

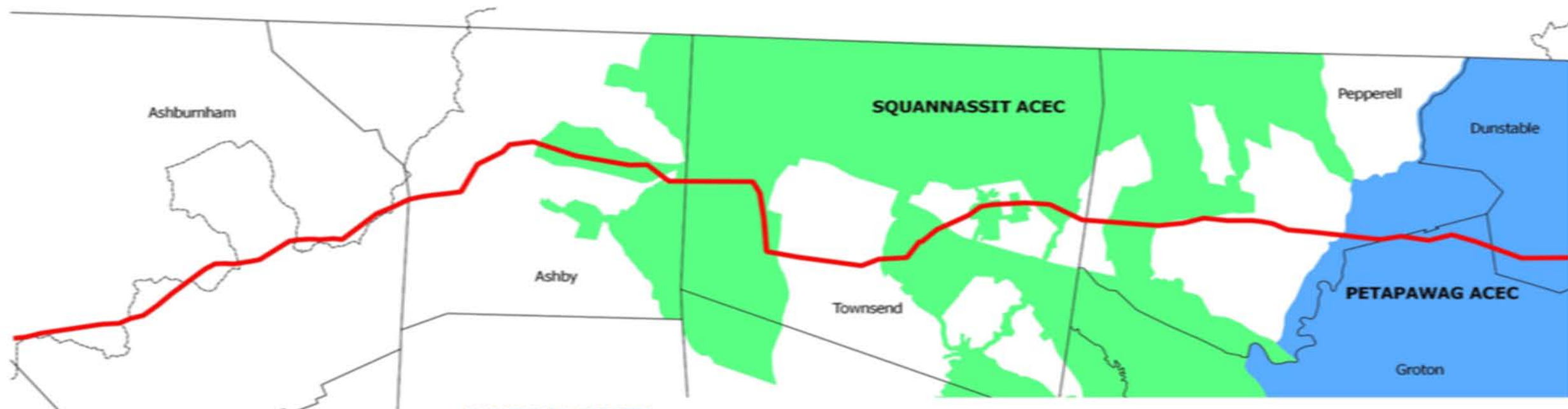
**Al Futterman  
Land Programs Director  
Nashua River Watershed Association**

**Natural resources  
within Nashua River watershed  
affected by proposed gas pipeline**

**NASHUA RIVER  
WATERSHED**  
ASSOCIATION



# Proposed Tennessee Gas Pipeline\* Through The Nashua River Watershed: Areas of Critical Environmental Concern (ACEC\*\*)



## Legend

- Proposed Pipeline
- Town Boundary
- PETAPAWAG ACEC\*\*\*
- SQUANNASSIT ACEC\*\*\*\*
- Nashua River Watershed Boundary



\* Also known as The Northeast Energy Direct Project proposed by Kinder Morgan.

\*\*ACECs are places in Massachusetts that receive special recognition because of the quality, uniqueness and significance of their natural and cultural resources. These areas are identified and nominated at the community level and are reviewed and designated by the state's EEA Secretary. ACEC designation creates a framework for local and regional stewardship of these critical resource areas and ecosystems. ACEC designation also requires stricter environmental review of certain kinds of proposed development under state jurisdiction within the ACEC boundaries.  
<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/acecs.html>

\*\*\* Petapawag (25,680 acres, 2002) Ayer, Dunstable, Groton, Pepperell, and Tyngsborough

\*\*\*\*Squannassit (37,420 acres, 2002) Ashby, Ayer, Groton, Harvard, Lancaster, Lunenburg, Pepperell, Shirley, and Townsend

The proposed pipeline will pass through approximately 12 miles of ACECs.

The proposed pipeline will pass through approximately 22 miles of the Nashua River watershed.

