



**City of Keene, New Hampshire**

**AGENDA**

**CONSERVATION COMMISSION**

**Tuesday, February 20, 2018**

**4:30 PM**

**2<sup>nd</sup> Floor Conference Room  
City Hall**

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**Commission Members**

Thomas P. Haynes, Chair  
Brian Reilly  
Councilor George Hansel  
Alexander Von Plinsky IV

Andrew Madison  
Denise Burchsted  
Art Walker  
Eloise Clark, Alternate

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- 1. Call to Order**
- 2. Minutes** – January 16, 2018
- 3. Communication & Notifications**
  - a) Wetlands Permit Application – *Goose Pond Dam Rehabilitation*
  - b) Wetlands Utility Maintenance Notification – *Eversource Energy*
  - c) Routine Roadway and Railway Maintenance Activities Notification  
– *NH Department of Transportation*
- 4. Review of Commission Role, Functions, and Staff Support**
- 5. Land Prioritization Criteria**
- 6. Conservation Master Plan Discussion**
- 7. Updates**
  - a) **Greater Goose Pond Forest Stewardship Plan Update**
  - b) **Aquatic Resource Mitigation Update**
- 8. Society for the Protection of NH Forests Membership**
- 9. New or Other Business**
- 10. Adjournment** - Next meeting date **Monday**, March 19, 2018

City of Keene  
New Hampshire

CONSERVATION COMMISSION  
MEETING MINUTES

Tuesday, January 16, 2018

4:30 PM

2nd Floor Conference Room,  
City Hall

**Members Present:**

Thomas Haynes, Chair  
Brian Reilly  
Eloise Clark, Alternate  
Alexander Von Plinsky IV  
Andrew Madison (Arrived at 5:30 PM)  
Councilor George Hansel

**Staff Present:**

Tara Kessler, Planner

**Members Not Present:**

Denise Burchsted  
Art Walker

**1) Call to Order**

Chair Haynes called the meeting to order at 4:30 PM.

**2) Minutes – December 18, 2017**

Councilor Hansel made a motion to accept the minutes of December 18, 2017, which was seconded by Mr. Von Plinsky and carried unanimously.

Chair Haynes recognized a matter not on the agenda. Councilor Hansel made a motion to reconsider the approved motion from the December 18, 2017 meeting that directed staff to send a letter to Council making them aware of the proposed West Street Dam research project, which was seconded by Chair Haynes.

Councilor Hansel said he has had conversations with staff since the December 18 meeting, it seems staff is taking the necessary actions and he does not think the letter to Council is necessary. He added the motion was not actually appropriate because this is an advisory Committee that does not have authority to direct staff to take such an action. He is confident the concerns of the Commission are going to be met internally.

Ms. Kessler said she has spoken with the Public Works Director, who oversees maintenance of the dam, and he is aware that staff would like to proceed with the research project. Staff believes there is adequate time to coordinate with the researchers and take advantage of this opportunity. West Street Hydro is aware of this research

project and staff has asked for their status update sooner rather than later to have a clearer direction moving forward.

Dr. Reilly asked a question about the Eversource discussion at the previous meeting. He asked if the City owns land within a certain distance from the center of each road. Ms. Kessler replied it depends and varies for each right of way; she can follow-up with more specific details. Dr. Reilly clarified he was unsure if some of the trees Eversource plans to cut are technically on City land or private property.

Chair Haynes recognized Ken Bergman who asked if the asked if the Eversource comment that abutters will be contacted applies to just scenic roads or all roads; he asked for clarification on who is notified. Chair Haynes said he believes it is just for the scenic roads because they have been given special designation; he believes they have the ability to trim as necessary on roads that do not have a special designation. Mr. Von Plinsky said the Commission does not review trimming on non-scenic roads but Eversource does still have to inform the land owner, who can still oppose the trimming. Dr. Bergman said it is unclear what the Eversource representative meant by abutters in their comments.

The motion to reconsider the original motion to send a letter to Council informing them of the West Street Dam research project carried unanimously.

### **3) Aquatic Resource Mitigation Subcommittee Update**

Mr. Von Plinsky reported that he will be attending the aquatic resource management program hosted by NH DES and he hopes to gain more understanding of the easiest way for the Commission to continue working on this. Chair Haynes might also attend.

Chair Haynes said the subcommittee is still working on prioritizing projects.

### **4) Land Prioritization Criteria**

Chair Haynes noted this effort began after it was realized there is a need for guidelines or criteria to guide decision making about conservation/protection of City-owned property. Councilor Manwaring had developed a list of criteria used by other organizations for making decisions about the placement of conservation easements. This list was included in the meeting packet. Chair Haynes asked the Commission to use these resources to create criteria unique to Keene for evaluating the potential for placing conservation easements on City-owned land, or for acquiring land for the purpose of conservation. He led the conversation, and asked the group to focus on the Monadnock Conservancy list of criteria because they have a lot of local experience in this effort.

Chair Haynes listed six categories and asked the Commission to specify criteria for each category:

1. Water Resources
  - a. Chair Haynes suggested the Monadnock Conservancy criteria for this category are comprehensive and should be included. These criteria include:

- i. Riparian Zones (Frontage on rivers, streams, lakes, ponds, and reservoirs)
- ii. Land overlying aquifers and aquifer recharge areas
- iii. Wetlands
- iv. Floodplains

The Commission noted that there should be an emphasis on riparian zones and that it is important to have a clear definition of riparian zones. This may be defined in the Surface Water Protection Ordinance.

2. Forestry

- a. Chair Haynes suggested including the following criteria:
  - i. Tracts of woodland with sufficient size, appropriate soils, and other attributes that support responsible forest management, including the production of timber and other forest products.
- b. The Commission added the following criteria:
  - i. Steepness of slopes (presence of precautionary and prohibitive slopes as defined in the Hillside Protection Ordinance)
  - ii. Urban forestry (suggested by Charles Daloz of the Agricultural Commission)
  - iii. Un-fragmented forests (this issue of connectivity may fall under all of the categories)
  - iv. Need a better definition of “valuable forest tract”

3. Agriculture

- a. Chair Haynes suggested including the following criteria:
  - i. Farmlands and open fields with prime soils and other attributes that support agriculture or have the potential to support agriculture.
- b. The Commission added the following criteria:
  - i. Include non-prime soils; there may be sites that are good for agriculture in terms of exposure and size but the soils are not necessarily prime.
  - ii. Urban agricultural opportunities (suggested by Mr. Daloz)

4. Wildlife and Natural Areas

- a. Chair Haynes suggested including the following criteria from the Monadnock Conservancy:
  - i. Large tracts of undeveloped habitat and corridors important for wildlife
  - ii. Land containing ecologically significant or rare natural communities or species
  - iii. Priority land as identified in the New Hampshire Wildlife Action Plan
  - iv. Other lands which increase the diversity and viability of wildlife populations, including fields, riparian areas, and land contiguous to existing protected natural areas
- b. The Commission added the following criteria:
  - i. Connectivity is important
  - ii. Priority lands identified in natural resource inventories

- iii. Buffer between future development and valuable protected land; including landowner willingness (\*this is more relevant to the Conservation Master Plan, whereas this list is specific to City-owned lands)
- 5. Cultural, Recreational, and Scenic Value
  - a. Chair Haynes suggested including the following criteria from the Monadnock Conservancy:
    - i. Land that offers opportunities for appropriate outdoor recreation by the public
    - ii. Scenic views, ridgelines, and other aesthetic areas
    - iii. Landscapes that preserve the region's cultural and historic heritage
  - b. The Commission added the following criteria:
    - i. Recreational connectivity
- 6. Other Criteria for Consideration:
  - a. Development pressure
  - b. Willing landowners
  - c. Connectivity
  - d. Opportunities for partnerships with other organizations and surrounding towns

This list will be presented for adoption at the February meeting and the Commission will work to map/overlay City lands for potential conservation easements.

There will be a meeting with Ms. Clark, Chair Haynes, Dr. Reilly, Dr. Bergman, and Mr. Daloz to review potential areas of the City that meet the above criteria and are in need of protection. Ms. Kessler will coordinate a date and time for this meeting.

#### **5) Conservation Master Plan Discussion**

The group discussed the presentation made by Barbara Richter of the NH Association of Conservation Commissions at the December 2017 meeting. It was noted that Ms. Richter recommended the Commission began its master planning efforts by updating the Natural Resource Inventory (NRI) that was completed for the City in 2009. Dr. Reilly noted the level of detail needed for an initial NRI should already be available, as it would not be very granular. He suggested reviewing the NRI already developed for City lands to see the level of detail and types of data collected. Dr. Reilly will conduct this review, as he served on the Commission's NRI working group.

#### **6) Membership Renewal**

##### **a. Society for the Protection of NH Forests**

Ms. Kessler shared a letter from the Society for the Protection of NH Forests (SPNHF) requesting renewal of the Commission's annual membership. The letter does not include information about cost of membership. Ms. Kessler reviewed the SPNHF website and learned that membership ranges from \$40 per year to \$1,000+ per year. She will collect information on the amount the Commission has contributed for annual membership in the past and present this at the next meeting. The Commission agreed to postpone a vote on this item until more information is obtained.

**b. NH Association of Conservation Commission**

Ms. Kessler notified the Commission that they have \$408 remaining in their annual budget. The annual membership for NH Association of Conservation Commissions is \$817 and was deducted from the budget.

**7) Staff Updates**

No updates were provided at this meeting.

**8) New or Other Business**

**9) Adjournment – Next meeting date Tuesday, February 20, 2018**

Hearing no further business, Chair Haynes adjourned the meeting at 5:37 PM.

Respectfully submitted by,  
Katie Kibler, Minute Taker

Reviewed and Edited by, Tara Kessler, Planner



# WETLANDS PERMIT APPLICATION

Water Division/ Wetlands Bureau  
Land Resources Management



Check the status of your application: [www.des.nh.gov/onestop](http://www.des.nh.gov/onestop)

RSA/Rule: RSA 482-A/ Env-Wt 100-900

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.
			Check No.
			Amount
			Initials

**1. REVIEW TIME:** Indicate your Review Time below. To determine review time, refer to [Guidance Document A](#) for instructions.

- Standard Review (Minimum, Minor or Major Impact)       Expedited Review (Minimum Impact only)

**2. MITIGATION REQUIREMENT:**

If mitigation is required a Mitigation-Pre Application meeting must occur prior to submitting this Wetlands Permit Application. To determine if Mitigation is Required, please refer to the [Determine if Mitigation is Required Frequently Asked Question](#).

Mitigation Pre-Application Meeting Date: Month: 12 Day: 20 Year: 2017

- N/A - Mitigation is not required

**3. PROJECT LOCATION:**

Separate wetland permit applications must be submitted for each municipality that wetland impacts occur within.

ADDRESS: East Surry Road      TOWN/CITY: Keene

TAX MAP: 914      BLOCK: 04      LOT: 030.0000, 023.0000      UNIT:

USGS TOPO MAP WATERBODY NAME: Goose Pond       NA      STREAM WATERSHED SIZE: 1.6 sq mi       NA

LOCATION COORDINATES (if known): 816322.7/171827.9       Latitude/Longitude       UTM

**4. PROJECT DESCRIPTION:**

Provide a brief description of the project outlining the scope of work. Attach additional sheets as needed to provide a detailed explanation of your project. DO NOT replv "See Attached" in the space provided below.

**Rehabilitation of dam, outlet structure and dike; construction access via exisiting woods path. Lowering of pond elevation by 4' during construction.**

**5. SHORELINE FRONTAGE:**

- NA This does not have shoreline frontage.      SHORELINE FRONTAGE: 328

Shoreline frontage is calculated by determining the average of the distances of the actual natural navigable shoreline frontage and a straight line drawn between the property lines, both of which are measured at the normal high water line.

**6. RELATED NHDES LAND RESOURCES MANAGEMENT PERMIT APPLICATIONS ASSOCIATED WITH THIS PROJECT:**

Please indicate if any of the following permit applications are required and, if required, the status of the application.

To determine if other Land Resources Management Permits are required, refer to the [Land Resources Management Web Page](#).

Permit Type	Permit Required	File Number	Permit Application Status
Alteration of Terrain Permit Per RSA 485-A:17	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	_____	<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Individual Sewerage Disposal per RSA 485-A:2	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	_____	<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Subdivision Approval Per RSA 485-A	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	_____	<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Shoreland Permit Per RSA 483-B	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	_____	<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED

**7. NATURAL HERITAGE BUREAU & DESIGNATED RIVERS:**

See the Instructions & Required Attachments document for instructions to complete a & b below.

a. Natural Heritage Bureau File ID: NHB 17 - 2197

- b.  [Designated River](#) the project is in ¼ miles of: Ashuelot River; and  
date a copy of the application was sent to the [Local River Management Advisory Committee](#): Month: 01 Day: 11 Year: 2018  
 N/A

[shoreland@des.nh.gov](mailto:shoreland@des.nh.gov) or (603) 271-2147  
NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095  
[www.des.nh.gov](http://www.des.nh.gov)

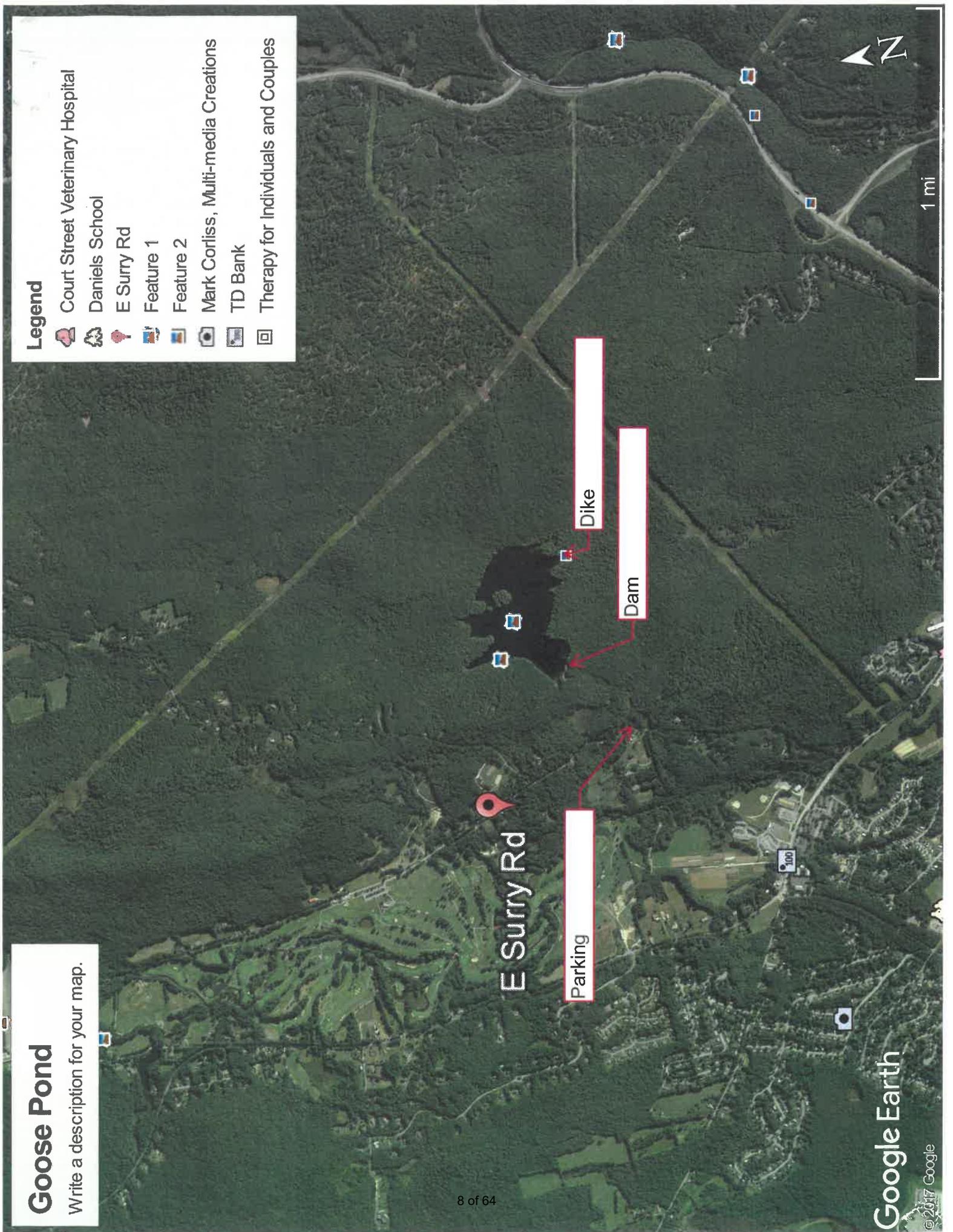


# Goose Pond

Write a description for your map.

