

# Annual Report 2012



**ROCKINGHAM  
COUNTY  
CONSERVATION  
DISTRICT**



*The mission of the Rockingham County Conservation District is to conserve and sustain the natural environment for present and future generations by working to make wise land-use decisions.*

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110 North Road - Brentwood, NH 03833 - 603.679.2790

[www.rockinghamccd.org](http://www.rockinghamccd.org)

## Board of Supervisors and Staff

### Supervisors

Cynthia Smith, Chair - Greenland  
Heidi Seaverns, Vice Chair - Nottingham  
Robert Goodrich, Treasurer - Stratham  
Joanna Pellerin, Secretary - Exeter  
Daniel Davis - Newfields

### Associate Supervisors

Richard Lutz - Chester  
John Conner - Londonderry (Emeritus)  
Harold Bodwell - Kensington (Emeritus)

### RCCD Regular Staff

- Leonard A. Lord, PhD- District Manager/Ecologist, NH Soil Scientist, NH Wetland Scientist, NH Septic System Designer, NH Pesticide Applicator
- Tracy Degnan - Conservation Specialist
- Diane Knapp - Office Manager
- Matthew Larkin - Conservation Technician
- Vicky Stafford - Conservation Technician

### RCCD As-Needed Staff & Contractors

- Michael Cuomo - NH Soil Scientist, NH Wetland Scientist, NH Septic System Designer
- David Detour - Surveyor and AutoCAD draftsman
- Marc Jacobs - NH Soil Scientist, NH Wetland Scientist, Certified Professional in Erosion and Sediment Control
- Gerald Lang, PE - Hydraulic Engineer
- Edwin Minnick, PE - Hydraulic Engineer

### RCCD SERVICES

- |                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| • Non-Point Source Pollution Control | • Invasive Species Control        | • Agricultural Wetland Impact Permits              |
| • Ecological Restoration             | • Stormwater Management Reviews   | • Soil Potential Index Calculation for Current Use |
| • Sustainable Agriculture            | • Septic System Design Reviews    | • Historic Aerial Photography back to 1943         |
| • Conservation Easements             | • Natural Resource Impact Reviews |  |

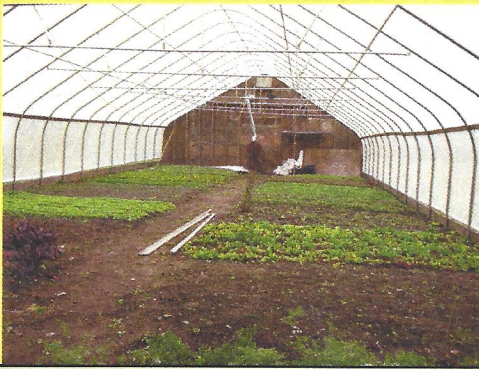


## 2012 Highlights

This year was a growth year for RCCD. While we are still working to overcome our funding cut from 2011, we have made headway. With a number of our own grant funded restoration projects in full swing along with funding from our partners at the Natural Resources Conservation Service to manage a number of their restoration projects, our staff was very busy this year. As we move forward, however, many of the grant programs that funded these projects have either disappeared or become extremely competitive. One way we are looking at becoming stronger is by partnering with the Strafford County Conservation District (SCCD) on the Great Bay Nutrient Management Initiative. The

**Every dollar provided by the County in 2012 leveraged \$6.13 from other sources.**

Great Bay watershed covers nearly all of Rockingham and Strafford Counties. By partnering and combining resources, we will be able to provide more services that result in VOLUNTARY reductions in stormwater pollutants that ultimately enter Great Bay. Reducing pollutant loading in runoff is expected to reduce the pressures on municipal wastewater treatment plants to reduce nutrient loading through extremely expensive upgrades.



