

State Specific Training Module for Rhode Island



Purpose of this Module

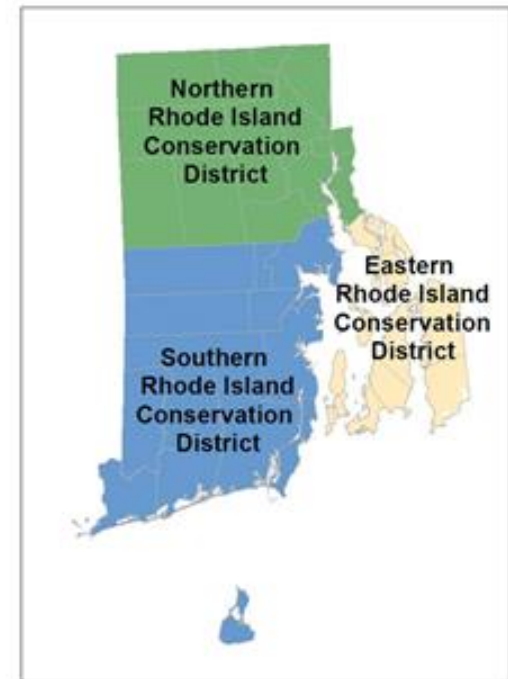
This module will provide general information that TSPs need to conduct conservation planning in Rhode Island. This information is general in nature so the TSP may need to follow up with additional reading or training to make sure they have the knowledge, skill, licenses and certifications to conduct conservation planning in Rhode Island.



Rhode Island Conservation Districts

Rhode Island's Conservation Districts, the Rhode Island State Conservation Committee, and the NRCS are collectively known as the Conservation Partnership.

- Eastern RI Conservation District
 - Bristol and Newport Counties
- Northern RI Conservation District
 - Providence County
- Southern RI Conservation District
 - Kent and Washington Counties



Review of Applicable State Statues

Laws administered by [Rhode Island Department of Environmental Management \(RI DEM\)](#) and [Rhode Island Coastal Resources Management Council \(CRMC\)](#)

State of Rhode Island General Laws:

[Agriculture and Forestry](#)

[Animals and Animal Husbandry](#)

[Fish and Wildlife](#)

Review of Applicable State Statues

Wood Cutting Operations and Intent to Saw or Cut

R.I. [General Laws § 2-15-1](#) et seq., requires that any persons, firms, and corporations cutting standing or growing trees for commercial forest products must be registered as a woods operator with the R.I. DEM, and, further, such persons must file with the R.I. DEM a [notice of intent to saw or cut](#) at least five days prior to the cutting or sawing, and must utilize best management practices while harvesting trees.

Freshwater Wetlands

The [Rhode Island Freshwater Wetlands Act](#), amended June 2022, provides regulatory protection to all freshwater wetlands, buffers and floodplains in the State. R.I. Code of Rules [250-RICR-150-15-3](#) designates buffer zones for all waterbodies, establishes permit requirements and protection standards. Alterations to wetland areas require permission from R.I. DEM.

Coastal Resources

R.I. Red Book [650-RICR-20-00-1](#), authorizes the CRMC to manage the coastal resources, including freshwater wetlands in the vicinity of the coast, of the State. CRMC designates costal setbacks and coastal buffer zones, establishes permit requirements and standards.

Agricultural Composting

R.I. Code of Rules [250-RICR-40-20-3](#), encourages and promotes composting by agricultural units while minimizing negative environmental impacts by means of registration requirements and operating standards.

Pesticide Control

R.I. Code of Rules [250-RICR-40-15-2](#), ensure the enforcement and administration of the [Rhode Island Pesticide Control Act](#) and its amendments, the protection of public health and to avoid degradation of the environment of the State, through applicator entity authorization requirements, application buffers on water sources, and use and storage standards.

Structure Codes and Permits

R.I. [Building Code Commission](#) oversees the State building code regulations and structural permit issuance. Respective city/town building and/or structural codes and permits need to be referenced for any NRCS structural practices.

- [Building and Fire Code](#)
- [Electrical Code](#)
- [Plumbing Code](#)

Review of Required State Licenses

- All NRCS engineering conservation practice designs must be stamped by a licensed Rhode Island [Professional Engineer](#).
 - TSPs must meet the conservation practice/activity certification criteria prior to any engineering design submission and/or implementation.
 - TSP must have a valid “Certificate of Authorization” from the State Board of Registration for Professional Engineers.
- NRCS TSP foresters are encouraged to certify their qualifications with the RI DEM [Division of Forest Environment](#).
 - Recognized foresters will be listed on the RI DEM [Forestry Consultants List](#)
- [Land Surveyor](#)
- [Landscape Architect](#)
- [Pesticide Applicator](#)
- [Arborist](#)

Review of Important Resource Issues

Resource Concerns

Rhode Island resource concerns and conservation planning criteria are listed in the Field Office Technical Guide (FOTG), Section III, [Resource Concerns and Planning Criteria](#) document.