## Legend

-  Court Street Veterinary Hospital
-  Daniels School
-  E Surry Rd
-  Feature 1
-  Feature 2
-  Mark Corliss, Multi-media Creations
-  TD Bank
-  Therapy for Individuals and Couples



# 2015 HIGHEST RANKED WILDLIFE HABITAT BY ECOLOGICAL CONDITION

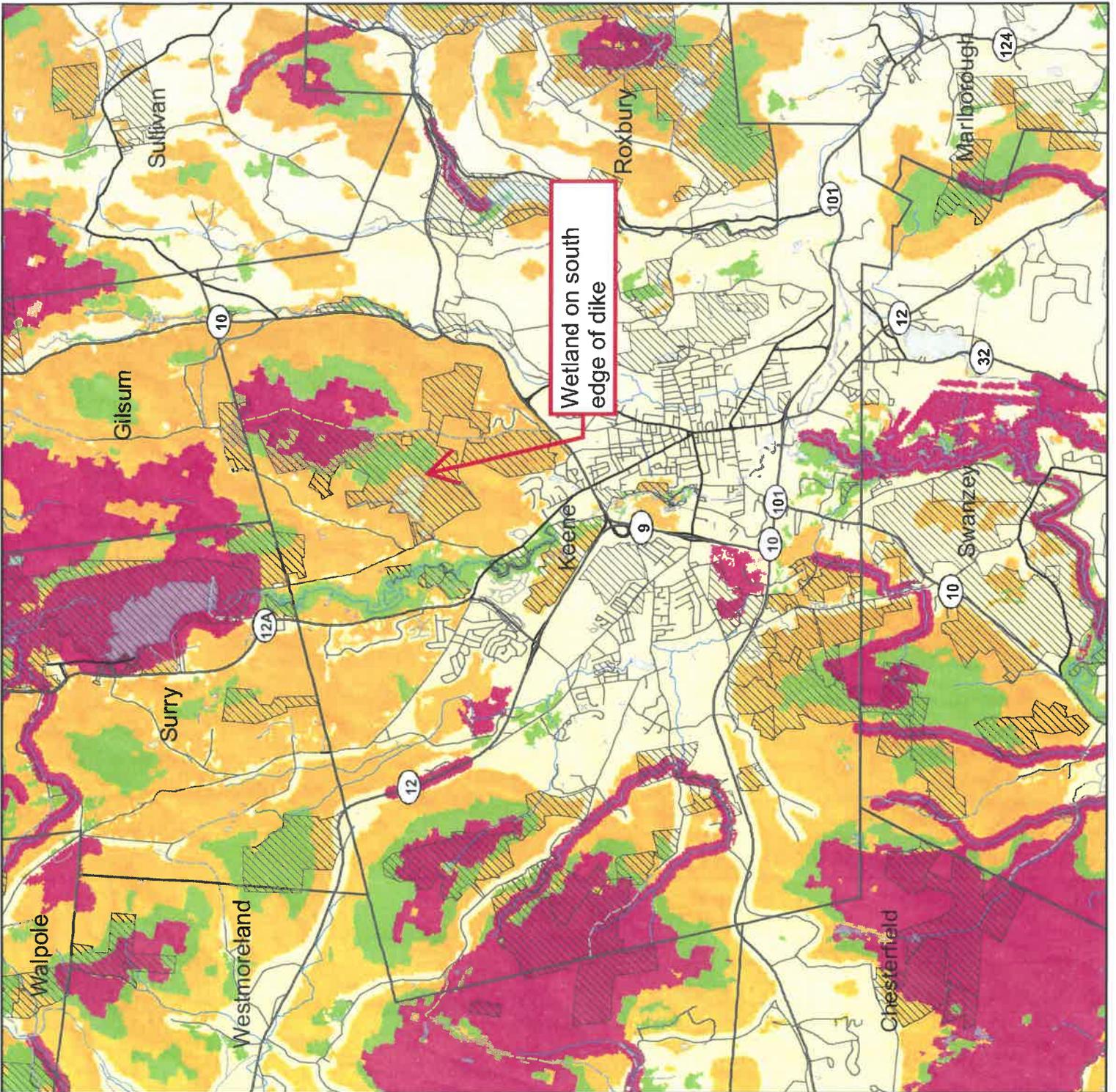
 Highest Ranked Habitat in New Hampshire

 Highest Ranked Habitat in the Biological Region

Biological region = TNC ecoregional subsection for terrestrial habitats or Aquatic Resource Mitigation region for wetlands and floodplain forest.

 Supporting Landscapes

 Conservation or public



Base map data provided by NH GRANIT (2015)  
Not intended for legal use.



**Wildlife Action Plan**

September 2015



## IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

### Location

Cheshire County, New Hampshire



### Local office

New England Ecological Services Field Office

☎ (603) 223-2541

📠 (603) 223-0104

70 Commercial Street, Suite 300  
Concord, NH 03301-5094

<http://www.fws.gov/newengland>

## Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service.

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.

The following species are potentially affected by activities in this location:

### Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

### Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

### Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service<sup>3</sup>. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured. Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are [USFWS Birds of Conservation Concern](#) that might be affected by activities in this location. The list does not contain every bird you may find in this location, nor is it guaranteed that all of the birds on the list will be found on or near this location. To get a better idea of the specific locations where certain species have been reported and their level of occurrence, please refer to resources such as the [E-bird data mapping tool](#) (year-round bird sightings by birders and the general public) and [Breeding Bird Survey](#) (relative abundance maps for breeding birds). Although it is important to try to avoid and minimize impacts to all birds, special attention should be given to the birds on the list below. To get a list of all birds potentially present in your project area, visit the [E-bird Explore Data Tool](#).

NAME	BREEDING SEASON
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> <a href="https://ecos.fws.gov/ecp/species/9399">https://ecos.fws.gov/ecp/species/9399</a>	Breeds May 15 to Oct 10
Bobolink <i>Dolichonyx oryzivorus</i>	Breeds May 20 to Jul 31
Canada Warbler <i>Wilsonia canadensis</i>	Breeds May 20 to Aug 10
Cape May Warbler <i>Setophaga tigrina</i>	Breeds Jun 1 to Jul 31
Evening Grosbeak <i>Coccothraustes vespertinus</i>	Breeds May 15 to Aug 10
Lesser Yellowlegs <i>Tringa flavipes</i> <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
Olive-sided Flycatcher <i>Contopus cooperi</i> <a href="https://ecos.fws.gov/ecp/species/3914">https://ecos.fws.gov/ecp/species/3914</a>	Breeds May 20 to Aug 31
Prairie Warbler <i>Dendroica discolor</i>	Breeds May 1 to Jul 31
Red-throated Loon <i>Gavia stellata</i>	Breeds elsewhere
Rusty Blackbird <i>Euphagus carolinus</i>	Breeds May 10 to Jul 20
Semipalmated Sandpiper <i>Calidris pusilla</i>	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i>	Breeds May 10 to Aug 31

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds.

### Probability of Presence (●)

Each green bar represents the bird's relative probability of presence in your project's counties during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

**Breeding Season ( )**

Yellow bars denote when the bird breeds in the Bird Conservation Region(s) in which your project lies. If there are no yellow bars shown for a bird, it does not breed in your project area.

**Survey Effort (|)**

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the counties of your project area. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

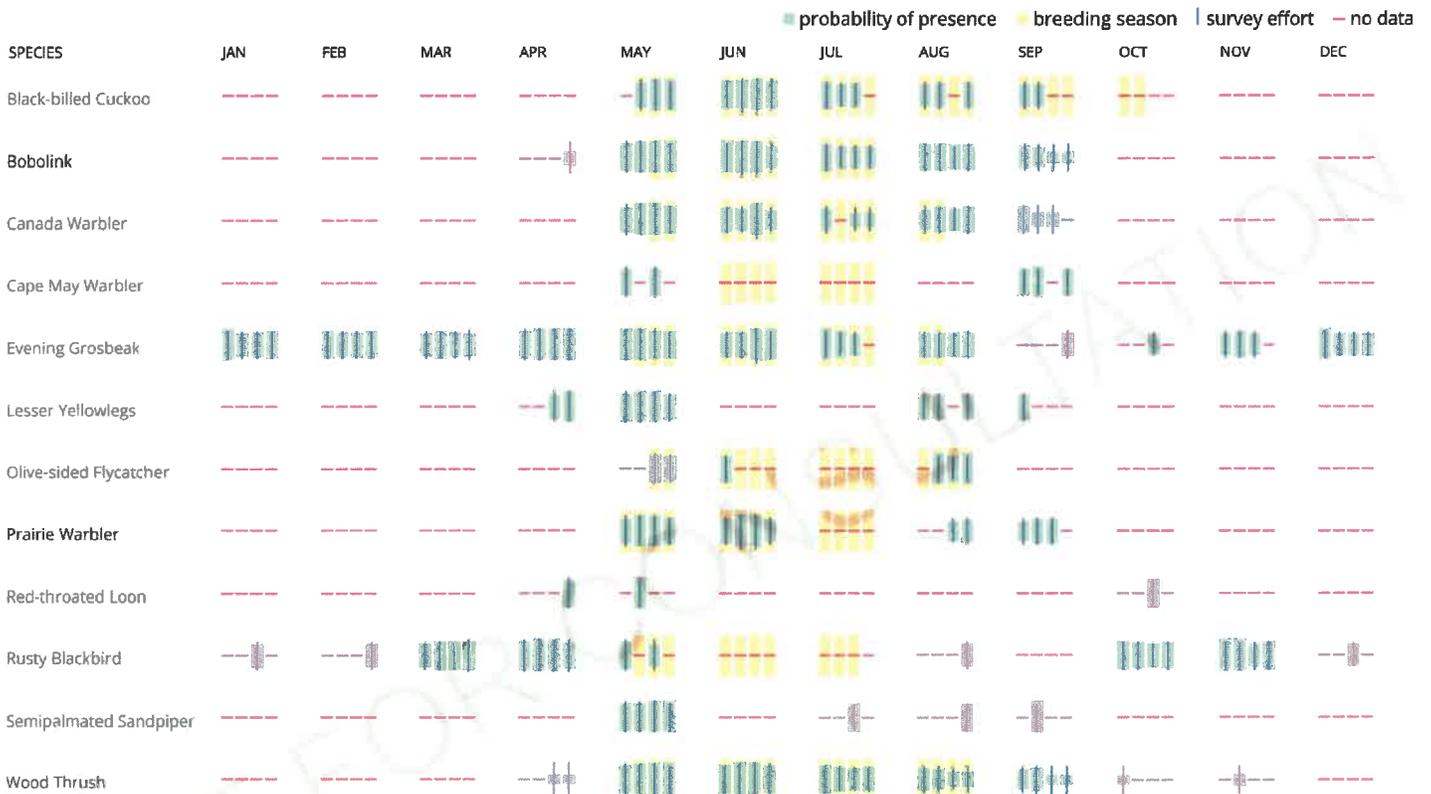
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

**No Data (-)**

A week is marked as having no data if there were no survey events for that week.

**Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Such measures are particularly important when birds are most likely to occur in the project area. To see when birds are most likely to occur in your project area, view the Probability of Presence Summary. Special attention should be made to look for nests and avoid nest destruction during the breeding season. The best information about when birds are breeding can be found in [Birds of North America \(BNA\) Online](#) under the "Breeding Phenology" section of each species profile. Note that accessing this information may require a [subscription](#). [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) that might be affected by activities in your project location. These birds are of priority concern because it has been determined that without additional conservation actions, they are likely to become candidates for listing under the [Endangered Species Act \(ESA\)](#).

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#). The AKN list represents all birds reported to be occurring at some level throughout the year in the counties in which your project lies. That list is then narrowed to only the Birds of Conservation Concern for your project area.

Again, the Migratory Bird Resource list only includes species of particular priority concern, and is not representative of all birds that may occur in your project area. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To get a list of all birds potentially present in your project area, please visit the [E-bird Explore Data Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available.

### How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird entry on your migratory bird species list indicates a breeding season, it is probable the bird breeds in your project's counties at some point within the time-frame specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

## Facilities

### National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

### Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFO4E](#)

LAKE

[L1UBH](#)

A full description for each wetland code can be found at the National Wetlands Inventory website: <https://ecos.fws.gov/ipac/wetlands/decoder>

#### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Goose Pond Dam, Narrative  
January 9, 2018

Previous Land Use

The dam, emergency spillway and dike were constructed in 1868 as a water supply for the City of Keene. In the mid-20<sup>th</sup> century, the dam was discontinued as a water supply and maintained solely for recreational use of the reservoir. The dam has had a number of improvements since 1868, the most recent including a reconstruction of the spillway in 1985.

Proposed Improvements

Improvements will be made to the Goose Pond Dam and dike. An existing woods road will be used for access. Staging and parking for construction will be at the entrance to the dam off of Surry Road (forested land adjacent to existing woods road).

At the dam site, the work will involve the reconstruction of the embankment, facing of the upstream edge with stone for erosion control (all within previous fill associated with construction of the dam), removal of stumps, installation of a stability toe berm with mineral filter, lining of an existing outlet conduit with a new cured-in-place liner, and the removal and replacement of valves located within the interior of the gate chamber.

At the dike, the work will involve the reconstruction of the embankment, removal of stumps, and addition of fill for stability on the downstream face. A temporary wooden walkway will be constructed over the exposed pond bottom following dewatering to maintain passage along a pedestrian trail around the pond.

The access road (existing path through forest) will be improved in spot sections as needed. The access road will cross two vernal pools, which will require the placement of stone blocks to form vehicle tracks.

At the staging and parking site (existing forest adjacent to existing woods road), the work will involve clearing and grubbing, leveling/grading for twelve parking spaces, the application of a top gravel course and replacement of the access gate.

The project will impact greater than 200 LF of pond bank, but this impact will be all within previous fill associated with construction of the dam. In accordance with recent discussions with the NHDES Wetlands Bureau, this is considered a temporary impact and will not require compensatory mitigation.