### NEW HAMPSHIRE STATUE TITLE XL

#### SOIL CONSERVATION AND FARMLAND PRESERVATION Conservation Districts

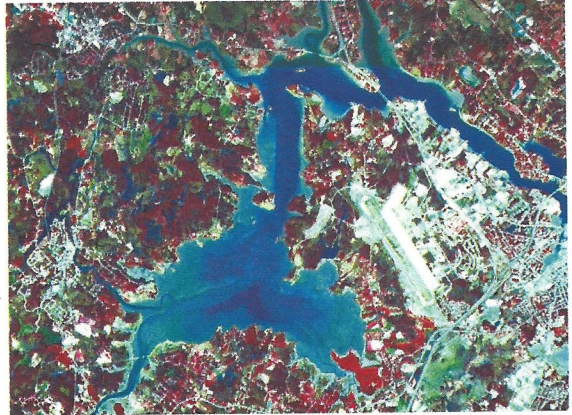
**432:8 Declaration of Policy.** – It is hereby declared to be the policy of the state to provide for the establishment of conservation districts under the supervision of a state conservation committee, said districts to be composed of landowners and land occupiers within the district, who may join together in the interest of the conservation and development of the soil, water, and related natural resources and preventing soil erosion, floodwater and sediment damages. It is the intent of this subdivision to facilitate the joint effort of landowners, land occupiers, and units of government in carrying out measures for the conservation and development of lands within the district, voluntarily and with such assistance as may be available for this purpose from local, state, or federal governmental agencies.

**432:11 Duties.** – The state conservation committee shall:  
IV. Seek the cooperation and assistance of the United States, of this state, and of town and county governments, in the work of such districts, and receive funds from such agencies or from any other source and use such funds to carry out the purposes of the state conservation committee and the conservation districts

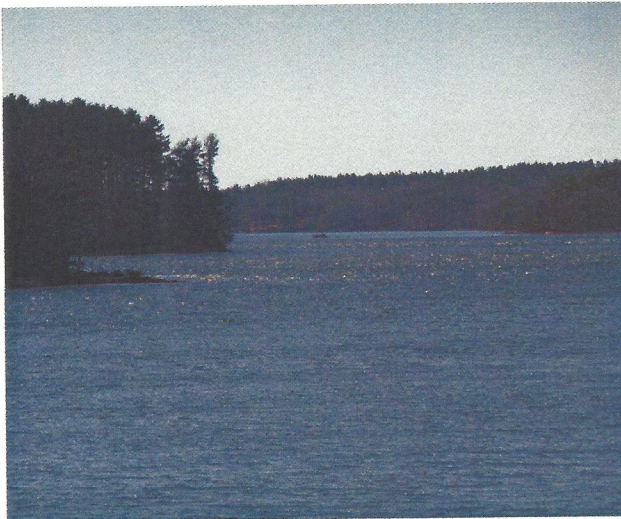


## *Great Bay Nutrient Management Initiative*

The RCCD has partnered with Strafford County Conservation District (SCCD) to assist farmers in **VOLUNTARILY** reducing nutrient inputs to Great Bay. In New Hampshire, the Great Bay watershed encompasses most of Rockingham and Strafford Counties. Through conversations with local farmers, the Districts learned that **the best equipment available for efficient farm-**



**ing and nutrient management is typically too expensive for individual farmers to own. The Districts obtained grant funding to purchase a wood ash/lime spreader, a soil aerator, and a no-till drill for farmers to rent at low cost. Additional plans for 2013 include a soil sampling and testing program that will help farmers and landscapers limit the amount of fertilizers used.**



We encourage farmers and landowners to stay informed on their soil health and to use efficient nutrient management practices. Learn more about the equipment rentals and the importance of soil tests and where and how to have a test done in other sections of this report.



## Great Bay Nutrient Management Initiative

# Ash Spreader, Soil Aerator and No-Till Drill

### Wood Ash Spreader

As part of the Great Bay Nutrient Management Initiative, a Stoltzfus Wet Lime Spreader was purchased with funding through the NH State Conservation Committee Grant Program. To combat the growing challenges created by New Hampshire's acidic soils, this piece of equipment will be available for rent to spread wood ash or lime, which will help modify soil pH. Soils that are less acidic or soils with a pH closer to neutral are better environments for legumes and other nitrogen fixing plants.