0 1 2 3 4 miles

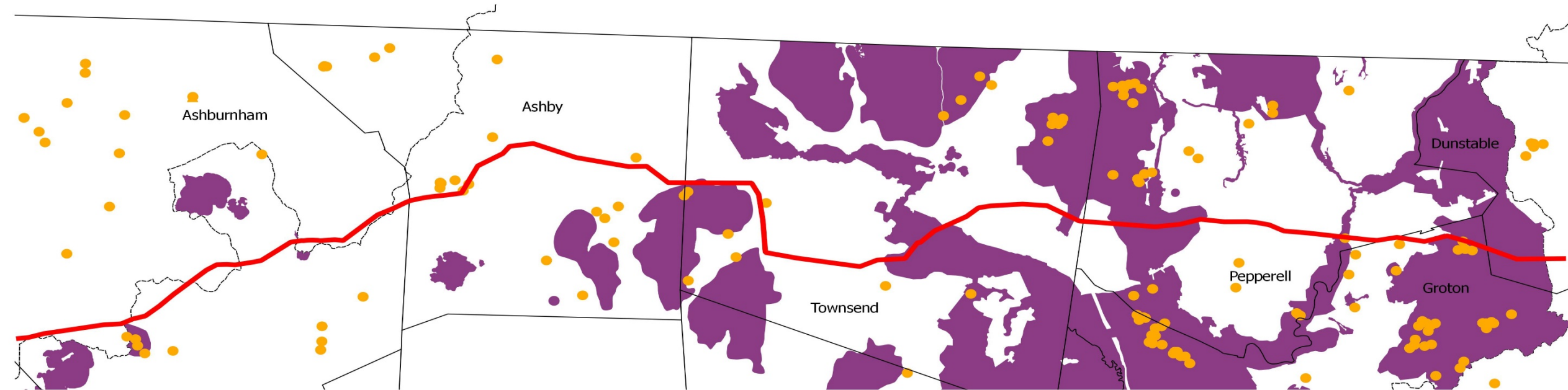


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Detailed descriptions of most of the data layers included on this map are available online at: <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/layerlist.html>

This map edition is current as of: 6/16/2014. Please note that any of these data layers can change over time. Cartography & GIS work by NRWA.

# Proposed Tennessee Gas Pipeline\* Through The Nashua River Watershed: BioMap2 Core Habitats\*\* & Certified Vernal Pools\*\*\*



## Legend

- Proposed Pipeline
- Town Boundary
- Certified Vernal Pools
- BioMap2 Core Habitat
- Nashua River Watershed Boundary



\* Also known as The Northeast Energy Direct Project proposed by Kinder Morgan

\*\* The Massachusetts Natural Heritage & Endangered Species Program and The Nature Conservancy's Massachusetts Program developed BioMap2 in 2010 as a conservation plan to protect the state's biodiversity. BioMap2 is designed to guide strategic biodiversity conservation in Massachusetts over the next decade by focusing land protection and stewardship on the areas that are most critical for ensuring the long-term persistence of rare and other native species and their habitats, exemplary natural communities, and a diversity of ecosystems. BioMap2 Core Habitat identifies specific areas necessary to promote the long-term persistence of Species of Conservation Concern (those listed under the Massachusetts Endangered Species Act as well as additional species identified in the State Wildlife Action Plan), exemplary natural communities, and intact ecosystems.  
<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/biomap2.html>

\*\*\* Vernal pools are small, shallow ponds characterized by lack of fish and by periods of dryness. Vernal pool habitat is extremely important to a variety of wildlife species including some amphibians that breed exclusively in vernal pools, and other organisms such as fairy shrimp, which spend their entire life cycles confined to vernal pool habitat. Many additional wildlife species utilize vernal pools for breeding, feeding and other important functions.  
<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/cvp.html>

The proposed pipeline will pass through approximately 3.7 miles of Core Habitats.

The proposed pipeline will pass through approximately 22 miles of the Nashua River watershed.