Conservation Commission Coordination

A review package was sent to the Keene Conservation Commission on December 14, 2017, but no comments have been received.



NEW HAMPSHIRE NATURAL HERITAGE BUREAU  
NHB DATACHECK RESULTS LETTER

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**To:** Charlotte Brodie, DuBois & King, Inc.  
P.O. Box 1257  
Williston, VT 05495

**From:** NH Natural Heritage Bureau

**Date:** 7/31/2017 (valid for one year from this date)

**Re:** Review by NH Natural Heritage Bureau of request submitted 7/12/2017

**NHB File ID:** NHB17-2179

**Applicant:** City of Keene

**Location:** Keene  
East Surry Road, Keene, NH

**Project**

**Description:** Make improvements to an existing dam and dike

The NH Natural Heritage database has been checked by staff of the NH Natural Heritage Bureau and/or the NH Nongame and Endangered Species Program for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government.

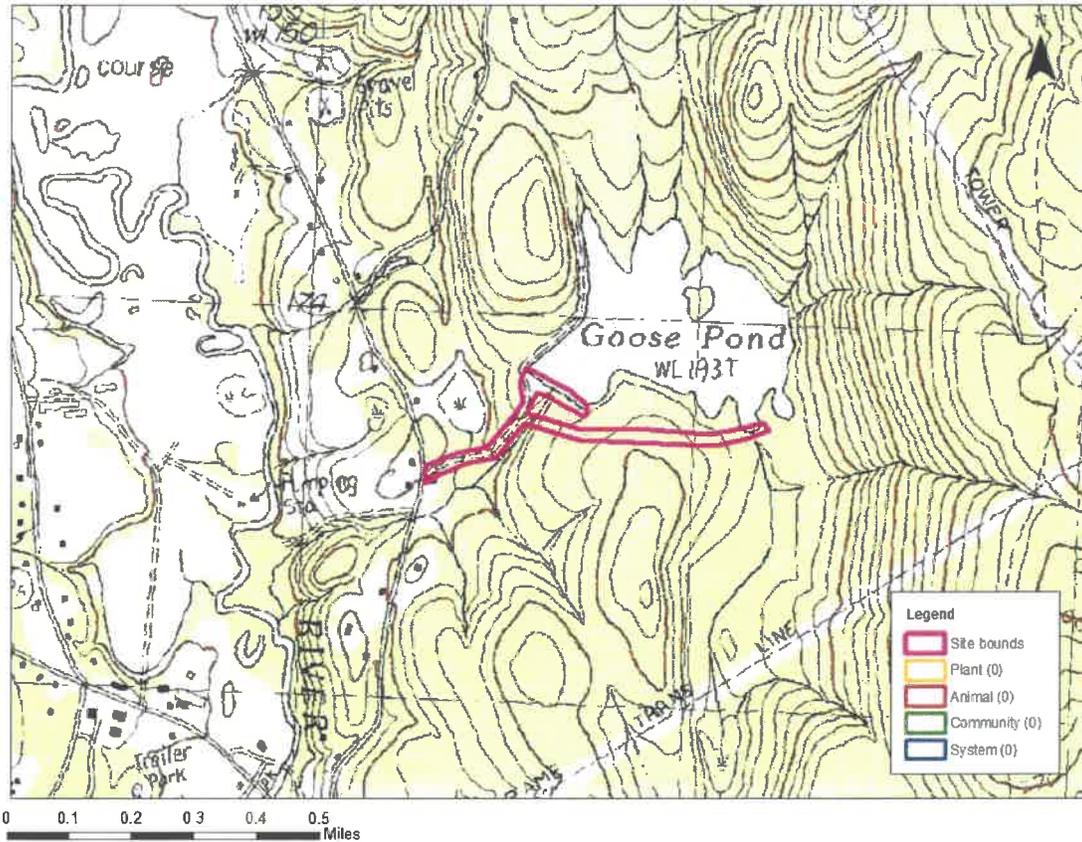
It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 7/12/2017, and cannot be used for any other project.



NEW HAMPSHIRE NATURAL HERITAGE BUREAU  
NHB DATACHECK RESULTS LETTER

MAP OF PROJECT BOUNDARIES FOR: NHB17-2179

**NHB17-2179**





**US Army Corps  
of Engineers**®  
New England District

**Programmatic General Permit (PGP)  
Appendix B - Required Information and Corps Secondary Impacts Checklist**

In order for the Corps of Engineers to properly evaluate your application, applicants must submit the following information along with the DES Wetlands Bureau application or permit notification forms. Some projects may require more information. For a more comprehensive checklist, go to [www.nae.usace.army.mil/regulatory](http://www.nae.usace.army.mil/regulatory), “Forms/Publications” and then “Application and Plan Guideline Checklist.” Check with the Corps at (978) 318-8832 for project-specific requirements. For your convenience, this Appendix B is also attached to the State of New Hampshire DES Wetlands Bureau application and Permit by Notification forms.

**All Projects:**

- Corps application form ([ENG Form 4345](#)) as appropriate.
- Photographs of wetland/waterway to be impacted.
- Purpose of the project.
- Legible, reproducible black and white (no color) plans no larger than 11”x17” with bar scale. Provide locus map and plan views of the entire property.
- Typical cross-section views of all wetland and waterway fill areas and wetland replication areas.
- In navigable waters, show mean low water (MLW) and mean high water (MHW) elevations. Show the high tide line (HTL) elevations when fill is involved. In other waters, show ordinary high water (OHW) elevation.
- On each plan, show the following for the project:
  - Vertical datum and the NAVD 1988 equivalent with the vertical units as U.S. feet. Don’t use local datum. In coastal waters this may be mean higher high water (MHHW), mean high water (MHW), mean low water (MLW), mean low lower water (MLLW) or other tidal datum with the vertical units as U.S. feet. MLLW and MHHW are preferred. Provide the correction factor detailing how the vertical datum (e.g., MLLW) was derived using the latest National Tidal Datum Epoch for that area, typically 1983-2001.
  - Horizontal state plane coordinates in U.S. survey feet based on the [insert state grid system] for the [insert state] [insert zone] NAD 83.
- Show project limits with existing and proposed conditions.
- Limits of any Federal Navigation Project in the vicinity of the project area and horizontal State Plane Coordinates in U.S. survey feet for the limits of the proposed work closest to the Federal Navigation Project;
- Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below the ordinary high water in inland waters and below the high tide line in coastal waters.
- Delineation of all waterways and wetlands on the project site, including vernal pools:
- Use Federal delineation methods and include Corps wetland delineation data sheets. See GC 2; Endnotes 1, 6, 7 and 15 in Appendix A; and [www.nero.noaa.gov/hcd](http://www.nero.noaa.gov/hcd) for eelgrass survey guidance.
- Appendix A, (e) Moorings, contains eelgrass survey requirements for the placement of moorings.
- For activities involving discharges of dredged or fill material into waters of the U.S., include a statement describing how impacts to waters of the U.S. are to be avoided and minimized, and either a statement describing how impacts to waters of the U.S. are to be compensated for (or a conceptual or detailed mitigation plan) or a statement explaining why compensatory mitigation should not be required for the proposed impacts. Please contact the Corps for guidance.



**US Army Corps  
of Engineers**®  
New England District

**New Hampshire Programmatic General Permit (PGP)  
Appendix B - Corps Secondary Impacts Checklist  
(for inland wetland/waterway fill projects in New Hampshire)**

1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
2. All references to “work” include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See PGP, GC 5, regarding single and complete projects.
4. Contact the Corps at (978) 318-8832 with any questions.

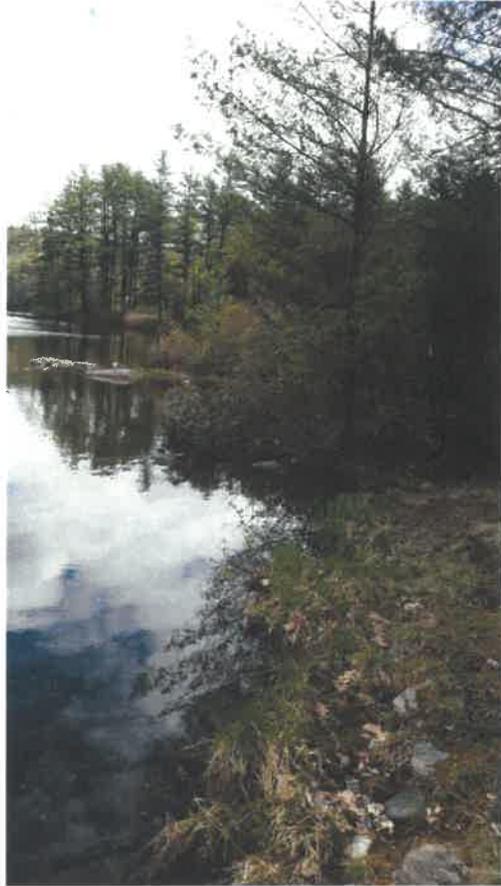
<b>1. Impaired Waters</b>	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See <a href="http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm">http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm</a> to determine if there is an impaired water in the vicinity of your work area.*		x
<b>2. Wetlands</b>	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	x	
2.2 Are there proposed impacts to SAS, shellfish beds, special wetlands and vernal pools (see PGP, GC 26 and Appendix A)? Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) website, <a href="http://www.nhnaturalheritage.org">www.nhnaturalheritage.org</a> , specifically the book <a href="#">Natural Community Systems of New Hampshire</a> .	x	
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?	N/A	
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)	x	
2.5 The overall project site is more than 40 acres.		x
2.6 What is the size of the existing impervious surface area?	5262 SF	
2.7 What is the size of the proposed impervious surface area?	14,117 SF	
2.8 What is the % of the impervious area (new and existing) to the overall project site?	< 1%	
<b>3. Wildlife</b>	Yes	No
3.1 Has the NHB determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require a NHB determination.)	yes, but would not be affected.	
3.2 Would work occur in any area identified as either “Highest Ranked Habitat in N.H.” or “Highest Ranked Habitat in Ecological Region”? (These areas are colored magenta and green, respectively, on NH Fish and Game’s map, “2010 Highest Ranked Wildlife Habitat by Ecological Condition.”) Map information can be found at: <ul style="list-style-type: none"> <li>• PDF: <a href="http://www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm">www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm</a>.</li> <li>• Data Mapper: <a href="http://www.granit.unh.edu">www.granit.unh.edu</a>.</li> <li>• GIS: <a href="http://www.granit.unh.edu/data/downloadfreedata/category/databycategory.html">www.granit.unh.edu/data/downloadfreedata/category/databycategory.html</a>.</li> </ul>	x	

3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		x
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		x
3.5 Are stream crossings designed in accordance with the PGP, GC 21?	N/A	
<b>4. Flooding/Floodplain Values</b>	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?	x	
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?		x
<b>5. Historic/Archaeological Resources</b>		
For a minor or major impact project - a copy of the Request for Project Review (RPR) Form ( <a href="http://www.nh.gov/nhdhr/review">www.nh.gov/nhdhr/review</a> ) shall be sent to the NH Division of Historical Resources as required on Page 5 of the PGP**	x	

\*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

\*\* If project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law..

Goose Pond Dam



Wetland A, upstream face of dam, looking east



Permanent stream, facing dam



Vernal Pool A



Ambystomid Eggs, Vernal Pool A



Vernal Pool B



Ambystomid Eggs, Vernal Pool B



Wetland C at dike, looking south



Wetland D above box culvert on main access road, looking north (no impacts)



Charlotte Brodie &lt;cbrodie@dubois-king.com&gt;

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## Goose Pond Dam Improvements, NLEB impacts

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Charlotte Brodie &lt;cbrodie@dubois-king.com&gt;

Tue, Jan 9, 2018 at 1:37 PM

To: sandra.houghton@wildlife.nh.gov, Lindsey.E.Lefebvre@usace.army.mil

Hello Sandra and Lindsey,

The City of Keene proposes improvements to the Goose Pond Dam and Dike. We are preparing to submit an NHDES Standard Dredge and Fill permit application for the work, which is shown on the attached Proposed Conditions Plans for the Dam Site, Dike Site and Parking Area, Sheets 7-9.

A Natural Heritage Bureau data check indicated that there is a NHB record in the vicinity, but that it is not expected to be impacted by the proposed project (see attached NHB report). Thus, there are no known maternity roost trees within 150' of the work, and no known hibernacula within 0.25 mi of the work. The work is located within an area of thousands of acres of adjacent forest, as shown on the attached Google Earth map.

An IPaC species list (see attached) indicates the potential presence of the Northern Long-Eared Bat (see attached).

For COE review, the amount of clearing in wetlands is as follows:

Dam Site: None.

Dike Site: 588 SF.

Parking Area: None.

For NH F&G review, the total amount of clearing (wetland and upland) is as follows:

Dam Site: 6,615 SF

Dike Site: 4,020 SF

Parking Area: 10,100 SF

TOTAL: 20,735 SF

We would appreciate review of the potential impacts to the Northern Long-Eared Bat by the USFWS through the COE as soon as possible.

We would appreciate comments from the NH F&G Department as soon as possible, to include in our application.

Please contact me if you have questions or comments, and thank you for your cooperation.

Best Regards,

Charlotte Brodie  
Field Naturalist  
DuBois & King, Inc.  
6 Green Tree Drive  
South Burlington, VT 05403  
802-728-7202 (w)  
802-777-5272 (c)

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### 3 attachments

 **Plan Sheets 7-9, 1-8-18 .pdf**  
609K

 **NHB17-2179\_Brodie\_NI.pdf**  
317K

 **IPaC species list.pdf**  
2241K



WETLANDS PERMIT APPLICATION – ATTACHMENT A
MINOR AND MAJOR - 20 QUESTIONS
Land Resources Management
Wetlands Bureau



Check the Status of your application: www.des.nh.gov/onestop

RSA/ Rule: RSA 482-A, Env-Wt 100-900

Env-Wt 302.04 Requirements for Application Evaluation - For any major or minor project, the applicant shall demonstrate by plan and example that the following factors have been considered in the project’s design in assessing the impact of the proposed project to areas and environments under the department’s jurisdiction. Respond with statements demonstrating:

1. The need for the proposed impact.

2009 and 2015 Letters of Deficiency for both the Goose Pond Dam and Goose Pond Dike from the NHDES Dam Bureau identified the following needs: 1) Repair or replace the inoperable low-level outlet at the dam; 2) Repair years of erosion and woody vegetation growth on the dam and dike embankments; 3) Provide controlled seepage relief through the dam and dike; 4) Reconstruct the upstream slope of the dam to the original grade and provide erosion-resistant cover materials; 5) Regrade the dike embankment to provide a uniform cross-section with slopes no steeper than 2.5 to 1 and a consistent crest elevation.

2. That the alternative proposed by the applicant is the one with the least impact to wetlands or surface waters on site.

