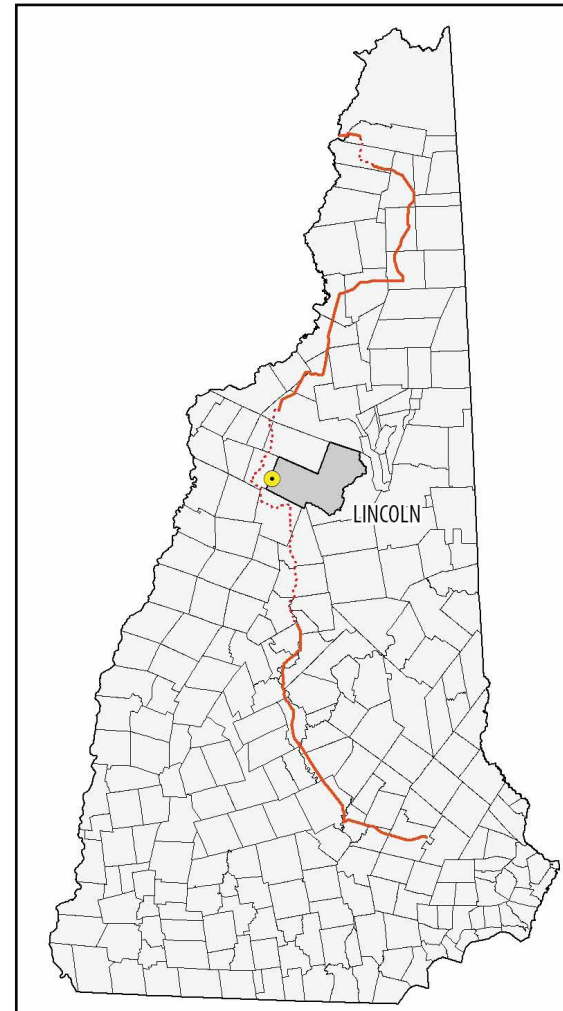


Figure 2 - Viewpoint Location

SCALE
0 20 40 Miles

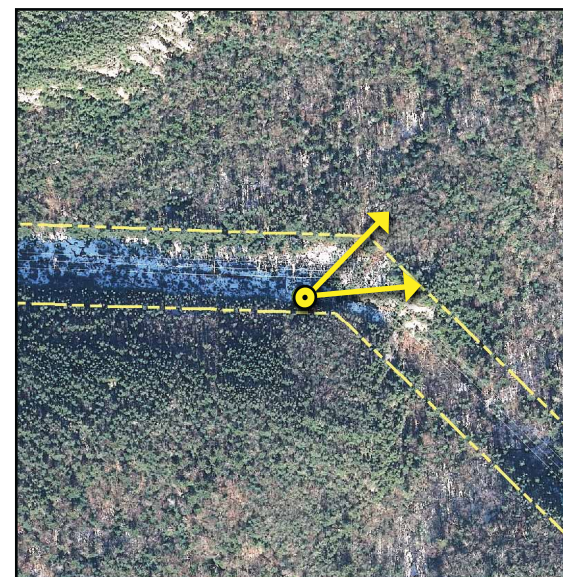


Figure 3 - Aerial Context

SCALE
0 200 400 600 Feet



General Information

Base Photograph

Date: 08-21-2013
Time: 1:48 pm
Meteorological Visibility:
Plymouth Airport - 10 miles
Image Size: 4,928 x 3,264 pixels

Camera Properties

Camera Make/Model: Nikon D7000
Sensor Dimensions: 23.6 mm x 15.6 mm
Lens Make/Model: Nikkor DX AF-S 35 mm
Lens Focal Length: 35 mm
35 mm Equivalent Focal Length: 52.5 mm
Approximate Angles of View:
37° wide and 25° high
Camera Height: 1.5 meters (5 feet)

Viewpoint Information

Location: Appalachian Trail Crossing, Lincoln
Latitude/Longitude: 44.099088°, -71.750570°
Viewpoint Elevation: 2,608 feet
Viewpoint Name: LI-4
Orientation: Looking Northeast
Looking toward Alternative 2 Mile Markers: 97-98
Looking toward Alternative 7 Mile Markers: n/a

Simulation Viewing Notes

The simulation is properly printed on an 11-by-17 inches sheet at actual size. If viewed on a computer monitor, use the highest screen resolution. The simulated image is at the proper perspective when viewed at 23.5 inches from the eye, or at a distance of approx. twice the image height.