0 1 2 3 4 5 miles



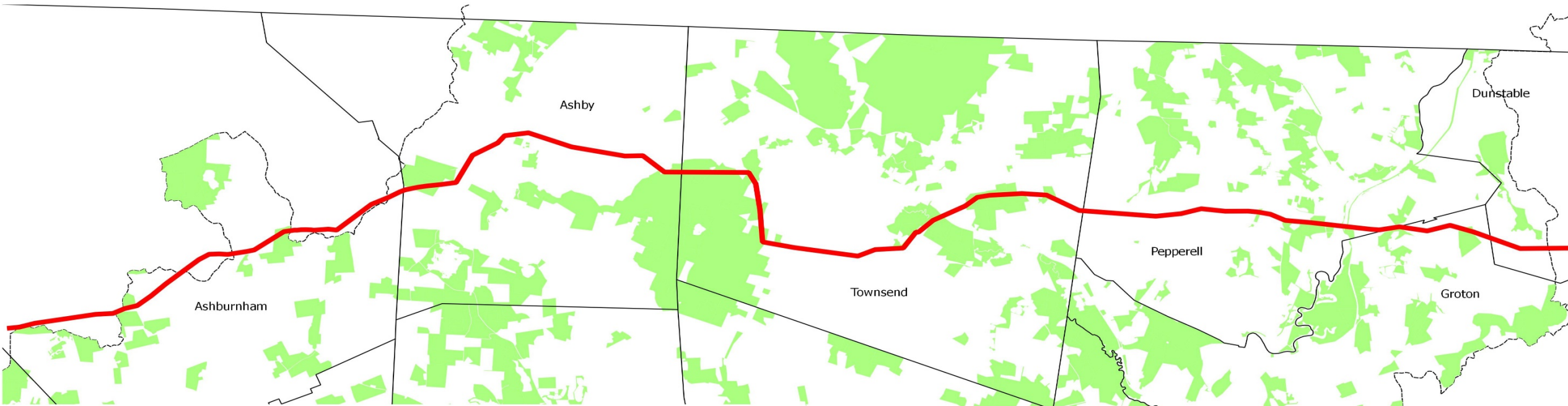
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# Proposed Tennessee Gas Pipeline\* Through The Nashua River Watershed: Protected Open Space & Conservation Land\*\*



## Legend

- Proposed Pipeline
- Town Boundary
- Protected Open Space & Conservation Land
- Nashua River Watershed Boundary



\* Also Known as The Northeast Energy Direct Project

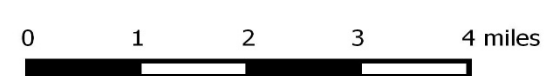
\*\* The state, municipal, and non-profit protected and recreational open space datalayer contains the boundaries of conservation lands and outdoor recreational facilities in Massachusetts. Although the initial data collection effort for this data layer has been completed, open space changes continually and this data layer is therefore considered to be under development. Additionally, due to the collaborative nature of this data collection effort, the accuracy and completeness of open space data varies across the state's municipalities. Attributes, while comprehensive in scope, may be incomplete for many parcels.