The majority of the work on the dam involves excavation and fill to create a stability berm and sand filter for seepage relief on the downstream face, where impacts are limited to 260 SF of permanent stream and 580 SF of streambank. The work on the upstream face of the dam involves placement of stone to stabilize that face of the dam against erosion. This work will be within the limits of the original dam construction, and so is considered temporary impact. It will involve approximately 284 SF of pond impact and 993 SF of bank impact. Stabilization work at the dike will occur on the downstream face. Impacts there are reduced by taking advantage of the existing topography, with existing slopes narrowing the valley, totalling 2316 SF to permanent impact and 1097 SF temporary impact to wetland. The impacts on the upstream face are limited to a temporary boardwalk/ trail detour over the drained pond bottom, in the amount of 667 SF of pond and 91 SF of wetland. The pond will be lowered by approximately four feet during construction, the minimum amount to allow for the necessary construction work to be accomplished safely. This will minimize water quality issues by work being accomplished in dry conditions. The existing access road crosses two vernal pools. While ambystomid eggs were observed in these pools, the spring water levels were only about 4-6" deep, such that successful maturation of the young may not be feasible in most years. During construction, temporary fabric, stone and mats will be placed to facilitate construction, 209 SF). Permanent stone block tracks will provide permanent access to the dike (permanent impacts, 108 SF). The tracks minimize impacts by maintaining the remainder of the pools, preventing compaction of the pools, maintaining light penetration of the pools and allowing ongoing flow of water and movement of animals through the spaces between the stone blocks. In order to reconstruct the dam and dike to meet Dam Bureau safety requirements, temporary and permanent impacts to jurisdictional resources are needed. All work is minimized to the extent practicable, while still providing the necessary stability to the dam and dike. By utilizing berm rehabilitation and pipe lining, excavation of the entire dam cross-section and the associated resource impacts will be avoided.

3. The type and classification of the wetlands involved.

**At the dam site, on the north side of the dam, the resource is POW, palustrine open water, pond and pond bank. There is also PSS/EM at the northeast corner of the dam, but that will not be impacted. On the south side, the resource is R2UB1, riverine, lower perennial, unconsolidated bottom, cobble/gravel (perennial stream and bank).**

**At the dike, the resource on the north side is POW as above. On the south side, it is PEM, palustrine emergent wetland, with a narrow strip of R2UB1 as above (perennial stream and bank).**

**At the access road crossing, the vernal pools are considered PEM, palustrine emergent.**

4. The relationship of the proposed wetlands to be impacted relative to nearby wetlands and surface waters.

**The POW at the northern edge of the dam is a part of Goose Pond, which is contiguous to the PSS/EM wetland to the east. This drains through a culvert to the perennial stream and bank on the south side of the dam.**

**At the dike, the POW on the north side of the dam is presumably connected by groundwater to the PEM wetland on the south side of the dam. (There are no pipes or culverts from one side to the other. )**

**The two vernal pools along the access road are in immediate proximity to each other, but not to other wetlands, except for the POW of Goose Pond which is roughly 200' to the north.**

5. The rarity of the wetland, surface water, sand dunes, or tidal buffer zone area.

**The POW, PSS/EM, and PEM wetlands are not rare or uncommon types. The vernal pools are less common wetland types.**

6. The surface area of the wetlands that will be impacted.

**There will be 3264 SF of permanent impact to wetland, including stream impacts, and 3731 SF of temporary impacts.**

7. The impact on plants, fish and wildlife including, but not limited to:
- a. Rare, special concern species;
  - b. State and federally listed threatened and endangered species;
  - c. Species at the extremities of their ranges;
  - d. Migratory fish and wildlife;
  - e. Exemplary natural communities identified by the DRED-NHB; and
  - f. Vernal pools.

- a. According to NHB17-2179, an NHB record (not identified as to rarity) exists in the vicinity, but the NHB does not expect that it will be impacted by the proposed project.
- b. The USFWS IPaC identifies the potential for presence of the northern long-eared bat. Impacts in wetland due to tree cutting totals 588 SF. Total impacts in wetland and upland is 20,735 SF. Impacts to be reviewed by USFWS through the COE, and comments requested from NHF&G.
- c. The NHB and the IPaC reviews did not indicate any species at the extremities of their ranges.
- d. No migratory fish or wildlife have been identified in the vicinity of the project.
- e. No exemplary natural communities have been identified by NHB in the vicinity of the project.
- f. There are two vernal pools in the project area. One is 555 SF and the other is 3,984 SF. Both had ambystomid eggs present in May 2017. Both are very shallow, with depths of 4-6", which may not allow for maturation of the larvae of the amystomids. Temporary fabric, crushed stone and timber mats will be placed to facilitate construction, and removed upon completion of construction (temporary impacts). Stone block tracks will then be placed and will remain to provide permanent access to the dike (permanent impacts). The tracks minimize impacts by maintaining the remainder of the pools, preventing compaction of the pools, maintaining light penetration of the pools and allowing ongoing flow of water and movement of animals through the spaces between the stone blocks.

8. The impact of the proposed project on public commerce, navigation and recreation.

The project will not have any effect on public commerce or navigation. Goose Pond is a popular recreational destination for walking and biking. The walking trail across the dike will be relocated along a temporary boardwalk during construction to maintain its usability, and will be returned to its original location following construction. Other sections of the trail/access road to the dike may be temporarily re-routed to alternate trails to maintain park users' safety during construction.

9. The extent to which a project interferes with the aesthetic interests of the general public. For example, where an applicant proposes the construction of a retaining wall on the bank of a lake, the applicant shall be required to indicate the type of material to be used and the effect of the construction of the wall on the view of other users of the lake.

The project will have minor aesthetic impacts during construction, due to the requirement for excavation and fill using heavy equipment, and to the requirement for lowering of the elevation of the pond by approximately 4' during construction. The project will maintain the aesthetic qualities of the pond and surrounding woodlands by virtue of returning the dam and dike to safe and serviceable conditions. By repairing erosion along the upstream face of the dam and the surface of the gate chamber, the aesthetics of this location will be improved.

10. The extent to which a project interferes with or obstructs public rights of passage or access. For example, where the applicant proposes to construct a dock in a narrow channel, the applicant shall be required to document the extent to which the dock would block or interfere with the passage through this area.

**The project will not interfere with public rights of passage or access. The trail around the pond will be maintained during construction on the dike by the provision of a temporary boardwalk detour. Other sections of the trail/access road to the dike may be temporarily re-routed to alternate trails to maintain the park users' safety during construction.**

11. The impact upon abutting owners pursuant to RSA 482-A:11, II. For example, if an applicant is proposing to rip-rap a stream, the applicant shall be required to document the effect of such work on upstream and downstream abutting properties.

**The project is intended to address current deficiencies in the dam and dike, and will allow for the maintenance of the Goose Pond waterbody in the decades to come. The amount of water leaving the dam will not change as a result of the proposed project. The Contractor will be responsible for the control of water, as stated in the plans, to isolate work from flowing water and to protect water quality. Therefore, the downstream abutting properties should not see any negative effects as a result of the project.**

12. The benefit of a project to the health, safety, and well being of the general public.

**The project's purpose is to address deficiencies in the dam and dike identified by the NHDES Dam Bureau. The work will return the structures to safe and serviceable conditions. By enhancing the safety of the dam and dike, the health and safety of people and structures downstream is protected. The project will allow for on-going recreational use by the general public.**

13. The impact of a proposed project on quantity or quality of surface and groundwater. For example, where an applicant proposes to fill wetlands the applicant shall be required to document the impact of the proposed fill on the amount of drainage entering the site versus the amount of drainage exiting the site and the difference in the quality of water entering and exiting the site.

**The project is not expected to have any effect on the quantity of local surface and groundwater. The quality of the waters will be protected by requirements for the control of water, silt fence and erosion control measures as stated in the plans, along with conditions of the NHDES Dam Bureau permit to reconstruct a dam and the Shoreland Permit. The project contractor will be required to conform to the NH Stormwater Manual.**

14. The potential of a proposed project to cause or increase flooding, erosion, or sedimentation.

**The purpose of the project is to return the dam and dike to safe conditions, therefore allowing for continued operation without the threat of dam failure which would lead to significant flooding, erosion and sedimentation. During construction, the pond will be lowered by 4' to allow for work to occur in the dry. Erosion control measures will be provided in accordance with the conditions of the plan. These include cofferdams, project demarcation fence, silt fence, check dams and other water control measures.**

15. The extent to which a project that is located in surface waters reflects or redirects current or wave energy which might cause damage or hazards.

**The project includes stone lining along the edge of the pond at the dam in order to protect it from wave energy. The project will not redirect existing current or wave energy.**

16. The cumulative impact that would result if all parties owning or abutting a portion of the affected wetland or wetland complex were also permitted alterations to the wetland proportional to the extent of their property rights. For example, an applicant who owns only a portion of a wetland shall document the applicant's percentage of ownership of that wetland and the percentage of that ownership that would be impacted.

**The City of Keene owns all land surrounding the pond, so the issue of abutting property owners does not apply. The work is intended to rehabilitate the existing structures, with impacts to wetlands minimized to those necessary to provide for safety.**

17. The impact of the proposed project on the values and functions of the total wetland or wetland complex.

**The proposed work will impact areas of pond bottom and bank, stream and bank, and emergent wetland. This work is the minimum necessary to allow for stabilization of the dam and dike. Should the dam or dike fail due to lack of stabilization measures, negative impacts to wetlands downstream would be significant. The crossing of the vernal pools will require placement of minimal (approximately 108 SF) of stone to provide wheel tracks for permanent access to the dike for maintenance. The stone blocks will have spaces between them so that water flow and animal movement may continue unimpeded. Temporary fabric, stone and timber mats will be used during construction to prevent compaction of the soils and disturbance of animals within the soils. Therefore, the impacts will be minimized.**

**The impacts to wetlands and waters due to the project will be minimal, and will provide for the maintenance of the ecosystem of the pond and surrounding forest for decades to come. The majority of the impacts will be temporary.**

18. The impact upon the value of the sites included in the latest published edition of the National Register of Natural Landmarks, or sites eligible for such publication.

**There are no National Natural Landmarks in the vicinity of the project, according to the National Park Service's website:**

**<https://www.nps.gov/subjects/nlandmarks/state.htm?State=NH>**

19. The impact upon the value of areas named in acts of Congress or presidential proclamations as national rivers, national wilderness areas, national lakeshores, and such areas as may be established under federal, state, or municipal laws for similar and related purposes such as estuarine and marine sanctuaries.

**The Ashuelot River is not a designated national Wild and Scenic River ( <https://www.rivers.gov/new-hampshire.php> ). However, it is a State designated river ([https://www.des.nh.gov/organization/divisions/water/wmb/rivers/documents/designated\\_rivers.pdf](https://www.des.nh.gov/organization/divisions/water/wmb/rivers/documents/designated_rivers.pdf)). It is located approximately 1/4 mile from the project. A copy of this application has been sent to the Local River Management Advisory Committee.**

**There are no national wilderness areas nearby ([https://en.wikipedia.org/wiki/List\\_of\\_U.S.\\_Wilderness\\_Areas](https://en.wikipedia.org/wiki/List_of_U.S._Wilderness_Areas)).**

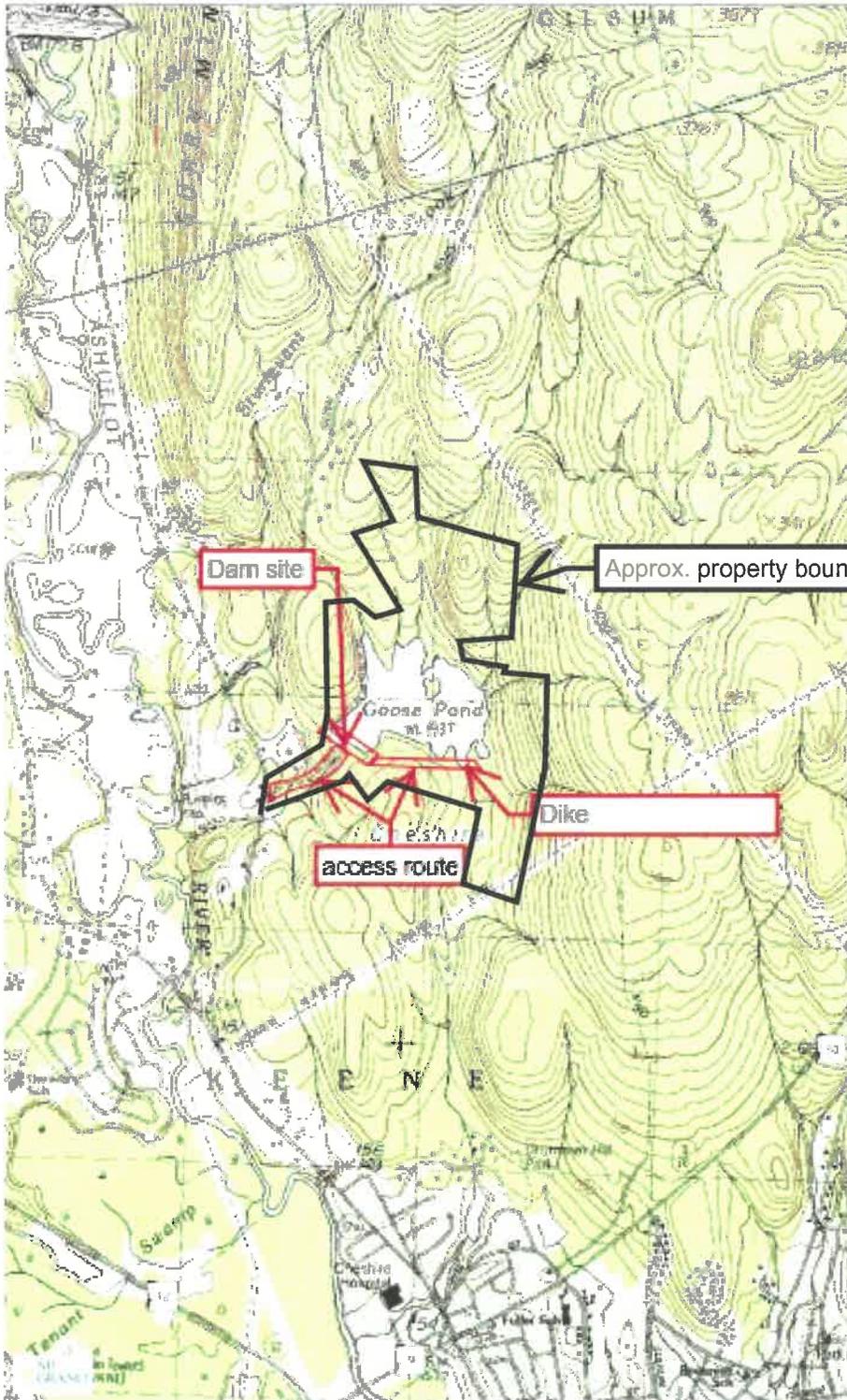
**There are no national lakeshores nearby ([https://en.wikipedia.org/wiki/List\\_of\\_United\\_States\\_national\\_lakeshores\\_and\\_seashores#National\\_Lakeshores](https://en.wikipedia.org/wiki/List_of_United_States_national_lakeshores_and_seashores#National_Lakeshores)).**

20. The degree to which a project redirects water from one watershed to another.

The project does not redirect water from one watershed to another. The existing flowpaths will remain the same.