**Raising pH with wood ash is an efficient way to facilitate increased nitrogen content in the soil without overloading the soil with nitrogen fertilizers. It is also the best way to recycle wood ash generated by biomass energy facilities, such as the one at the Rockingham County Complex.**



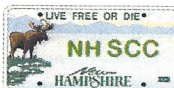
**Soil Aerator** Also for rent, an AerWays Soil Aerator was purchased with funding from the New Hampshire Association of Conservation Districts Innovative Demonstration Projects in partnership with the Natural Resource Conservation Service. Compacted soils affect soil health in a variety of ways including limiting normal water infiltration, and limiting plant root access to nutrients. The aerator will add pores to the soil and loosen compaction without damaging soil structure as often happens

with tilling practices. **With less compaction, farmers can see an increase in soil permeability and productivity without using fertilizers, therefore reducing runoff pollutants released into Great Bay.**

**No-Till Drill** A grant has been awarded to SCCD in partnership with RCCD to purchase a no-till seed drill. **No-till practices allow farmers to manage their land in ways that reduce stormwater runoff and prevent soil erosion, which protects our surface waters.**



**Rental:** For more information on how rent the equipment, contact the District office.





## Great Bay Nutrient Management Initiative

### *Soil Testing Service*

Soil health and soil chemistry can dramatically affect crop or turf health when properly managed. Soil testing is the best way to assure that nutrients and physical conditions are in the proper range to enable successful crop and lawn growth without negative side effects. **When soil chemistry is out of range, the result can be nutrient runoff that eventually makes its way into Great Bay as well as wasted fertilizer and labor costs.** Soil testing is also recom-

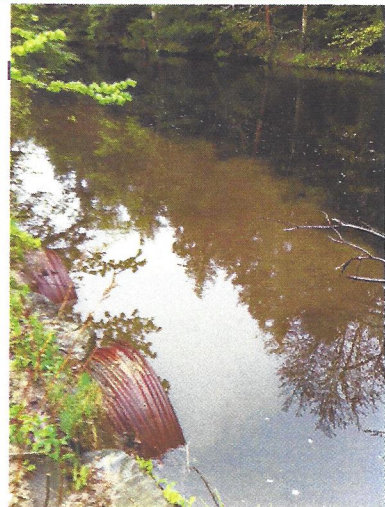


mended before spreading with the wood ash spreader or before using the no-till drill for reseeding. Soil compaction testing, which is part of the Cornell Soil Health test, also enables targeted use of the RCCD aerator, which can be used to increase water and nutrient infiltration to the root zone where it is productive. **What the District Can Do:** In 2013, the district will provide training for landowners interested in taking their own soil health samples as part of upcoming Great Bay Nutrient management and soil health workshops. Soil collection tools will be available for loan to further promote extensive soil testing in the Great Bay watershed. The district will help facilitate the transport of a soil sample to UNH or Cornell. Samples can be dropped off at the district office, or for a fee, the district will be available to collect the soil sample at the site.

## Programs

### *Municipal Technical Assistance*

RCCD continues to be relied upon as an objective provider of technical expertise to municipalities and landowners. RCCD provides technical assistance to municipalities for services related to stormwater management and related site engineering design reviews, erosion & sediment control reviews, test pit witnessing for subdivision and septic system designs, septic system design reviews, septic system installation reviews, wetland and other natural resource impact reviews, as well as monitoring of town held conservation easements.



**In 2012 RCCD staff spent 1,727 hours on 240 technical assistance projects in 18 of Rockingham County's 37 towns.**

All programs are offered on a non-discriminatory basis without regard to race, color, national origin, religion, sex, age, marital status, disability or political beliefs.



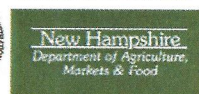
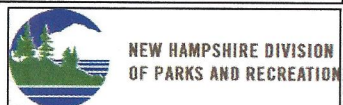
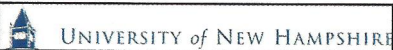
## Grant Funded Projects

# *Odiorne Point State Park, Rye*

In 2012 RCCD completed its third year of habitat restoration at Odiorne Point State Park in Rye. This effort will not only have environmental benefits, but is expected to improve the quality of the park for recreation, aesthetics, education, and safety. Odiorne Point State Park includes some of New Hampshire's rarest native ecosystems such as coastal pitch pine forest, dunes, salt marshes and barrier marshes; however, these habitats have become degraded over time due to historical disturbances and human impacts that have promoted infestation by invasive species. To date, RCCD has conducted work on 80 +/- acres within and adjacent to the park, including populations of at least three rare species.