Project Design

The simulations for Alternative 2 through 6b are based on the best information available in March 2014. The simulations for Alternative 7 are based on the best information available on October 2015.

Alternatives Simulated from this Viewpoint

Alternative 1 - No Action

Transmission Line Information
Distance to Nearest Visible Structure: 105 feet
Number of Visible Existing Structures: 1

Alternative 2

Transmission Line Information
Distance to Nearest Visible Structure: 117 feet
Number of Visible Transmission Structures: 1

Alternatives 3

Transmission Line Information
The transmission line is buried in this view and there is no discernible visual change from the Existing Condition.

Alternatives 4a, 4b, 4c, 5a, 5b, 5c, 6a and 6b

Transmission Line Information
The Project is not visible from this viewpoint.

Alternative 7 - Proposed Action

Transmission Line Information
The Project is not visible from this viewpoint.





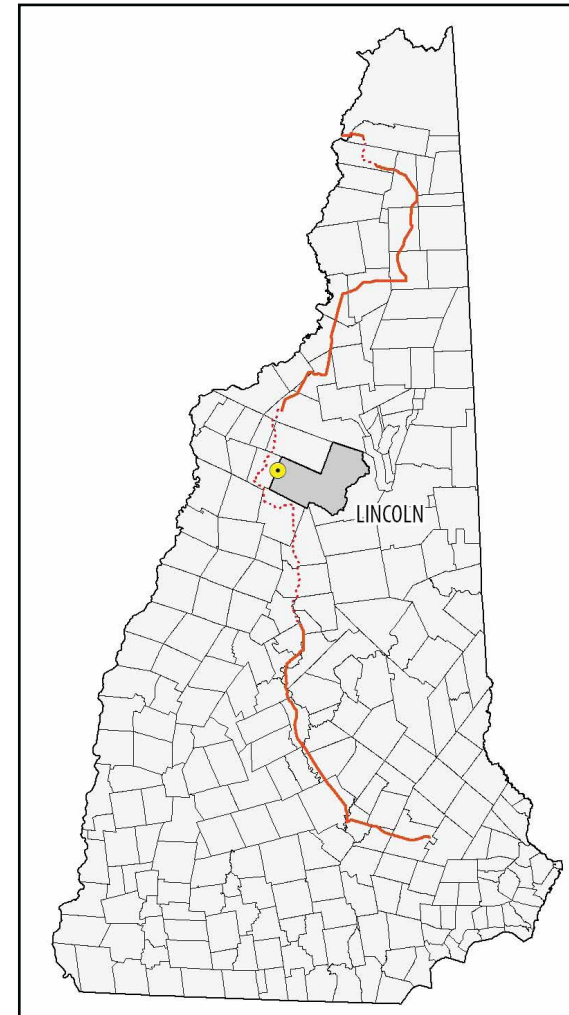
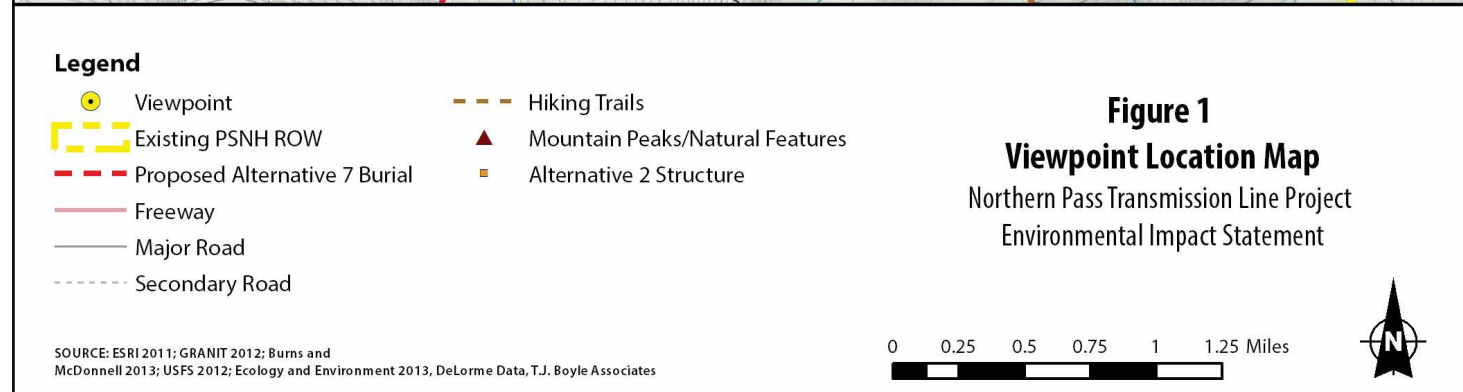
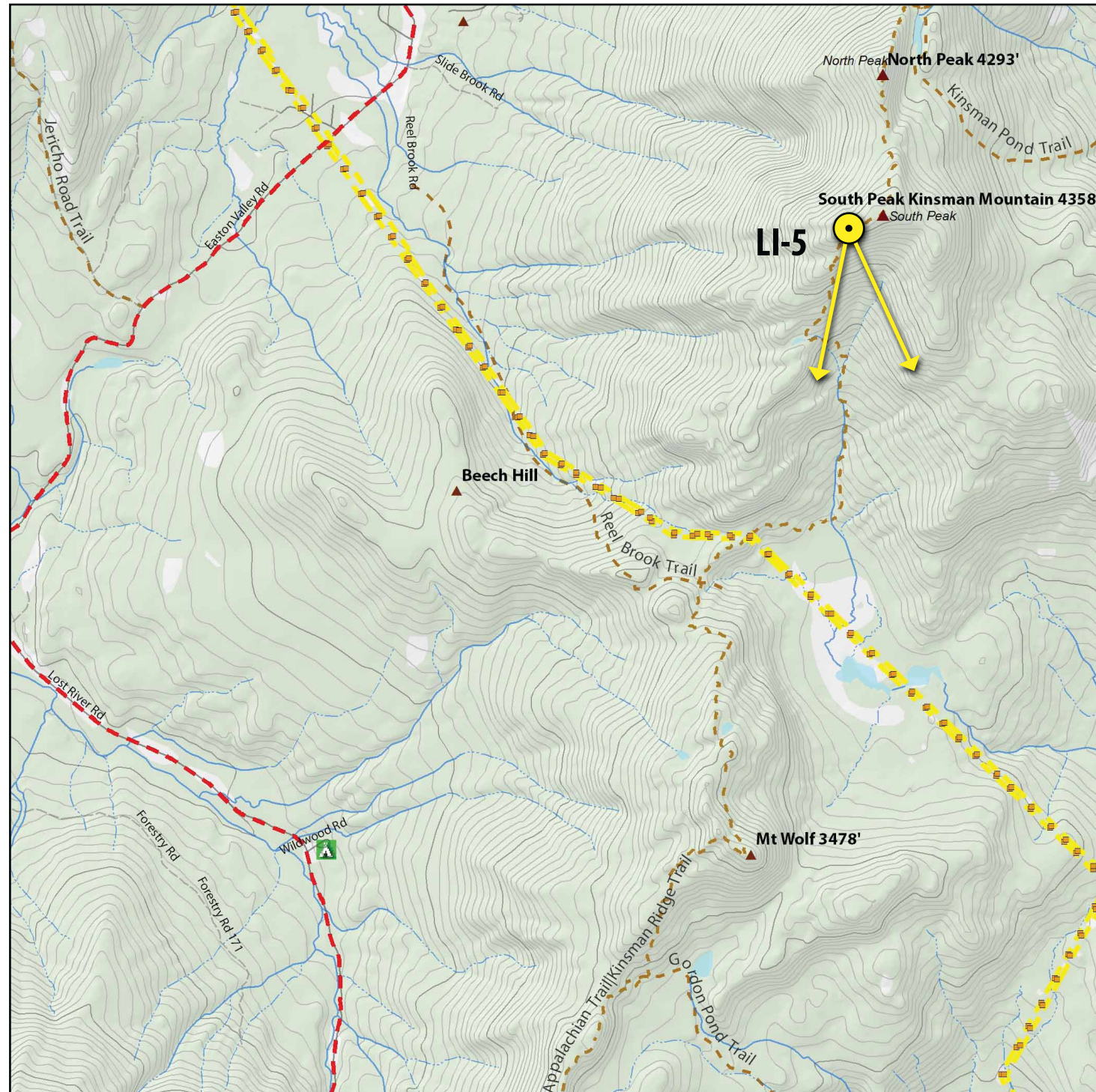


