

6/23/2020

REQUEST FOR PROPOSALS

NATURAL RESOURCES INVENTORY, FOR THE TOWN OF RYE

Summary

The Town of Rye, New Hampshire on behalf of the Rye Conservation Commission seeks qualified organizations or individuals to submit a proposal to develop a Natural Resources Inventory (NRI) in conformance with RSA 36-A:2. Specific tasks required include: (1) Gathering existing natural resources data, (2) Conducting field-based assessments, if necessary (3) Preparing maps and Geographic Information Systems (GIS) databases, (4) Preparing an NRI report, (5) Preparing recommendations for the 2017 Master Plan, specifically Chapter 7 Natural Resources.

See Submittal Requirements section at the end of this RFP for submittal details. Replies marked ‘Sealed Bid, Natural Resources Inventory’, will be accepted until 12:00 P.M., August 3, 2020 at the Rye Town Hall, 10 Central Road Rye, NH 03870. The Town reserves the right to reject any and all proposals.

Objectives

The objectives of this project include the following:

1. Provide the Town of Rye with a comprehensive set of GIS map coverages and hard-copy maps of its natural resources.
2. Provide the Town of Rye with an NRI report, in Word format designed to increase awareness of the Town’s natural resources, their characteristics, areal extents, values, threats, and means of protection.

Scope of Work

Task A. Coordination. The contractor will meet with the Rye Conservation Commission and other members of the NRI committee, prior to initiation of the study to discuss proposed methods and schedules for the project and to discuss the project approach. The contractor will then meet regularly with the Commission and/or other members of the NRI committee to provide progress reports and to receive comments on, and input to, work to-date. Upon completion of draft reports and mapping, the contractor will make a presentation the Rye Conservation Commission to discuss the study products. The contractor will respond to official comments made at the final meeting and submit the final report, mapping and GIS databases within 30 days of the final meeting. Assume five (5) meetings for budgeting purposes.

Task B. Existing Data Collection. The contractor will gather all available natural resources data and mapping applicable to the Town as developed by Federal, state, regional and local agencies and academia, including, but not limited to the U.S. Department of Agriculture, U.S. Geological Survey, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, Federal Emergency Management Agency, NH Department of Environmental Services, NH Fish and Game Department, NH Department of Resources and Economic Development, the University of New Hampshire (GRANIT database), the Rockingham Planning Commission, Rockingham County Conservation District, The Nature Conservancy, and the Town of Rye Departments of Planning, Assessing, Public Works, and Rye Water District, Aquarion Water Company, and the Conservation Commission. Prior to the development of the NRI, the contractor will review the 2017 Rye Master Plan, particularly Chapter 7, Natural Resources, for previously developed information. At a minimum, existing data collection will include the following:

1. Base mapping that includes Town boundaries, transportation (roads and railroads), surface water features (ponds, streams, embayments, Atlantic Ocean, NH Isles of Shoals), topography and gas and power-line rights-of-way.
2. Conservation and public lands
3. Prime farmland and soils
4. Forest resources and soils
5. Stratified drift aquifers, wellhead protection areas, and known and potential contamination sources
6. Wetlands, including saltmarshes and estuarine habitats
7. Watershed and sub-watershed boundaries
8. Coastal resources/data, including the climate change/water resources data from the 2016 Supplement to the Land Conservation Plan for Coastal NH (TNC), salt marsh migration data (NHFG), and 2019 Connect the Coast (TNC)
9. Floodplains
10. Geology and geologic resources
11. Rare or endangered plant and animal species and exemplary natural communities
12. Wildlife habitat, as per the NH Wildlife Action Plan and the recently updated (May 2020) WAP maps

Task C. Field Data Collection. The contractor will conduct field work, only if necessary and agreed upon in a separate written agreement by the Rye Conservation Commission,

Task D. Mapping and GIS Database Compilation. The contractor will prepare NRI maps and GIS databases of the Town of Rye by integrating existing available GIS databases and any collected field information, if performed, and aerial imagery interpretation as necessary to meet the objectives of a basic NRI as described in “Natural Resources Inventories: A Guide for New Hampshire Communities and Conservation Groups” published by UNH Cooperative Extension in 2016. Maps will be prepared in both digital and hard-copy format using ArcGIS or similar software and using the best available digital orthophotography or mapping as base maps. Documentation of the data source, standards, and scale used for the inventoried resources will be included in metadata descriptions. At a minimum, NRI maps and GIS databases will include the features described below:

1. Basemap information including Town boundaries, transportation (roads and railroads), surface water features (ponds, streams, embayments, Atlantic Ocean, and the NH Isles of Shoals), topography and gas and power-line rights-of-way.
2. Conservation and public land boundaries available as a data layer in GRANIT and attributed with information on the type of protection that is in place (e.g., conservation easement, fee ownership, etc.). Town-owned lands, as listed in the Rye annual town report and mapped on Town tax maps, (as available from the Rye Assessing Department) will also be included. More detailed GPS boundary points are available for conservation lands under the jurisdiction of the Rye Conservation Commission.
3. Farmland classified as prime farmland and farmland of statewide importance, based on NRCS soils map data and available in GRANIT. Currently active farmlands and other permanent openings (e.g. areas dominated by grasses, forbs, brambles, or shrubs and managed as permanent openings) may be included in the NRI, as provided by the RCC. Information on active farmlands (which should include tilled areas as well as active pastures and orchards) may be obtained from farm service agencies, the Natural Resource Conservation Service, the Town of Rye, or by the contractor's interpretation of available aerial imagery.
4. Stratified-drift aquifer boundaries, including boundaries of areas of high transmissivity and low transmissivity and including favorable gravel well analysis. Active public water-supply wells, including wellhead protection areas and sanitary radii, should also be included. These data are available in GRANIT. Zones of potential high-yielding bedrock aquifers are also available as a GIS coverage from the U.S. Geological Survey through the Rye Conservation Commission.
5. Watershed and sub-watershed boundaries by Hydrologic Unit Code, using existing GRANIT coverage when available. Smaller sub-watersheds for all tributaries to the Atlantic Ocean, Little Harbor and Little River will be delineated and digitized by the contractor using the best available topographic mapping.
6. Wetlands, including both freshwater and saltwater, from National Wetlands Inventory and NRCS soils survey, review of current satellite imagery and any other local data sources.
7. Floodplain areas subject to 100-year and 500-year frequency flooding as identified on maps by the Federal Emergency Management Agency (FEMA). These maps are available in digital format as DFIRMS (Digital Flood Insurance Rate Maps).
8. Bedrock geology formations as available as data layers in GRANIT. The Rye Water District water supply wells tap bedrock as well as sand and gravel aquifer resources for town water supplies. Additionally, many local landforms including Breakfast Hill, shorelines, and the Isles of Shoals are shaped by bedrock landforms.

9. Any NH Natural Heritage Inventory (NHNHI) data for the Town available through GRANIT, including the generalized location of rare species populations and/or exemplary natural community occurrences based on the list online.
10. Critical wildlife habitats, as mapped by NH Fish and Game Department as part of the NH Wildlife Action Plan (use 2020 maps).
11. Areas of highest ranked wildlife habitat in Rye, New Hampshire, highest ranked habitat in the same biological region, and supporting landscapes available in GIS format as part of the NH Wildlife Action Plan (use 2020 maps).
12. Areas of productive forest soils – NRCS categories 1A, 1B, and 1C.
13. Areas of unfragmented lands, greater than 20, 50, 100, and 500 acres in size.
14. Soils not well suited for development, as available from the NRCS databases. The locations of soils with characteristics that limit development (e.g. thin, highly erodible soils and soils with high-water tables, etc.) will be included.
15. Scenic resources, as provided by the RCC, including scenic vistas, viewsheds, designated roads, the NH Isles of Shoals, and other various scenic locations, along with their corresponding viewing locations, as identified on maps to be provided by the Rye Conservation Commission.
16. [2016 Coastal Conservation Plan Water Resources Supplement](#) data for flood storage areas, buffers for water quality (protection and restoration priorities), and salt marsh migration areas.
17. Include the NH Isles of Shoals (Seavey, White, Lunging, Star), with consultation provided by the Executive Director of the Shoals Marine Lab.
18. Map areas of important co-occurring resources. This limited analysis will be a collaboration between the contractor and committee once preliminary NRI mapping is complete.