**Partners & Funders:** NOAA/NHDES Coastal Program Grant, NHDRED Division of Parks and Recreation, NH Corporate Wetland Restoration Partnership, USDA Forest Service, University of New Hampshire, NHDES Aquatic Resource Mitigation Fund, NH Department of Agriculture Markets and Food, Integrated Pest Management Grant, NHDRED Natural Heritage Bureau, Seacoast Science Center, Coastal Wetland Invasive Plant Partnership, Natural Resources Conservation Service, United Way Day of Caring volunteers, Town of Rye Conservation Commission, Timberland Earth Day volunteers, and many local schools. This project is also supported by funds from the sale of the Conservation License Plate (Moose Plate) through the NH State Conservation Committee Grant Program.





## Grant Funded Projects

# Exeter River, Brentwood

In 2012 RCCD completed its second year of work along the Exeter River in Brentwood in partnership with the Brentwood Conservation Commission. This project includes stormwater treatment, riverbank stabilization, and a conservation easement on 18 acres to protect over 5,600 feet of river frontage. Work conducted in 2012 included permitting, construction of vegetated treatment swales, construction of a stormwater treatment wetland, construction of infiltration

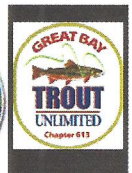
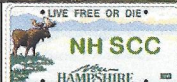


stairs/boating access, stabilization of an eroding riverbank along a road shoulder, and buffer enhancement. This work is expected to improve water quality of the Exeter River, which feeds into Great Bay.

**Partners & Funders:** RCCD is managing this project in partnership with, and through funding provided to the Town of Brentwood. Funding for this project was provided in part by a Watershed Assistance Grant from the NH Department of Environmental Services with



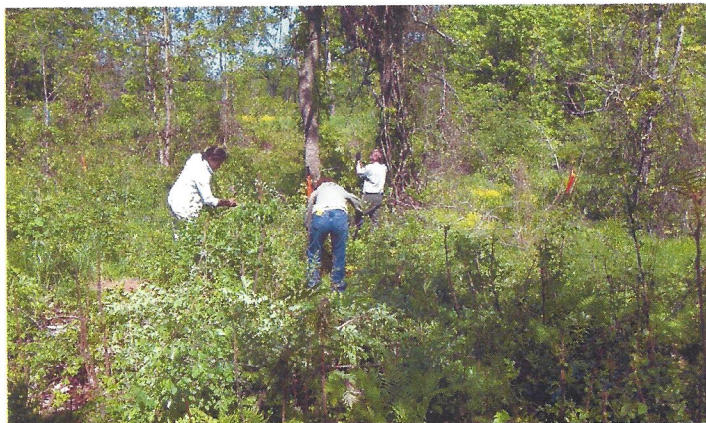
Clean Water Act Section 319 funds from the U.S. Environmental Protection Agency. This project is also supported by funds from the sale of the Conservation License Plate (Moose Plate) through the NH State Conservation Committee Grant Program. Additional project partners include NH Trout Unlimited, Exeter River Local





## Grant Funded Projects

### *Shepard Park, Derry*



RCCD completed the second phase of habitat restoration at Shepard Park in Derry in partnership with the Derry Conservation Commission. This project utilizes the

principles of integrated pest management (IPM) for forest and shrubland restoration, wildlife habitat enhancement, and invasive plant species control in the 30 acre park. The first phase of the project involved planning and an initial implementation to minimize impacts to sensitive wildlife species. The second phase of the project built on the initial plan and also included data collection, analysis, and community outreach.

**Partners & Funders** have included the NH Department of Agriculture, Markets and Food, Integrated Pest Management Program Grant, the Town of Derry Conservation Commission, and many local volunteers.