Additional comments

# Map by NH GRANIT



## Legend

- State
- County
- City/Town

Map Scale  
1:24,000



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Map Generated: 10/21/2017

## Notes



**DRAFT FINAL  
PLANS  
NOT FOR  
CONSTRUCTION**

NO.	DATE	DESCRIPTION	BY	CK'D



**GOOSE POND DAM  
IMPROVEMENTS  
EAST SURRY ROAD  
KEENE,  
NEW HAMPSHIRE**

SHEET TITLE

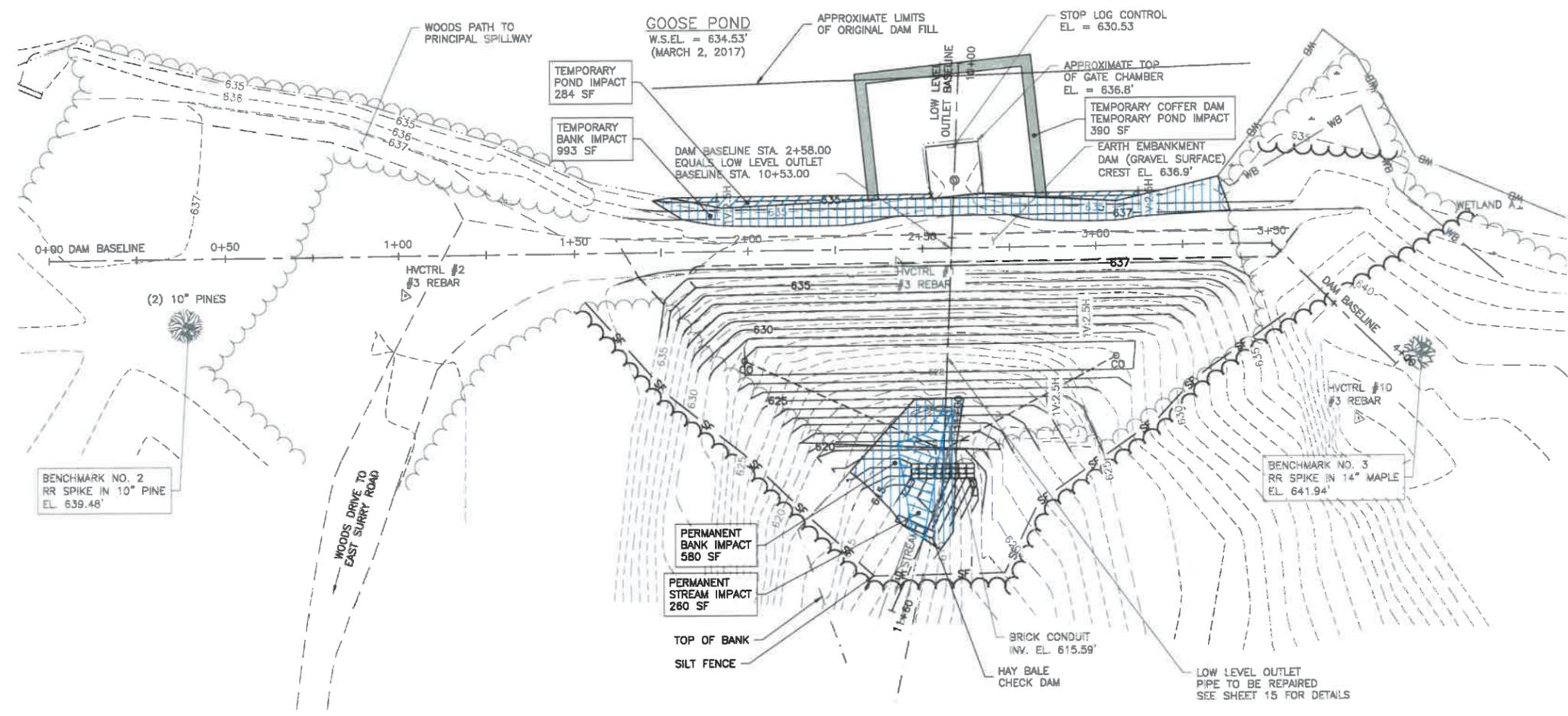
**IMPACT PLAN -  
DAM SITE**

DRAWN BY	DATE
TJD	JAN. 12, 2018
CHECKED BY	DAM PROJECT #
	123708
PROJ. ENG.	DAM ARCHIVE #
JWT	

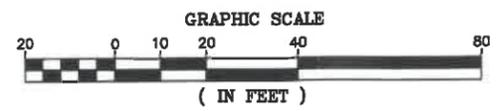
SHEET NUMBER

**1**

SHEET 1 OF 2



**IMPACT PLAN -  
DAM SITE**



**IMPACT INFORMATION**

- PERMANENT BANK IMPACT = 580 SF
- PERMANENT STREAM IMPACT = 260 SF
- TEMPORARY BANK IMPACT = 993 SF
- TEMPORARY POND IMPACT = 674 SF





# WETLANDS UTILITY MAINTENANCE NOTIFICATION

Land Resources Management  
Check the Status of your Notification: [www.des.nh.gov/onestop](http://www.des.nh.gov/onestop)



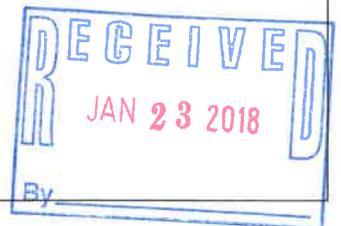
**RSA/Rule:** Env-Wt 100-900

**Complete No. (see bottom of page 2):** \_\_\_\_\_

Administration Use Only	Administration Use Only	Administration Use Only	Fee Number Check No. Amount Date
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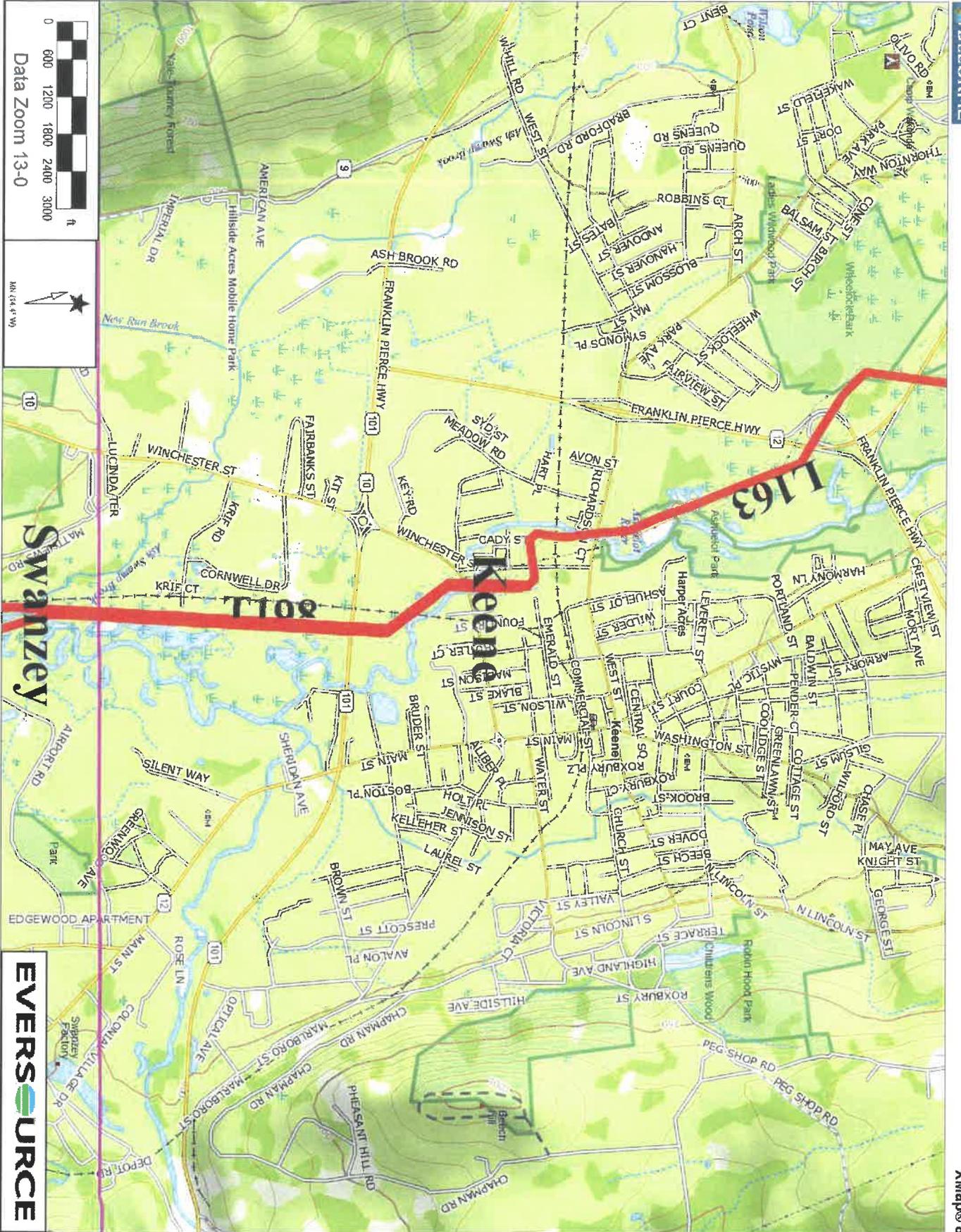
This notification form and process is for the maintenance and in-kind repair of **existing utility services** within **existing rights of way** consistent with the *Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetlands and Water bodies in New Hampshire* (Utility BMP manual) published by the NH Department of Resources and Economic Development, (January 2010). Please read the Utility BMP manual ([www.nhdfi.org/maps-and-publications/publications.aspx](http://www.nhdfi.org/maps-and-publications/publications.aspx)) and RSA 482-A:3, XV, (<http://www.gencourt.state.nh.us/rsa/html/L/482-A/482-A-3.htm>) before proceeding. Once the form is completed and submitted to the municipal clerk and the NHDES Wetlands Bureau, in accordance with RSA 482-A:3, XV, the work may begin.

<b>1. UTILITY PROVIDER/COMPANY</b>			
UTILITY PROVIDER/COMPANY NAME: Eversource Energy			
AUTHORIZED REPRESENTATIVE: Michael D. Babineau			
UTILITY MAILING ADDRESS: 13 Legends Drive			
TOWN/CITY: Hooksett		STATE: NH	ZIPCODE: 03106
PHONE: 603-634-3289	FAX:	EMAIL: Michael.Babineau@Eversource.com	
<b>2. PROJECT LOCATION - A separate notification must be filed for each municipality jurisdictional impact will occur in.</b>			
TOWN/CITY: Keene		ZIP CODE: 03431	
<b>3. PROPOSED PROJECT DESCRIPTION</b>			
In order to maintain the safety and reliability of Eversource's electric transmission system; work includes cyclical brush maintenance of undesirable woody vegetation with track-mounted mowing equipment and/or maintenance tree trimming or removal within or along the utility right-of-way corridor using a rubber tired skidder-mounted bucket vehicle.			



[shoreland@des.nh.gov](mailto:shoreland@des.nh.gov) or (603) 271-2147  
 NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095  
[www.des.nh.gov](http://www.des.nh.gov)

4. PROJECT TYPE			
<input type="checkbox"/>	Equipment repair and maintenance in rights of way (ROW)		
<input checked="" type="checkbox"/>	Vegetative maintenance within ROW (If access through private property is needed to reach the ROW, permission from the landowner(s) is required prior to conducting work)		
<input type="checkbox"/>	Overhead Electric Lines	<input type="checkbox"/>	Water supply Lines
<input type="checkbox"/>	Overhead Telephone or Cable Lines	<input type="checkbox"/>	Sewer Lines
<input type="checkbox"/>	Natural Gas Lines	<input type="checkbox"/>	Other:
5. IMPACTED RESOURCES - Check all that apply			
<input checked="" type="checkbox"/>	Temporary Non-Tidal Wetland	<input checked="" type="checkbox"/>	Temporary Intermittent Stream Crossing
<input checked="" type="checkbox"/>	Temporary (2-years max) Perennial Stream or River Crossing		
6. ATTACHMENTS - Verify the following attachments are submitted with this form by checking each box below.			
<input checked="" type="checkbox"/>	Copy of a USGS topographic map (at its original scale 1:24,000 or 1:25,000) with the project location(s) or utility corridor clearly identified		
<input checked="" type="checkbox"/>	\$200 filing fee (nonrefundable) made payable to: Treasurer, State of NH		
<input checked="" type="checkbox"/>	A Letter or memo from the Department of Resources and Economic Development's Natural Heritage Bureau (NHB) indicating that NHB has reviewed your project. Contact NHB at (603) 271-2215 ext. 323 or <a href="mailto:NHBReview@dred.gov.nh">NHBReview@dred.gov.nh</a> for instructions on how to submit project information (method may vary depending on project complexity). NHB File No.: EE DSA 2018		
7. CONFIRMATIONS			
<input checked="" type="checkbox"/>	All impacts are temporary and will be restored, repaired or removed upon completion of work.		
<input checked="" type="checkbox"/>	Temporary impacts are a result of in-kind repairs or replacement		
<input checked="" type="checkbox"/>	The <a href="#">NH Natural Heritage Bureau (NHB)</a> has reviewed the project and reported "No potential impacts" to exemplary natural communities and state-listed species OR such elements are present but I have received recommendations on how to avoid potential impacts from NHB and/or the NH Fish and Game Department.		
<input checked="" type="checkbox"/>	I have obtained, read, understand, and retained a copy of the <i>Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire</i> published by the NH Department of Resources and Economic Development. Link: <a href="http://www.nhdfl.org/maps-and-publications/publications.aspx">www.nhdfl.org/maps-and-publications/publications.aspx</a>		
<input checked="" type="checkbox"/>	I understand that I may not proceed with the work until this completed application package has been submitted to the DES and the municipal clerk.		
<input checked="" type="checkbox"/>	I understand that once I submit this form, changes or additions to the projects within the municipality will be done by way of an amendment and within the 1 year duration of this Complete Utility Maintenance Notification.		
<input checked="" type="checkbox"/>	This notification does not exempt you from meeting all other local, state, or federal permits or requirements. Work carried out in violation of any statute rule or condition is subject to enforcement action.		
<input checked="" type="checkbox"/>	I will confirm that this Utility Notification has been deemed complete and has been issued a file number from DES by checking the "One-Stop Wetland Permits Query" at: <a href="http://www2.des.state.nh.us/OneStop/Wetland Permits Query.aspx">http://www2.des.state.nh.us/OneStop/Wetland Permits Query.aspx</a> or by telephone at 603-271-2147 before starting work. I will record the DES file number on the top of Page 1 of this form.		
<input checked="" type="checkbox"/>	This complete Utility Maintenance Notification is valid for one year from the Notification Completion Date as found on the DES One Stop website.		
8. SIGNATURE			
Michael D. Babineau PRINT NAME LEGIBLY	 AUTHORIZED SIGNATURE	01/01/2018 DATE	



