

# South County Greenspace Protection Strategy



# Project Team

## Project Director and Editor:

**Scott Millar**, Chief  
Sustainable Watersheds Office  
Rhode Island Department of  
Environmental Management  
235 Promenade Street, Suite 330  
Providence, RI 02908 (401)222-3434

## Project Manager and Editor:

**Jeff Nield**  
South County Watersheds Coordinator  
Sustainable Watersheds Office  
Rhode Island DEM

## Consultant Team Leader:

**Peter Flinker**  
Dodson Associates, Ltd.  
Landscape Architects & Planners  
463 Main Street, Ashfield, MA 01330  
www.dodsonassociates.com  
(413) 628-4496

## GIS Mapping and Analysis:

**John Menapace**  
Dodson Associates, Ltd.

## Planning and Public Participation:

**Jane Weidman** - Newport, RI  
**Brenda Dillman** - South Kingstown, RI  
**Ginny Leslie** - Warwick, RI

## Review of Local Plans and Ordinances:

**Randall Arendt**, Greener Prospects  
43 Prospect Avenue  
Narragansett Pier, RI 02882  
(401) 792-8200



Dear Rhode Islander:

In our State, more and more people are deciding to leave urban areas to live in less developed rural areas. Washington, or *South*, County is one of the places that is attracting more people and new growth. A recent Washington County Regional Planning Council report states that in the decade ending in 2000, Washington County's population grew by 12%, while the State's population grew by merely 4%. Unfortunately, one of the consequences of attracting new people and development to the region is the very character and natural resources that make this region so remarkable, are threatened.

This report and associated 'greenspace maps' illustrate what Washington County residents identify as the region's most important natural, cultural and recreational resources and how they think these resources should be protected. It serves as a guide to protect the wonderful natural wealth and rich cultural heritage that makes this region a truly unique place. And, in doing so, it specifically intends to assist our South County partners in their efforts to accommodate growing populations and new growth without sacrificing the environment or their quality of life.

RIDEM is committed to providing Rhode Island communities with the assistance they need to plan for growth while protecting, preserving and restoring the environment. Thanks to the financial support of the USDA Forest Service - Clean Water Action Program, RIDEM, in partnership with the Washington County Regional Planning Council, Rural Lands Coalition and the four Washington County watershed organizations, obtained the professional services of nationally-recognized planning experts, Dodson Associates and Randall Arendt, to assist the participating communities. The work summarized in the following pages reflects the hard work and dedication of many people especially the tremendous effort by dozens of dedicated Washington County residents that volunteered their time. We at RIDEM take great pride in being able to assist residents and their communities in this exciting effort.

Sincerely,

A handwritten signature in blue ink, which appears to read "Jan H. Reitsma".

Jan H. Reitsma  
Director

# Acknowledgements

The success of this project was a direct result of the great dedication and effort of dozens of individuals, organizations and representatives from participating municipalities. The Rhode Island Department of Environmental Management, on behalf of the USDA Forest Service, would like to recognize all the people that participated in this important project and extend our most sincere gratitude for their support. Appendix IV lists the names of volunteers from across the State of Rhode Island that volunteered their time and realized the great accomplishments set forth in this document.

## Project Advisory Committee

Lee Alexander, The Nature Conservancy  
Grace Beiser, Principal Planner (ret.), State-wide Planning  
John Berg, Land Protection Specialist, The Nature Conservancy  
Sheila Brush, Program Director, Grow Smart  
Marilyn Cohen, Director of Planning and Development, Town of North Kingstown  
Clark Collins, Director of Planning, Town of Narragansett  
Alan Desbonnet, Program Coordinator, URI Coastal Resources Center/Sea Grant  
William Hass, Planner, Town of Westerly  
Nancy Hess, Principal Planner, Statewide Planning

George Johnson, Assistant Chief, RI Statewide Planning Program  
Paul Jordan, GIS Coordinator, RIDEM  
Anthony Lachowicz, (former) Planning Director, Town of South Kingstown  
Jim Lamphere, Town Planner, Town of Charlestown  
Katherine Maxwell, (former) Town Planner, Town of Hopkinton  
Rebecca Pellerin, Senior Planner, Town of North Kingstown Planning Department  
Devon Preston, Executive Director, Washington County Regional Planning Council  
Lisa Primiano, State Land Acquisition Program, RIDEM  
Joanne Riccitelli, Executive Director, South Kingstown Land Trust  
Kathleen Wainwright, Director of Land Protection, The Nature Conservancy  
Meg Kerr, Program Coordinator, URI Coastal Resources Center/Sea Grant  
Lori Urso, Executive Director, Wood Pawcatuck Watershed Association  
Dr. Harold Ward, Director, Center for Environmental Studies  
Rich Youngken, Executive Director, Dunn Foundation

