

## **D. Soils**

Soils vary for a variety of reasons. Parental material, climate, topography, biology and time all play a part in shaping the character of soils. Soils are broken down into a multitude of classifications, each having their own unique qualities based upon county soil surveys. Understanding soils is a gateway to understanding the limitations or opportunities they present for land use and development.

Wise land use decisions can only be made through proper awareness of the types of soils existing in an area, and their specific, unique qualities. The Natural Resources Conservation Service provides extensive information about soils and offers help to landowners. The soils in Raymond have developed over time from complex interactions of climate, topography, and surficial materials. Since the surface materials of Raymond are primarily made up of glacial till, many of the soils tend to be moist and/or stony with areas of high water table, shallow ledge or ledge outcroppings. In areas where there is stratified drift, the soils tend to have more sand and gravel and better drained

The majority of soil information gathered for this master plan is drawn from the United States Department of Agriculture's Soil Conservation Service which conducted a Soil Survey of Rockingham County in 1985. The Rockingham County Soil Survey is the major source of soils and geologic information pertaining to planning within the region and was used to conduct research for the previous Master Plan of the Town of Raymond completed in 2002.

### **Soil Potential Ratings**

In 1987, the Rockingham County Conservation District, working with local, regional and state officials developed soil potential ratings indicating the relative ranking of a given soil for development. The overall potential is based on the suitability rating for three uses: septic system absorption fields; dwellings with basements; and local roads and streets. This soil potential rating information is shown on Map 18. Many communities use this map as a guide in the review of development proposals to regulate the placement of septic systems, dwellings and roads on slopes generally exceeding 15 percent.

The "Soils Potential for Development" handbook lists detailed development potential estimates for each type of soil found in Rockingham County.<sup>73</sup> A total of five soil potential categories are identified on Raymond's Soil Potential for Development Map. These categories range from very high to very low based on a number of factors. These factors include depth to bedrock, depth to water table, flooding potential, permeability of the septic system absorption field, slope, and stone content of the surface.

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<sup>73</sup> Soil Potential for Development, Rockingham County, New Hampshire, US Department of Agriculture, Soil Conservation Service, May, 1987.

# Map #18

## Soil Potential for Development

### TOWN OF RAYMOND

- Town Boundaries
- Parcel Boundaries

#### Road Systems

- Highways
- State Routes
- Town, Local, and Private Roads

Brooks and Rivers

Lakes and Reservoirs

#### Soil Potential Ratings for Development\*

- Very High
- High
- Medium
- Low
- Very Low
- Low - Poorly Drained
- Wetland Soil
- Very Low - Very Poorly Drained Wetland Soil

\*Soil Potential Ratings were calculated from the Soil Potential for Development; Rockingham County Report from the Rockingham County Conservation District 1987

Data Sources:  
NH GRANIT Digital Data (1:24,000)  
NH Department of Transportation  
Town of Raymond  
SNHPC