Common Resource Concerns in Rhode Island

- Soil Quality Limitations
- Degraded Plant Condition
- Concentrated Erosion
- Field Sediment, Nutrient and Pathogen Loss
- Terrestrial Habitat
- Source Water Depletion

Review of Important Resource Issues

Oyster Reef Restoration

Rhode Island's Oyster Reef Restoration Initiative under EQIP

- Historically prolific oyster beds contributed to productivity and biodiversity of RI's estuarine waters. However, few native oyster beds currently remain in RI.
- The initiative provides financial assistance to create oyster reefs to improve water quality and encourage the development of wildlife habitat.
- Practice payment includes the process of obtaining approved spat and clutch, funding for monitoring the success of the site, and for demarking the approved restoration site with buoys.

Video overview – [Rhode Island Oyster Reef Restoration Project](#)



Review of Important Resource Issues

Threatened and Endangered Species

Northern Long Eared Bat (*Myotis septentrionalis*) – Endangered

Roseate tern (*Sterna dougallii*) - Endangered

Sandplain gerardia (*Agalinis acuta*) - Endangered

Piping Plover (*Charadrius melodus*) – Threatened

Red Knot (*Charadrius melodus*) - Threatened

Small Whorled Pogonia (*Isotria medeoloides*) – Threatened

American Burying Beetle (*Nicrophorus americanus*) – Threatened



*Please review the US Fish and Wildlife and Endangered Species Act requirements when conducting work in sensitive areas that may affect habitat of endangered, threatened, and vulnerable species.

Review of State FOTG Requirements

Forestry cutting practices for woody species > 3" DBH

- Due to possible presence of the Northern Long Eared Bat pups, there is no cutting in June and July
- If wildlife is the resource concern being addressed there is no cutting between March 1 and November 1

Growing season in Rhode Island is April 16 to October 22

Seeding and Planting Dates in Rhode Island

- [RI Planting Dates by Hardiness Zone](#)
- [RI Plant Hardiness Zone Map](#)

Pollinator Habitat Planting Dates in Rhode Island

- Spring Seeding (April 15 to April 30)
- Fall Dormant Seeding (Nov 1 to Nov 30)

Wildlife associated woody plant species

- [Xerces Hedgerow Guide for Rhode Island](#)
- [Woody Species for NEC](#)

Mowing of vegetation should consider the needs of ground nesting birds.

- Birds in Rhode Island nest from April 1 to August 15.

Clean Water Act Protections via the Rhode Island [Forestry Best Management Practices for Water Quality Protection](#)

When working with NRCS engineering designs, products must meet requirements of specs for designs in the FOTG at a minimum.

- Construction and material specs are in the [Engineering Handbook Part 642 Specifications for Construction Contracts](#)

Refer to Section 3 of the Field Office Technical Guide for additional tools and guidance

Refer to Section 4 of the Field Office Technical Guide for Conservation Practice Standards

Rhode Island Landscape Regions

Coastal Plain Area

Terminal moraines, outwash plains, barrier beaches, flat sandy beaches, salt ponds and salt marshes.

Narragansett Bay Area

Rocky coast and fertile glacial plain soils. Includes all of the coastal communities and islands in Narragansett Bay.

Lowlands

Intermediate zone between coastal plain and interior uplands. Characterized by gently rolling terrain at elevations from just above sea level to 400 feet, and fair to good agricultural soils.

Interior Uplands

Northwestern Rhode Island characterized by rocky hills up to 800 feet in elevation. Large ponds, reservoirs, and river headlands support the region

Cultural Resources Historic Preservation

NRCS, as a federal agency, must consider effects of planning and implementing its conservation practices and other undertakings on significant cultural resources.

NRCS will employ TSP provided information to initiate cultural resource reviews under the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA).

Per the NHPA, in accordance with Section 106, NRCS will engage in consultation with the State Historic Preservation Officer (SHPO) and the appropriate Tribal Historic Preservation Officers (THPOs).

Rhode Island historic preservation is overseen by the [Rhode Island Historic Preservation & Heritage Commission](#).