## Grant Funded Projects

### *Goss Farm, Rye*

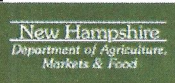
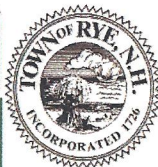
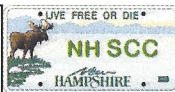
In 2012 the RCCD and the Rye Conservation Commission completed the second year of work restoring the Goss Farm in Rye. In 2008 the 10 acre parcel was under consideration for development into a five lot subdivision and in 2009 the historic 1797 farmhouse on the property burned. In 2010 the RCCD assisted the Town of Rye in procuring a Farm and Ranch Lands Protection Program grant from the Natural Resources Conservation



Service that helped to fund a conservation easement on the property. One of the goals of preserving the farm was to return it to agriculture, which had not occurred on the land for approximately 40 years. The RCCD, holder of the conservation easement and project manager for the restoration, secured grant funds to restore soil fertility, to facilitate invasive species management, to establish a 100 foot buffer of native vegetation along the adjacent Awcomin Salt Marsh, and to provide related educational outreach.



**Partners & Funders** include the Town of Rye, Natural Resources Conservation Service, NH Department of Agriculture, Markets and Food, Integrated Pest Management Grant, UNH Cooperative Extension, and many community volunteers. This project was funded in part by a grant from the Piscataqua Region Estuaries Partnership. This project is also supported by funds from the sale of the Conservation License Plate (Moose Plate) through the NH State Conservation Committee Grant Program.





## Grant Funded Projects

# River Road Salt Marsh, New Castle



RCCD completed this project in partnership with the Town of New Castle. The River Road salt marsh restoration project is expected to serve as a flagship project to build community support for salt marsh restoration throughout New Castle. Degraded salt marshes have less wildlife value, reduced species diversity, greater mosquito production, and have detrimental effects on landscape aesthetics. The River Road salt marsh was im-

pacted during the early 1970's by the placement of a sewer line along approximately half of its perimeter. This led to the filling in of a stream through sedimentation that ultimately has led to an expanding population of invasive *Phragmites*. The goal of this project is to remove the *Phragmites* and restore the stream channel, which is also expected to reduce mosquito production in the marsh. A path connecting the restored marsh to the nearby elementary school makes this marsh a prime outdoor educational laboratory in which to study the salt marsh ecosystem and students have been involved throughout the restoration process.

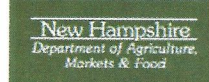
### Partners & Funders include:

New Castle Conservation Com-

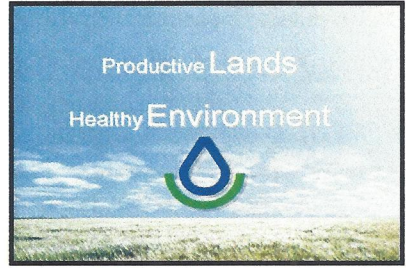
mission, NHDES Aquatic Resource Mitigation Fund, NH Department of Agriculture, Markets, and Food, Integrated Pest Management Grant Program, and Project



landowners. The feasibility portion of this project was funded in part by a grant from the Piscataqua Region Estuaries Partnership in 2010.



## *Natural Resources Conservation Service Partnering*



RCCD continues to partner with NRCS to identify and address natural resource concerns in local communities and to coordinate public and private resources to meet local needs on a grassroots level. The District worked with NRCS during 2012 to provide assistance to land-owners and producers to carry out environmentally sound practices that benefit all residents of the County under the 2008 Farm Bill.

