

Are your fish dying for a better storm water plan?

Are you hungry for sustainable food practices?

Is your science curriculum less than AWESOME!?



WE CAN HELP!

Call us at 401-284-1885

Visit our website <http://sricd.org>

Or just stop in at our friendly office, now located at
10 High Street, Suite I-8, Wakefield, RI 02879



ANNUAL REPORT



Southern Rhode Island Conservation District
July 2005 – June 2006

DECEMBER 2006



About The Southern Rhode Island Conservation District (SRICD)

SRICD's Mission

Our mission is to promote and achieve a healthy environment and sustainable use of natural resources for the people of Kent and Washington Counties and the state of Rhode Island by providing technical, educational, and financial resources in coordination with our partners.



SRICD Board (left to right): Clarkson Collins, Harvey Buford, Harriet Powell, Ross Adrain, Marjorie Weeden, Stephen DelPozzo, Patricia Lenihan, Rudi Hempe.

Our Operating Philosophy

If we can foster a sustainable balance in the ways we relate to our landscape—as a place to work and play, grow food, store rainfall, and/or provide habitat for other creatures—we will have wholesome and beautiful places to live. SRICD's work promotes such a sustainable balance by focusing on the most essential and most often challenging elements of the equation:

- Clean and plentiful waters,
- Secure sources of food, and
- Well managed open space and wildlife habitat.

To be effective in our mission and operating philosophy we constantly attend to:

- Organizational strength and vision.

SRICD is governed by a board of directors—five voting members and several associate directors who provide technical assistance and a diversity of views. Our board represents communities and interests throughout Kent and Washington Counties. If your community is not represented by our directors, consider joining us.

Cover: Duck Cove Salt Marsh, North Kingstown, October 2006.

Directors:

Patricia Lenihan
Chair (East Greenwich)
Stephen DelPozzo
Treasurer (West Greenwich)
Harriet Powell
Secretary (North Kingstown)
Clarkson Collins
(South Kingstown)
Rudi Hempe
(Narragansett)

Associate Directors:

Ross Adrain
(West Warwick)
Harvey Buford
(Hopkinton)
Richard Donnelly
(North Kingstown)
Kelly Fox
(Westerly)
Marjorie Weeden
(Hopkinton)

SRICD's Staff

Alicia Lehrer—*District Manager*
Susan Letendre—*Education and Outreach Director*
Patricia Gambarini—*Storm Water Designer*
Kristine Stuart—*Storm Water Management Specialist*
Patricia Tanalski—*Special Projects Coordinator*
Kathryn Zuromski – *Intern*
Jean Lambert—*Engineering Consultant*

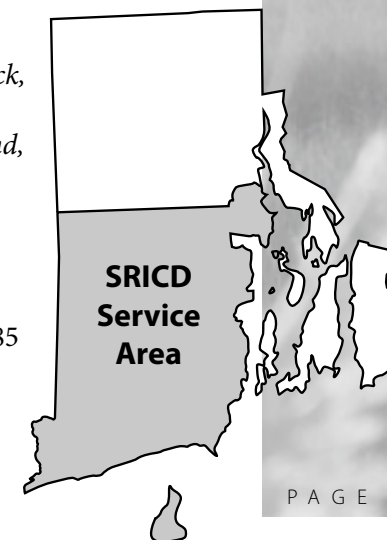


SRICD Staff (left to right): Susan Letendre, Patty Tanalski, Alicia Lehrer, Kristine Stuart, Patty Gambarini.

SRICD's Service Area

SRICD serves the communities of Kent and Washington Counties: *Coventry, West Warwick, Warwick, West Greenwich, East Greenwich, Exeter, North Kingstown, Hopkinton, Richmond, South Kingstown, Westerly, Charlestown, Narragansett and New Shoreham (Block Island).*

In addition, we serve all of Rhode Island in storm water assistance, site plan review, and food policy programs. Call us at 401-284-1885 or look us up on the web: <http://sricd.org>.



Ensuring Secure Sources of Food in RI

In our EPA and USDA CREES funded program, “Three Sisters, Many Tribes, One People” the District worked this year with inner-city Native American youth, growing gardens at the Rhode Island Indian Council building on Broad Street in Providence.