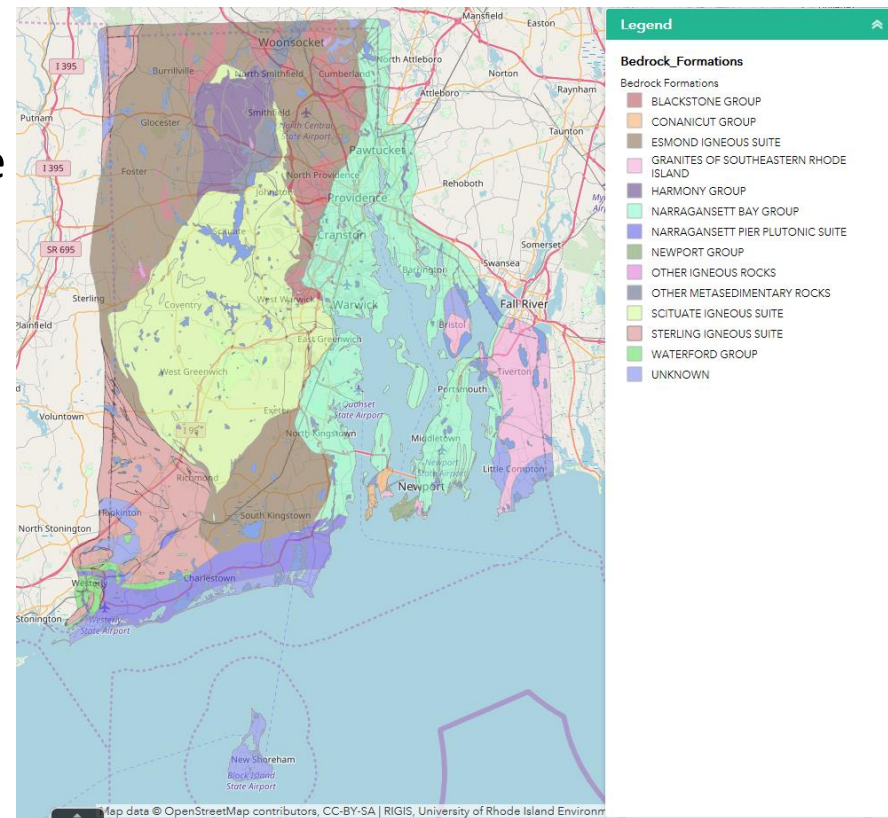
Cultural Resources Tribal Relations

NHPA tribal consultation parties include the [Narragansett Indian Tribe](#), the [Mashpee Wampanoag Tribe](#) and the [Wampanoag Tribe of Gay Head \(Aquinnah\)](#).



Bedrock Geology

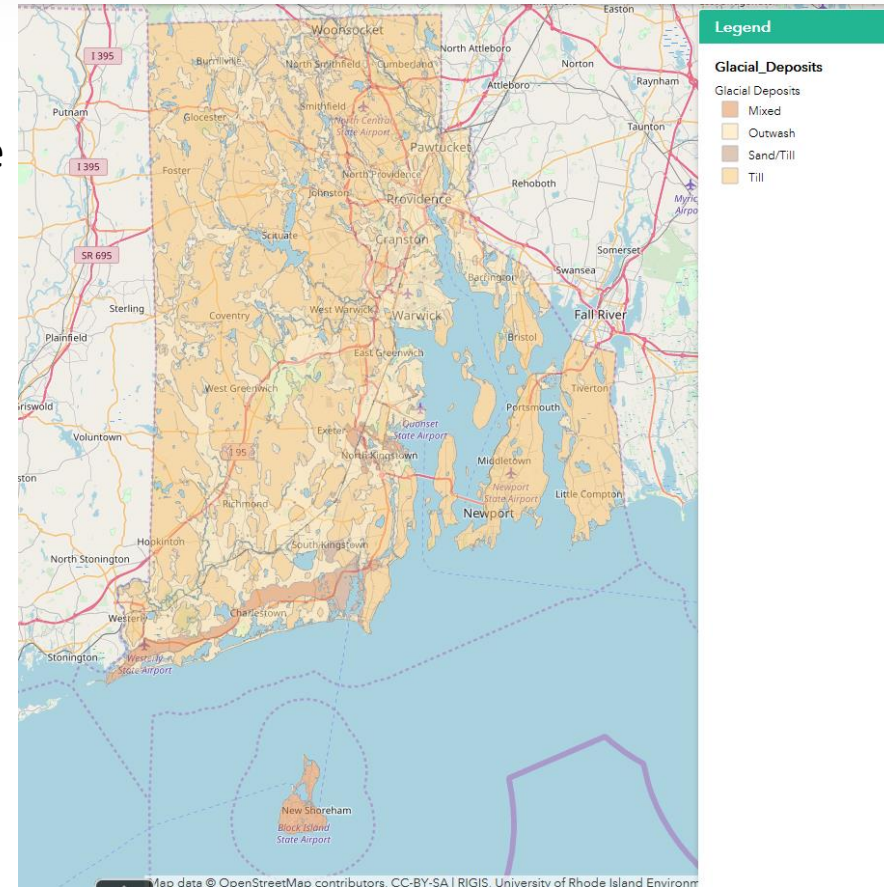
- Bedrock is composed of igneous and metamorphic rocks covered with a mantle of sand and gravel
- Bedrock is dominated by granites with sedimentary rocks and some coal beds
- Cumberlandite, the official state rock, can only be found in the Blackstone valley of northern Rhode Island. Cumberlandite is high in iron and slightly magnetic.



Rhode Island Bedrock Geology Map

Glaciation

- The Laurentide Ice Sheet covered all of Rhode Island, 14,000 years ago, during the Quaternary period.
- Glacial melting created Long Island Sound, Block Island, and Narragansett Bay.
- Drumlins, eskers, and kettles are common to the Rhode Island landscape.
- Retreating glaciers deposited large rocks and boulders, later used for Rhode Island's stone walls



