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Review of Land Use and Local and Regional Planning, The Merrimack Valley Reliability Project, June 29, 2015





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1.0 Introduction

Public Service Company of New Hampshire d/b/a Eversource Energy (“PSNH”) and New England Power Company d/b/a National Grid (“NEP”) have applied to the New Hampshire Site Evaluation Committee (“SEC”) for a Certificate of Site and Facility to construct, operate and maintain the New Hampshire portion of the Merrimack Valley Reliability Project (“MVRP”), a new 345 kV electric transmission line which will extend from PSNH’s Scobie Pond Substation in Londonderry, New Hampshire to NEP’s existing substation in Tewksbury, Massachusetts, a total distance of approximately 24.5 miles.

Within New Hampshire, the MVRP will follow existing PSNH and NEP transmission rights-of-way (“ROWS”) in the towns of Londonderry, Hudson, Windham and Pelham for a distance of approximately 17.9 miles (the “Project”). Of the approximately 17.9 miles in New Hampshire, PSNH will construct approximately 9.8 miles of line on its ROW through Londonderry and Hudson. NEP will construct approximately 8.1 miles of transmission line on its ROW through Hudson, Windham and Pelham. The relocation of one 7.6 mile-segment of an existing 230 kV circuit, and one more northerly segment of 115 kV line, will be required to create sufficient space for the new 345 kV line within the existing corridor.

This report examines the impacts of the construction and operation of the Project on local land use. This assessment demonstrates that the impacts of construction and operation of the facility on local land use are limited. The corridor was developed for electric utility purposes in the early to mid-20th century and has contained electric transmission and distribution structures for many decades. The presence of the corridor and associated transmission structures has not hindered growth adjacent to the ROW. In the latter half of the 20th century and into the early 2000’s the four communities experienced significant increases in growth, and many homes and businesses were developed adjacent to or near the Project corridor.

The land uses currently adjacent to the Project corridor include forests, agriculture, residential, commercial/industrial, transportation, institutional/ government, recreation, and conservation areas. Sound land use and environmental siting principles support locating the proposed electric transmission line in the existing ROW because it minimizes impacts to local land uses, regional development and the environment.¹

In order to conduct this analysis, Normandeau examined local land use, regional and municipal master plans, as well as local regulations such as zoning ordinances. The Project is consistent with the prevailing land uses along the corridor and with the goals and objectives of these long-range policy planning documents, and will not interfere with their implementation.

¹ Decision in Portland Natural Gas Transmission System Maritimes & Northeast Pipeline Company, NH SEC, Docket No. 96-01 and Docket No. 96-03 (July 16th, 1997), *available at* <http://www.nhsec.nh.gov/projects/1996/index.htm>; Findings of the Bulk Power Facility Site Evaluation Committee, NH SEC DSF 850-155 (September 16th, 1986), *available at* <http://www.nhsec.nh.gov/projects/1990.htm>.

2.0 Report Methodology

This report examines existing land uses in each community along the corridor in order to estimate impacts to local land use.² Normandeau obtained land use data and trends, local master plans and zoning ordinances, and other land use information from regional planning commissions, state agencies, NH GRANIT, local communities, and other sources. From these sources, Normandeau compiled detailed summaries of land use, zoning and development ordinances, master plans, and other long range plans for each community where the Project is located.

Recently completed regional plans were obtained from the two regional planning commissions that serve the four communities along the Project corridor. All of the goals, objectives and recommendations in the local and regional long-range plans were reviewed, summarized and evaluated. In most instances, these plans did not directly relate to the construction or operation of the proposed facility. In many cases, the plans expressed general planning goals and objectives such as protecting rural character by encouraging development in already developed areas and protecting open space.

In addition to document review, Normandeau conducted site visits along the corridor and met with representatives of the regional planning commissions and local planners to discuss existing land use and plans for future development.

Normandeau also reviewed distances from the edge of the right-of-way to buildings outside the corridor. It should be noted that the distance between these buildings and the Project structure is greater and sometimes significantly greater than these measurements since electric transmission lines are rarely placed adjacent to the edge of the ROW.

For purposes of this report, “Project area” refers generally to the four communities of Pelham, Hudson, Windham and Londonderry, and “Project corridor” or “corridor” refers to the existing ROW.

3.0 Project Description

The Applicants have applied to the SEC for a Certificate of Site and Facility to construct, operate, maintain and connect a new approximately 24.5-mile 345 kV electric transmission line from NEP’s Tewksbury 22A substation in Tewksbury, MA to PSNH’s Scobie Pond 345kV substation in Londonderry, NH. The Project will be constructed in an existing heavily developed transmission line corridor. The Applicants will construct approximately 17.9

² SEC rule Site 301.03(j)(1), in its current form, requires that an application provide information regarding the effects of a facility on the orderly development of the region, including an estimate of the impacts of the construction and operation of the facility on local land use. In its ongoing rulemaking proceeding, the SEC has adopted an initial proposed rule that fleshes out this requirement to require a description of prevailing land uses along with a description of how the proposed facility is or is not consistent with such land uses. This report was developed to comply with the existing rule, while taking account of the proposed changes, understanding that further revisions may occur before a final rule is established.

miles of new 345 kV transmission line (the “3124 Line”) and also relocate existing facilities along some sections of the corridor, including the existing 115 kV line (the “Y-151 Line”), in order to accommodate the new 3124 Line.

The Project route begins at the Massachusetts border traveling northwest through Pelham, crossing NH Route 38 and NH Route 111A, before entering the town of Windham. The 3124 Line continues across NH Route 128 and NH Route 111 in Windham before crossing Beaver Brook to the town of Hudson. Structure heights along this portion of the Project range from 45 to 65 feet and the corridor is already cleared to nearly its full extent so only side trimming will be required. South of Davis Street in Hudson, ownership of the line transitions from NEP to PSNH. North of the town line crossing into Londonderry, the existing corridor bends northward and crosses NH Route 102. Just south of Wiley Hill Road the transmission corridor splits. The new line will follow the PSNH corridor turning northeast and extending along the eastern edge of Musquash Conservation Area. The Project continues northeast crossing Interstate 93 and then turns east and continues to Scobie Pond Substation.

The new 345 kV transmission line will be co-located with other electric lines within the corridor. The height of structures will vary between approximately 60 feet to a little over 100 feet due to topography, the need to span wetlands and highways, safety clearances and other factors.

4.0 Prevailing Land Use

For the purposes of this report, existing land uses are classified as: forests, agriculture, residential, commercial/industrial, transportation and utilities, conservation and recreation, historical and archaeological, and natural resources such as wetlands and water resources, and wildlife habitat.³

These general land use categories were derived from the existing land uses described in local and regional master plans in the Project area.

Land Use Background

The Project’s land use classification is as a utility. PSNH and NEP propose to site a new 345 kV transmission line within the existing electric transmission line ROW, which is currently occupied by electric transmission and distribution structures and conductors. The Project route is approximately 24.4 miles long, of which approximately 17.9 miles is in New

³ Most modern land use classifications are based on the 1965 *Standard Land Use Coding Manual* (SLUCM) produced by the Urban Renewal Administration of the Housing and Home Finance Authority, which established a consistent system for identifying and coding land use activities. In the 1990’s, the American Planning Association (APA) joined with the Federal Highway Administration (FHWA) and several other federal agencies to develop the Land-Based Classification Standards (LBCS) to update the SLUCM. This model assigns land classifications based on activity, function, structure, site and ownership. There are other land use classification models, but they all consistently define existing land uses by observable activity on the site such as: residential, commercial, industrial, institutional, public infrastructure and utilities, transportation, recreation, natural resources, and undeveloped.

Hampshire including approximately 10 miles of PSNH ROW and approximately 8 miles of NEP ROW.

The existing utility ROW covers approximately 948 acres in the four Project communities. It is assumed that about one-quarter of this acreage will be associated with this Project. The entire ROW makes up a very small percentage of total land area in each community: less than one percent in Hudson and Windham, and less than two percent in Londonderry and Pelham.

The corridor was developed for electric utility purposes in the early to mid-20th century and the transmission and distribution lines have been actively upgraded and maintained. In the latter half of the 20th century and into the early 2000's, the four communities in the Project area experienced significant growth, as did most of southern New Hampshire. Many neighborhoods, homes and businesses were developed adjacent to or near the Project corridor.

The land uses currently adjacent to the Project corridor include forests, agriculture, residential, commercial/industrial, transportation/utilities, recreation, conservation, historical and archaeological, and natural resources such as wetlands/water resources, and wildlife habitat. Sound land use and environmental siting principles support locating the proposed electric transmission line in the existing ROW because it minimizes impacts to regional development, local land uses and the environment.