The youth planned, planted, tended, and harvested five raised beds, made dinner from the harvest, visited woods, a salt marsh, and meadows with Native Elder guides, and learned about nutrition working with the URI Partnership in Food, Hunger and Nutrition.

Most of the youth had never grown food before or seen a salt marsh. They grew traditional European vegetables, and also sweet potatoes, a gift from the southern hemisphere, and the three sisters of their own ancestors: beans poling up the corn stalks (which bore fruit and fed the youth!!!) and squash underneath.



Local Assistance in Storm Water Management

Municipal Employee Training Programs On Pollution Prevention & Good Housekeeping

SRICD has developed municipal staff training workshops for use with several towns. Such workshops are essential if towns are to improve practices that affect storm water quality. Trainers are SRICD staff, as well as outside experts. To date workshops include:

Better Turf Management Practices for Municipalities – This half-day program outlines and demonstrates superior athletic field maintenance using only non-chemical methods, eliminating health concerns associated with chemical pesticides and fertilizers. Techniques described in this workshop have produced consistently good results over the last five years in Marblehead, Massachusetts and on a golf course in Connecticut. The best part is that the costs associated with this program decrease every year as soil health improves and naturally supports stronger turf.

Why Watersheds? An Overview of the RIPDES Phase II Program – This is a two hour awareness workshop designed for all municipal staff, who are responsible for carrying out a storm water management program plan. It was developed to remind staff of the important role they each play as the first line of defense in protecting rivers and streams from polluted storm water runoff.



Storm Water System Inspection & Maintenance – In this two-hour workshop, participants are asked to compare current procedures against RIPDES Phase II Permit requirements, with an eye toward possible improvements on current methods. The workshop ends with field inspection of a nearby catch basin, detention basin, and grassed waterway. In addition to the educational benefits, notes developed during this workshop can be used as a basis for written procedures as required of all municipalities under the Phase II Permit.

Reviewing Site Development Plans for Erosion & Sediment Control and Storm Water Management – This workshop is customized for every community depending on staff needs using several types of plans under current review. The program includes a demonstration of a checklist in performing the review, concluding with field visits to two sites.

MUNICIPALITIES TRAINED TO DATE:

Narragansett: Town staff in Narragansett who participated in the “*Better Turf Management Practices for Municipalities*” was so enthusiastic about some of the nontoxic and organic practices they learned about that SRICD then worked with the Town to apply for a grant to fund the purchase of a compost tea brewer. Narragansett’s entire Public Works Department attended “*Why Watersheds*” and “*Storm Water System Inspection & Maintenance*” workshops.

North Kingstown: The full staff of North Kingstown’s Highway Department and other members of the engineering section of the Public Works Department attended “*Why Watersheds*” and “*Storm Water System Inspection & Maintenance*” workshops.

Coventry: Planning staff and volunteers were trained in use of the “*Reviewing Site Development Plans for Erosion & Sediment Control and Storm Water Management*” checklist and field inspection.

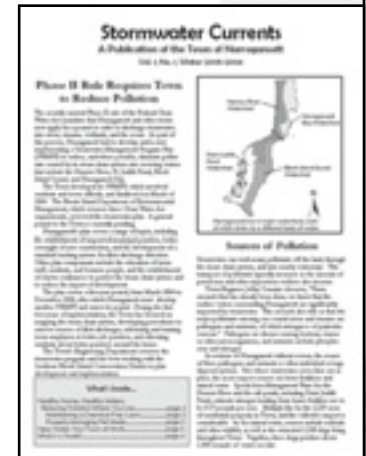
All Municipalities Trained in Use of “Site Plan Review Checklist” at RIDEM Sponsored Phase II Workshop (December 7, 2005)

Educating Local Residents

To inform residents about storm water issues and about municipal efforts to improve practices, SRICD worked with the Town of Narragansett to develop a 4-page newsletter. Articles in the newsletter included:

- Phase II Rule Requires Town to Reduce Pollution
- Sources of Pollution
- Healthy Homes Healthy Waters: Reducing Pollution Where you Live
- News Notes: Your Town at Work
- What is a Swale? (A swale is a broad, shallow channel often seen on roadsides).