Task E. NRI Report. The contractor will prepare an NRI report which describes the Town's natural resources including: their location(s), sizes, values, and threats; example photographs; and potential means and priorities for protection. At a minimum, the report shall contain chapters and subchapters on the following (example of draft outline):

Rye Draft NRI TOC/Outline

Section 1 Introduction

Intro/Goals/Executive Summary

1.1 Goals

- Map and describe significant natural resources in Rye
- Identify areas of ecological value and habitat corridors that cross-town boundaries
- Educate the public and local officials regarding Rye's natural resources and potential threats
- Promote the conservation, protection and responsible management of the natural resources of the Town
- Protect the Town's water quality, surface waters, wetlands and groundwater resources
- Protect the natural ability of the landscape to withstand flooding and other changes due to climate change
- Maintain recreational opportunities through protection, appropriate management, and interconnection
- Incorporate relevant reports, plans, and studies regarding natural resources in Rye into the NRI

Section 2 Water and Geologic Resources

2.1 Watersheds

2.2 Surface Waters

2.2.1 Wetlands (fresh and saltwater) & Vernal Pools

2.2.2 Ponds & Streams

2.2.4 Oceans and Tidal Waters

2.3 Aquifers/Groundwater/Wells and Well Protection Areas

2.4 Floodplains and floodwater storage

Include 2016 Supplement to the Coastal Conservation Plan data – flood storage areas, salt marsh migration opportunity areas

2.5 Water Quality

Include 2016 Supplement to the Coastal Conservation Plan data – buffers for water quality
2.6 Potential Threats to Water Resources and Recommendations for Protection (could be per/resource)

2.7 Bedrock geology, surficial geology, sand and gravel resources

2.8 Threats to this resource and Recommendations for future actions

Section 3 Wildlife and Habitats

3.1 Wildlife Habitats (based on 2020 NH Wildlife Action Plan Habitats Land Cover map)

3.1.1 Hemlock Hardwood Pine Forest

3.1.2 Appalachian Oak-Pine Forests

3.1.3 Grasslands

- 3.1.4 Dune
- 3.1.5 Peatlands
- 3.1.6 Wet Meadow/Shrub Wetlands
- 3.1.7 Northern or Temperate Swamps
- 3.1.8 Vernal Pools
- 3.1.9 Salt Marsh
- 3.1.10 Coastal Island
- 3.1.11 Shorelines
- 3.1.12 Headwater Streams

And other habitats as applicable

- 3.2 Highest Ranked Habitats (based on the NH Wildlife Action Plan 2020)
- 3.3 Natural Heritage Bureau data
- 3.3 Wildlife Conservation Priority Areas
- 3.4 Native and Non-Native Plant Species
- 3.5 Threats to this resource and Recommendations for future actions

Section 4 Agriculture, Forestry, and Marine Resources

- 4.1 Agricultural Soils and Active Farmlands
- 4.2 Forest Soils and Forestry
 - 4.2.1 Town Owned (Goss Farm, Town Forest and other conservation lands)
- 4.3 Aquatic/Marine
 - 4.3.1 Fisheries
 - 4.3.2 Shellfish
- 4.4. Threats to this resource and Recommendations for future actions

Section 5 Scenic Resources

- 5.1 Scenic Areas
 - 5.1.1 Coastline
 - 5.1.2 Pastureland
 - 5.1.3 Salt Marshes
 - 5.1.4 NH Isles of Shoals
 - 5.1.5 Odiorne State Park
 - 5.1.6 Other
- 5.2 Threats to this resource and Recommendations for future actions

Section 6 Historic and Cultural Resources (as they relate to natural resources and in coordination with Rye Historical Society and Rye Public Library)

Section 7 Public, Conserved and Recreational Lands

7.1 Public, Conserved and Recreation Lands

7.1.1 Town Owned Open Lands

7.1.2 Easements

7.1.3 Developed Lands and Considerations for Further Development

7.1.4 Unfragmented Land Blocks

7.2 Threats to this resource and Recommendations for future actions

Section 8 Threats and Recommendations (compiled and including a list of action items)

Minimum Qualifications

The contractor must meet the following minimum qualifications:

- Expertise in natural resources, environmental science and planning.
- Experience and capability in GIS mapping, modeling and analysis using ArcGIS or similar software.
- Experience in conducting Natural Resource Inventories and Assessments for municipalities in New Hampshire.
- Familiarity with master plan NR chapter development.
- Experience in working with local planning boards and commissions.

Submittal Requirements

The respondents should provide:

- A brief scope of work with any modifications to the tasks described above.
- Proposed deliverables.
- Proposed schedule by task.
- Proposed budget by task, and total budget. Please also provide Task D19 – Co-occurrence analysis as separate budget items.
- Three relevant references and a succinct qualifications statement.

Please provide a pdf of your proposal to suzanne.ryeconservation@gmail.com and mail or deliver one sealed hard copy to Suzanne McFarland, Chair; Rye Conservation Commission; 10 Central Road, Rye, NH 03870.

Please send any questions about the RFP to suzanne.ryeconservation@gmail.com by July 7, 2020. Answers will be sent out to all parties by July 13, 2020.

The Rye Conservation Commission may conduct interviews of short-listed consultants.