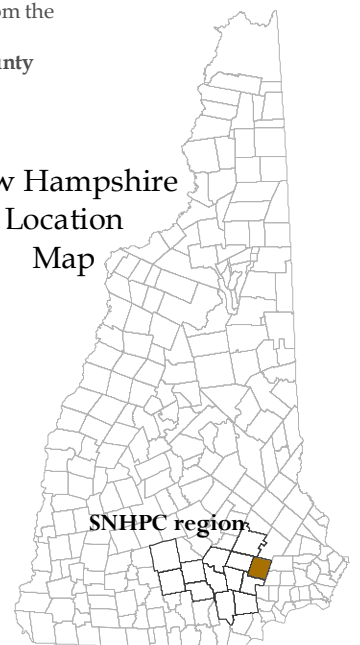
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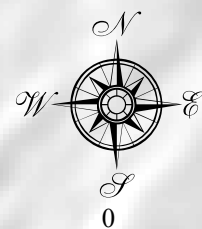
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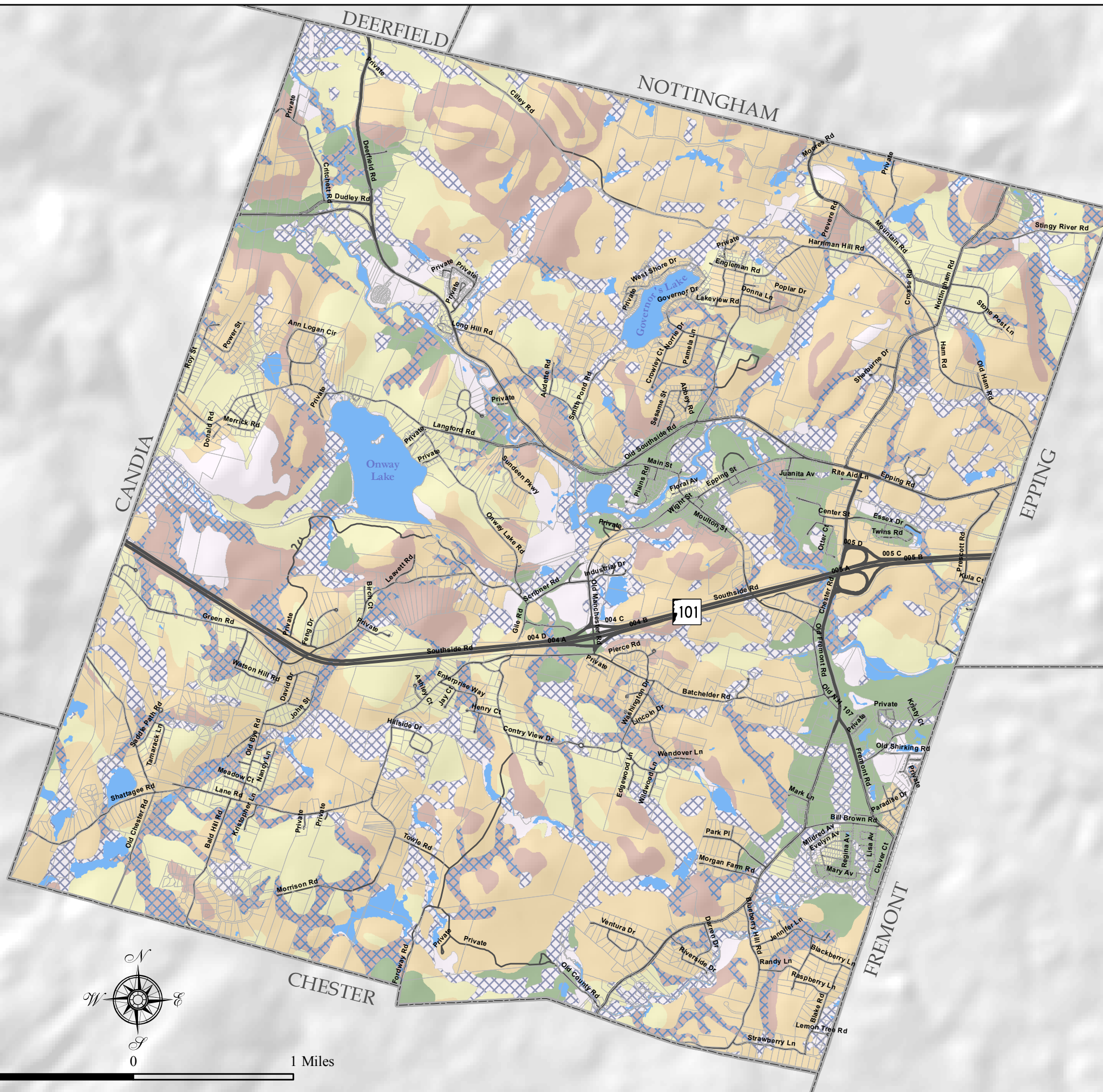
New Hampshire  
Location  
Map



SNHPC region



1 Miles



**Very-high potential** means site conditions and soil properties are favorable. Installation or management costs are low, there are few or no soil limitations, soil properties are similar to those in reference soil.

**High-potential** means site conditions and soil properties less favorable than reference soil. Costs to overcome soil limitations are slightly higher than for very-high potential.

**Medium-potential** means site conditions and soil properties are below the reference soil, the very-high potential soil, and the high potential soil. Costs of measures to overcome soil limitations are significant.

**Low-potential** means site conditions and soil properties are significantly worse than those of the reference soil. Costs of measures to overcome soil limitations are very high.

**Very-low potential** means there are severe soil limitations. The costs of measures to overcome the limitations are extremely high or prohibitive

The reference soil for a septic system absorption field is on a five percent slope. The depth to high-water table and bedrock is more than 10 feet. Stones and boulders make up less than three percent of the surface. Percolation rate is 12 to 15 minutes an inch. The area is not subject to flooding.

The reference soil for a dwelling with basement is well-drained; that is, the water table is more than six feet below the surface, and is not subject to flooding. Bedrock is deeper than six feet. Stones and boulders make up less than three percent of the surface. Slopes are less than eight percent.

The reference soil for a local road or street is on a two percent slope. Depths to bedrock and the water table are greater than six feet, rocks and stones make up less than three percent of the surface. The area does not flood.



# Conservation and Town Owned Property


## TOWN OF RAYMOND


 Town Boundaries

### Road Systems

 Highways

 State Routes

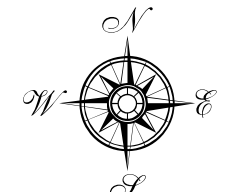
 Town, Local, and Private Roads

 Brooks and Rivers

 Lakes and Reservoirs

 Conservation Lands

 Ground Water Conservation District



1 0 1 Miles

Data Sources:  
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NH Department of Transportation  
Town of Raymond  
SNHPC

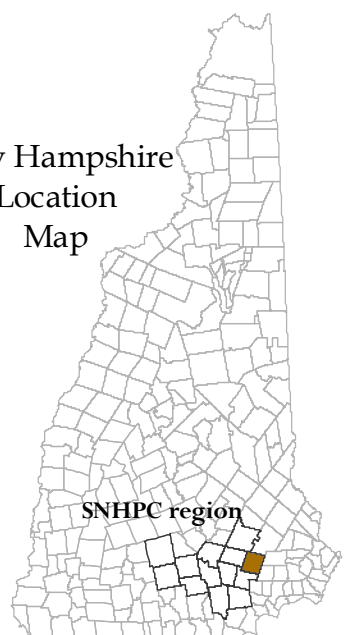
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New Hampshire  
Location  
Map