## Partnering Agencies and Organizations

Towns of Charlestown, Exeter, Hopkinton, Narragansett, North Kingstown, Richmond, South Kingstown, West Greenwich, Westerly  
Washington County Regional Planning Council  
Washington County Regional Land Trust Coalition: Hopkinton Land Trust, Narrow River Land Trust, North Kingstown Land Conservancy, Richmond Rural Preservation Land Trust, South County Conservancy, South Kingstown Land Trust, Westerly Land Trust  
Narrow River Preservation Association  
Salt Ponds Coalition  
Saugatucket River Heritage Corridor Coalition  
Wood Pawcatuck Watershed Association  
Audubon Society of Rhode Island  
Brown University  
The Champlin Foundations  
Grow Smart Rhode Island  
The Nature Conservancy  
U.S. Fish and Wildlife Service  
USDA Forest Service  
USDA Natural Resources Conservation Service  
University of Rhode Island  
URI Coastal Resources Center/Sea Grant

# Table of Contents

<b>I. Executive Summary</b> .....	5	<b>IV. Recommendations for Action</b> .....	35
<b>II. Greenspace Planning Process and Methods</b> .....	10	Using Greenspace Planning and Creative	
Public Participation Process .....	13	Development to Preserve Land .....	36
Methods of Mapping and Geographic Analysis .....	14		
<b>III. Regional Mapping and Recommendations</b> .....	18	Creative Land Use Techniques:	
1. Inventory of Natural Resources .....	19	Recommendations of the South County Watersheds	
2. Biodiversity Priorities .....	20	Technical Planning Assistance Project .....	37
3. Borderland Forest, Queen River Watershed			
and Coastal Pond Initiatives .....	21	Recommendations for Groups Involved	
4. Farmland .....	22	in Open Space Conservation in South County .....	45
5. Groundwater Reservoirs, Recharge Areas			
and Wellhead Protection Areas .....	23	<b>Appendix I</b>	
6. Status of Water Supply Protection .....	24	One Region, Many Players –	
7. Natural Resource Priority Areas and Corridors .....	25	An Overview of Project Partners .....	49
8. Natural Resource Priorities With Protected Lands .....	26	<b>Appendix II</b>	
9. Inventory of Cultural Resources .....	27	South County Greenspace Project Grant Guide .....	52
10. Cultural Resource Priorities .....	28	<b>Appendix III</b>	
11. Inventory of Recreational Resources .....	29	Priorities for Improving Small Craft Access	
12. Recreational Resource Priorities .....	30	and Controlling Erosion on the	
13. Recreation Resource Targets .....	31	Wood and Pawcatuck Rivers .....	60
14. Composite Resource Priorities .....	32		
15. Composite Priorities With Protected Land .....	33		
16. Landscape Preservation Focus Areas .....	34		

# I. Executive Summary

In recent years, a great amount of attention and effort has focused on the search for new ways to protect the remarkable community character and abundant natural resources that give Washington (South) County its unique “quality of place.” In July 2001, the Washington County Regional Planning Council published *A Shared Future: Washington County in 2020* that called for the creation of a regional plan for preserving and connecting greenspaces. The *South County Greenspace Project* set out to meet this need and to unite the diverse goals of local, state and federal players into a set of physical plans and action strategies for protecting the landscape and quality of life of South County.

A broad partnership, funded by the US Forest Service, was formed between DEM, the Washington County Regional Planning Council, the Rural Lands Coalition, four South County Watershed Organizations, Statewide Planning, the Nature Conservancy, Audubon Society, the Rhode Island Historical Preservation & Heritage Commission, URI, local land trusts, Grow Smart Rhode Island, the South County Planners and residents of the nine South County Communities. To ensure a balanced approach to the way communities plan for growth, the *Greenspace Project* worked closely with the *South County Sustainable Economy Project* and shared information in order to identify suitable locations of future growth that do not impact the region’s valued natural, cultural and recreational resources.



*The places that South County residents value the most contain a combination of natural beauty, cultural history, and recreational opportunities: these landscapes were a particular focus of the Greenspace Project.*

The South County Greenspace Project was designed to bring the process by which open space resources are prioritized into a single system, allowing parties with many different perspectives to work together toward a common goal. To do so, it was consciously designed to avoid the sort of “single-issue” open space planning that can happen when plans are prepared by a town board or state agency concerned with only one type of resource. This can lead, for example, to open space plans that do a good job of protecting wildlife habitat while ignoring scenic views. To avoid these problems, the process evaluated three distinct resource types: **natural resources**, such as wetlands, aquifers and wildlife habitat; **cultural resources**, such as historic sites, scenic vistas and rural landscapes; and **recreational resources**, like hiking trails, bike touring routes and water trails. Protection

priorities for each of the three resource themes were mapped first, and then overlaid with each other to identify landscapes that are key to South County’s visual character and quality of life.