The following sections provide a description of the prevailing land uses within and adjacent to the Project corridor and evaluate the consistency of the proposed facility with such land uses. Overall, the Project is consistent with existing land uses, and will not have an adverse impact on land use along the corridor.

4.1 Forests

According to the USDA Forest Service and the NH Division of Forests and Lands, New Hampshire is the second-most forested state in the nation, following only the State of Maine. Forests near the Project corridor are primarily composed of Appalachian-oak-pine and hemlock-hardwood-pine; communities in this part of the state also contain areas of wet meadow shrub, peatlands, floodplain forest, grasslands, rocky ridge/talus slope, and pine barren.

From north to south, the Project corridor runs through wooded portions of Londonderry, abutting several conservation areas such as Musquash Conservation Area and Lorden open space parcel, which are described in more detail in the conservation section of this report. The corridor also runs through forested tracts owned or held in easement by PSNH and NEP.

The corridor crosses into Hudson and through the Ingersoll Tri-Town Forest, which is managed by the Society for the Protection of New Hampshire Forests (SPNHF) and the Town, and used for timber harvesting and non-motorized recreation, as well as for drinking water source protection.

The Project continues through Windham and into the northern portion of Pelham, where it crosses several town-owned parcels including the Transfer Station tract, through Peabody Town Forest which is managed by the Town, and additional town-owned land adjacent to the Costa conservation parcel.

The Project is not expected to interfere with the management of these forests because it will be located within an existing ROW in which routine vegetation maintenance occurs according to established management practices. The Applicants do not propose clearing outside the existing ROW, and will coordinate with abutting parcel owners prior to construction.

4.2 Agriculture

About seven percent of New Hampshire's land area is considered agricultural land (NHWAP Grasslands 2010). There are several active agricultural operations along the Project route within the Towns of Londonderry, Windham, Hudson and Pelham. Londonderry is known for its apple orchards and farm stands such as Mack's Apples/ Moose Hill Orchards on Mammoth Road, Sunnycrest Farm on High Range Road, Elwood Orchards on Elwood Road, Woodmont Orchards on Pillsbury Road and Merrill's Farm on Mammoth Road. Parcels belonging to two of these orchards, Sunnycrest Farm and Elwood Orchards are along the ROW. A portion of Carriage Shack Farm, a petting zoo on Dan Hill Road, is located along and within the Project corridor.

In Windham, land used to raise livestock is located near the corridor on Winter Street. Snow Pond Farm on Winter Street raises pet Suri alpacas, with small fenced in areas located within and along the ROW. In Pelham, the Project corridor crosses lands used for growing crops such as corn and evergreen trees.

There are many agricultural uses in New Hampshire which take place within transmission line rights-of-way, including row crops, hay fields, orchards, tree farms, and pastures for livestock. Impacts to agricultural lands are generally minor and associated with one or more new structures in the ROW.

The Project will not have significant permanent impacts on agricultural uses and will not interfere with on-going operations. The Project is located within an established ROW that is routinely maintained, and NEP and PSNH have indicated that they will continue to coordinate corridor maintenance with agricultural landowners, and minimize or mitigate temporary impacts during construction.

4.3 Residential

Residential development in the four communities along the corridor is typical of southern New Hampshire: low density single family homes scattered along existing road frontages, moderate density suburban single family neighborhoods built around cul-de-sac roads and other newer roadways, and some areas with more dense development consisting of 55+ age-restricted residential communities, duplex units or townhouse condominiums. This is reflective of the type of residential pattern of development that southern New Hampshire experienced between the late 1970's and mid-2000's.

Parrish Hills, an age-restricted community, uses the adjacent ROW for amenities such as benches and associated landscaping. Some homeowners use the ROW for agriculture, recreation, access to trails and other purposes. A majority of the residential structures along the route are located more than 100 feet from the corridor. Descriptions of residential areas adjacent to the Project corridor are included in the land use summaries in Appendix A.

The construction and operation of the Project will not have an adverse impact on residential uses because it is within the existing ROW. The Applicants have met with homeowners near the ROW to address concerns about potential or perceived impacts associated with construction of the Project.

4.4 Commercial/Industrial

The Scobie Pond substation in Londonderry is located within an area used for commercial and industrial purposes. The transmission line exits the Scobie Pond substation and crosses Route 28/Rockingham Road. There are some commercial and industrial businesses located in this area, including a Hannaford Supermarket, a storage facility and restaurant/bar which are located south along Route 28/Rockingham Road. To the north of the corridor, Jeff's-Lex Toy, LLC, Atlas Fireworks and Groundhog Landscaping are located along Commercial Lane, at least 100 feet from the corridor. MPV Trailer Sales and Service is located on Route 28 and adjacent to the Project corridor.

In central Londonderry, the Nutfield Country Store/Dunkin' Donuts is located adjacent to the northern border of the corridor where Mammoth Road and Shasta Drive intersect. Southwest of the Mammoth Road crossing is an electric substation. In southwestern Londonderry, the town-owned parcel where the Londonderry Flea Market is operated is located adjacent to the corridor, southwest of the Route 102/Nashua Road crossing.

Near the eastern border of Hudson, where the transmission line crosses Bockes Road close to the Windham town line, a roughly 165-foot corner of Modern Protective Coatings property is located adjacent to the corridor.

There are no existing commercial and/or industrial land uses along the Project corridor in Windham or Pelham. In Pelham, however, the B5 District is zoned for commercial and industrial use but has not yet been developed.

The construction and operation of the Project will not have adverse impacts on commercial or industrial operations because it is located within the existing right of way that has been used and maintained for electrical transmission purposes for several decades. The Applicants have indicated that they will work with the town and road agent to minimize any temporary, short-term impacts to nearby businesses due to construction.

4.5 Transportation and Utilities

Transportation

In Londonderry, the Project corridor crosses Interstate 93 between exits 4 and 5, within the existing transmission line ROW. The Applicants will coordinate with the NH DOT to ensure that the construction and operation of the Project does not adversely affect current or future road operations or improvements.

The pre-existing corridor spans a number of state and local roads, none of which are town-designated scenic roads. All of these crossings are within the existing electric line ROW and will not change the on-going underlying land uses. The Elwood Road crossing in Londonderry spans a state-designated scenic byway called Apple Way.

The Manchester-Boston Regional Airport is located in Londonderry and Manchester, about four miles north of the Project corridor. There are no other airports in Project area communities.

Bicycle Routes

Many roads across the state are used for both motor vehicle traffic and bicycling. The NH DOT bicycle route map lists most state roads and many local roads, as well as existing and potential rail trails, as bicycle routes in New Hampshire.

In Londonderry, this includes Mammoth Road, Old Derry Road, Litchfield Road, Pillsbury Road and an “unimproved rail trail” that runs from the northwestern corner of Londonderry to the eastern town border. In Londonderry the Project crosses Mammoth Road, Pillsbury Road and the rail trail within an existing ROW. Many roads in Hudson also serve as bicycle routes, including Webster Street, Derry Road, Greeley Street, Dracut Road, Musquash Road, Wason Road, Keyes Hill Road, Barretts Hill Road, Lawrence Road and Bockes Road. The Project crosses Bockes Road within an existing corridor.

Windham’s bicycle routes are located along most town roads, including Nashua Road, Lowell Road, Route 111, and Mammoth Road/Route 128. The proposed transmission line intersects Route 128 within an existing ROW. The paved Windham Rail Trail traverses the northeast corner of town, more than 4.8 miles from the Project.

Bicycle routes in Pelham include Sherburne Road, Mammoth Road/Route 128, Marsh Road, Route 11A, Keyes Hill Road, Tallant Road, Bridge Street/Route 38, Lowell Road, Gage Hill Road and Pelham Road. The proposed Project intersects Tallant Road, Route 11A, and Bridge Street/Route 38, within an existing corridor.

The Project will not permanently interfere with continued use of these bicycle routes because all crossings are located in a pre-existing utility ROW. Temporary impacts from construction will be minimized by coordinating with the towns and using best management practices.

Utilities

The Project corridor twice intersects a natural gas line owned by the Tennessee Gas Pipeline Company L.L.C., that enters Pelham, New Hampshire from Massachusetts and then extends north through Windham, Londonderry, and Manchester. In Londonderry, the existing electric line corridor crosses the natural gas line about 400 feet west of where the electric line crosses Mammoth Road, near Kelly Path. In Windham, the existing electric line corridor and the natural gas corridor cross Bridle Bridge Road at the same location. PSNH and NEP will coordinate with the Tennessee Gas Pipeline Company on these crossings.