SNHPC region



## E. Wetlands

Wetlands are now defined by the US Army Corps of Engineers and NH Statutes as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that, under normal conditions, do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Wetlands generally include swamps, marshes, bogs, and similar areas and usually occur near ponds, rivers, streams and in isolated upland depressions and around vernal pools. Wetlands are valuable natural resources which provide many functions, including flood control by storing water during periods of high runoff. Wetlands slowly release excess water downstream, which subsequently prevents hazardous flooding. In addition, wetlands act to:



**Cattail**

- Reduce flood peaks
- Provide a settling basins for sediment generated by erosion
- Filter pollution (wetlands vegetation utilize some pollutants as nutrients)
- Recharge groundwater and streams
- Provide wildlife habitat, food, cover, and nesting and breeding sites<sup>74</sup>

Wetlands vary in their individual functions and values, including ecological integrity, wildlife habitat, water quality, nutrient attenuation, sediment trapping, flood storage, groundwater recharge, visual/aesthetic quality, etc. These functions and values are determined based upon standards set forth by the New Hampshire Method.<sup>75</sup>

The U.S. Department of Agriculture National Resources Conservation Service (NRCS) defines hydric soils as those soils that are significantly wet in the upper part to develop anaerobic conditions during the growing season. Two types of hydric soils exist: Hydric A and Hydric B soils. Hydric A soils are those soils that are classified as very poorly drained. Hydric B soils are those soils that are classified as poorly drained. Water tables lying at or near the surface for seven to nine months out of the year characterize these soils. Hydric soils typically contain wetlands, bogs, marshes and swamps.

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<sup>74</sup> See Raymond Open Space Plan 2003 for full list and additional information

<sup>75</sup> Ammann, A.P. and Stone, A. Lindley. 1991. Method for the Comparative Evaluation of Nontidal Wetlands in New Hampshire. NHDES-WED-1991-3. New Hampshire Department of Environmental Services, Concord, NH.

There are several classifications of wetlands, including but not limited to emergent wetlands, vernal pools, floodplain wetlands and upland wetlands. Emergent wetlands, also called marshes, are usually dominated by perennial vegetation. Emergent wetlands are typically found in either shallow water areas, or in areas that are prone to flooding. Another type of wetland is a vernal pool. Vernal pools are areas that fill with water either when the water table rises, or with melt-water or storm water runoff. In most cases, vernal pools become dry by late summer. Floodplain wetlands are wetlands that are situated within depressions in floodplain areas. Upland wetlands are typically found in higher elevations, and are filled via storm water and melt-water runoff.

The 1993 *Water Resource Management and Protection Plan* for the Town of Raymond delineates poorly drained, very poorly drained, and muck and peat soils that generally are described as wetland areas. On a town-wide basis, poorly drained soils comprise approximately 1,500 acres, and very poorly drained soils, which includes muck and peat soils, comprise about 2,700 acres. Areas of large concentrations of wetlands are found in the Fordway Brook, Lamprey River, Flint Hill, Dudley Brook, and Onway Lake watershed areas.

Wetlands Map 20 provides a composite view of the general location of the wetlands which are scattered throughout the Town of Raymond.<sup>76</sup> The source of the wetlands can be found on the map from the USGS National Wetlands Inventory which is available as a GIS data layer on GRANIT.



**Wetlands along Lamprey River east of NH 102 and 107**

All applications for permits to excavate wetlands are reviewed by the Raymond Conservation Commission before a decision is rendered by the state Wetlands Bureau. The procedural requirements for the delineation of wetlands as provided in the Town of Raymond's Zoning Ordinance, Zone G, Conservation District is:

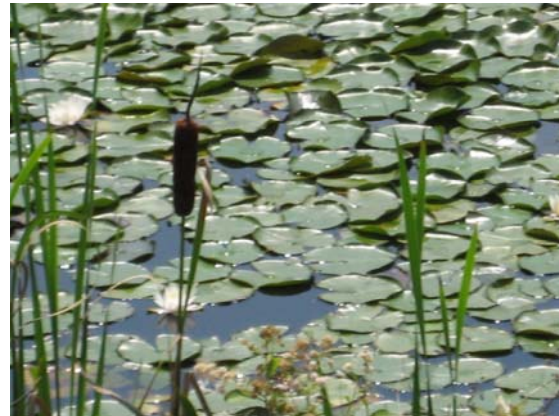
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<sup>76</sup> See Section 7 of the Town of Raymond Open Space Plan 2003.

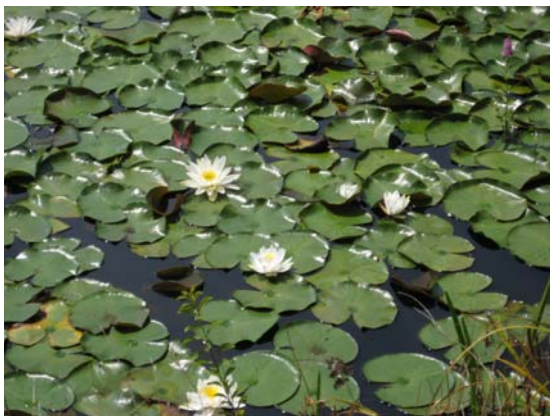


“Location of a wetland boundary in a particular area must be determined by an on-site inspection. This data shall be prepared by a certified soil or wetland scientist using the following methodology: Chapters WT 100-800 of the NH Code of Administrative Rules, April 21, 1997; Regional Field Indicators for Identifying Hydric Soils in New England, New England Interstate Water Pollution Control Commission, 1998; Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, Environmental Laboratory, Dept. of the Army, 1987.”