Rhode Island Glacial Cover

Rhode Island Soils



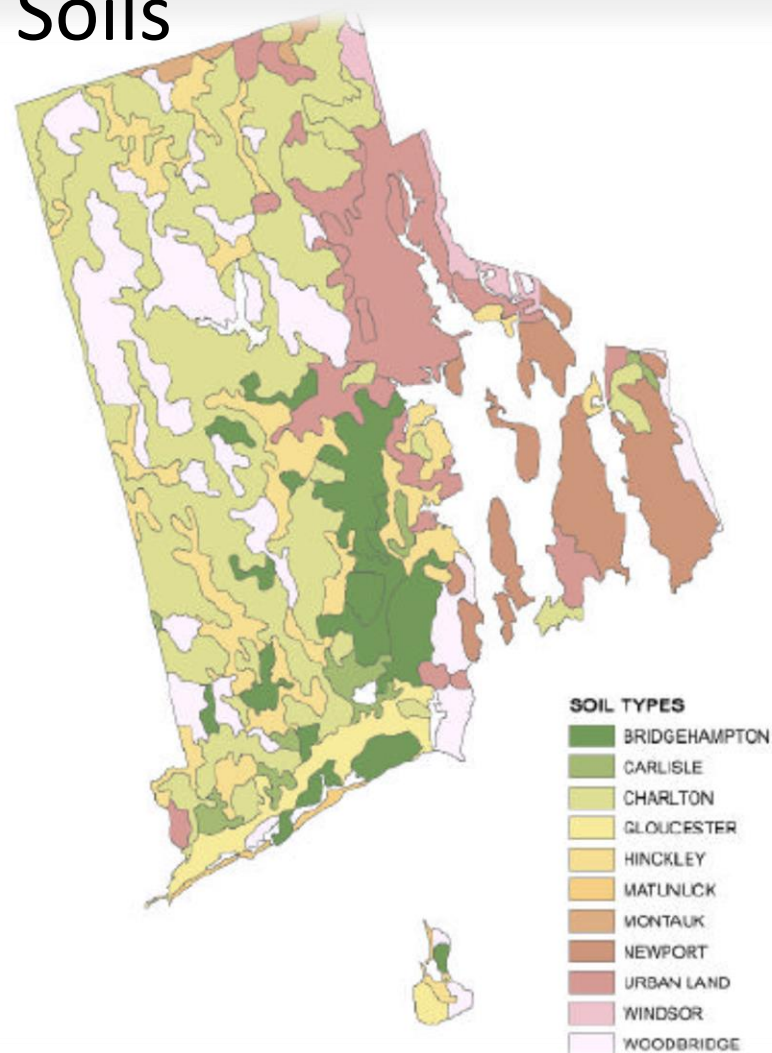
Typical landscape setting for Narragansett soils



Narragansett Soil Series
Rhode Island State Soil

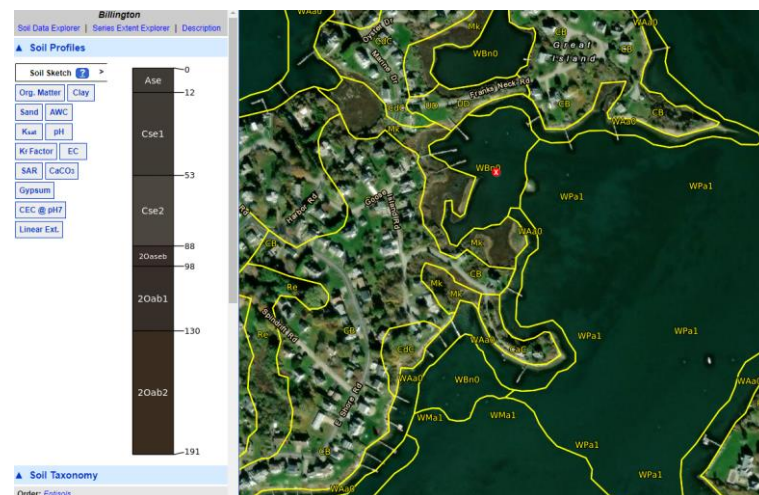
Rhode Island Soils

- Glacial till and outwash deposits are the most common soil parent materials.
- Common soil types found in Rhode Island:
 - Canton soil formed in sandy ablation till. This well-drained soil is found in association with finer textured Charlton soils and is common in the northwestern part of Rhode Island.
 - Narragansett soil formed in windblown silts (loess) over ablation till. This soil is prime farmland soil.
 - Merrimac soil formed in stratified sands and gravels from glacial outwash deposits. These excessively drained soils do not retain water well and can become very dry
 - Enfield soil formed in stratified sand and gravel outwash with a silt loam windblown loess surface. The finer materials at the surface make this a prime farmland soil.
 - Newport soil formed in dense glacial till derived from dark colored materials of the Narragansett structural basin.