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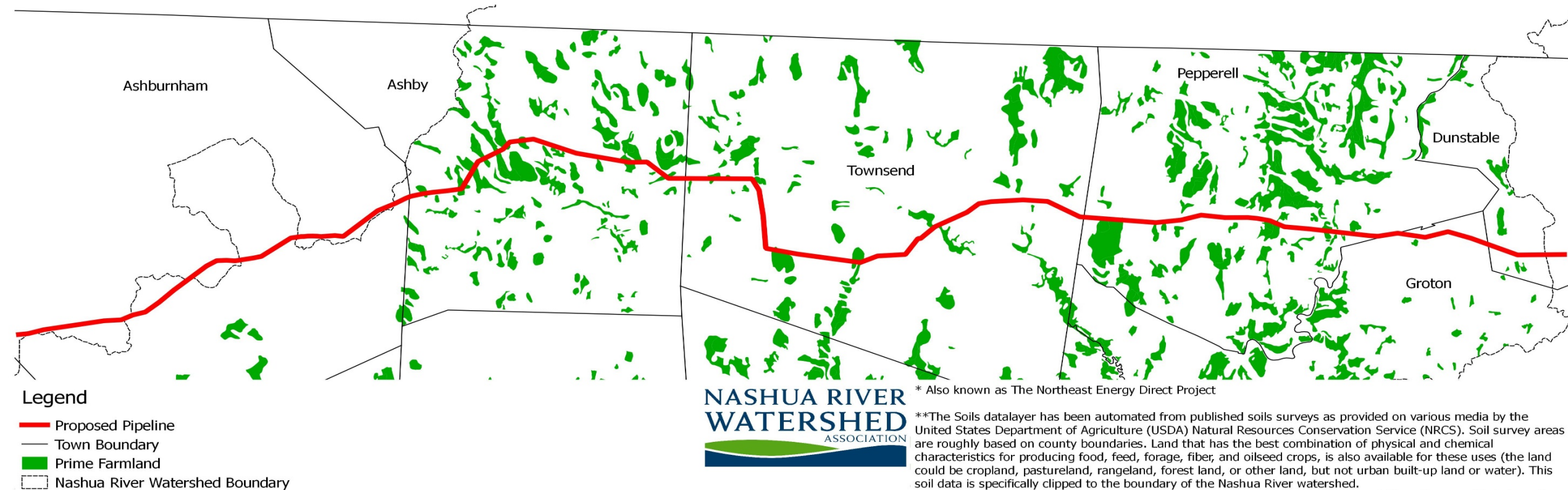
Detailed descriptions of most of the data layers included on this map are available online at:  
<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/layerlist.html>

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The proposed pipeline will pass through approximately 22 miles of the Nashua River Watershed.



# Proposed Tennessee Gas Pipeline\* Through The Nashua River Watershed: Prime Farmland\*\*



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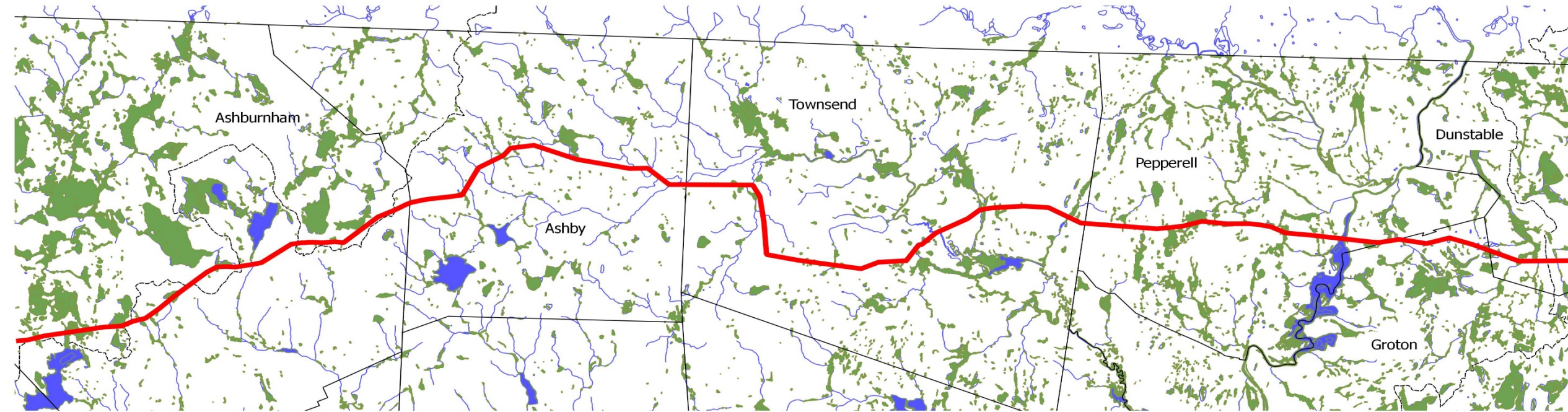
The proposed pipeline will pass through approximately 22 miles of the Nashua River Watershed.