Currently, the Town of Raymond requires a minimum building setback adjacent to wetlands of only 25 feet. Wetland setbacks in many communities in the state typically range from 50 to 100 feet. Increasing the Town’s wetland setback from 25 to 50 feet should be a priority of this master plan as well as educating the community about the need for protecting wetlands in general.



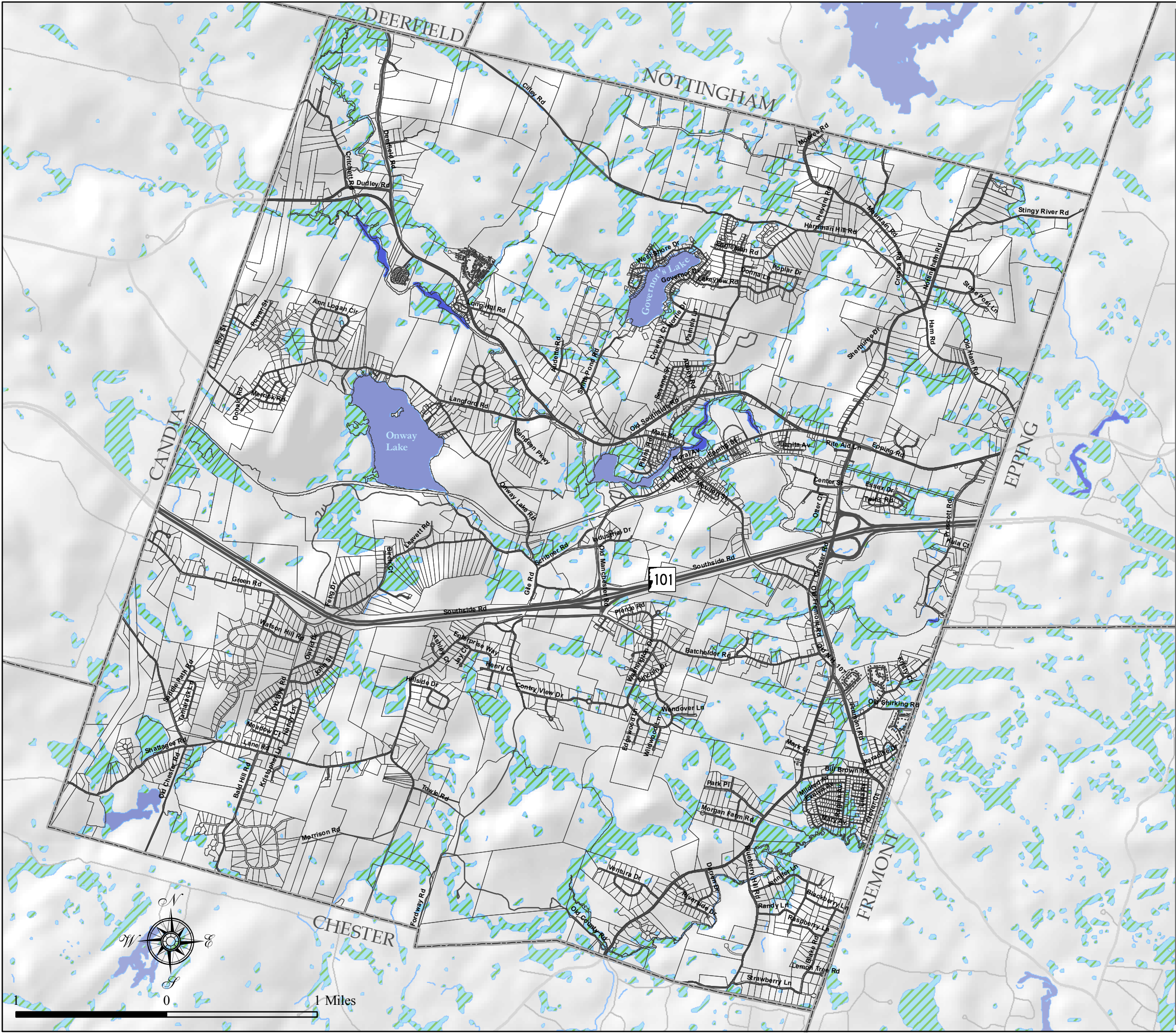
**Cattail and Water Lily**



**Water Lily**

In addition, in the review of development plans and proposals, the Raymond Planning Board should require that all necessary wetland permits are obtained by the applicant before granting final approval of any plan.