The Project is not anticipated to adversely affect the current or future operations or improvements of roads or utilities because of its location within an existing ROW. Potential impacts will be addressed by the Applicants through ongoing coordination, cooperation and communication with appropriate local and state agencies.

4.6 Conservation Lands and Outdoor Recreation

There are several conservation, outdoor recreation and open space parcels along the corridor. The corridor pre-dates the creation of most of these conservation and outdoor recreational areas. In many cases, the combination of utility-owned, town-owned and conservation property serve as a buffer to the Project corridor from adjacent uses. The construction and operation of the Project will not adversely impact the on-going management and use of conservation and recreational lands adjacent to the corridor.

These areas are summarized below:

Londonderry

Conservation

- The Musquash Conservation Area, Londonderry's largest conservation holding, is accessed via Hickory Hill Road, Sara Beth Lane, Tanager Way and Faucher Road. The area includes over 1,000 acres of land including at least 20 miles of trails managed by the Londonderry Trailways and Commission volunteers. Roughly 60 acres of the Musquash Conservation Area in the vicinity of the Faucher Road trailhead is actively managed by NH Fish and Game as habitat for the endangered New England Cottontail Rabbit, which involved converting the area to a scrubland habitat. The Project corridor runs adjacent to, but does not enter, the eastern border of the parcel for about 5,000 feet. Land adjacent to the ROW at the end of Hickory Hill Road in Londonderry is used for parking, and a trail leading from the parking area crosses the ROW to gain access to the conservation area.
- The Sunnycrest Orchard Conservation Easement is a 25-acre parcel adjacent to Elwood Orchards, and is protected as Londonderry Open Space. The Project ROW crosses the eastern side of this active agricultural parcel for about 1,385 feet.
- Five residential parcels located along the western portion of Colonial Drive between the Hancock Drive cul-de-sac and the intersection of Wiley Hill Road, are listed by the Town as Town of Londonderry conservation easements.
- The D' Angelo Tract, part of the West Road Recreational area, is located about 400 feet west of the Project corridor.
- The Lorden open space parcel, about 73 acres in size, is located adjacent to the northwestern side of the corridor. The Project ROW crosses the parcel for about 1,355 feet.
- The Ridgemont Drive open space parcel, about 4.3 acres in size, is located on the southern town border; the Project corridor comes within about 135 feet, and runs near the parcel for about 365 feet.

Recreation

- The Granite State Rail Trail (a.k.a. Londonderry Recreational Rail Trail) runs from the Manchester-Boston Regional Airport in the north part of Londonderry to the eastern portion of town, near downtown Derry. The trail follows the route of the old Manchester & Lawrence Railroad; parking is available at the I-93 exit 5 Park and

Ride. The Project crosses the rail trail within an existing corridor, east of I-93 and before the rail trail crosses Route 28.

- Trolley Car Path is a bicycle and pedestrian trail extending from the end of Trolley Car Lane to Stonehenge Road. The Project crosses the path after crossing Interstate 93.
- Kelly Path is a bicycle and pedestrian trail extending from the Londonderry schools along Mammoth Road to the north, crossing Shasta Drive, and terminating at the junction of Mountain Home Road. The Project crosses the path after the Mammoth Road crossing.
- The Continental Recreation Park is a town-managed property adjacent to the West Road Fields. It includes three lighted fields, two picnic areas and two structures located adjacent to the western side of the corridor. The Project corridor runs adjacent to, but does not enter, the northern field for about 165 feet.

Hudson

- The Ingersoll Tri-Town Forest is protected by both ownership and conservation easements held respectively by the Society for the Protection of NH Forests (SPNHF) and the Town. The area was protected in the early 2000's and offers nearly 300 acres of forest accessible to Londonderry, Hudson and Windham, consisting of protected parcels located in each town. These parcels are used for non-motorized recreation, timber harvesting, and provide wildlife habitat. Griffin Road runs through the western portion of the forest. The Project corridor crosses the western corner of the forest for about 850 feet.
- The Davis Drive Lot is an open space parcel located adjacent to residences, and is crossed by the Project in the western corner of the parcel for about 70 feet.
- The Griffin Road Lot is an open space parcel located within the existing corridor and encompasses land with residences and what appear to be agricultural fields. The parcel is crossed by the Project for about 1,780 feet. The Davis Drive parcel appears to be part of the Griffin Road Lot parcel.

Windham

- The Beaver Brook Parcel is crossed by the Project for about 190 feet.

Pelham

Conservation

- The Peabody Town Forest, a 100-acre conservation parcel located along Old Lawrence Road, is used for hunting, walking and biking. One of its trails (white trail) is located near the eastern side of the corridor as the Project route enters the north western portion of the Peabody Town Forest and continues south east, adjacent to about 200 feet of the white trail. The white trail becomes the yellow trail, which abuts about 250 feet of the transmission line corridor. The corridor is

within town forest land for about an additional 350 feet, abuts the southern portion of town forest land for about 1,000 feet and re-enters forested area owned by the town for about 800 feet. The Project crosses the parcel for a total of about 2,275 feet.

- The Costa Conservation Parcel, an 80-acre conservation parcel used for walking, biking, and hunting is located in the southeastern part of Pelham near the Dracut, Massachusetts state line. The Project crosses the conservation land for about 2,630 feet.

Other Town Owned Land

- The Transfer Station tract, a 23-acre town-owned open-space parcel made up mostly of wetlands, is located south of the Pelham Recycling Complex located on Newcomb Field Parkway. The Project crosses the parcel for about 1,110 feet.
- A town open-space parcel, almost 9-acres in size, is located south of Route 38/Bridge Street within the transmission line corridor. The Project crosses the parcel for about 1,465 feet.

The Project will not have an adverse impact on adjacent land used for conservation, recreation or open space because the Project is located within a corridor that is an established ROW that has been used as a utility corridor for decades. The applicants will work with parcel owners to minimize and potential temporary impacts from construction.

4.7 Historical/Archaeological Resources

Historic and archeological resource consultants have identified historical and archaeological resources along the Project corridor to assess potential impacts to resources in consultation with the State Historic Preservation Office (SHPO) which is within the NH Department of Cultural Affairs. The review process has been conducted in conformance with the requirements of Section 106 of the National Historic Preservation Act. These studies are covered in other consultant reports.

4.8 Wetlands/Water Resources

According to land use data obtained from the regional planning commissions, land area categorized as wetlands or waterbodies comprises 12 percent of the total area in Pelham, about 11 percent of the total area in Windham, about eight percent of the total area within Hudson, and about 11 percent of the total area is within Londonderry.

The Londonderry Zoning Ordinance lists 30 named wetlands generally included in the national wetlands inventory and supplemented by the Londonderry Conservation Commission data. The document also includes a list of 11 named perennial streams.

The Project does not cross and is not near any state-designated rivers under the NH Rivers Management and Protection Program. The Lower Merrimack River is more than three miles to the west.

Consultants have identified wetland and water resources along the Project corridor to assess potential impacts to those resources. These studies are covered in other consultant reports.

4.9 Wildlife Habitat

Transmission corridors are known to provide suitable habitat for a variety of wildlife species, including mammals, birds, reptiles, amphibians, and invertebrates. Species with small home range requirements may use a portion of a ROW as their primary habitat. Species with larger home ranges may use a ROW as a part of their overall home range, or as a travel/dispersal corridor. Transmission corridors also may provide intrinsic habitat value as a relatively undeveloped habitat area in locations where the surrounding land uses are developed.

Wildlife consultants have identified wildlife habitat to assess potential impacts in the Project corridor. These studies are covered in other consultant reports.

4.10 Consistency with Prevailing Land Uses

The Project is located within an existing electric transmission line ROW and will not change land uses along the corridor. The electric transmission system in New Hampshire was developed beginning in the early 1900's and is part of the fabric of development patterns in the state. The ROWs contain several transmission and distribution lines constructed at different times, and are regularly upgraded and maintained as electric utility corridors.

Siting a new transmission line in already developed corridors is a sound planning and environmental principle because it reinforces regional and local patterns of development and minimizes environmental impacts. The prevailing land uses along the corridor include forests, agriculture, residential, commercial/industrial, transportation and utilities, recreation, conservation, historical and archaeological, and natural resources such as wetlands and water resources, and wildlife habitat... These uses have accommodated the existing electric utility corridor as a part of the fabric of local development. There will be no changes to the continuation of these uses as a result of the Project.

The operation of the transmission line will not place any new or significant demands on local or regional services or facilities.

By using an existing ROW the Project will not disrupt adjacent land uses and is consistent with local and regional patterns of development.