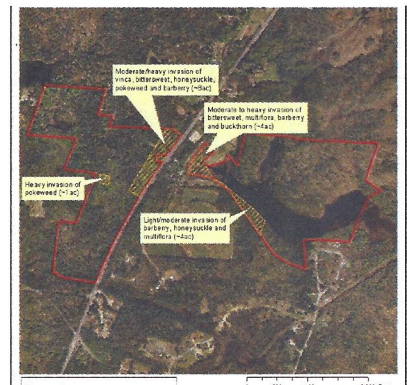
*The Natural Resources Conservation Service is a core partner of the Rockingham County Conservation District. The partnership between the NRCS and Conservation Districts is one that was carefully designed to foster a unique and productive relationship to get conservation implemented on a VOLUNTARY BASIS and to provide federal resources at a local level.*

### NRCS Funded Projects Managed by RCCD

## *Thirty -Two Wetland Restoration Projects*



In August, the RCCD was awarded a cooperative agreement with the Natural Resources Conservation Service (NRCS) to provide management and oversight of 27 wetland restoration projects in addition to five sites that being managed under another NRCS agreement. The restoration sites are in both Rockingham and Stafford Counties and the



work is being completed in partnership with the Stafford County Conservation District. The project will improve wetland habitat for water quality, flood storage, and wildlife habitat. The project involves site evaluations, selection of contractors, permit preparation, and manabement of project implementation to complete wetland restoration projects according to plans prepared by the NRCS.



NRCS Funded Projects Managed by RCCD

## *Demonstration Projects*

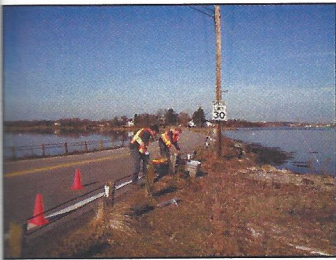
The NRCS provided funding to each of the ten conservation districts in NH to conduct needed demonstration projects that would otherwise be unfunded. RCCD conducted two projects.



### **Fruit Inhibition of Invasive Species**



The first project examined using a plant growth regulator that is used in the agricultural and horticultural trades to control fruiting on invasive shrubs. This could be utilized where management of habitat for the rare New England cottontail involves gradual replacement of invasive shrubs with native shrubs to maintain a dense shrub cover while minimizing spread of the invasives. The experiment indicated excellent control of fruiting could be achieved.



### **Salvage and Restoration Planting of State Listed American Beachgrass**

The second project involved salvaging rare beachgrass that was slated to be destroyed as part of a road upgrade project along the causeway from New Castle to Portsmouth. RCCD enlisted volunteers as well as partners from the Coastal Wetland Invasive Plant Part-

nership to assist in the salvage and replanting project. The beachgrass was planted into several patches at a beach restoration project at Odiorne Point State Park.



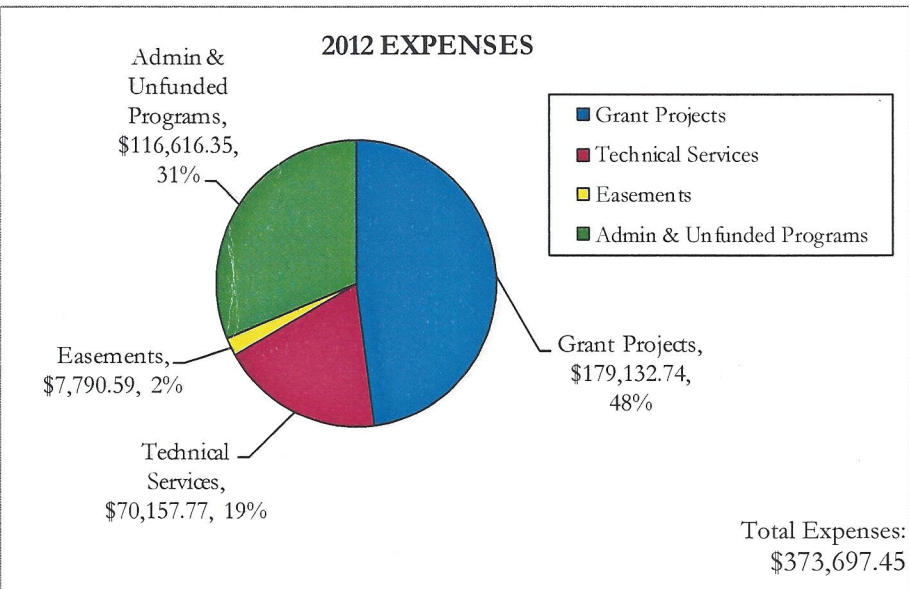
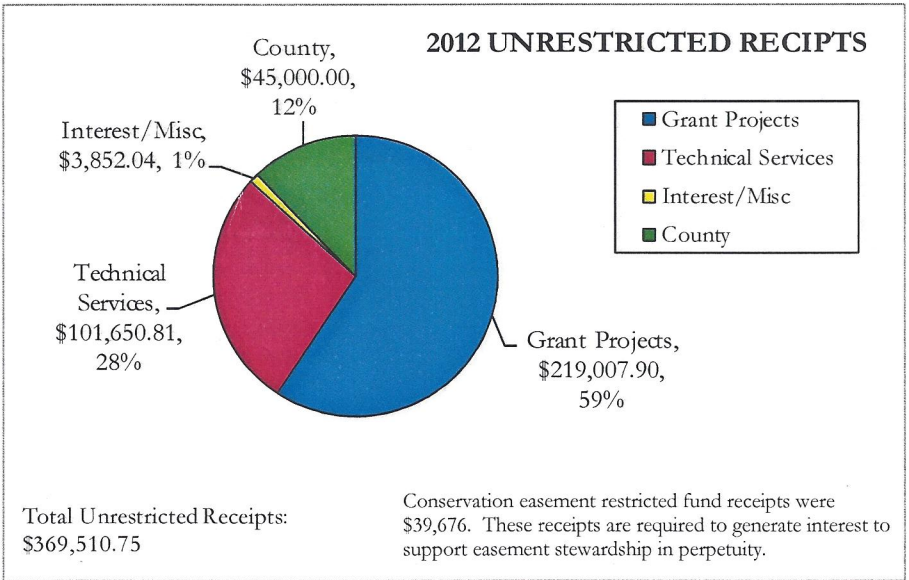
## **Programs**