Map #20

# Wetlands

## TOWN OF RAYMOND

- Town Boundaries
- Parcel Boundaries
- Road Systems**
  - Highways
  - State Routes
  - Town, Local, and Private Roads
- Streams
- Wetland Type**
  - Lacustrine
  - Raverine
  - Palustrine

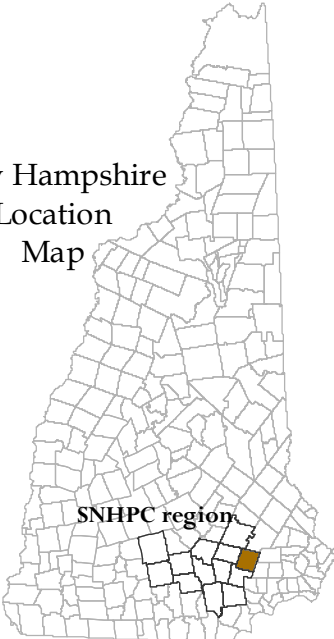
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New Hampshire  
Location  
Map





## **Prime Wetlands**

Currently, the Town of Raymond has not conducted a study of its prime wetlands nor has the town adopted prime wetland regulations. As Raymond continues to grow, the town should consider designating prime wetlands to assure the protection of these valuable natural resources. In addition, the Raymond currently lacks a Natural Resources Inventory; this can be an important first step that can then be used to identify significant wetlands that the town can seek to have designated as prime wetland.

Prime wetlands are simply a higher level of designation of wetlands protection. In order to designate a wetland as prime, a municipality first needs to evaluate the wetlands' functions and values by following the guidelines in the Method for Comparative Evaluation of Non-tidal Wetlands in New Hampshire (a tidal method is also available). After this has been completed, a public hearing must be held and residents must be given an opportunity to vote at Town Meeting whether or not to accept the designation of the wetland as prime. If the measure is passed, the NH Department of Environmental Services (DES) will review the study completed by the town.

If the study is determined to be in compliance with the law, then the wetland is designated as prime. Once a wetland has been designated as prime, then all projects within or adjacent to the wetland, called "major projects," must be field inspected by NH DES staff before work can commence. A public hearing conducted by NH DES on the project must also take place. There are no additional special building setback requirements for designated prime wetlands. However, under RSA 155-E, no excavation shall be permitted within 75 feet of any great pond, navigable river, or any other standing body of water 10 acres or more in area or within 25 feet of any other stream, river or brook which normally flows throughout the year, or any naturally occurring standing body of water less than 10 acres, or prime wetland as designated in accordance with RSA 482-A:15, I, or any other wetland greater than five acres in area as defined by NH DES.

## **Pooled Wetlands Mitigation Plan**

The Town of Raymond recently adopted a "Pooled Wetland Mitigation Plan" to create an incentive for developers to build in Raymond while also protecting important wetlands. Currently, this policy is applicable to the Sewer Overlay District within the Exit 4 area.

The purpose of the policy is to enable developers to plan their developments with wetland filling being mitigated or accounted for by protecting other parcels of land located within existing Conservation Easements. Thus, a predetermined parcel of property which is slated for protection in a Conservation Easement can be used for mitigation purposes. The proposal is that each developer receives credit for their portion of the acres of mitigated wetlands in addition to paying a Mitigation Fee that could be placed into the Raymond Conservation Commission Fund. The funds will then be available to assist Raymond residents that want to pursue conservation easements on their private property.

There are two different components to the program. The first part is the Land Mitigation process. The second is the Mitigation Fee associated with each acre of filled wetland.

NH DES has established a ratio of ten to one (10:1) for mitigating the filling of wetlands. The mitigation process states for each acre of filled wetlands there must be 10 acres of prime wetland or forested upland on another protected parcel.

The Pooled Mitigation process requires that:

- 1 A certified wetland scientist map out the property;
- 2 Determine the number of wetland acres being filled;
- 3 Determine the total number of mitigation acres to be credited from the land bank;
- 4 Determine the dollar value of the Mitigation Fee;
- 5 Present the plan for approval to the Board of Selectmen, Planning Board, and Conservation Commission; and
- 6 Once approved by the Raymond boards, the Mitigation plan will go to NH DES.

### **Aquatic Resource Management Fund (ARM)**

In light of studies done on the ineffectiveness of wetland mitigation which have shown that many wetlands mitigation efforts fail to offset lost wetland functions, especially when the developer is responsible for wetland restoration or creation, NH DES has recently created a new Aquatic Resource Management Fund (ARM) to improve wetland mitigation across the state. The ARM is an in-lieu fee program intended for smaller wetland permit projects which may have difficulty in locating an appropriate mitigation site. Instead of restoring or creating a new mitigated wetland, the applicant pays into a wetland fund with NH DES which can be used to assist municipalities and the state to protect and/or restore priority wetlands located elsewhere within the same watershed.

More information about this new program is available at NH DES's website at: [www.des.nh.gov](http://www.des.nh.gov). Traditionally, compensation for wetlands impacts is achieved through creating a new wetland, restoring a former wetland site, or protecting a high-quality aquatic resource by preserving adjacent upland habitat. This new program offers the state and municipalities to achieve greater success in wetlands protection and restoration. As recently reported in the March/April 2009 NH DES Environmental Newsletter there is currently \$685,411 available for wetlands restoration and protection within the Merrimack watershed. The Town of Raymond Conservation Commission should consider participating in this program and seek available funding to protect priority wetlands within the community.



## F. Surface Water Resources



**Governor's Lake**

In addition, to wetlands, the Town of Raymond also has many surface water resources including smaller rivers, streams, and tributaries as well as numerous lakes and ponds. A total of 19 ponds and lakes are located in Raymond. Many of these surface water resources are described in the Town of Raymond's *Water Resource Management and Protection Plan* which was adopted in 1993. This plan was prepared with the assistance of the SNHPC 15 years ago and it now needs to be updated.