Figure 2 - Viewpoint Location

SCALE
0 20 40 60 Miles

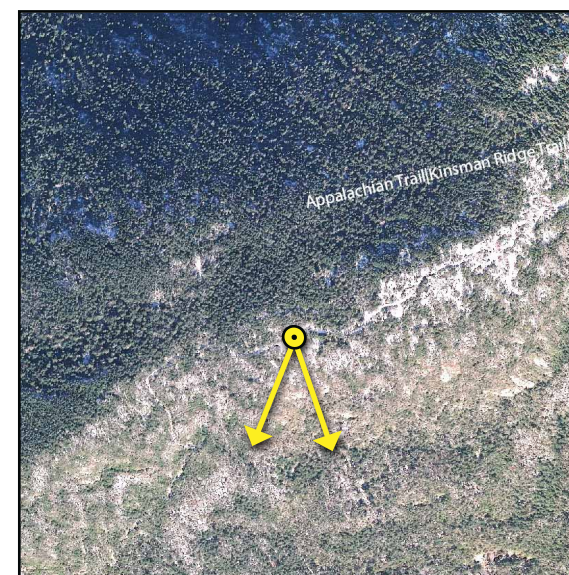


Figure 3 - Aerial Context

SCALE
0 200 400 600 Feet

General Information

Base Photograph

Date: 08-21-2013
Time: 6:29 pm
Meteorological Visibility:
Plymouth Airport - 10 miles
Image Size: 4,928 x 3,264 pixels

Camera Properties

Camera Make/Model: Nikon D7000
Sensor Dimensions: 23.6 mm x 15.6 mm
Lens Make/Model: Nikkor DX AF-S 35 mm
Lens Focal Length: 35 mm
35 mm Equivalent Focal Length: 52.5 mm
Approximate Angles of View:
37° wide and 25° high
Camera Height: 1.5 meters (5 feet)

Viewpoint Information

Location: South Kinsman Mountain, Lincoln
Latitude/Longitude: 44.121871°, -71.739837°
Viewpoint Elevation: 4,325 feet
Viewpoint Name: LI-5
Orientation: Looking South
Looking toward Alternative 2 Mile Marker: 98
Looking toward Alternative 7 Mile Marker: n/a

Simulation Viewing Notes

The simulation is properly printed on an 11-by-17 inches sheet at actual size. If viewed on a computer monitor, use the highest screen resolution. The simulated image is at the proper perspective when viewed at 23.5 inches from the eye, or at a distance of approx. twice the image height.

Project Design

The simulations for Alternative 2 through 6b are based on the best information available in March 2014. The simulations for Alternative 7 are based on the best information available on October 2015.

Alternatives Simulated from this Viewpoint

Alternative 1 - No Action

Transmission Line Information
Distance to Nearest Visible Structure: 9,320 feet
Number of Visible Existing Structures: 25

Alternative 2

Transmission Line Information
Distance to Nearest Visible Structure: 9,411 feet
Number of Visible Transmission Structures: 38

Alternatives 3

Transmission Line Information
The transmission line is buried in this view and there is no discernible visual change from the Existing Condition.

Alternatives 4a, 4b, 4c, 5a, 5b, 5c, 6a and 6b

Transmission Line Information
The Project is not visible from this viewpoint.

Alternative 7 - Proposed Action

Transmission Line Information
The Project is not visible from this viewpoint.