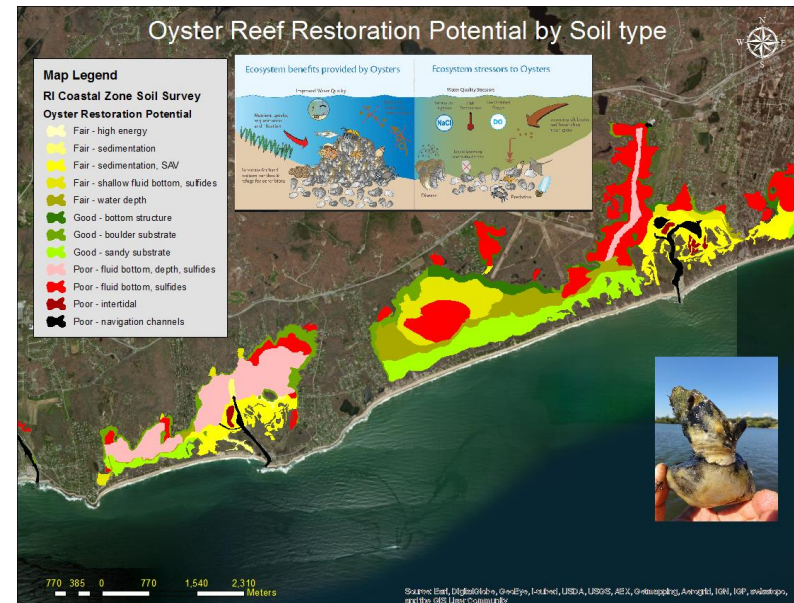
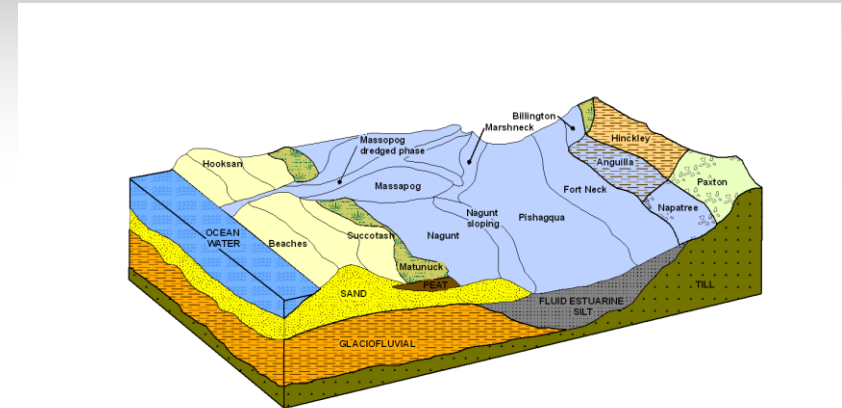
Subaqueous Soils

- Subaqueous Soils: Soils formed in sediments found in shallow, permanently flooded environments or soils in any areas permanently covered by water not too deep to support the growth of rooted plants.
- RI was the first state to officially map subaqueous soils (fresh and salt water).
- Data is available on RIGIS soils as a separate layer with point data or on Web Soil Survey.



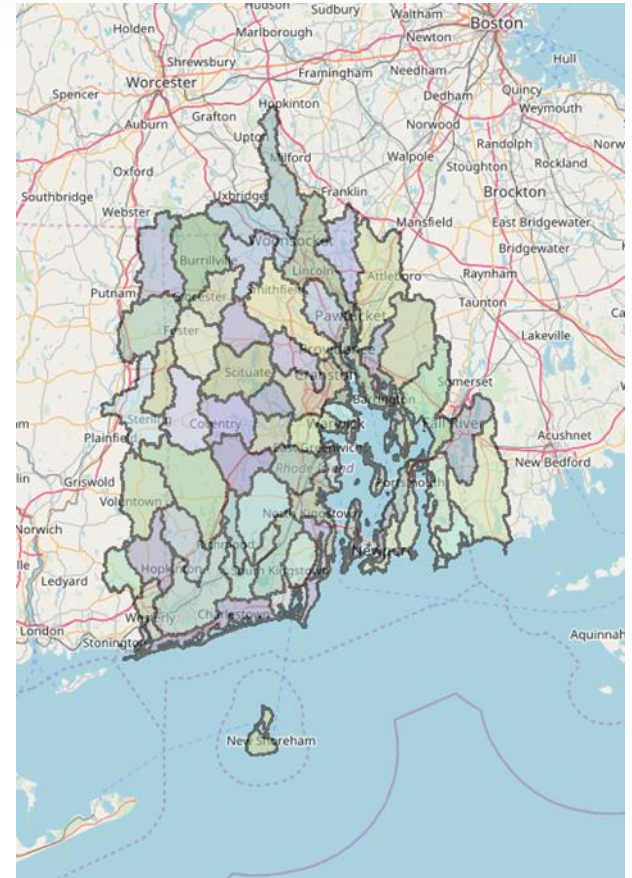
Subaqueous Soils

- The term Coastal Zone Soil Survey is applied to soil mapping that includes detailed mapping of dunes, marshes, beaches and the nearshore submerged soils.
- Data used for restoration projects, coastal blue carbon accounting (carbon pools), salt marsh restoration, EQIP oyster reef initiative siting, site selection models, and many other interpretations.
- Technical soil services can be requested.
- New areas being added yearly.



Rhode Island's Waterscape - Freshwater

- Nearly 1/4 of the state's total area is occupied by water
 - 156 square miles of inland waters and 156 square miles of estuaries
- 1,500 miles of rivers and streams in Rhode Island house over 520 dams of various age, condition, and size
- Lakes and ponds cover 20,749 acres of land throughout the state, most of which are small in size
- The 13,000 acre Scituate Reservoir on the North Branch of the Pawtuxet River supplies water to nearly 60 % of the state's population