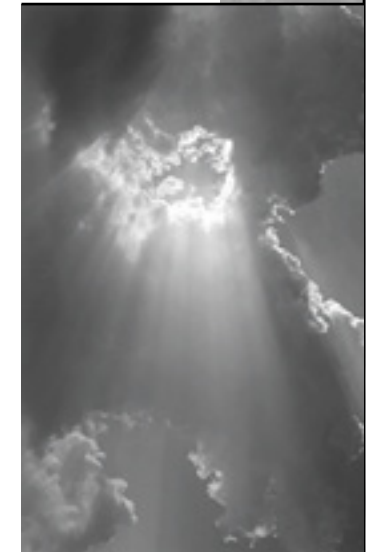
Received by more than 8,300 households, the newsletter drew enthusiastic reviews from residents.



Grant Proposal Development Assistance

This year, SRICD assisted in the development of eight grant proposals to fund water quality improvement projects related to storm water management. The proposal titles are:

- Erosion Control on West Warwick River Walk
- Livestock and Manure Management on Sunset Farm, Narragansett
- Design and Implementation of Storm Water BMPs in Narrow River Watershed
- Feasibility and Design of BMPs in Crooked Brook Watershed
- Feasibility and Design of BMPs in Sawmill Pond/Sandhill Brook Watershed
- Brewing Compost Tea in Narragansett
- Feasibility and Design of Best Management Practices in Point Judith Pond Watersheds
- Landscape Modifications to Exclude Geese at Stanley-Bostitch Campus



Managing Canada Geese for Improved Water Quality

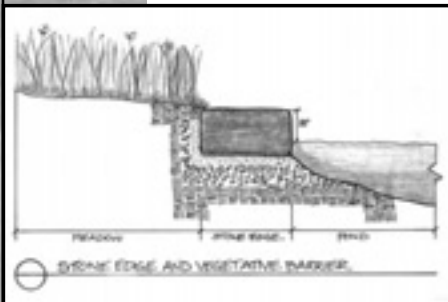
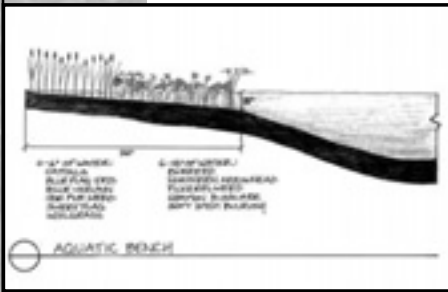
SRICD developed plans for two East Greenwich landowners, Stanley-Bostitch and the East Greenwich Golf and Country Club, to reduce the impact on water quality from resident waterfowl populations on water quality in Fry Brook and Frenchtown Brook. Both brooks, located within the Hunt River watershed, are identified as impaired by pathogens in RIDEM's Hunt River and Fry Brook TMDL studies. These studies also identify wildlife, particularly geese, as a major source of pathogens.

To begin its work, SRICD identified four strategies that have been effective in managing Canada Geese. The strategies fall into two categories: inducing geese to move, and controlling population. Depending on the situation, it may be necessary to combine these strategies for best effect.

Inducing geese to move includes the following two strategies:

- landscape modifications, which involves making areas less attractive to geese; and
- hazing, which involves deploying dogs to prevent geese from using the property.

Landscape modification is an important strategy in discouraging geese from using a site. Modifications can involve reducing sightlines, impeding access, and reducing the size of the foraging area, among other practices. The landscape elements diagrammed above both reduce sightlines and impede access for geese moving from water to land.



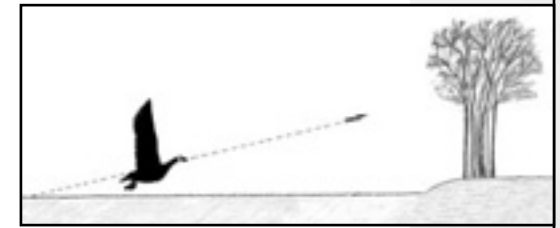
Controlling population includes the following strategies:

- birth control, which involves oiling eggs to render them unviable; and
- killing adults, which can involve either hunting or rounding them up for slaughter (typically the strategy of last resort).