0 1 2 3 4 miles





# Proposed Tennessee Gas Pipeline\* Through The Nashua River Watershed: Wetlands\*\* & Hydrology\*\*\*



## Legend

- Proposed Pipeline
- Town Boundary
- Lakes & Ponds
- Wetlands
- Streams
- Nashua River Watershed Boundary



\* Also known as The Northeast Energy Direct Project proposed by Kinder Morgan

\*\* The DEP Wetlands datalayer comprises two feature types, polygons and arcs (lines). The attribute codes in the polygon layer describe different types of wetland environments and the arc attributes describe line types based on adjacent polygon types or arcs defined as hydrologic connections.  
<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/depwetlands112000.html>

\*\*\* The MassDEP Hydrology layer is an enhanced version of the older U.S. Geological survey 1:25,000 Hydrography datalayer. It represents hydrographic (water-related) features, including surface water (lakes, ponds, and reservoirs), wetlands, bogs, flats, rivers, streams, and others.  
<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/hd.html>

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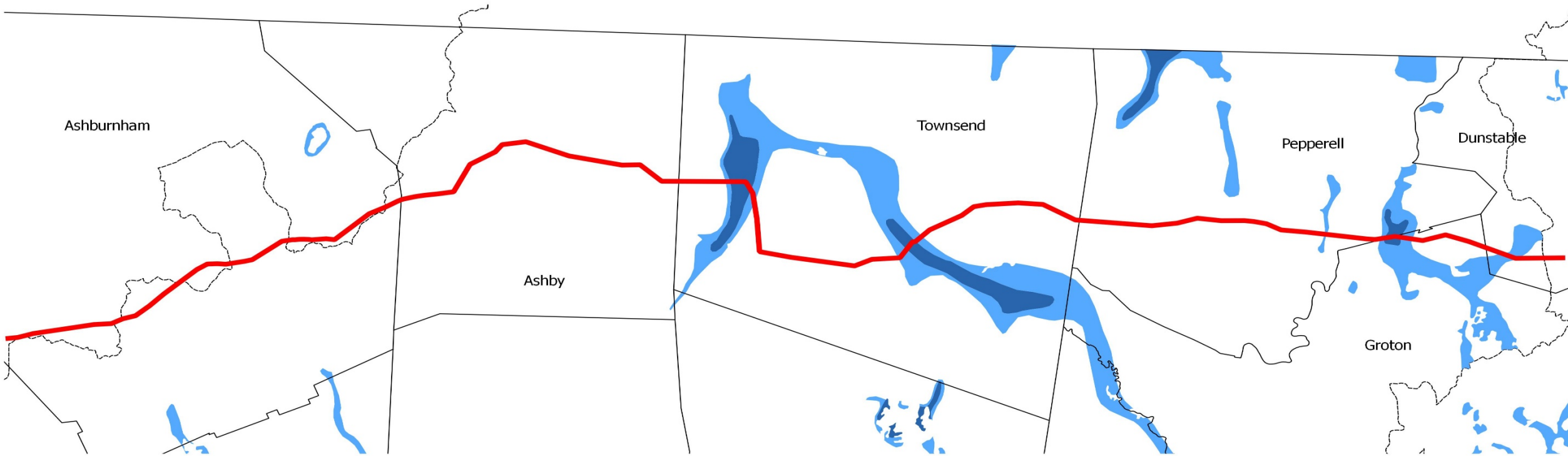
This map edition current as of: 6/16/2014. Please note that any of these data layers can change over time. Cartography & GIS work by NRWA.

The proposed pipeline will pass through approximately 22 miles of the Nashua River watershed.

0 1 2 3 4 miles



# Proposed Tennessee Gas Pipeline\* Through The Nashua River Watershed: Aquifers (High, Medium, and Low Yield\*)



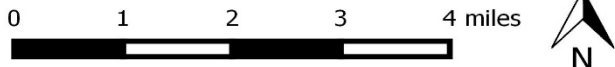
## Legend

— Proposed Pipeline  
— Town Boundary

## Aquifers

■ HIGH Yield  
■ MED Yield  
■ LOW Yield  
--- Nashua River Watershed Boundary

The proposed pipeline will pass through approximately 22 miles of the Nashua River watershed.