While the town's water resources plan is out of date, much of the data in subsequent water resources reports, including this Master Plan update, is based upon this plan. Since 1993, there have been numerous studies and plans developed to assess water quality and to protect Raymond's surface water resources ranging from storm water management and aquifer protection ordinances to best management practices in erosion and sediment control. The largest surface water bodies (lakes and ponds) in Raymond are Onway Lake and Governors Lake (see lake locations shown Surface Water Map 21).

**Onway Lake** is the largest lake in the Town of Raymond at 179 acres. This natural lake is located in the western portion of Raymond south of Langford Road. Its shoreline is approximately 2.1 miles and is composed primarily of woods, swamps, and limited development. In 2007, the Volunteer Lakes Assessment Program (VLAP) of the New Hampshire Department of Environmental Services (NH DES) monitored Onway Lake and found that the chlorophyll-a concentration was much greater than the state median and much greater than the similar lake median. The median summer chlorophyll-a concentration for New Hampshire's lakes and ponds is 4.58 mg/m<sup>3</sup>. The historical data also shows that the chlorophyll-a mean is much greater than the state median and is much greater than the similar lake median.

Chlorophyll-a, a pigment naturally found in plants, is an indicator of algal abundance. Because algae are usually microscopic plants that contain chlorophyll-a, and are naturally found in lake ecosystems, the chlorophyll-a concentration measured in the water gives an estimation of the algal concentration or lake productivity. While algae are naturally present in all lakes/ponds, an excessive or increasing amount of any type is not encouraged.



**Onway Lake**

In freshwater lakes/ponds, phosphorus is the nutrient that algae depend upon for growth. Algal concentrations may increase with an increase in nonpoint sources of phosphorus loading from the watershed, or in lake sources of phosphorus loading (such as phosphorus releases from the sediments). The 2007 report also found while the amounts of phosphorous in the epilimnion (the upper layer) was slightly less than the state median of 12 ug/L, the phosphorous levels in the hypolimnion (the bottom layer) was much greater than the state median of 14 ug/L. As the report states, “One of the most important approaches to reducing phosphorus loading to a water body is to continually educate watershed residents about its sources and how excessive amounts can adversely impact the ecology and values of lakes and ponds.” Phosphorous sources within a lake or pond’s watershed typically include septic systems, animal waste, lawn fertilizer, road and construction erosion, and natural wetlands.<sup>77</sup>

**Governors Lake** is the second largest lake in Raymond at 61 acres. This lake is located in northern Raymond and is a comparatively shallow body of water with an average depth of about 6 feet. The shoreline of the lake is about 1.5 miles long with varying flora and aquatic life. Governor’s Lake, just like Onway Lake, is a part of the NH DES Volunteer Lake Assessment Program (VLAP).



**Governor’s Lake**

In 2003, (VLAP) monitored Governor’s Lake and found that the current year (2003) data for the epilimnion and the hypolimnion indicated that the phosphorus concentration **increased** from June to September. The phosphorus concentration on each sampling event was **greater than** the state median. The historical data also showed that the 2003 mean epilimnetic and hypolimnetic phosphorus concentration is **greater than** the state median. Phosphorus is typically the limiting nutrient for plant and algae growth in New Hampshire’s freshwater lakes and ponds. Too much phosphorus in a lake can lead to increased plant and algal growth over time. The median summer total phosphorus concentration in the epilimnion of New Hampshire’s lakes and ponds is 12 ug/L. The median summer phosphorus concentration in the hypolimnion is 14 ug/L.

There are also a total of approximately 17 other smaller lakes, ponds and surface water bodies located in Raymond which are privately owned. None of these smaller surface water bodies are identified by NH DES as part of the Official List of Public Waters or Great Ponds.

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<sup>77</sup> The Volunteer Lake Assessment Reports can be found at:  
<http://des.nh.gov/organization/divisions/water/wmb/vlap/categories/publications.htm>



The largest of these ponds include:

**Norton Pond**, a natural pond located in the southwest portion of Raymond is 11.4 acres in size. It is approximately 15.7 feet at its maximum depth, although its mean depth is a little over 2 feet. Its shoreline is approximately ½ mile and is surrounded by wetlands, dominated by bulrushes and pickerelweed that are encroaching into the pond. The watershed area is approximately 352 acres.