Swanzey

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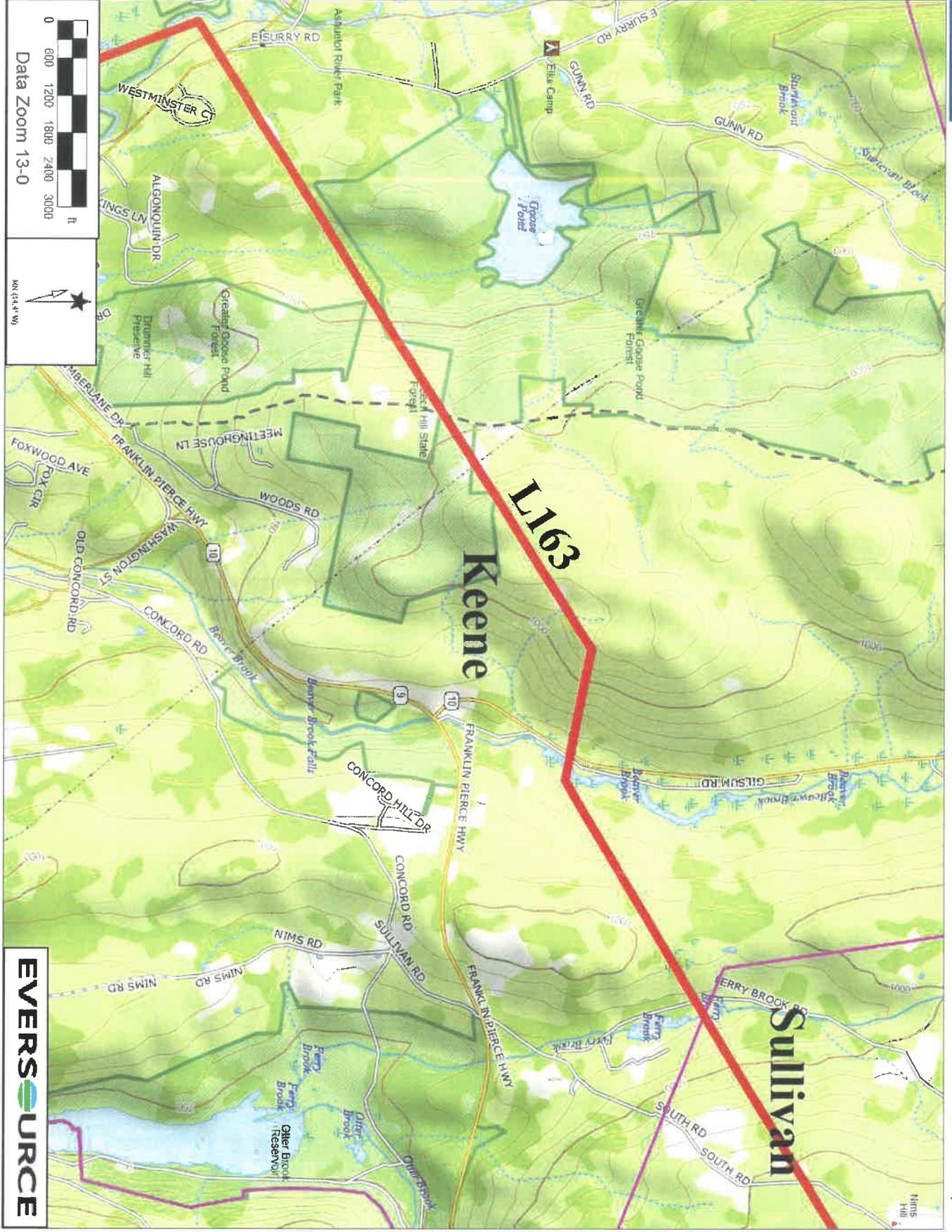
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STATE OF NEW HAMPSHIRE  
INTER-DEPARTMENT COMMUNICATION

**FROM:**  Matt Urban  
Wetlands Program Manager

**DATE** January 26, 2018

**AT (OFFICE)** Department of Transportation

**SUBJECT** Routine Roadway Maintenance Activity Notification  
**Statewide 41534 (Keene)** Bureau of Environment

**TO** Gino Infascelli, Public Works Permitting Officer  
New Hampshire Wetlands Bureau  
29 Hazen Drive  
Concord, New Hampshire 03301

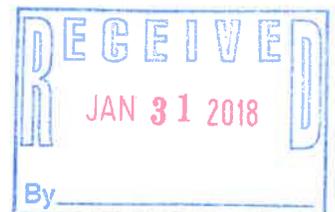
Forwarded herewith is the application package prepared by Hoyle Tanner Associates, for the Bureau of Highway Design for the subject project. This project qualifies for processing as a *Notification of Routine Roadway and Railway Maintenance Activities*. The project consists of various pipe replacements and headwall construction/replacements. Erosion and sedimentation control devices will be installed in accordance with the NHDOT manual of Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire.

The lead people to contact for this project are Tobey Reynolds, Bureau of Highway Design (271-2171) or Matt Urban, Bureau of Environment (271-3226).

MRU:mru  
Enclosures

cc:  
BOE Original  
Keene Conservation Commission  
Keene Board of Selectmen

S:\Environment\PROJECTS\STATEWIDE\41534\Wetlands\Wetlands Routine Roadway Maintenance Notifications\Keene RRMN.DOC





## ROUTINE ROADWAY and RAILWAY MAINTENANCE ACTIVITIES NOTIFICATION



Water Division/ Wetlands Bureau/ Land Resources Management  
Check the Status of your Notification: [www.des.nh.gov/onestop](http://www.des.nh.gov/onestop)

RSA/Rule: RSA 482-A/ Env-Wt 100-900

**FILE NUMBER: 2017 - \_\_\_\_\_**

<b>ROUTINE ROADWAY NOTIFICATION PROJECT CRITERIA</b> Bold-faced terms are defined on the attached page.	
<p><b>1. Will the proposed activity require disturbance in any wetland or surface water, on the bank of any surface water body, in uplands adjacent to a municipally designated prime wetland, or in a sand dune, flat, or undisturbed tidal buffer zone?</b></p> <p>If you answered "Yes" to Item 1, continue to Item 2, below. If you answered "No," you do not need to file this or any other wetlands application.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p><b>2. Will the proposed activity impact a bog, marsh, sand dune, flat, tidal wetland, undisturbed tidal buffer zones, a wetland or species identified in the Natural Heritage Inventory, or is the proposed activity in or adjacent to designated prime wetlands or within a quarter mile of a N.H. designated river?</b></p> <p>If you answered "Yes" to Item 2, you cannot use this form and must file a <u>Wetland Permit Application</u>. No work may be conducted in the above areas until a permit is issued and posted. If you answered "No," continue to Items 3 and 4.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p><b>3. Will the work be conducted in the dry, either at low water periods or behind temporary diversions described in BMP #11 within <u>Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire (2004)</u>?</b></p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4. If you are proposing to dredge roadside ditches, do the ditches have all three of the following characteristics: they are manmade, they run parallel with the roadway and they have a defined channel and banks?</b></p> <p>If you answered "No" to either Items 3 or 4, you cannot use this form and must file a <u>Wetland Permit Application</u>. No work may be conducted in the above areas until a permit is issued and posted. If you answered "Yes," continue to Item 5.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>5. Will the proposed activity:</b></p>	
<p>a) Include work on a crossing having multiple culverts?</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>b) Extend an existing culvert more than 10 feet at the inlet or outlet?</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>c) Replace a culvert larger than 48 inches in diameter, or</p> <ul style="list-style-type: none"> <li>• increase the diameter more than 50%, or</li> <li>• increase the diameter to more than 48 inches?</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>d) Relocate or skew (realign) an existing culvert such that the:</p> <ul style="list-style-type: none"> <li>• distance from the old location of the inlet to the new location of the inlet, added to the distance from the old location of the outlet to the new location of the outlet, total more than 50 linear feet; or</li> <li>• total length of seasonal streambed channel to be filled (including riprap at outlet) is more than 50 linear feet measured along the thread of the channel; or</li> <li>• culvert being skewed (realigned) is in a perennial stream?</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>e) Is the work proposed to roadside ditches that carry a perennial stream?</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>f) Is the work proposed stabilizing an embankment adjacent to a perennial stream, river, lake or pond?</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>If you answered "Yes" to any of questions in Item 5a-5f, you cannot use this form and must file a <u>Wetland Permit Application</u>. No work may be conducted in the above areas until a permit is issued and posted. (see: <a href="http://des.nh.gov/organization/divisions/water/wetlands/categories/permits.htm">http://des.nh.gov/organization/divisions/water/wetlands/categories/permits.htm</a>). If you answered "No," to all of the questions in Items 5a-5f, continue to Item 6.</p>	

Please mail pages 1 and 2 of this form with all attachments to the address at the bottom of this page. You may proceed with the proposed activity 5 days after NHDES' receipt of a complete notification. General Conditions specified on page 3 apply to all projects. Monitor your notification status at: <http://des.nh.gov/onestop/index.htm> and write the file number on the top of page 1.

[gino.infascelli@des.nh.gov](mailto:gino.infascelli@des.nh.gov) or (603) 271-4194  
NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095  
[www.des.nh.gov](http://www.des.nh.gov)

<b>6. ACTIVITY SPONSOR (CHOOSE ONE)</b>			
<input type="checkbox"/> NHDOT MAINTENANCE DISTRICT (SPECIFY):		<input checked="" type="checkbox"/> STATE AGENCY (SPECIFY): State of NH/NHDOT	
<input type="checkbox"/> MUNICIPALITY (SPECIFY):		<input type="checkbox"/> OWNER OF PRIVATE RAILWAY	
<input type="checkbox"/> OWNER OF PRIVATE DRIVEWAY or ROADWAY		<input type="checkbox"/> OTHER (SPECIFY):	
<b>7. OWNER</b>			
LAST NAME, FIRST NAME, M.I.: State of New Hampshire/NHDOT			
MAILING ADDRESS: 7 Hazen Drive		TOWN/CITY: Concord	STATE: NH ZIP CODE: 03302
PHONE: 603-271-7421		FAX: or EMAIL: tobey.reynolds@dot.nh.gov (this is how DES will contact you)	
<b>8. AUTHORIZED REPRESENTATIVE</b>			
LAST NAME, FIRST NAME, M.I.: Theriault, Joanne E.			
MAILING ADDRESS: Hoyle, Tanner & Associates, Inc. 150 Dow Street		TOWN/CITY: Manchester	STATE: NH ZIPCODE: 03101
PHONE: 603-669-5555		FAX: or EMAIL: jtheriault@hoyletanner.com (this is how DES will contact you)	
<b>9. LOCATION OF THE PROPOSED ACTIVITY</b>			
ADDRESS: Various		ST. NAME: Route 101	TOWN/CITY: Keene
TAX MAP(S): n/a		LOT NUMBER(S): n/a	
IF NO ADDRESS, THE DISTANCE IS 1.9 miles TO THE INTERSECTION OF ST.			
JURISDICTIONAL AREA WHERE WORK IS PROPOSED: (CHECK ALL THAT APPLY)			NAME OF WATER BODY(IES), IF APPLICABLE: The Branch
<input checked="" type="checkbox"/> WETLAND			
<input type="checkbox"/> INTERMITTENT / SEASONAL STREAM			
<input type="checkbox"/> UN-NAMED PERENNIAL STREAM (LIMITED PROJECT TYPES)			
<p>PROVIDE A BRIEF DESCRIPTION OF EACH ACTIVITY AND THE LOCATION AT WHICH IT WILL OCCUR: The NHDOT is proposing a resurfacing project for 23.5 miles of Tier 2 roadway in eight sections all within NHDOT Management Districts 4 and 5. The project will include pavement treatments associated with pavement preservation and rehabilitation, some guardrail replacement, signing, pavement marking and drainage improvements all within the existing right-of-way. This application covers a 1.8-mile segment on Route 101 in Keene. There are four locations in this segment where drainage improvements are proposed within jurisdictional areas:</p> <ol style="list-style-type: none"> <li>1. There is a 15" RCP culvert located 210' east of mile marker 3.0 on Route 101. The outlet currently has a separation at its last joint, and NHDOT proposes to reset 8 linear feet at the outlet end and replace the headwall. The proposed work includes temporary impacts to the bank of The Branch.</li> <li>2. There is a 15" culvert located 360' east of mile marker 3.0 on Route 101. The outlet currently has a separation at its last joint, and NHDOT proposes to reset 4 linear feet at the outlet end. The proposed work includes temporary impacts to the bank of The Branch.</li> <li>3. There is an 18" culvert located 70' east of mile marker 3.2 on Route 101. The outlet currently has a separation along the entire pipe, and NHDOT proposes to replace 50 linear feet of the culvert with a similar 18" pipe and replace the existing headwall. The proposed work includes temporary impacts to the bank of The Branch.</li> <li>4. There is a 15" culvert located 360' east of County Jail Road on Route 101. The is currently a separation at the last joint of the outlet, and NHDOT proposes to replace 4 linear feet of culvert with a similar 15" pipe. The proposed work includes temporary impacts to a riparian wetland associated with Minnewawa Brook.</li> </ol>			
<b>10. ROUTINE MAINTENANCE ACTIVITY COVERED BY ROADWAY BMP MANUAL (CHECK ALL THAT APPLY)</b>			
<input type="checkbox"/> CULVERT EXTENSION		<input type="checkbox"/> RELOCATING AN EXISTING CULVERT	
<input type="checkbox"/> EMBANKMENT STABILIZATION		<input checked="" type="checkbox"/> REPLACING A SINGLE CULVERT CROSSING	
<input checked="" type="checkbox"/> HEADWALL REPAIR, REPLACEMENT AND CONSTRUCTION		<input type="checkbox"/> ROADSIDE DITCH MAINTENANCE	
<b>11. ATTACH A USGS TOPOGRAPHICAL MAP (AT ITS ORIGINAL SCALE WITH THE PROPOSED WORK AREA LOCATIONS CLEARLY IDENTIFIED)</b>			
<b>12. ATTACH SKETCHES OF DESIGN (CONSTRUCTION DESIGN INCLUDING A LISTING OF BMP'S TO BE USED DURING CONSTRUCTION, SEE THE MANUAL FOR FURTHER INFORMATION)</b>			
<b>13. ATTACH COLOR PHOTOGRAPHS (MOUNTED ON 8 1/2X11 INCH PAPER, OF THE PROPOSED WORK SITES SHOWING EXISTING STRUCTURES, SURROUNDING LAND, AND JURISDICTIONAL AREAS)</b>			

[gino.infascelli@des.nh.gov](mailto:gino.infascelli@des.nh.gov) or (603) 271-4194  
 NHDES Wetlands Bureau, 29 Hazen Drive, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095  
[www.des.nh.gov](http://www.des.nh.gov)

Document Path: K:\092589\_01\3-GIS\USGS Location Maps\Keene Locus Map.mxd



		150 Dow Street Manchester, NH 03101-1227 Tel 603-669-5555 Fax 603-669-4168 Web Page www.hoyletanner.com	KEENE, NH SEGMENT NHDOT T2 WEST PAVING PROJECT	MAP  <b>1</b>
DR. BY jtheriault	DATE 12/14/2017	SCALE 1 inch = 1,280 feet	PROJECT LOCATION MAP	



NEW HAMPSHIRE NATURAL HERITAGE BUREAU  
NHB DATACHECK RESULTS LETTER

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**To:** Joanne Theriault, Hoyle, Tanner & Associates, Inc.  
Hoyle, Tanner & Associates, Inc.  
150 Dow Street  
Manchester, NH 03101

**From:** NH Natural Heritage Bureau

**Date:** 10/2/2017 (valid for one year from this date)

**Re:** Review by NH Natural Heritage Bureau of request submitted 9/25/2017

VALID ONLY FOR NOTIFICATION OR MINIMUM EXPEDITED  
APPLICATIONS SUBMITTED TO THE NHDES WETLANDS BUREAU

**NHB File ID:** NHB17-2965

**Applicant:** Joanne Theriault

**Location:** Multiple  
8 locations in multiple towns equalling approximately 24 miles of  
roadway

**Project**

**Description:** This request covers the NHDOT Statewide 41534 Paving West T2  
project. NHDOT proposes pavement preservation and rehabilitation  
of approximately 24 miles of roadway sections. No impacts are  
anticipated outside the existing road rights-of-way.