Rhode Island Watersheds

Rhode Island's Waterscape - Coastal

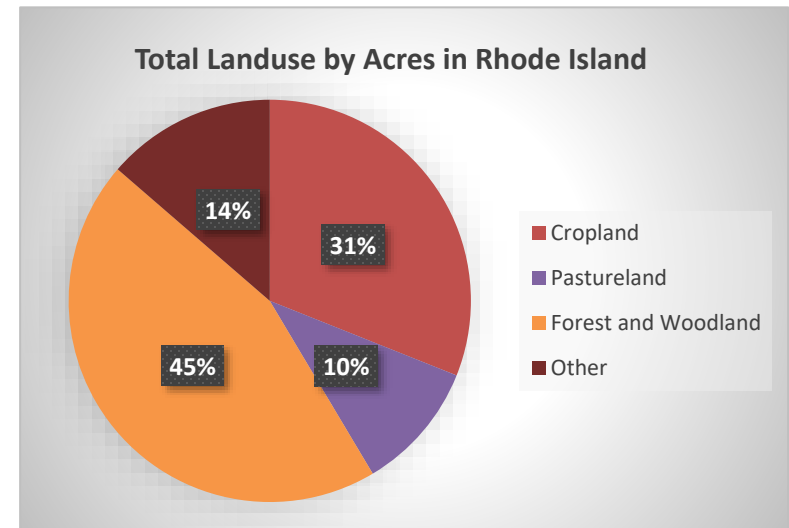
- Rhode Island has approximately 3,700 acres of salt marsh in its estuaries.
- Narragansett Bay, one of the state's chief geographic features, reaches 28 miles into the state's interior from the Atlantic Ocean
- Narragansett Bay covers approximately 147 square miles
- Aquidneck, Prudence and Conanicut are the largest of the islands in the Bay
- NOAA has recognized the ecological value of Rhode Island's estuaries by establishing a National Estuarine Research Reserve (NERR) in Narragansett Bay.



Review of Major Land Uses in Rhode Island

Total land use by acres in Rhode Island according to 2017 Census Data is divided as follows (Total acreage: 56,864)

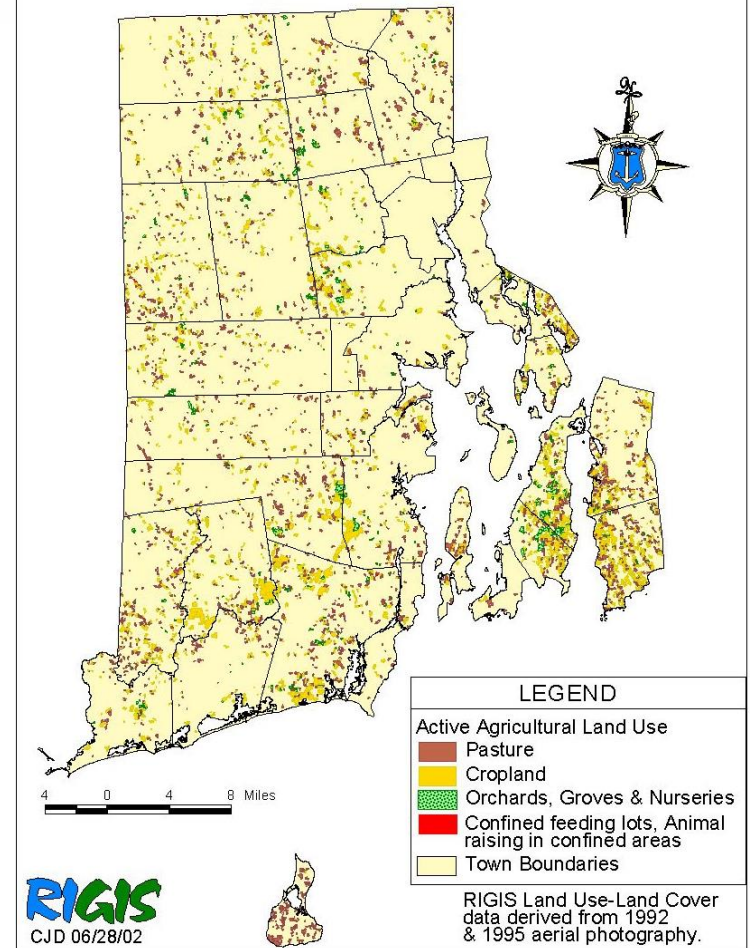
- 31% dedicated to Cropland (17,654 acres)
- 10% dedicated to Pastureland (5,914 acres)
- 45% dedicated to Forest and Woodland (25,535 acres)
- 14% dedicated to Other (7,761 acres)



Agriculture

- **Top Crop items by acre**
 - Forage crops (6,519)
 - Harvested Sod (2,018)
 - Mixed vegetables (2,237)
- **Top Livestock by number**
 - Laying birds (55,681)
 - Broilers and meat birds (1,538)
 - Cattle and calves (5,003)