5.0 Local and Regional Planning

Local and Regional plans associated with Project area communities also were reviewed and considered to enhance Normandeau's understanding of the effect of the Project on local land use and the orderly development of the region. This Section provides a description of the long range plans developed by local and regional entities that address the land use topics examined in Section 4. The policies and goals expressed in these long range plans form the basis for future development of the communities and the region.

The region in this case comprises four towns located within the purview of two regional planning commissions: the Southern New Hampshire Planning Commission (SNHPC – Londonderry and Windham) and the Nashua Regional Planning Commission (NRPC – Hudson and Pelham). Each RPC's long-range planning documents were thoroughly reviewed to understand their respective development goals and policies. Local master plans

were also reviewed and evaluated with respect to land use and future development. Input from regional planning commission staff, as well as local planners, assisted in understanding the conditions present in each region and the goals for future development. The Project is consistent with the goals and strategies of local and regional plans, and will not interfere with their implementation. The Project utilizes existing corridors so as to have the least amount of impact on local land use patterns, and the environment, and to help ensure it is consistent with the orderly development of the region.

5.1 Regional Plans

Regional Planning Commissions

Regional Planning Commissions (“RPCs”) have a duty to prepare a coordinated plan for the development of a region, taking into account present and future needs with a view toward encouraging the most appropriate use of land, such as for agriculture, forestry, industry, commerce, and housing; the facilitation of transportation and communication; the proper and economic location of public utilities and services; the development of adequate recreational areas; the promotion of good civic design; and the wise and efficient expenditure of public funds (RSA 36:45-48). Each RPC is tasked with working with local communities and seeking direct input from citizens when developing the regional plan.

The nine RPCs in New Hampshire recently updated their regional plans as part of a statewide effort called “A Granite State Future,” which was funded by a grant from the U.S. Department of Housing and Urban Development (HUD) and administered by the Nashua RPC. These plans are intended to serve as advisory documents that provide a broad range of demographic and other planning data for municipalities in each region to use as a resource when updating their own plans, as well as for a host of other purposes, such as for economic development or conservation initiatives.

5.1.1 Southern New Hampshire Planning Commission

The SNHPC, formed in 1966, is the regional planning agency for 15 communities in the Manchester area, including Project area communities Londonderry and Windham. SNHPC is also the Metropolitan Planning Organization (MPO) for the region and is responsible for long-range transportation planning and programming of federal funding for transportation projects. The region includes portions of Rockingham, Hillsborough and Merrimack Counties.

The SNHPC Regional Plan is called “Moving Southern New Hampshire Forward 2015-2035.” The SNHPC plan seeks to balance growth and development to the broaden tax base with efforts to improve and protect the quality of life, community character and environment.

The Energy Chapter discusses the need to balance environmental policy decisions with the need for energy choices, prices, and reliability. The plan recognizes that “there is a need for close coordination between energy and environmental policy to more effectively achieve common goals and to ensure that their respective development and implementation does not inadvertently work at cross purposes.”

The Chapter does not make any specific recommendations directly applicable to the Project. The Project will use existing ROW, and will not alter local land use patterns. The Project is consistent with the regional plan as it seeks to protect existing land use development patterns.

5.1.2 Nashua Regional Planning Commission

The NRPC, formed in 1959, is the regional planning agency for 13 communities in Southern New Hampshire, including the Project area communities of Pelham and Hudson. NRPC is also the Metropolitan Planning Organization (MPO) for the region and is responsible for long-range transportation planning and programming of federal funding for transportation projects. The region is entirely within Hillsborough County, the state's most populous county.

The NRPC updated its regional plan in 2014 as part of the Granite State Future Project. The Nashua Regional Planning Commission's vision for the future is to:

Maintain a high quality of life characterized by the Region's small-town feel and suburban setting. Economic prosperity is based on well-functioning public infrastructure, including a robust multi-modal transportation system, as well as diverse and affordable housing options, vibrant town centers and downtowns with thriving arts and cultural amenities, and easy access to natural resources and recreational opportunities.

The regional plan discusses energy as part of the Environment Chapter. The chapter begins by stating that "the Nashua region needs reliable and affordable energy in order to sustain the region's high quality of life." However, the discussion in the Chapter is primarily focused on energy efficiency and green building in the region and therefore is not directly relevant to the Project. In assessing existing conditions in the region, the plan notes that "the region is different than the rest of the state since it lacks any large scale energy production."

The Project will not interfere with the orderly development of the region. The Project will use existing ROW, and will not alter local land use patterns. The Project is consistent with the regional plan as it seeks to support the need for reliable energy.

5.2 River Corridor Management Plans

The New Hampshire Rivers Management and Protection Program was created in 1988 to help protect and manage the state's river resources. The program is administered by the New Hampshire Department of Environmental Services (DES) in accordance with RSA 483. Currently there are about 20 designations in New Hampshire, covering over 1,000 miles of rivers, river segments and tributaries. There are no designated rivers within or adjacent to the Project. The Project is located more than three miles east of the state-designated Lower Merrimack River corridor.

5.3 Scenic and Cultural Byways

The New Hampshire Scenic and Cultural Byways Program was established in 1992 under RSA 238:19, "... to provide the opportunity for residents and visitors to travel a system of byways which feature the scenic and cultural qualities of the state within the existing highway system, promote retention of rural and urban scenic byways, support the cultural,

recreational and historic attributes along these byways, and expose the unique elements of the state's beauty, culture and history." New Hampshire's Scenic and Cultural Byways program is tied directly to the National Scenic Byways Program.

The State of New Hampshire has nearly 20 state-designated scenic byways, totaling over 1,000 miles. There are scenic and cultural byways in every region of New Hampshire.

There is one state-designated scenic byway in a Project area community. Apple Way was designated in 2006 and is a 10-mile byway along Pillsbury, Gilcreast, Mammoth, Adams, and Elwood Roads entirely within the town of Londonderry. Apple Way intersects the transmission line corridor on Elwood Road in Londonderry.

The Apple Way Corridor Management Plan was approved by NH DOT and adopted by the Town in 2015. The plan's vision statement "seeks an Apple Way that preserves the local agricultural history, is characteristic of traditional New England development, and preserves access to the unique properties therein." The plan contains goals and strategies to achieve this vision, and has a detailed action plan for implementation. The Londonderry Heritage/Historic District Commission is responsible for reviewing and implementing the plan.

The Project will not have an adverse impact on this Byway as it spans Elwood Road within an established electric utility ROW.

5.4 Municipal Plans and Ordinances

Generally, the Project is consistent with local master plans in that it will be located in an existing transmission corridor that pre-dates much of the development in the communities. Many master plans cite the desire for new development to reinforce already developed areas in order to protect open space and minimize environmental impacts from development. The facility is consistent with this goal, and will not disrupt or interfere with the implementation of local master plans.

While the Project is not subject to local zoning regulations, there will not be any changes in land uses and the proposed structure heights will be consistent with the heights of existing structures within the ROW.

In addition to reviewing local master plans and zoning ordinances, input from local planners was obtained regarding existing land use, local master plans and future development within and adjacent to the Project corridor, identification of development that has been approved but not yet constructed, and future development potential. In each community, existing land use and zoning have developed around the pre-existing corridor and adjusted to its presence.

Londonderry

Master Plan

The Londonderry Comprehensive Master Plan, adopted by the Planning Board on December 21, 2012, was prepared with the assistance of the 2012 Master Planning Steering Committee, town boards and staff and a planning consultant. The Plan includes a description of public involvement, common vision and guiding principles, reflections on the town and region, consideration of alternative futures, a plan framework, community

facilities and services, regulatory barriers, and targets, projects, policies, initiatives and implementation.

Londonderry's Master Plan emphasizes the protection of the town's unique open space combined with the development of mixed use "activity centers" that promote walkable development and further the economic vitality and sustainable development goals of the town. The plan also emphasizes allowing opportunities for choices in both housing and transportation options for its residents. The town recognizes that investment in infrastructure is necessary for the town's future economic success, and recruitment initiatives should realize "triple bottom-line" benefits for Town residents by seeking to improve the tax base, promote economic vitality for local shops and businesses, and increase access to employment opportunities in Town.

The Londonderry Master Plan includes a discussion of energy and fuel supplies. Electricity is provided by PSNH. The plan notes that "given the cost and reliability of natural gas, there appears to be demand for future expansion of infrastructure and service to new areas throughout the town." Granite Ridge, a 750 MW combined cycle natural gas generating plant, is located within the town's Airport Industrial Area. There are gas lines running north-south through the center of town that supply gas to this plant. The plan also encourages energy efficiency, installation of solar panels and sustainable design standards. Other than noting the need for reliability, the plan does not directly address this Project.