**Norton Pond**

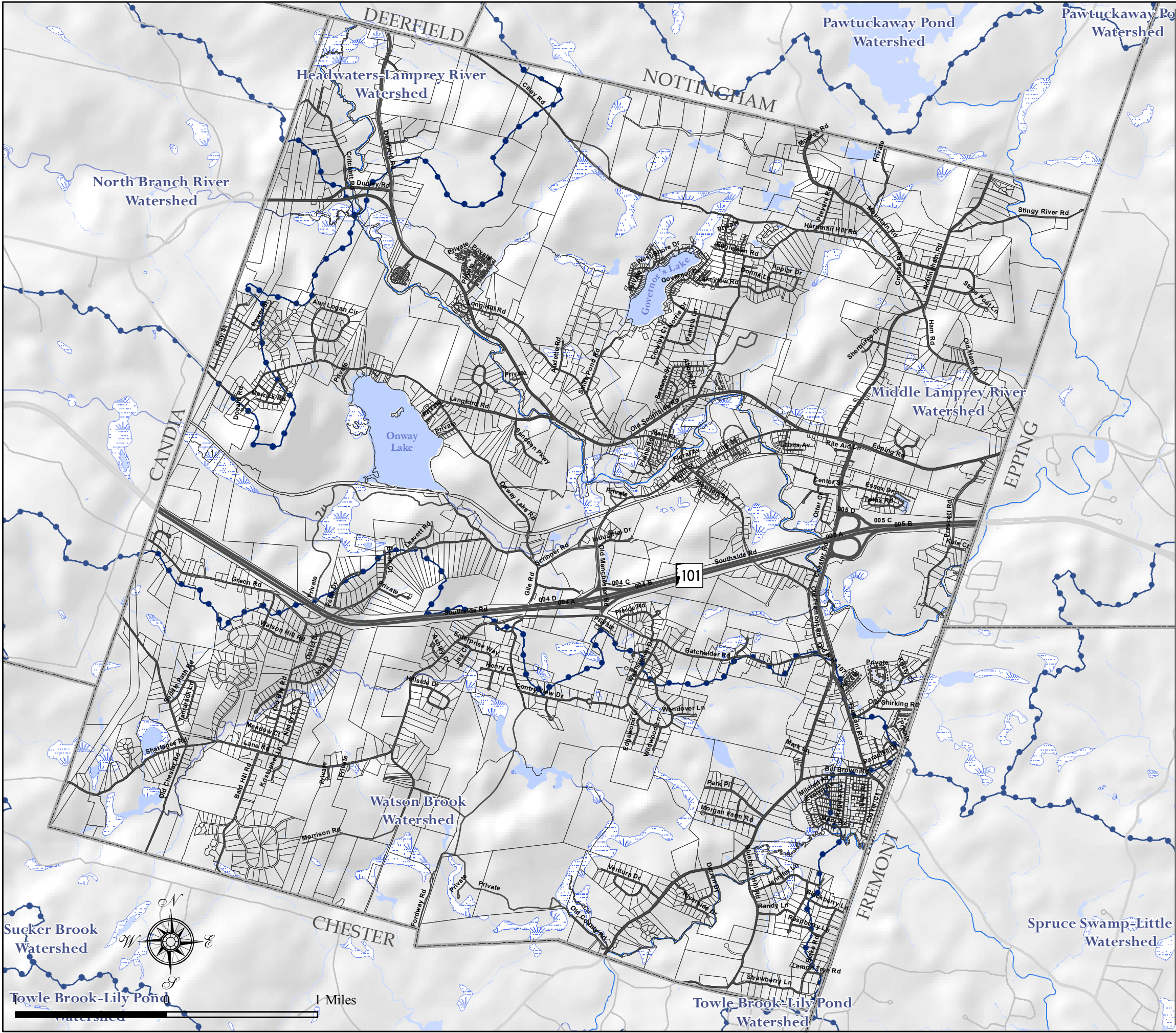
**Dead Pond**, a small natural pond allocated in a wide deep area in the Lamprey River near the eastern border of Raymond and the towns of Fremont and Epping. It is only 10.8 acres with approximately 0.6 mile of shoreline. Plants are tight to the shore and include such species as bladderwort and white water lily.

More information about Raymond's lakes and ponds is provided in the Town's 1993 Water Resources Management and Protection Plan.

## **Water Supply**

As discussed in both the Community Facilities and Public Utilities/Energy studies in this master plan (Vol. II), the Town of Raymond's current public water supply is provided by three gravel wells located off of Cider Ferry Road. This water supply source is rated for 500 gallons a minute and currently the Town of Raymond has the capacity to pump and treat that amount of water. Presently, the Town of Raymond is pumping approximately 300,000 gallons per day with the capacity to supply approximately 500,000 gallons per day; therefore, there is approximately 200,000 gallons of additional capacity currently available.

The Town of Raymond's Public Works Director has stated that there will definitely be a need for an expanded future water supply to meet Raymond's growing needs. There is the potential for additional groundwater supply at the Thibeault property located near the Candia town line, and also utilizing the surface water at Onway Lake. The Thibeault property, however, is currently only minimally protected by the Town of Raymond's existing groundwater protection zoning district and there is no such protection for Onway Lake. While the shoreline of Onway Lake is somewhat protected through the Comprehensive Shoreland Protection Act (CSPA), the watershed and the lake would need to be further protected contamination due to septic systems, runoff and other contamination sources resulting from increased development. The CSPA is described in more detail in the following section.



# Surface Water

## TOWN OF RAYMOND

Town Boundaries

Parcel Boundaries

### Road Systems

Highways

State Routes

Town, Local, and Private Roads

Watershed Boundaries

### NHD\* Water Bodies

Lakes and Ponds

Swamps and Marshes

### NHD\* Stream Order

Forth Order

Third Order

Second Order

First Order

Data Sources:  
NH GRANIT Digital Data (1:24,000)  
NH Department of Transportation  
Town of Raymond  
SNHPC

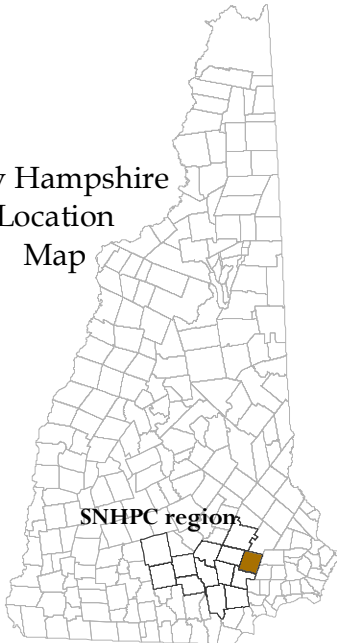
\*Extrated from the National Hydrography  
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Center, University of New Hampshire.