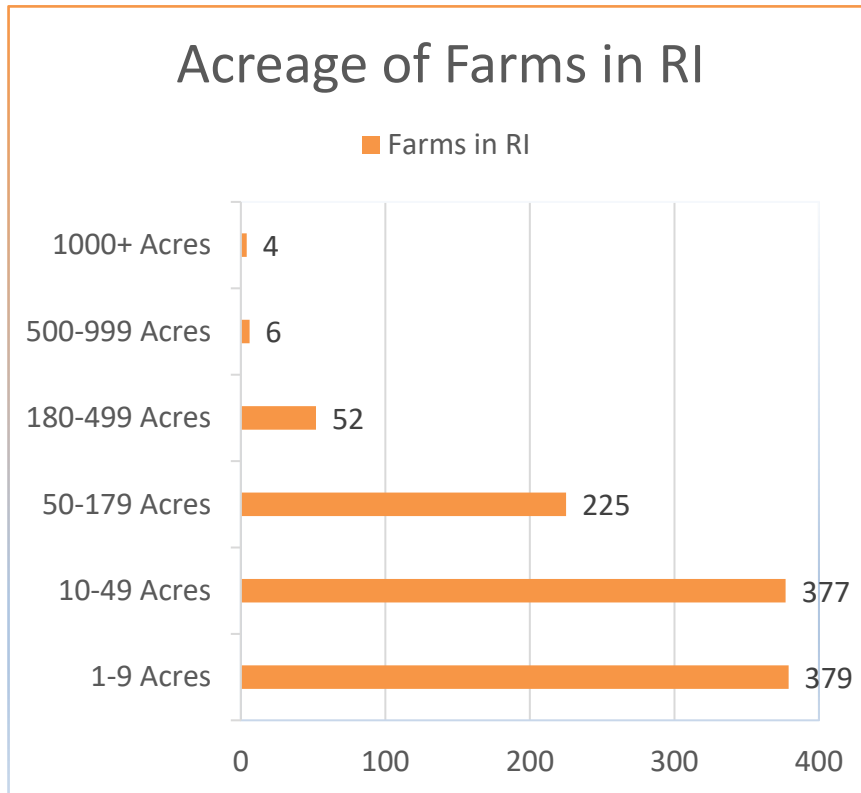
Active Agricultural Land Use in Rhode Island