The Project supports the town's need for ensuring that reliable energy will continue to be available throughout town, and by using the existing ROW, is supportive of the town's existing land use patterns. The Project will not interfere with the implementation of Londonderry's Master Plan goals, objectives or strategies.

Zoning Ordinance

The Londonderry Zoning Ordinance outlines the permitted uses and dimensional requirements for the 18 designated zoning districts in town. The proposed Project traverses the Agricultural/Residential (AR-1), the Commercial II (C-II) and Commercial IV (C-IV), Industrial II (IND-II), and the Route 102 Performance Overlay Districts in the town of Londonderry. The Agricultural/Residential District is designed to permit uses that are compatible with and protective of areas developed for agricultural and forestry uses, water quality preservation, residential use and public use. Commercial II is primarily designed to encourage the development of business areas designed to serve the motoring public. Commercial IV is primarily intended for neighborhood commercial and office use to minimize traffic. The Industrial II District allows intensive industrial use. The purpose of the Performance Overlay District-Route 102 Corridor is to minimize adverse impacts to traffic, the environment, economy, and development.

Hudson

Master Plan

Based on a review of the Town of Hudson's Master Plan, the Project is consistent with and will not interfere with implementation of the planning board's policies and recommendations.

The Hudson Master Plan was prepared with the assistance of the Nashua Regional Planning Commission and adopted by the Hudson Planning Board on January 4, 2006. The plan updated the 1995 Master Plan and addresses goals and objectives, population and housing, natural resources, economic development, transportation, existing land use, historic resources, community facilities and future land use.

The Hudson Master Plan sets forth goals to manage growth, provide essential services, provide for housing opportunities for all income levels, while “encouraging the use of open space developments” that are “designed with sensitivity to the landscape.”

The Town wishes to encourage commercial growth in already developed areas – “limited areas with adequate utility services and direct access to the State designated highway system.”

By utilizing the already developed ROW, the Project supports the town’s desire to protect the town’s open space and its goal to encourage growth in already developed areas. The Project will not interfere with the implementation of these master plan strategies.

Zoning Ordinance

Hudson first adopted a zoning ordinance in 1942 and most recently readopted a complete zoning ordinance in 1994. The ordinance considers land uses within five categories which are further divided into zoning districts. The five uses and activities are categorized into residential, community facilities, retail and service, agricultural and industrial sectors.

The Project traverses the General (G1) zone. The district is designed to permit a wide variety of land uses at a density appropriate to the rural nature of the area and natural constraints of the land, and the lack of infrastructure. Most primary uses, other than multi-family dwellings and some commercial uses are permitted.

Windham

Master Plan

Based on a review of the Town’s Master plan, the Project is consistent with both the 2005 as well as the 2015 Master Plan update (in progress), and will not interfere with implementation of the planning board’s policies and recommendations. The Project will be constructed entirely within an already developed ROW, which minimizes impacts to land use and the environment.

The Windham Master Plan update is being prepared by the Planning Board with the assistance of the Southern New Hampshire Planning Commission. Previous Master Plans were adopted in 2005 and 2000 which provide a foundation for the new 2015 Plan. Phase I of the 2015 Plan include chapters addressing Community Vision and Goals, Current Land Use, Regional Concerns, and Demographics. Drafts of these are available on the Town’s website; final workshops and public hearings will be held this year to finalize other chapters for inclusion in the 2015 Master Plan.

One of the major issues the Town is associated with includes traffic congestion that has developed as a result of recent land use development patterns in the form of cul-de-sac roads that do not have through routes, placing pressure on the town’s main arterials. Key areas of interest for future planning include economic development and infrastructure

investment. The Project will not interfere with the implementation of Windham's Master Plan draft goals, objectives or strategies.

Zoning Ordinance

The Town of Windham adopted a zoning ordinance in 1954 and it has been updated almost every year since then. The zoning ordinance establishes 20 districts consisting of 12 zoning districts regulating residential, commercial, mixed use, historic and other uses, as well as eight Overlay Districts that regulate wetlands, floodplain, aquifer, open space residential, Cobbetts Pond and Canobie Lake Watershed Protection District, Route 28 Access Management Overlay District, Housing For Older Persons Overlay District, and Workforce Housing Overlay District.

The Project traverses the Rural District, Residential C District, and the Multi Zoned District. The Rural District is intended for rural, residential, and non-commercial uses. Residential C District is intended for residences, and allows manufactured housing parks, requires underground utility wires, and allows multifamily dwellings.

Pelham

Master Plan

Based on a review of the Town's Master plan, the Project is consistent with and will not interfere with implementation of the planning board's policies and recommendations. The Project will be constructed entirely within an already developed ROW, which minimizes impacts to land use and the environment.

The Pelham Master Plan, prepared by the Nashua Regional Planning Commission with the assistance of the Master Plan Committee, was adopted by the Planning Board on August 5, 2002. The Plan includes results of a community opinion survey, goals and objectives by topic and chapters addressing population and housing, existing land use, natural resources, transportation, community facilities, historic resources, future land use and a summary of recommendations. The NRPC also prepared a Parks and Recreation Master Plan in 2006.

Some key goals of the Master Plan include:

1. **Natural Resources** - Preserve and protect the natural resources of the Town of Pelham in order to provide a safe and attractive community for current and future residents and to protect such resources from the adverse impacts of development. These natural resources include wetlands, floodplains, air, forest, soils, agricultural lands, wildlife habitats, open space, scenic vistas, ground and surface water and other sensitive resources.
2. **Future Land Use** - Promote the preservation, protection and enhancement of well-balanced land use patterns capable of meeting present and future community needs in an efficient, environmentally sound, economical, equitable and aesthetically pleasing manner. Promote land use patterns based on the developmental limitations imposed by prominent natural and man-made facilities of the community whenever possible.

The only Town-designated scenic road identified in Pelham's Master Plan is Old Bridge Street North from the intersection with Route 38 to its intersection with Route 111-A. The Project does not cross this road which was designated by the town in 1990.

Zoning Ordinance

The Pelham Zoning Ordinance was first adopted in 1955 and has been revised several times. The Ordinance addresses general provisions, establishment of districts, permitted uses and special exceptions, mixed-use, aquifer, wetlands and floodplain overlay districts, elderly housing, signs, personal wireless services, small wind energy systems, residential conservation subdivisions and enforcement.

The Zoning Ordinance establishes several zoning districts including Residential, five different Business Districts, three Industrial Districts, Rural, Recreation-Conservation, as well as overlay Districts including the Aquifer Conservation District, Wetlands, Floodplain Conservation District and the Pelham Mixed-Use Zoning Overlay District.

The Project is located within the Residential (R), Recreation, Conservation and Agriculture (RCA), Rural (Ru) and Business (B-5) Districts. The R district provides primarily for the development of single and two-family residences, a diversity of housing types, community facilities, recreation uses and other related uses while protecting the town's rural character and natural resource base. The RCA district is intended to protect natural resources such as prime wetlands from adverse impacts relating to development, and to provide for the continuation of traditional rural land uses related to agriculture, recreation and conservation. The Ru district is designed to encompass a wide diversity of land uses; all uses permitted in the other districts are permitted in Ru. The B-5 district is intended to provide professional space for businesses, recreation and family facilities, retail shopping, and others. Prohibited uses in the B-5 district include car dealerships, junk yards, gas stations, car washes, and other "Big Box" retail buildings.

5.5 Local and Regional Planning Conclusion

In most instances, these long-range plans do not directly relate to the construction or operation of the Project. The Project is consistent with the general goals and strategies of local and regional plans, and will not interfere with their implementation. The Project utilizes existing corridors so as to have the least amount of impact on local land use patterns and prevailing land uses, and is consistent with the orderly development of the region.

Appendix A: Project Corridor Land Use Descriptions

A-1 Londonderry

Londonderry was originally settled as “Nutfield” by the Scotch colonists in 1718. At the time, “Nutfield” was heavily wooded and included all or parts of Derry, Manchester and Windham (NHES, 2014). The town has hills and areas of rugged terrain bisected by streams and brooks which flow easterly into the Merrimack River. Historic uses of the land included farming and logging activities. Farms included poultry, apples and dairy products. Other early industries include flax cultivation and heckling mills; grist and saw mills; tool making; hat production; shoemaking; barrel making; lumber and building supplies; and carriage manufacturing (Victoria Bunker, 2014). Modern business opportunities located in Londonderry include laser manufacturing; window manufacturing; the public education system; yogurt production; parcel delivery systems; beverage manufacturing; aerospace component manufacturing; road construction; supermarkets; and electronic components manufacturing (NHES, 2014).