The NH Natural Heritage database has been checked by staff of the NH Natural Heritage Bureau and/or the NH Nongame and Endangered Species Program for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government.

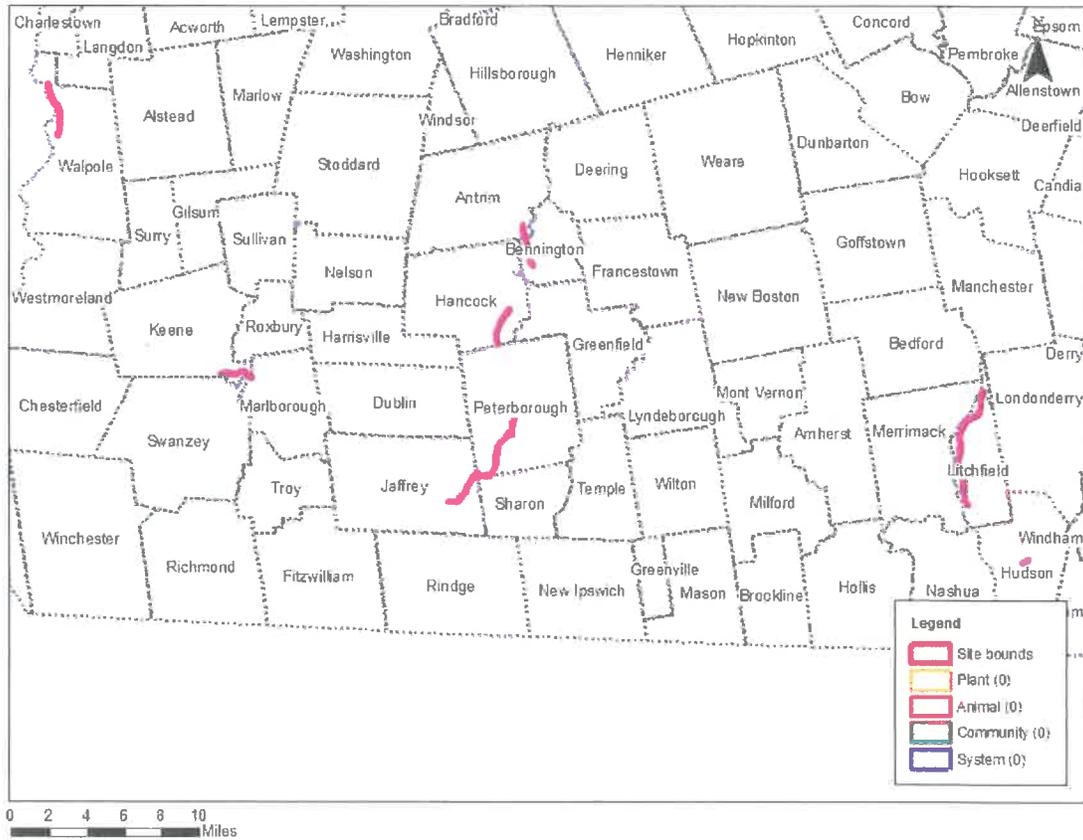
It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 9/25/2017, and cannot be used for any other project.



NEW HAMPSHIRE NATURAL HERITAGE BUREAU  
NHB DATA CHECK RESULTS LETTER

MAP OF PROJECT BOUNDARIES FOR: **NHB17-2965**

**NHB17-2965**



**Routine Roadway and Railway Maintenance Activities Notification**  
**210' East of Mile Marker 3.0 on Route 101, Keene, NH**  
**Site Photos**

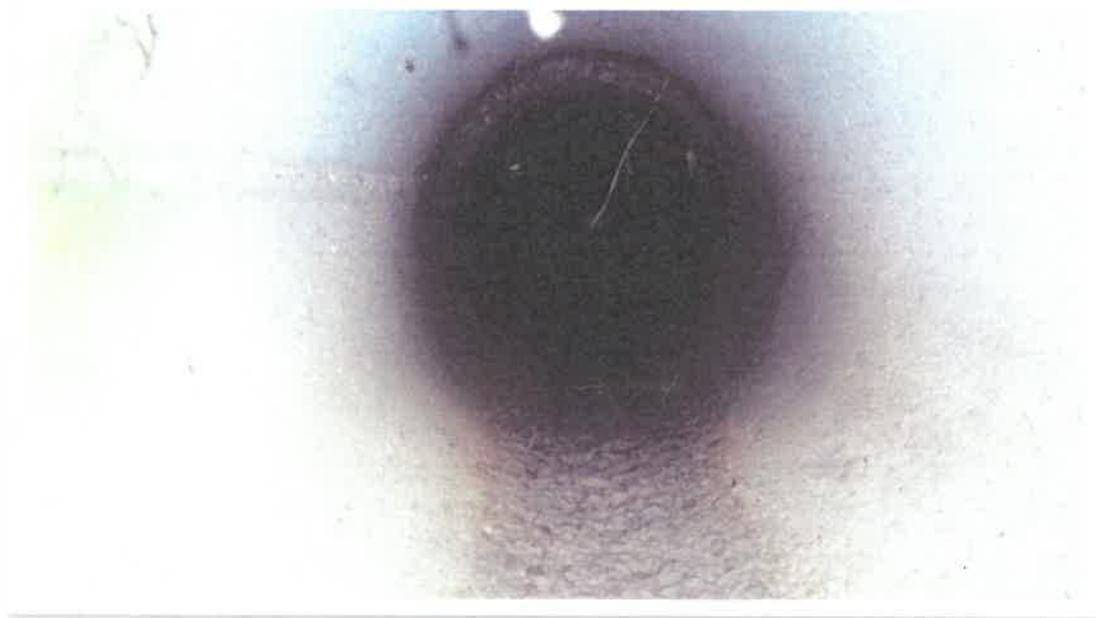


15" RCP Outlet Area – Southern Bank of The Branch



15" RCP Outlet and Headwall – Southern Bank of The Branch

**Routine Roadway and Railway Maintenance Activities Notification**  
**210' East of Mile Marker 3.0 on Route 101, Keene, NH**  
**Site Photos**



15" RCP Outlet – Joint Separation

**Routine Roadway and Railway Maintenance Activities Notification**  
**360' East of Mile Marker 3.0 on Route 101, Keene, NH**  
**Site Photos**



15" RCP Outlet Area – Southern Bank of The Branch



15" RCP Outlet – Southern Bank of The Branch

**Routine Roadway and Railway Maintenance Activities Notification**  
**360' East of Mile Marker 3.0 on Route 101, Keene, NH**  
**Site Photos**



15" RCP Outlet – Joint Separation

**Routine Roadway and Railway Maintenance Activities Notification**  
**70' East of Mile Marker 3.2 on Route 101, Keene, NH**  
**Site Photos**

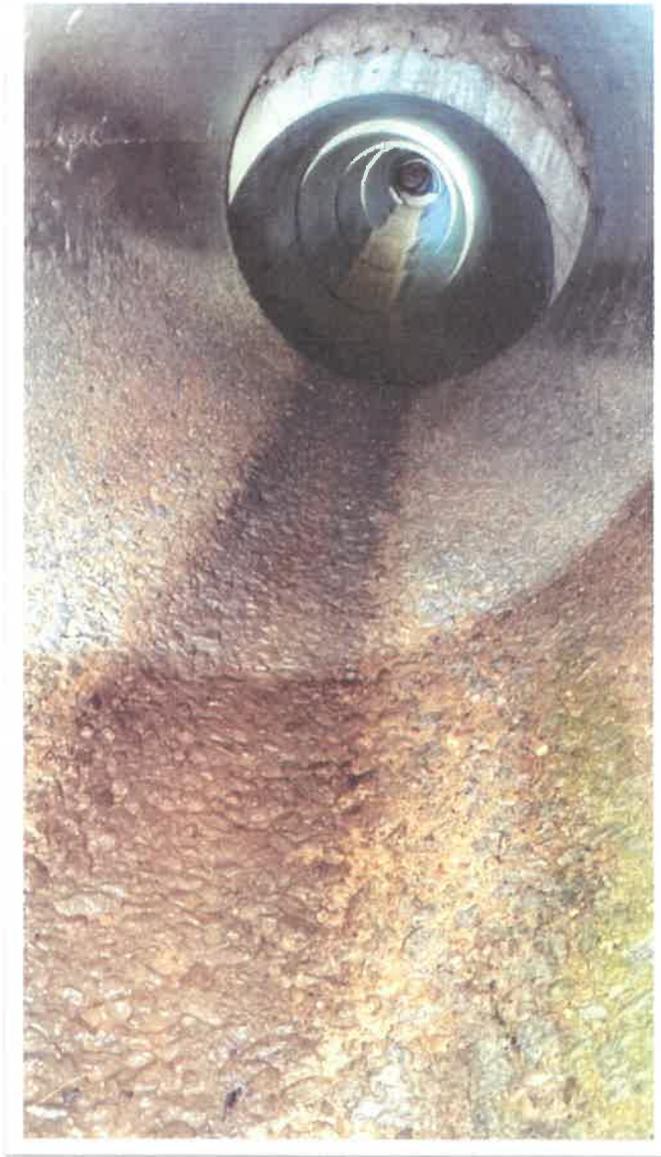


18" RCP Outlet Area – Southern Bank of The Branch



18" RCP Outlet and Headwall– Southern Bank of The Branch

**Routine Roadway and Railway Maintenance Activities Notification**  
**70' East of Mile Marker 3.2 on Route 101, Keene, NH**  
**Site Photos**



**18" RCP Outlet – Segment Separation**

**Routine Roadway and Railway Maintenance Activities Notification**  
**360' East of County Jail Road on Route 101, Keene, NH**  
**Site Photos**



15" RCP Outlet Area – Riparian Wetland Associated with Minnewawa Brook



15" RCP Outlet – Joint Separation

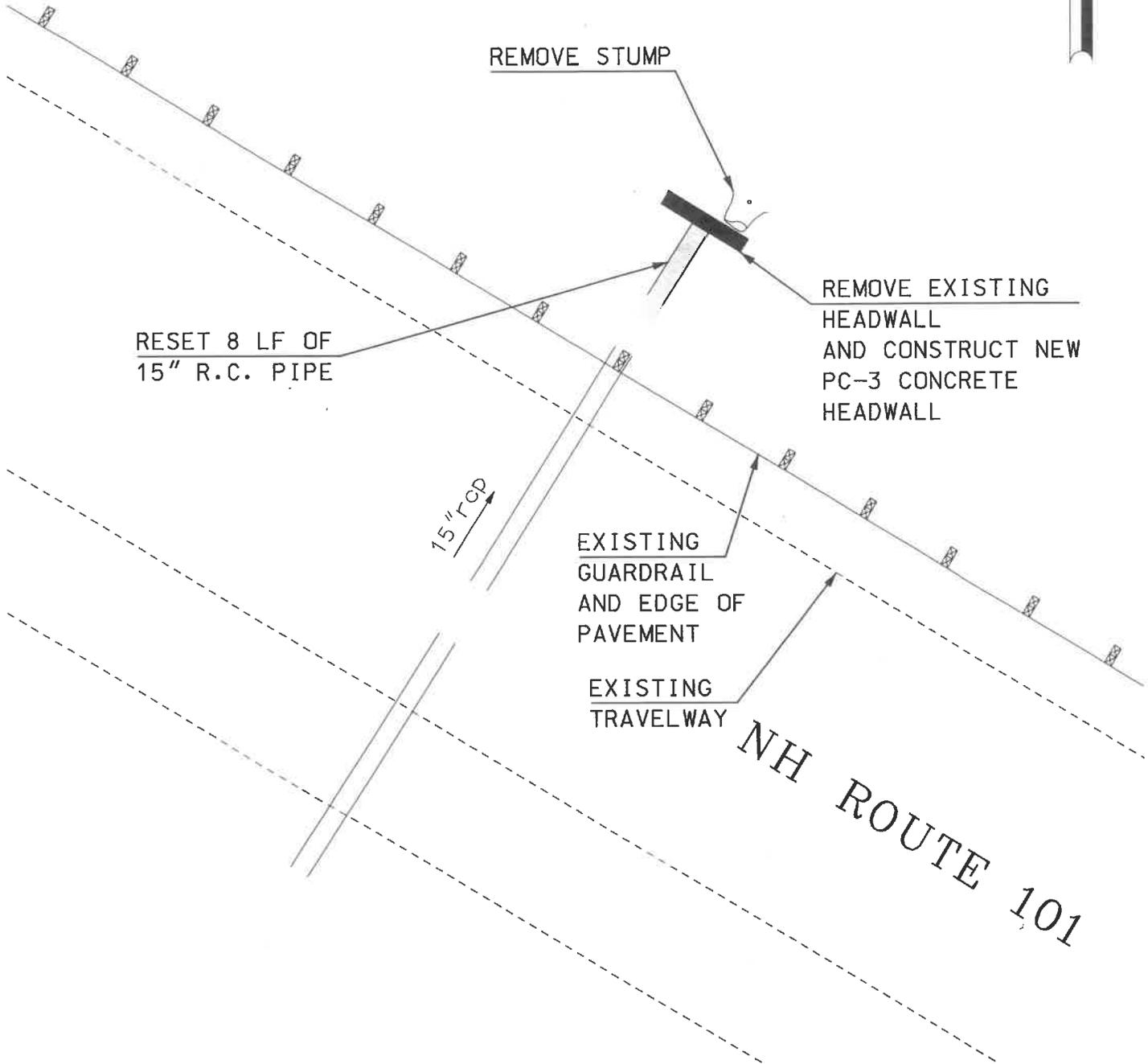
**Routine Roadway and Railway Maintenance Activities Notification**  
**360' East of County Jail Road on Route 101, Keene, NH**  
**Site Photos**



15" RCP Outlet– Riparian Wetland Associated with Minnewawa Brook

**APPLICABLE BMP'S:**

- BMP 5 - SANDBAGS
- BMP 7 - SEEDING
- BMP 8 - SILT FENCE
- BMP 10 - STRAW OR HAY BALES
- BMP 11 - TEMPORARY DIVERSIONS
- BMP 12 - TOPSOILING