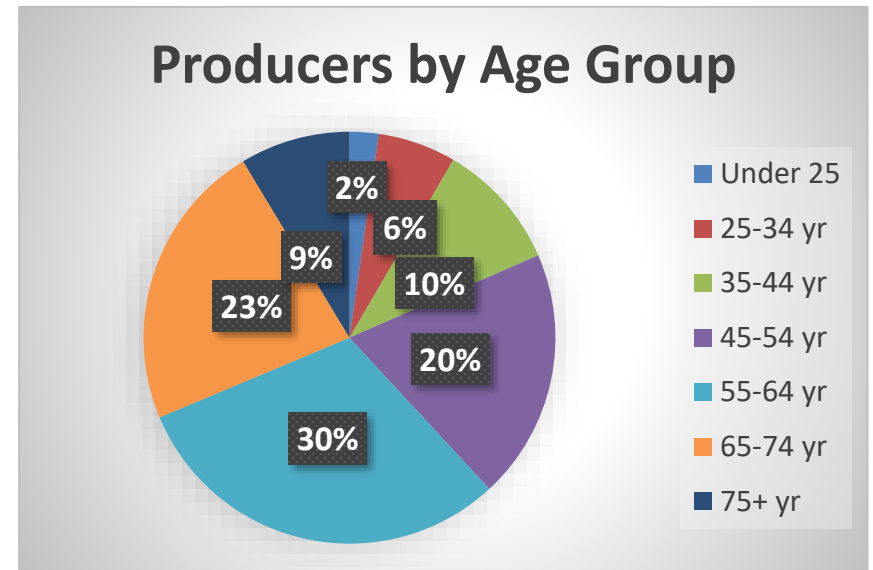
Agriculture

Number of Farms: 1,043

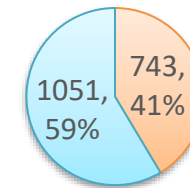
Agriculture Land: 79,000 acres



Total number of Producers: 1734

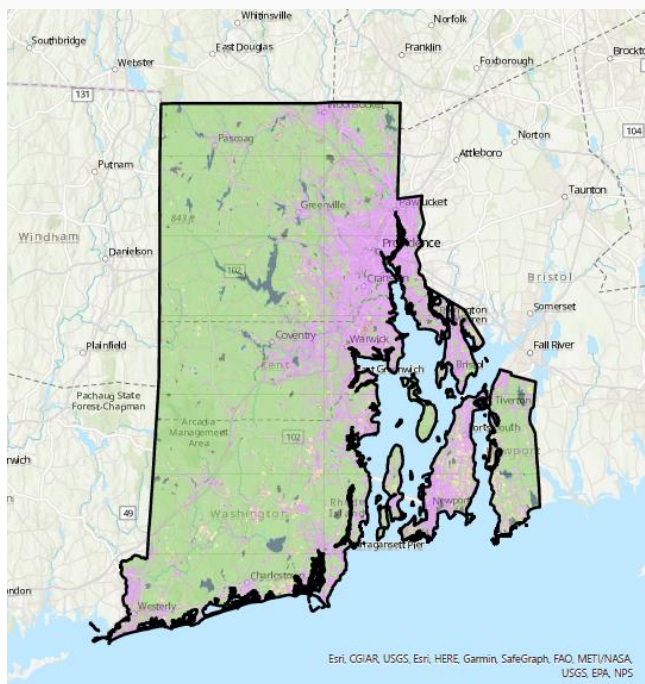


Producers by Gender



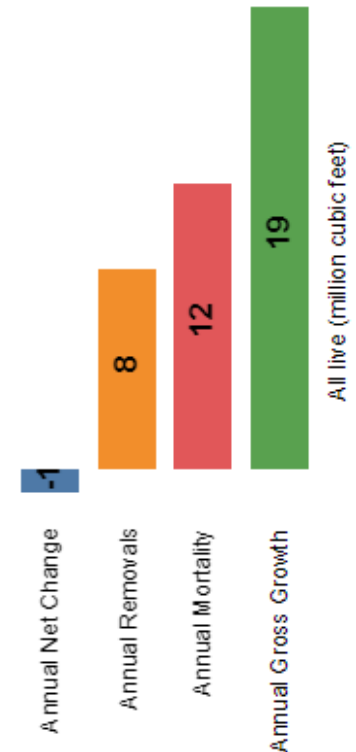
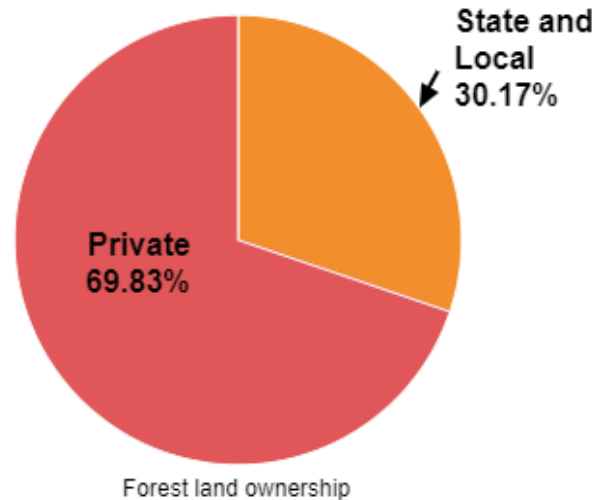
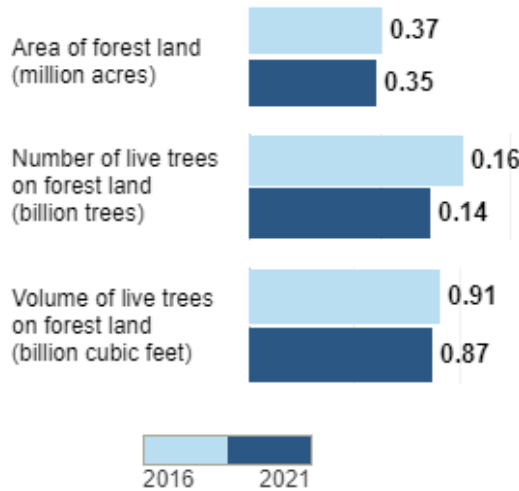
Female Male

Forestry



- Rhode Island has an estimated 357,716 acres of forest land*
- 52% forested (with water removed)*
- 2/3 of forested land was cleared by settlers by 1850
- Dominant forest type is oak/hickory containing white pine, northern red and white oak, and red maple (Rhode Island's state tree).
- 1.096 million people live on 988,700 acres total in Rhode Island
 - The 2nd most densely populated state

Forestry



1,067 acres of nonforest revert back to forest annually*

2,007 acres of forest land convert annually* to nonforest

4,373 acres of forest land are treated by cutting (harvest, thinning, etc.) annually*

0 acres of forest land are disturbed annually* by fire

373 acres of forest land are disturbed annually* by weather events

Review of Major Land Ownership in Rhode Island

Around 90% of Rhode Island is privately owned. The State and Municipalities own the bulk of the non-private lands at about 10%. The federal ownership is 0.8%. The Narraganset Indian Tribe ownership is approximately 2500 acres.

Expected TSP Workflow

- The State Resource Conservationist (SRC), or designee, will be responsible for reviewing TSP conservation planning for the National Planner Designation.
- Subsequent conservation plans will be reviewed by the District Conservationist (DC) at the local USDA Service Center.
- The SRC, or designee, will conduct plan reviews for TSP planner designation renewals.
- TSPs will work with the local District Conservationist to make sure the proper environmental evaluations (NRCS.CPA.52) are completed.

Additional References or Training

- State Field Office Technical Guide at [RI FOTG](#)
- Rhode Island Training on plan and design development, including but not limited to CNMP, IWMP etc.
- Rhode Island General Law [§ 5-8-1](#) when engineering license is need for planning conservation practices.
- Rhode Island Geographic Information System ([RIGIS](#))
- URI Cooperative Extension
 - [Forestry](#)
- Soil Health Test Laboratory
 - [CorelICALS](#)

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Certificate of Completion

After viewing the State Specific Training module, please print and sign the completion certificate on the following slide.

The certificate is your acknowledgement that based on the information provided in this module, you have the proper knowledge, skills and ability to conduct planning in this State.

Within your NRCS Registry profile, enter the training and upload the signed certificate to verify completion.

STATE SPECIFIC TRAINING MODULE COMPLETION CERTIFICATE

I, _____ hereby verify I have viewed and understand the content of Rhode Island State
TSP Name
Specific Training Module and affirm I have the knowledge, skills, and ability to conduct conservation planning
services in this state.

TSP Signature

Date