Londonderry is bounded by Auburn, Manchester and Bedford to the north, Litchfield to the west, Hudson and Windham to the south, and Derry to the east. Londonderry contains 42.0 square miles of land area and 0.1 square mile of inland water area, and a 2013 population of 24,308, resulting in a population density of about 578 persons per square mile of land area (NHES, 2014). The utility corridor’s land area in Londonderry is approximately 505 acres, which is less than two percent of the Town’s total land area of about 26,880 acres (NHOEP, 2014/NHGRANIT, 2014).

Through the eastern border of Londonderry, the proposed transmission line corridor follows the natural contour of the land for about 8.1 miles through the central part of town, and exits the southern border into Hudson.

The existing land use through Londonderry is primarily residential. The existing power line corridor exits the Scobie Pond Substation and runs west, crossing the Rockingham Recreational Rail Trail, Route 28/Rockingham Road, and then I-93. There are a few residences located along the roadways in the area.

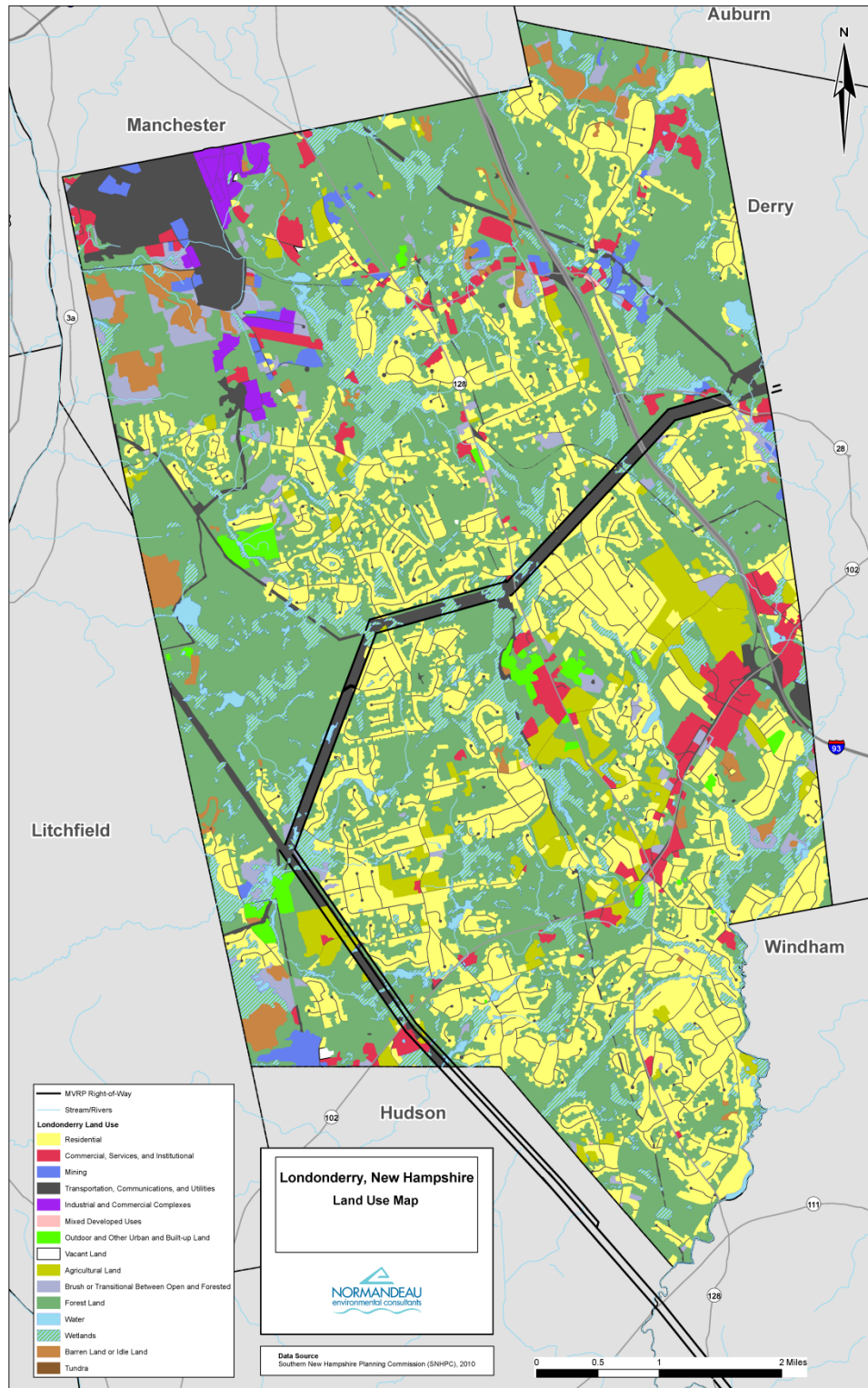
From the Interstate-93 crossing, the ROW crosses Trolley Car Path and Hovey Road and continues southwest to Hardy Road. Along the corridor in this area is Parrish Hills, an age-restricted 55+ community -which maintains benches and a landscaped area in the South Parish Drive cul-de-sac, within the Project ROW.

An electric substation is located adjacent to the southern border of the corridor about 765 feet southwest of the Mammoth Road crossing; Londonderry Middle School is located about 0.5 mile south of the Project route; additional schools and town offices are located within 1.0 mile south of the ROW along Mammoth Road. Kelly Path runs along the substation access road, transects the power line corridor, and continues north crossing Shasta Drive. Nutfield Country Store/Dunkin Donuts is located adjacent to the corridor, at the corner of Mammoth Road and Shasta Drive. The Project route continues west and subsequently crosses a natural gas pipeline owned by the Tennessee Gas Pipeline Company.

After crossing High Range Road, the Project corridor continues west, turns south west and runs adjacent to the eastern border of Musquash Conservation Land. There are a number of residences in the area, ranging in distance from adjacent to about 90 feet from the corridor. The corridor continues, passing through or adjacent to the conserved Lorden parcel for about 3,030 feet. South of the Wiley Hill Road crossing, the transmission line continues south west, changes directions and extends south east for about 1.1 mile, where it crosses Sunnycrest Orchards open space parcel, and Elwood Road which is part of Apple Way, a state-designated scenic byway. After crossing Elwood Road, the Project continues south east to where it crosses Dan Hill Road. A portion of Carriage Shack Farm, a petting zoo on Dan Hill Road, is located along and within the Project corridor. Land east of the corridor continues to be primarily residential. The Hickory Woods 55+ condominium community is at least 400 feet west of the ROW near the Project crosses Nashua Road. The Project route continues south east, passing Burbank Road and Ridgemont Drive about 325 feet to the east. The Project exits the southwestern portion of Londonderry and enters the north eastern portion of Hudson.

The existing land uses along the corridor through the town are reflected on the attached map.

Existing Land Use Londonderry, NH



Source: Southern New Hampshire Planning Commission Land Use Data, 2010.

Normandeau reviewed distances from the edge of the right-of-way to buildings outside the corridor. It should be noted that the distance between these buildings and the Project structure is greater and sometimes significantly greater than these measurements since electric transmission lines are rarely placed adjacent to the edge of the ROW.

A-2 Hudson

Originally part of the 1673 Massachusetts Dunstable grant; the town incorporated in 1741 as Nottingham West, and changed its name to Hudson in 1830. Historic uses of the land include agriculture, and later saw mills and grist mills (Webster, 1913). Hudson is bounded on the north by Litchfield and Londonderry, east by Windham and Pelham, south by Tyngsborough, MA and west by Nashua and Litchfield, and the Merrimack River. Located on the east bank of the Merrimack River, Hudson offers a variety of recreational activities, and has easy access to Interstate 93 near the east of town and the F.E. Everett Turnpike in the western part of town. Hudson is home to about 24,645 residents and contains 28.5 square miles of land area and about 0.8 square miles of water area, with a resulting population density of about 864 persons per square mile. The largest employment sectors in town include technology, the public education system, pharmaceuticals, manufacturing and textiles (NHES, 2014).