Drawing from this research on effective strategies, SRICD then worked with Stanley-Bostitch and the East Greenwich Golf and Country Club to devise a custom plan for each organization to better manage their geese populations and thus reduce water quality impacts.

SRICD assisted Stanley-Bostitch in applying for a Narragansett Bay Watershed Restoration Fund grant to implement most of the landscape changes suggested in the plan.

This work was funded by a Clean Water Act, Section 319 grant from the Rhode Island Department of Environmental Management.



Geese need long runways to get off the ground or water and attain altitude for flight. Obstructing this flight clearance angle by planting tall trees is a powerful approach to excluding geese from use of a site.



Livestock Producer Inventory in Saugatucket and Pawcatuck Watersheds

In 2006, through a grant from the NRCS, and in partnership with the RIDEM Division of Agriculture (Div. of Ag.), SRICD began a multi-faceted project to locate and inventory livestock producers in the Saugatucket and Pawcatuck Watersheds.

SRICD developed this project originally when working with a group that was trying to determine pollution sources to the Saugatucket River. The group suggested that we look at livestock producers as one possible pollution source. We conducted a windshield survey, driving through the watershed with an eye for livestock, big and small. That survey yielded fifteen possible sites. Cross checking the approximate addresses with Div. of Ag.'s farm database and the producers who are assisted by NRCS, we found that only five producers were known to either agency.

Originally, SRICD wanted to look for funding to do some outreach to the farmers just to let them know about programs to assist them, such as federal cost share programs, and the state Farm, Forest and Open Space Act, under which they can receive a significant tax break on their land. Discussions with NRCS and Div. of Ag. revealed that contacting livestock producers could have many more benefits, and the project evolved into its current form to:

Determine overall phosphorous loading to the Saugatucket and Pawcatuck watersheds from manure production and give an overview of the natural resources and potential threats to those resources in the Pawcatuck Watershed in order to best use limited financial resources to prevent pollution.

Use a global positioning system to develop a database of farms and average numbers and types of livestock for use by the state veterinarian to better prepare for biosecurity hazards such as mad cow disease or avian influenza.

Give farmers resources such as:

- USDA cost share programs available through the Farm Bill
- Purchase of development rights programs through federal, state, and local organizations
- Farm, Forest and Open Space tax relief information
- Contact information for the state veterinarian in case of sick animals
- Fact sheets from the URI Cooperative Extension Healthy Landscapes Program on tips to manage livestock on small acreage
- Maps showing their operations in relation to local natural waters

Alphabet Soup

You will find several abbreviation throughout this report. Here is a handy guide to decoding them:

- BMP** Best Management Practice—A method for preventing or reducing the pollution resulting from an activity
- CREES** USDA's Cooperative State Research, Education and Extension Service
- GPS** Global Positioning System
- NACD** The National Association of Conservation Districts
- NRCS** USDA's Natural Resources Conservation Service
- RIDEM** Rhode Island Department of Environmental Management
- RIPDES** Rhode Island Pollution Discharge Elimination System regulated by RIDEM
- SRICD** Southern Rhode Island Conservation District
- TMDL** Total Maximum Daily Load—pollution studies developed by RIDEM for polluted water bodies
- URI** University of Rhode Island
- USDA** United States Department of Agriculture



Salt Marsh Restored!

SRICD coordinated the development of plans and permits for the restoration of Upper Duck Cove, a 7-acre salt marsh in North Kingstown, RI. The marsh was degraded due to the collapse of a culvert connecting the Upper and Lower Coves, which effectively prevented adequate salt water influx to the Upper Cove. In 2001, a box culvert was installed and the back parts of the marsh were retrenched to allow salt water to reach to all parts of the marsh.

SRICD monitored the restoration of the pond, starting with pre-restoration monitoring in 1999 and completing post-restoration monitoring in 2006. 2006 was the final year of the Duck Cove Salt Marsh Restoration Monitoring Program. Monitoring consists of photographic records, vegetative sampling, salinity sampling and measurement of tidal cycles.

On all counts, monitoring showed that the salt marsh has made huge strides toward restoration since 1999. The difference between high and low tides has increased, soil salinity levels are significantly higher, and salt marsh species such as *Spartina alterniflora*, have largely replace the invasive *Phragmites* (giant reed). The marsh is now providing good habitat for the abundant animal life associated with a thriving salt marsh.