RESET 8 LF OF  
15" R.C. PIPE

REMOVE STUMP

REMOVE EXISTING  
HEADWALL  
AND CONSTRUCT NEW  
PC-3 CONCRETE  
HEADWALL

15" RCP

EXISTING  
GUARDRAIL  
AND EDGE OF  
PAVEMENT

EXISTING  
TRAVELWAY

NH ROUTE 101

**CULVERT IS LOCATED  
210'± EAST OF  
MILE MARKER 3.0**

**PARTIAL CULVERT  
RESET AND  
HEADWALL REPLACEMENT  
AT SAME LOCATION**

NOT TO SCALE

**Hoyle, Tanner**  
Associates, Inc.

HTA PROJECT NO. 092589.01	56 of 64 MODEL	WET01
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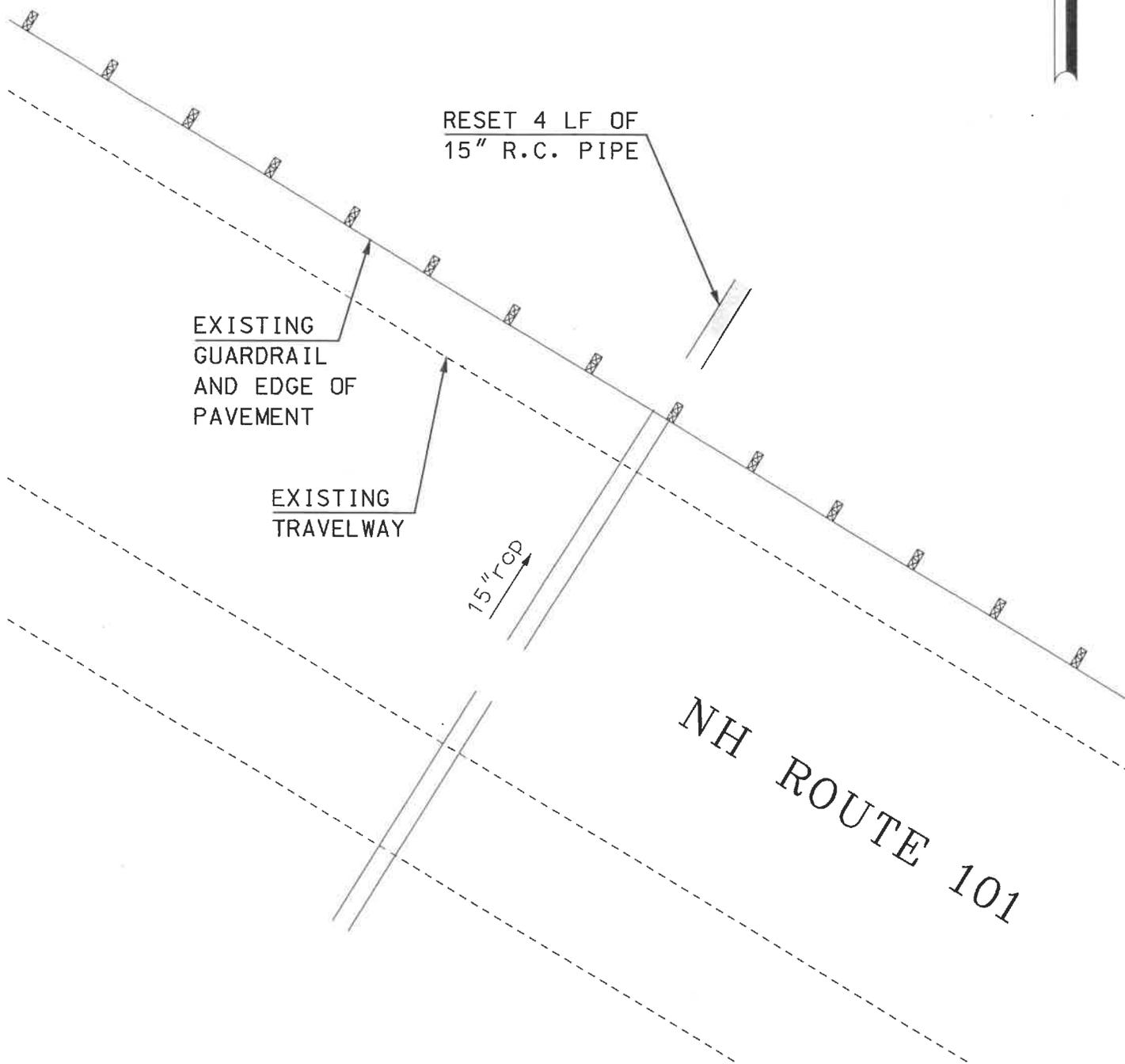
STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN			

**WETLAND IMPACT PLANS  
(KEENE)**

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41534wetp1ans	41534	1	4

**APPLICABLE BMP'S:**

- BMP 5 - SANDBAGS
- BMP 7 - SEEDING
- BMP 8 - SILT FENCE
- BMP 10 - STRAW OR HAY BALES
- BMP 11 - TEMPORARY DIVERSIONS
- BMP 12 - TOPSOILING



NH ROUTE 101

**CULVERT IS LOCATED  
360' ± EAST OF  
MILE MARKER 3.0**

PARTIAL CULVERT  
RESET AT  
SAME LOCATION

NOT TO SCALE

**Hoyle, Tanner**  
Associates, Inc.

STATE OF NEW HAMPSHIRE  
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

**WETLAND IMPACT PLANS  
(KEENE)**

HTA PROJECT NO. 57 of 64	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092589.01	WET02	41534wetplans	41534	2	4

**APPLICABLE BMP'S:**

- BMP 5 - SANDBAGS
- BMP 7 - SEEDING
- BMP 8 - SILT FENCE
- BMP 10 - STRAW OR HAY BALES
- BMP 11 - TEMPORARY DIVERSIONS
- BMP 12 - TOPSOILING



REMOVE EXISTING  
HEADWALL AND  
CONSTRUCT NEW PC-3  
CONCRETE HEADWALL

EXISTING  
GUARDRAIL  
AND EDGE OF  
PAVEMENT

EXISTING  
TRAVELWAY

NH ROUTE 101

REPLACE EXISTING  
CULVERT WITH NEW  
18" R.C. PIPE

18" RCP

**CULVERT IS LOCATED  
70'± EAST OF  
MILE MARKER 3.2**

CULVERT AND  
HEADWALL REPLACEMENT  
AT SAME LOCATION

NOT TO SCALE

**Hoyle, Tanner**  
Associates, Inc.

HTA PROJECT NO. 58 of 64 MODEL  
092589.01 WET03

STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN			
<b>WETLAND IMPACT PLANS (KEENE)</b>			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41534wetplans	41534	3	4

APPLICABLE BMP'S:

- BMP 5 - SANDBAGS
- BMP 7 - SEEDING
- BMP 8 - SILT FENCE
- BMP 10 - STRAW OR HAY BALES
- BMP 11 - TEMPORARY DIVERSIONS
- BMP 12 - TOPSOILING



TO COUNTY  
JAIL ROAD

RESET 4 LF OF  
15" R.C. PIPE

15" RCP

EXISTING  
GUARDRAIL  
AND EDGE OF  
PAVEMENT

NH ROUTE 101

EXISTING  
TRAVELWAY

**CULVERT IS LOCATED  
360' ± EAST OF  
COUNTY JAIL ROAD**

PARTIAL CULVERT  
RESET AT  
SAME LOCATION

NOT TO SCALE

**Hoyle, Tanner**  
Associates, Inc.

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

**WETLAND IMPACT PLANS  
(KEENE)**

HTA PROJECT NO.	59 of 64	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092589.01		WET04	41534wetplans	41534	4	4

**CHAPTER 2 DIVISION 7 (Of the Keene City Code Of Ordinances) -  
CONSERVATION COMMISSION**

*State Law reference— Conservation commission, RSA 36-A:2.*

**Sec. 2-771. - Membership.**

The conservation commission shall consist of seven members.

*(Code 1970, § 0807.1)*

**Sec. 2-772. - Terms.**

Each member of the conservation commission shall have a three-year term. Terms of the members shall be staggered so that two members shall be appointed in January of each year.

*(Code 1970, § 0807.2)*

**Sec. 2-773. - Relation to department head.**

The planning director shall report to the conservation commission on the activities of his office concerned with conservation. The planning director shall also advise the commission of his considered judgment concerning matters before the commission or matters which should come before the commission.

*(Code 1970, § 0807.3)*

**Sec. 2-774. - Powers, duties and guidelines.**

In accordance with the provisions of applicable law, the powers, duties and guidelines in this section are hereby established for the conduct of the conservation commission. The commission shall:

- (1) Promote the development of natural resources in the city and the protection of watershed resources of the city.
- (2) Preserve the best of the city's physical and natural resources, while welcoming well-planned expansion or redevelopment.
- (3) Regard land as an extremely important asset, whose use should be consistent with the long-range community values.
- (4) Prevent a drastic alteration of natural topography, drainage, and scenery without review and public approval.
- (5) Ensure sound conservation practices by providing adequate open space, accesses, wooded areas, meadows, swamps, ponds, trails, paths and brooks in keeping with constructive property management.
- (6) Conduct research into the city's local land areas and seek to coordinate the activities of unofficial bodies organized for similar purposes, and may advertise, prepare, print and distribute books, maps, charts, plans and pamphlets which in its judgment it deems necessary for its work.
- (7) Maintain an index of all open areas with the plan of obtaining information pertinent to proper utilization of such open space within the city, including lands owned by the state or lands owned by a town or city.

- (8) Maintain an index of all open marshlands, swamps and all other wetlands in a like manner, and may recommend to the city council or to the director of planning a program for the better protection, development or utilization of all such areas.
- (9) Receive gifts of property, both real and personal, in the name of the city with the prior approval of the city council. Such gifts are to be managed and controlled by the commission for the purposes of this subsection. The commission may acquire, with the approval of the city council, by gift, purchase, grant, bequest, devise, lease, or otherwise, the fee in such land or water rights, or any lesser interest, development right, easement, covenant, or other contractual right, including conveyances with conditions, limitations or reversions, as may be necessary to acquire, improve, protect, limit the future use of, or otherwise conserve and properly utilize open spaces and other land and water areas within the city, and it shall manage and control such. The city shall not have the right to condemn property for these purposes, except insofar as permitted by other statutes.
- (10) Receive appropriations from the city council for establishing and maintaining the conservation commission to promote the development and better utilization of our natural resources. The whole or any part of money appropriated by the city council in any year may be placed in a conservation fund and allowed to accumulate with interest, from year to year. All funds of the commission shall be accounted for by the city through the finance director and the trustees of trust funds. Money may be expended from such fund for the purpose of this division by the commission, with the approval of the city council.
- (11) Advise the planning director on matters in his office concerned with conservation.
- (12) Hear citizen comments about the operation of the commission and the matters in the office of the city planner concerned with conservation practices.
- (13) Advise the city manager and city council in all matters in accordance with this chapter.
- (14) Recommend general policies regarding the conservation function in the office of the city planner except those powers specifically reserved to the city manager in the Charter and this chapter.
- (15) Act as a publicizing agent bringing conservation programs and problems of conservation management and control to the notice of the public.
- (16) Have charge and general management over the conservation functions in the city as far as is consistent with the Charter, this Code, and state statutes.
- (17) Inform itself thoroughly of the planning director's conservation activities and contemplated improvements.
- (18) Assist in developing and stating objectives and goals for community improvement.
- (19) Survey community resources, public and private, present or needed, for achieving the determined goals for improvement.
- (20) Pursue the means for achieving the determined goals for improvement.
- (21) Serve as the catalyst for bringing private resources into the program; receive gifts of money and property, both real and personal, in the name of the city, subject to the specific approval of the city council, and allocate such gifts in a prudent manner for the fulfillment of the commission function.
- (22) Transfer all trust funds which may be donated or bequeathed for the conservation function to the custody of the trustees of trust funds.

- (23) Designate a member of the commission to appear before other boards or city council committees to testify on matters of concern to the commission.
- (24) Develop active regional cooperation on conservation programs.
- (25) Make certain, in cooperation with other boards and the city council, that pollution control practices are incorporated into consideration of conservation programs.
- (26) Study and recommend methods of financing proposed improvements in the conservation functions of the city.
- (27) Appear before state and federal agencies to request financial assistance for public health and inspections programs, or to advocate changes in state laws and federal regulations as they affect the ability of the commission to carry out its functions.
- (28) Perform such other related functions as required by the city council or requested by the city manager.

*(Code 1970, § 0807.4)*

**State Law reference**— Powers and duties, RSA 36-A:1.  
Secs. 2-775—2-800. - Reserved.

**CITY OF KEENE CONSERVATION COMMISSION**  
**LAND PROTECTION CRITERIA**  
**DRAFT**

*Land that supports or enhances the following resources/features should be a priority for the City of Keene Conservation Commission as it makes recommendations to the City Council on land protection and conservation.*

1. Water Resources
  - a. Frontage on rivers, streams, lakes, ponds, and reservoirs
  - b. Land overlying aquifers and aquifer recharge areas
  - c. Wetlands, floodplains, buffer areas, and riparian zones
  
2. Forest Resources
  - a. Tracts of woodland with sufficient size, appropriate soils, and other attributes that support responsible forest management, including the production of timber and other forest products.
  - b. Steep slopes (slopes with grades greater than 15%)
  - c. Urban forests
  - d. Large un-fragmented blocks of forests
  
3. Agricultural Resources
  - a. Farmlands and open fields with prime soils and other attributes that support agriculture or have the potential to support agriculture.
  - b. Land well suitable for agriculture that do not have prime soils
  - c. Urban agriculture
  
4. Wildlife and Natural Areas
  - a. Large tracts of undeveloped habitat and corridors important for wildlife
  - b. Land containing ecologically significant or rare natural communities or species
  - c. Priority land as identified in the New Hampshire Wildlife Action Plan, Natural Resource Inventories, or existing Land Management Plans
  - d. Other lands which increase the diversity and viability of wildlife populations, including fields, riparian areas, land contiguous to existing protected natural areas, and land that can serve as a buffer to developed areas
  
5. Cultural, Recreational, and Scenic Value
  - a. Land that offers opportunities for appropriate outdoor recreation by the public
  - b. Scenic views, ridgelines, and other aesthetic areas
  - c. Landscapes that preserve the region's cultural and historic heritage
  - d. Land that promotes connectivity of recreational networks
  
6. Collaboration and Leverage
  - a. Land where there are multiple entities (e.g. surrounding towns or local organizations) willing to collaborate on protection/conservation efforts
  - b. Land that is vulnerable to development pressure
  - c. Land where there are landowners willing to support conservation and protection



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January 2, 2018

City of Keene  
Keene Conservation Commission  
3 Washington St.  
Keene, NH 03431

Dear Friends,

Your organization's annual membership in the Society for the Protection of New Hampshire Forests is coming up for renewal. We are grateful for your continued support.

During the past year, we conserved more than 2,000 acres through 14 different projects across the state. **With your help, the Forest Society recently –**

- Created a new 192-acre reservation where the towns of Madbury, Lee, and Durham all meet – the Powder Major's Farm and Forest – which features an extensive trail system, nearly a mile of frontage on the Oyster River, and the highest quality wildlife of its kind in the state.
- Continued our commitment to preserving the forested landscape of Mount Kearsarge and Black Mountain by acquiring a 233-acre addition to the Black Mountain Forest Reservation. Pristine wild trout habitat and old-growth forest are among the natural resources that will be protected by this purchase.
- Completed the protection of seven parcels totaling 1,393 acres that the town of Milan worked to acquire and conserve for a community forest. Forest Society-held easements will guarantee public access and ensure that forestry on the properties will be done to the highest standards.
- Trained 20 new land stewards who joined our nationally recognized Land Steward Program, now stronger than ever with 174 dedicated volunteers helping to manage and care for our reservations.

Our work continues with land purchases and conservation easements across New Hampshire, and our commitment to the long-term stewardship of the lands we protect. In addition to our ongoing policy advocacy at the state and federal levels, we continue to be a staunch opponent of the proposed Northern Pass private transmission line that would scar much of our landscape, including key conservation lands.

**Please take a minute right now to renew.** That way, your dues will go right back to work – protecting New Hampshire's most beautiful and threatened lands for you and future generations to enjoy.

With thanks in advance,

Jane A. Difley  
President / Forester



JD:oa