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New Hampshire  
Location  
Map





## **Comprehensive Shoreline Protection Act**

In 1991, the General Court of the State of NH enacted the Comprehensive Shoreland Protection Act, RSA 483-B (CSPA), recognizing that “the shorelands of the state are among its most valuable and fragile natural resources and their protection is essential to maintain the integrity of public waters” and “the public waters of New Hampshire are valuable resources held in trust by the state,” and “the state has an interest in protecting those waters and has the jurisdiction to control the use of the public waters and the adjacent shoreland for the greatest public benefit.”

The Town of Raymond has incorporated most of the requirements of the CSPA as part of its Conservation Overlay District. The limits of the Conservation Overlay District is currently defined as any area of land within 75 feet of the seasonal high water mark of the Lamprey River, the Exeter River, the North Branch River, Dudley Brook, Pawtuckaway River, Fordway Brook, Governor’s Lake, Onway Lake, Norton Pond and other perennial major brooks, streams or ponds existing within the Town of Raymond and also includes land within 50 feet of the high water mark of any brook, stream or pond having flowing or standing water for six (6) months of the year as shown on *The Water Resources Management Plan*.

Recently, however, the 2007 New Hampshire legislature passed a series of important amendments to the Comprehensive Shoreland Protection Act (CSPA). The amendments establish new shoreline permit requirements, including;

- A new 50-foot vegetated waterfront buffer;
- Restrictions on the application of pesticides, fertilizers and other chemicals within the waterfront buffer;
- A new grid and point system for maintaining a specific density of trees and saplings within the waterfront buffer; and
- Limits on impervious surface area.

The CSPA also includes all rivers and river segments designated as protected under the State’s Rivers Management and Protection Program. Surface waters protected under the CSPA in the Town of Raymond include the Exeter and Lamprey Rivers and are shown on Map 22.

In addition to the amendments to the CSPA, the Southern New Hampshire Planning Commission recently prepared a model shoreland protection and riparian buffer ordinance for New Hampshire municipalities as part of the NH DES Regional Environmental Planning Program (REPP). While this model ordinance has not yet been released, it will be published by NH DES in the forthcoming *Innovative Land Use Planning Techniques: A Handbook for Sustainable Development*. This handbook has been distributed to municipalities across the state.

The advantages of the REPP innovative model shoreland protection ordinance is that it expands upon the new waterfront buffer provisions recently adopted as part of the CSPA



and offers municipalities practical standards for protecting lower order streams (1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> order) which are not addressed by the CSPA.

Because the CSPA does not address lower order and headwater streams, many communities have simply overlooked or avoided the necessity of protecting these important riparian areas. This has left a major gap in shoreland and riparian buffer protection across the state, particularly when substantial scientific evidence exists to support the importance of maintaining riparian buffers not only along the shore's of the state's larger streams, rivers, ponds and lakes, but also in the headwater or backwater regions of smaller streams as well.

In combination, both the new CSPA and the REPP innovative model ordinance could help communities in enhancing shoreland and riparian buffer protection. While municipalities have specific authority to adopt innovative land use controls to protect shorelines and implement riparian buffer regulations that are more stringent than the minimum standards contained in RSA 483-B:9, ultimately the decision whether to protect important lower order streams rests with the planning board and town voters.

The challenge in overcoming the need for buffer protection is educating the community about the importance of protecting all shoreland and natural riparian areas and adopting specific zoning, subdivision and site plan regulations that can be easily implemented by planning boards within each community. Municipalities such as Raymond should begin this process by first preparing a map showing all the surface water bodies (Great Ponds<sup>78</sup> and lakes) and rivers and streams that are subject to the requirements of the new CSPA. In addition, town officials should attend training sessions to learn how to enforce the new regulations.

To address the lack of protection of the Town of Raymond's smaller streams and rivers, the SNHPC applied for and received a New Hampshire Estuaries Project 2008 Local Grant to fund the development and implementation of shoreland protection and riparian buffer requirements for all the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> order streams located within the community. Working with town officials, the adoption of these regulations could aid in the protection of these headwater streams as well as ensure that adequate flood storage is available along these important surface water resources as the town continues to develop.

This project is currently being approached in three steps with the first step being educational outreach and working group activities bringing together town officials, property owners, planning board and conservation commission members to guide and develop the town's shoreland and riparian buffer regulations and implement a riparian buffer educational outreach program. The second step is shoreland and riparian buffer mapping, and third and final step will be ordinance development.

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78 Great Ponds are defined by NH DES as natural ponds and lakes of 10 acres or more in size, the elevation of which have not been altered by a dam. The state holds in trust for the public, all of the land lying below the natural mean high water mark of any great pond.