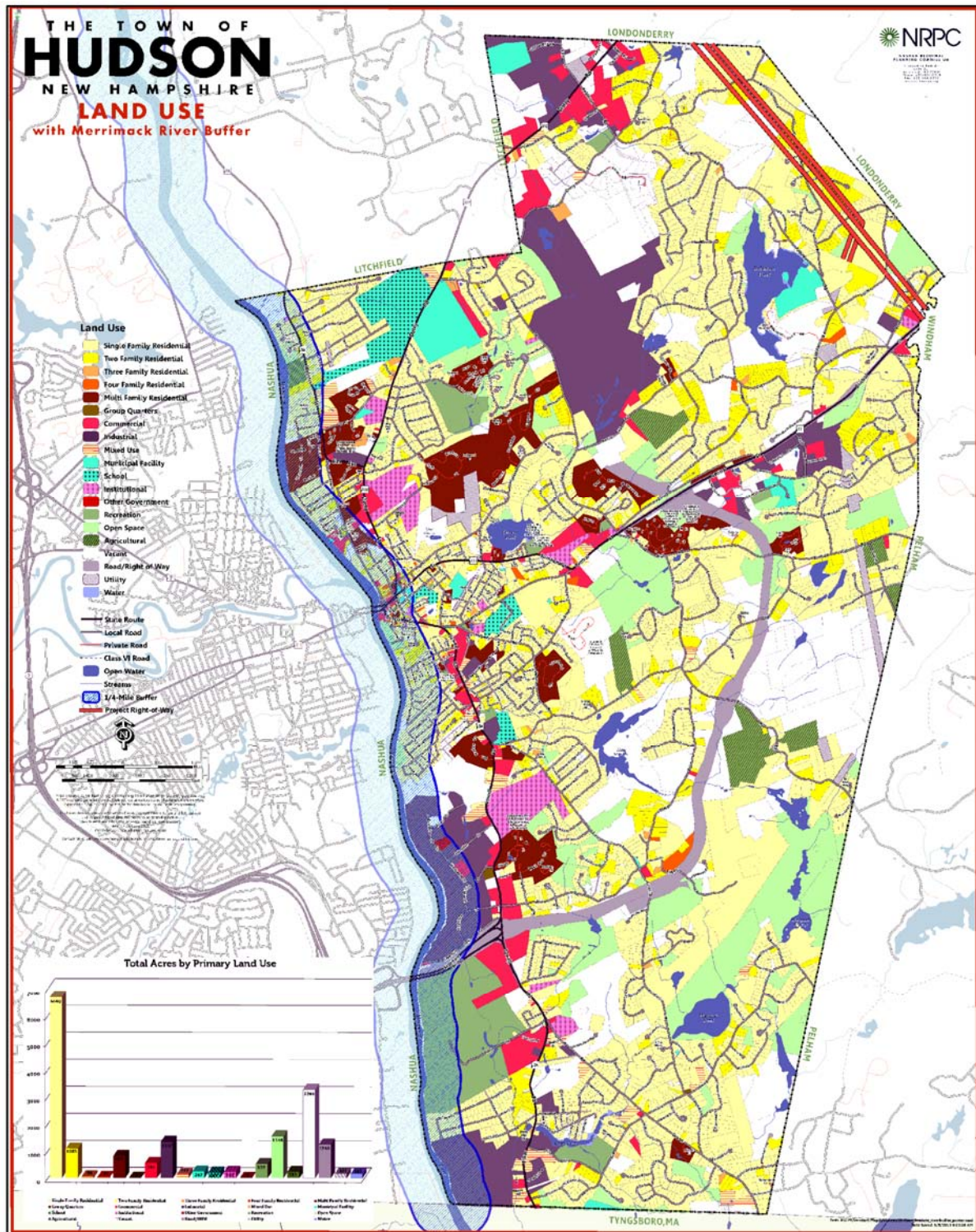
The land uses adjacent to the Project corridor in Hudson are forests and low density residences. The Project corridor's land area in Hudson occupies approximately 154.9 acres, which is less than one percent of the Town's total land area of 18,240 acres (NHOEP, 2014/NHGRANIT, 2014). Through the southern border of Londonderry, the transmission line corridor follows the natural contour of the land for approximately 2.5 miles, and exits into the south western portion of Windham.

The corridor crosses from Londonderry into Hudson, and continues to Boyd Road. Residences in this area are between about 40 and 300 feet from the ROW. The corridor continues over Marine Lane, Kienia Lane and Lenny Lane. Residences range in distance from adjacent to 100 feet from the ROW and include a mix of single family and duplex units.

After crossing David Drive, the corridor crosses open fields and there are a number of residences in the area located adjacent to and within about 200 feet from the ROW. The Project route continues to the Bockes Road crossing, which is located in a mixed residential and commercial area. Residences are located adjacent to either side of the corridor. From the Bockes Road crossing, the corridor continues within and near the Ingersoll Tri-Town Forest for about 940 feet, crosses Beaver Brook, exits the north-eastern portion of Hudson and enters the north western portion of Windham.

The existing land uses along the corridor through the town are reflected on the attached map.

Existing Land Use Hudson, NH



Source: Nashua Regional Planning Commission, 2010.

Normandeau reviewed distances from the edge of the right-of-way to buildings outside the corridor. It should be noted that the distance between these buildings and the Project structure is greater and sometimes significantly greater than these measurements since electric transmission lines are rarely placed adjacent to the edge of the ROW.

A-3 Windham

Windham was settled in 1719 as part of “Nutfield, a land area encompassing what we now know as Londonderry, Derry and Manchester, by Scottish immigrants seeking religious freedom, and was originally home to the Pawtucket Indians. The Town was the second one in the state to be incorporated, in 1742 (NHES, 2014), composed primarily of farmers and millworks. Windham is bounded by Derry and Londonderry to the north, Hudson and Pelham to the west and south, and Salem to the east. Windham contains 26.7 miles of land area and 1.1 square miles of water area, and had a 2013 population of about 13,958 persons, with a resulting population density of about 528 persons per square mile of land area. The largest businesses located in Town include a supermarket, a lumber company, an assisted living facility, a meat distributor, and woodworking.

The land uses adjacent to the Project corridor in Windham are primarily forest and residential. The corridor’s land area in Windham is approximately 83 acres, which is less than one half of one percent of the Town’s total land area of 17,088 acres (NHOEP, 2014/NHGRANIT, 2014). Through the southwestern border of Windham, the corridor follows the natural contour of the land for approximately 2.1 miles, and enters the northern border of Pelham.

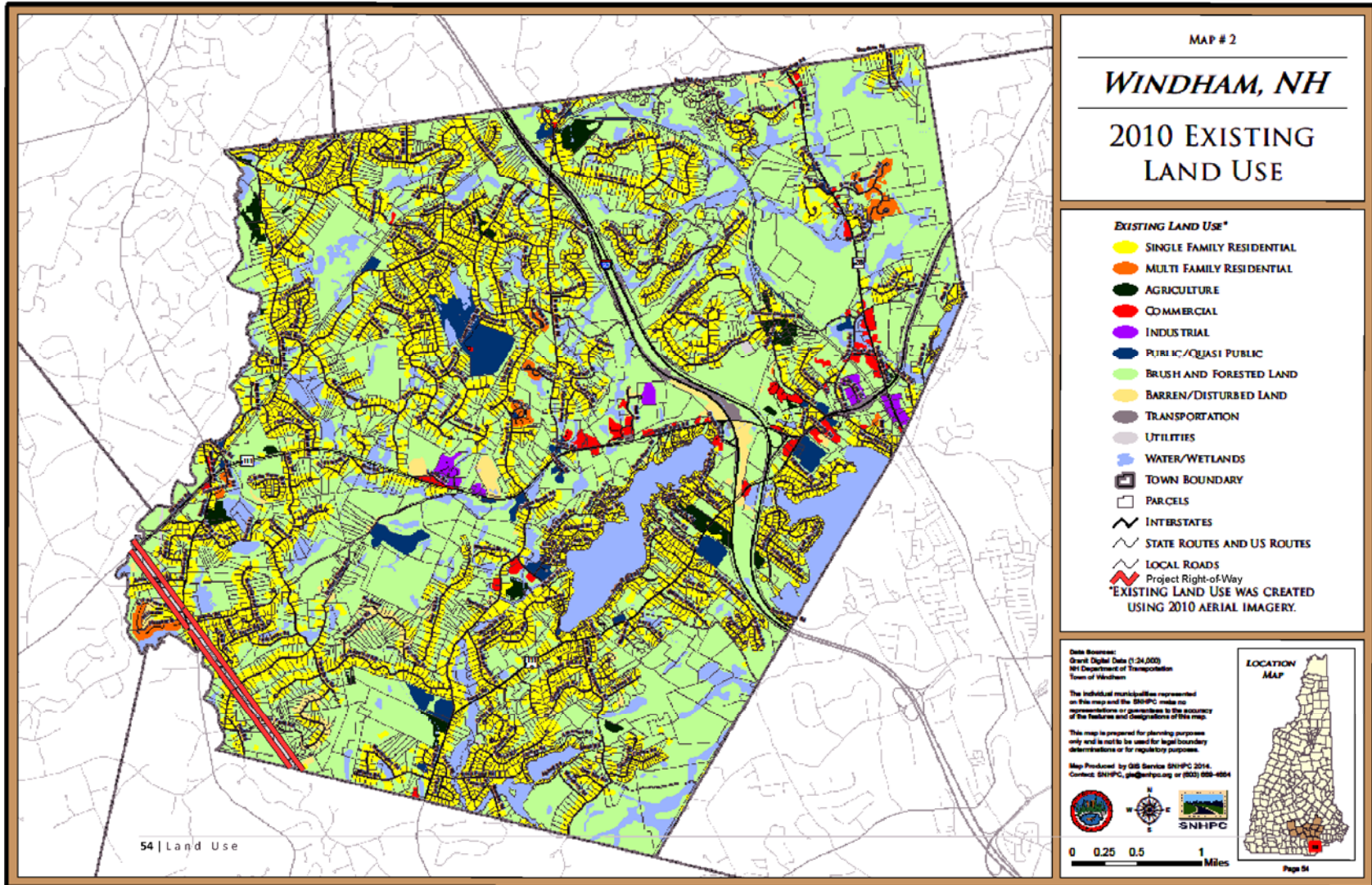
The Project enters the northwest corner of Windham within the existing corridor. The corridor crosses Haverhill Road and extends south east to the Bridle Bridge Road crossing, where the transmission line crosses a natural gas pipeline owned by the Tennessee Gas Pipeline Company. There are a few residences ranging in distance from about 25 feet and 200 feet from the ROW. The corridor extends south east from Bridle Bridge Road, continuing within some residential areas. One residence appears to use property within the ROW for a horse paddock. The Project ROW is adjacent to residences along Mammoth Road and Brookview Road, and additional residences are located within about 100 feet.