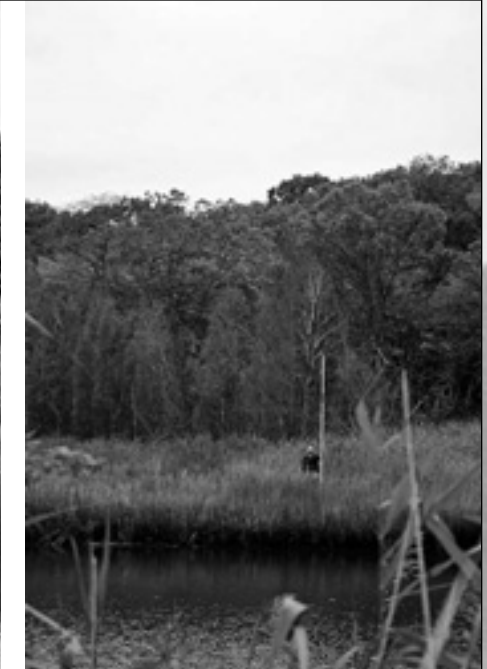


Kris Stuart dons her waders to monitor Duck Cove for the last time in October 2006.

Perhaps the most dramatic changes in the marsh can be seen in the before and after photos.



Duck Cove, August 1999. Phragmites is the dominant plant in the marsh. Kris, holding the Phragmites height measuring rod can barely be seen.



*Duck Cove, October 2006. Not only is Kris visible, but most of the vegetation in the picture consists of *Spartina alterniflora*, a permanent salt marsh species. The dead cedars in the background indicate that saltwater has penetrated the marsh completely.*

Marsh restoration planning was funded through a RI Aqua Fund grant. NRCS provided restoration funding through the Wetland Reserve Program. The monitoring program was funded jointly by RI Aqua Fund and the NRCS Wetland Reserve Program. This restoration project and a profile of local advocate Gidget Loomis were included in the book, *Restoring Wetlands Close to Home*, by Anne Schwartz, published this year by The Trust for Public Land.

FY '05-'06 Financial Statement

EXPENSES

Personnel	\$ 180,480.00
Operating	27,840.00
Annual Dinner	1,520.00
Seedling Sale	5,490.00
Meeting Expenses	1,560.00
Professional Development	250.00
Dues & Contributions	13,460.00
Line of Credit Payments	35,680.00

TOTAL EXPENSES \$ 266,280.00

INCOME

Annual Meeting Income	\$ 1,020.00
Contracts	68,710.00
Grants	76,300.00
Legislative Funding	75,000.00
Line of Credit	30,500.00
Town Funding	
Charlestown	0.00
Coventry	1,150.00
East Greenwich	720.00
Exeter	0.00
Hopkinton	0.00
Narragansett	1,130.00
New Shoreham	380.00
North Kingstown	1,010.00
Richmond	340.00
South Kingstown	0.00
Warwick	1,000.00
West Greenwich	300.00
West Warwick	0.00
Westerly	200.00
Miscellaneous	790.00
Seedling Sale	9,010.00

TOTAL INCOME \$ 267,560.00

Announcements

SRICD Has Moved!

Please come visit us at our new office on 10 High Street, Suite I-8 in Wakefield, RI, 02879. Our new telephone number is 401-284-1885 and our new fax number is 401-284-1889. Our web address is still the same: <http://sricd.org>.

SRICD's 2006 Award Winners

Conservation Farmer of the Year -
 Harry Records of Harry Here Farm
 Conservation Educator of the Year -
 Scott Millar
 Conservation Community of the Year -
 Town of West Greenwich
 Conservation Legislators of the Year -
 Senator J. Michael Lenihan and
 Representative Robert A. Watson

Staff Changes

Patricia Gambarini left our staff in October, 2006 to pursue her Certification in Landscape Architecture with Katherine Field and Associates in Newport, RI. We wish her all the best and will sorely miss her warmth and talents.

SRICD offers special thanks to the RI Legislature and the municipalities of Kent and Washington Counties for their continued support, our partners at NRCS, and Mark Rea for donating his professional photographic talents for the staff and board pictures for this report.