### *Conservation Easements*

In addition to protecting open space, conservation easements protect communities from higher taxes, help keep government and government services small, protect town character and aesthetics, and protect natural resources for future generations.

RCCD is legally responsible for monitoring 103 conservation easements on approximately 4,600 acres of land throughout the county. As part of our new business model, RCCD has greatly reduced the number of new easements it is now able to accept due to our limited staff. RCCD staff spent 468 hours managing easements in 2012.

# Financials





## Financials

Over the past year RCCD has made a number of strides to reduce costs and increase revenues to help offset the 50% county funding cut of \$45,000 in 2011. To this end we have aggressively pursued grant funded projects, raised our fee-for-service rates, reduced our office hours, and reduced one administrative staff position from full-time to part-time. Despite these efforts, the District still operated at a net loss for the year. We hope to reverse this in 2013.

The RCCD Board of Supervisors appreciates the past support of our programs by the Rockingham County Commissioners and the County Delegation.



## Looking Ahead to 2013

**Stormwater Quality & Quantity Issues** will continue to become more important in the County as demonstrated by the numbers of high energy storms that are on the increase while development also increases. We will also be working with our towns and partners to help reduce nitrogen levels in Great Bay from stormwater, septic systems, and other non-point source pollution. In turn, this can help reduce the pressure to provide costly up-grades to municipal sewage treatment plants.

- **Controlling Invasive Pests and Reducing Pesticide Use** is expected to become an important part of RCCD programming. With at least two new invasive insect pests threatening our crops, RCCD looks forward to working with our partners at NRCS and NH Cooperative Extension to assist farmers in controlling these pests while minimizing pesticide use.

- **Local Agriculture** is expanding in Rockingham County and the District is gearing up to work with local farmers to increase local production while maintaining stewardship of the land. RCCD anticipates more involvement in projects such as assisting farmers groups in obtaining specialized equipment that works efficiently while also improving the protection of soil and water resources.

- RCCD receives a large number of requests to work with towns regarding **Ecological Restoration Projects**. We will continue to meet the demands of our towns by continuing this work, which is often associated with issues such as non-point source pollution.



*Spotted Wing Drosophila (Photo UNH CE)  
A devastating invasive agricultural pest new to NH  
in 2011*

# Rockingham County Conservation District

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Dedicated to the Wise Use of Our Natural Resources.

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