The residential density increases through this portion of Windham. This area includes duplex condominium units, as well as condominium developments containing a mix of single-family and townhouse-style homes. There are also a number of age-restricted developments, including Whispering Winds, a 55+ townhouse community located on Pleasant Street, west of the corridor. Snow Pond Farm on Winter Street raises pet Suri alpacas, with small fenced in areas located within and along the ROW.

The corridor continues through lower density residential area. The residences are located ranging in distance from adjacent to about 100 feet from the ROW. After Castle Hill Road crosses under the transmission line, the Project corridor continues south east and crosses into the Town of Pelham.

The existing land uses along the corridor through the town are reflected on the attached map.

Existing Land Use Windham, NH



Source: Southern New Hampshire Regional Planning Commission, 2010.

A-4 Pelham

Settled around 1722, Pelham was incorporated in 1746 from land area formerly belonging to Dunstable and Dracut, Massachusetts. Pelham began primarily as a farming community until World War II, when industry took over as the economic base. Pelham is bounded by Windham and Salem to the north, Hudson to the west, and Massachusetts to the south and east. The Town has a population of about 13,088, contains about 26.3 square miles of land area and 0.5 square mile of inland water area, with a population density of about 498 persons per square mile. The largest local employment sectors include engineering, education, retail and light commercial (NHES, 2014).

The Project corridor's land area in Pelham is approximately 205 acres, which a little more than one percent of the Town's total land area of 16,832 acres (NHOEP, 2014/NHGRANIT, 2014). Through the northern border of Pelham, the proposed transmission line corridor follows the natural contour of the land for approximately 5.2 miles, where it runs into Dracut, Massachusetts.

The land uses adjacent to the corridor in Pelham are primarily forest and residential uses. The corridor crosses from the western border of Windham into the central portion of northern Pelham. There are a number of single family residences in this area located between about 25 and 145 feet from the ROW. It appears that at least one residence utilizes the corridor for a paddock. After Tallant Road crosses under the transmission line the Project corridor continues south to the southern edge of a cleared parcel with some agricultural use.

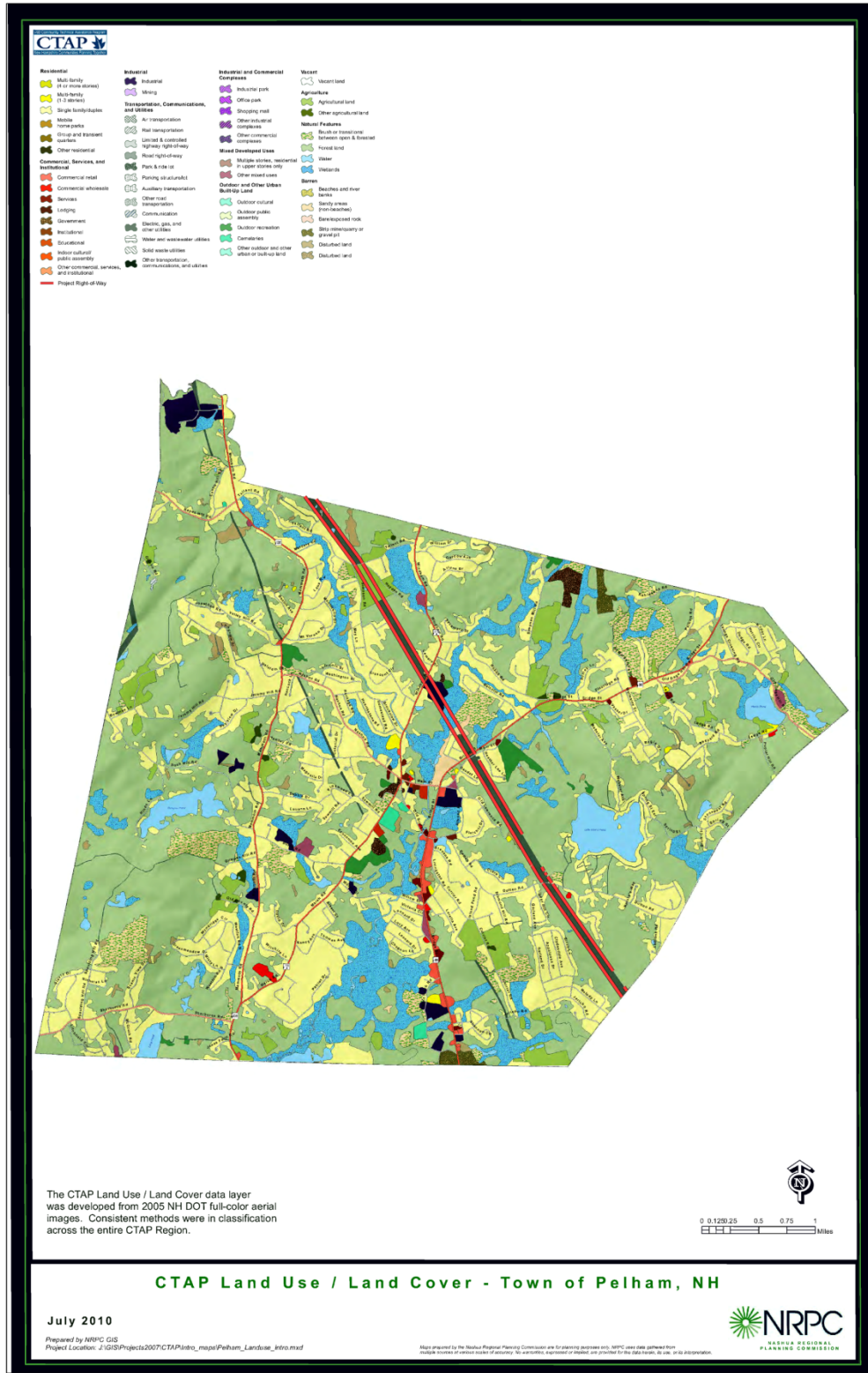
The corridor passes through more low density residential area with residences located between about 10 and 185 feet from the corridor. The Pelham Transfer and Recycling Station, the DPW facilities, and a baseball/softball field are located along Newcomb Field Parkway, adjacent to the east side of the ROW.

The corridor passes within about 75 feet of a few residences before crossing Bridge Street/Route 38. After the Project route crosses over Bridge Street, it passes over town-owned land and through the Peabody Town Forest for about 2,385 feet. The corridor continues south east to the intersection of Dutton Road. In this area, residences are located adjacent to and within about 250 feet from the ROW.

The Project route continues south east crossing other town-owned land adjacent to the Costa Conservation area to the Town line and enters into Dracut, Massachusetts. There are single family residences as well as multi-family townhouses located about 245 feet west of the corridor. Residences are located within about 100 feet east of the corridor.

The existing land uses along the corridor through the town are reflected on the attached map.

Existing Land Use Pelham, NH



Source: Nashua Regional Planning Commission, 2010

Normandeau reviewed distances from the edge of the right-of-way to buildings outside the corridor. It should be noted that the distance between these buildings and the Project structure is greater and sometimes significantly greater than these measurements since electric transmission lines are rarely placed adjacent to the edge of the ROW.