\* Also Known as The Northeast Energy Direct Project proposed by Kinder Morgan

\*\* The definition of high and medium yield varies between panels, as it does on the source manuscripts. While the medium yield for most basins is between 100 and 300 gpm (gallons per minute), this range may vary greatly from basin to basin. High yield definitions vary from basin to basin as well.  
<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/aquifers-.html>

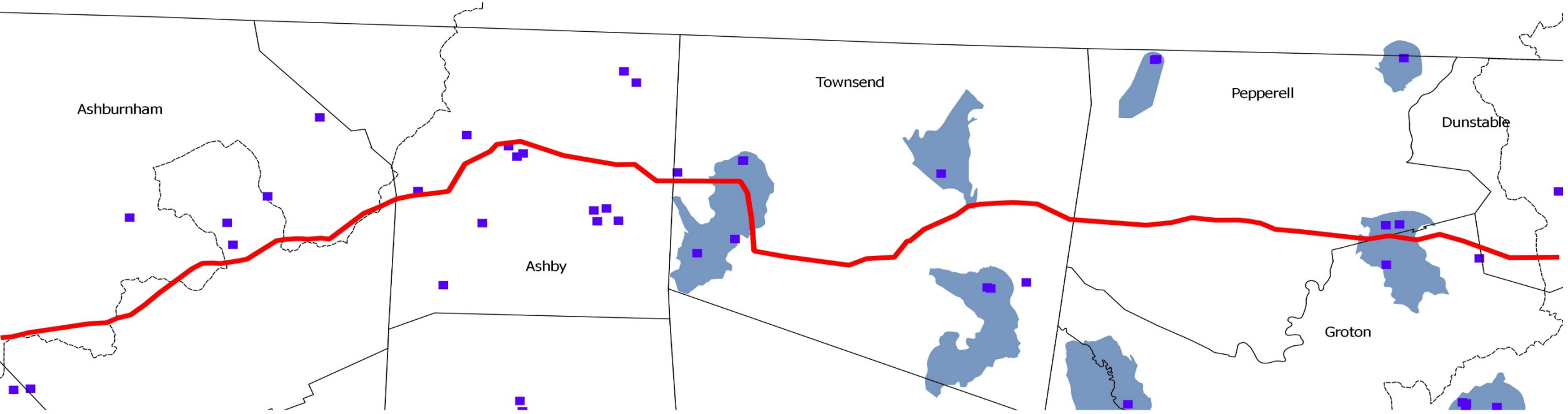
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# Proposed Tennessee Gas Pipeline\* Through The Nashua River Watershed: Well Head Protection Area (Zone II\*\*) & Public Water Supply\*\*\*



- Legend**
- Proposed Pipeline
  - Town Boundary
  - Public Water Supply
  - ZONE II
  - Nashua River Watershed Boundary

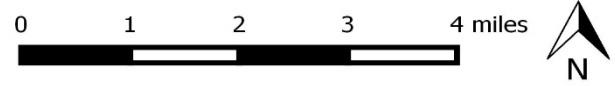


\* Also known as The Northeast Energy Direct Project proposed by Kinder Morgan.

\*\* Wellhead protection areas are important for protecting the recharge area around public water supply (PWS) groundwater sources. A Zone II is a wellhead protection area that has been determined by hydro-geologic modeling and approved by the Department of Environmental Protection's (DEP) Drinking Water Program (DWP).  
<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/dep-wellhead-protection-areas-zone-ii-iwpa.html>

\*\*\* The Public Water Supply (PWS) datalayer contains the locations of public community surface and groundwater supply sources and public non-community supply sources as defined in 310 CMR 22.00. The public water supply systems represented in this datalayer are based primarily on information in the DEP's Water Quality Testing System (WQTS) database.  
<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/pws.html>

The proposed pipeline will pass through approximately 22 miles of the Nashua River watershed.



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