The result of this effort was a set of local and regional maps that identify priorities for each of the three principal themes. Together, these provide the information necessary for state agencies, towns, and non-profit conservation groups to make coordinated decisions about open space protection and management. In some cases, the plan determines specific areas that should be protected (e.g. aquifers and riparian corridors) but, it also is meant to clearly show the networks of natural and cultural resources that exist, and to promote a vision of how they could be united into a permanent network of greenways and greenspaces.

## Project Objectives

The *South County Greenspace Project* set out to achieve six overall objectives that would engage local, state, and federal participants in a comprehensive greenspace protection effort:

1. To assist communities to inventory and prioritize natural, cultural and recreational resources.
2. To demonstrate how local greenspace priorities can be linked throughout each town and the region to form continuous corridors of open space that protect resources that cross town boundaries.
3. To explain how each town can more effectively employ land use techniques to protect meaningful open space as land is developed.
4. To demonstrate the multiple values of forestland for recreation, water quality protection, and habitat protection.
5. To identify areas with multiple resource values and promote conservation of landscape character.
6. To clarify priorities of key stakeholders and foster partnerships to achieve shared goals.

## Major Findings

The *South County Greenspace Project* demonstrated how local, state and federal partners could work together to promote sustainable



*The juxtaposition of human settlements with the natural landscape rewards South County residents with a high quality of life. This fragile balance could be lost if current development trends continue.*

growth while helping to save the environment and the quality of life of Rhode Islanders. The project made many important discoveries that are explained in the full report. Some of the major findings included:

1. Forested river and stream corridors and large blocks of forest adjacent to surface waters were identified as critical to protect biodiversity and water quality.
2. Eleven areas of South County were identified in a “Landscape Preservation Plan” that targets protection efforts on limited areas that contain a rich combination of natural, cultural, and recreational resources. These

areas are representative of the traditional landscapes of South County that create its unique “quality of place.”

3. Protection of important natural, cultural, and recreational resources cannot be attained through acquisition alone. The application of creative land use techniques must be employed through the local planning process.
4. The study showed that in every town there are areas that are significant, not because of any one resource, but as a result of a unique combination of natural beauty, historic and cultural value, and recreational opportunities.

5. Within the larger context of the Northeastern United States, South County contains an unusual richness of biodiversity that is important to protect. For example, The Nature Conservancy has identified the 200-square-mile forested area straddling the Rhode Island/Connecticut border as the “Pawcatuck Borderlands.” It is one of the largest blocks of woodlands remaining on the Northeastern Seaboard. Similarly, the Rhode Island Audubon Society focuses its conservation efforts on the Queen River Watershed because of this area’s biological wealth. Along the coast, the U.S. Fish and Wildlife Service is working to expand a network of five significant refuges that protect the watersheds of the fresh and saltwater ponds from Burlingame to the Narrow River.
6. South County contains the largest contiguous areas of farmland in Rhode Island.
7. With the exception of the coastal plain south and east of Route 1, virtually all of South County has been designated a sole-source aquifer by the U.S. Environmental Protection Agency. Over 90% of the region’s population relies on these high-quality groundwater sources for drinking water.
8. Protection of drinking water is the most important natural resource protection target for the South County communities. The South County Greenspace Project workgroups quickly reached consensus that it is a priority to protect the region’s water supplies.



*Most of South County is zoned for single family house lots at relatively low densities. The resulting pattern (top) is indistinguishable from development anywhere in the northeast. Commercial development (bottom) follows a similar national model dominated by frontage malls and aging commercial strips.*



*South County’s growing tourist and retirement economy has boosted private conservation of open space, but often with the loss of public access (top). A boom in golf course construction (bottom) has kept land from being developed for house lots, but can have a permanent effect on rural character and quality of life.*

## Key Recommendations

The following recommendations for action represent key ideas developed by the project volunteers working along with the consultants. These actions are intended to help South County achieve the overall project goal of promoting sustainable community development while preserving community character and protecting the environment:

- ❖ Preserve forested riparian corridors, which are the most important links between the region's protected areas, farmland, forests, and key habitats. Forested river and stream corridors are critical, not only as habitat for many species of animals and fish, but for protection of surface water quality and groundwater supplies. The most important of these corridors to protect are the Pawcatuck and its tributaries, particularly the Tomaquag, Wood, Beaver and Queen Rivers; as well as the Saugatucket, Narrow and Potowomut Rivers. Another important corridor connects the salt ponds along the coast.
- ❖ By protecting a relatively small number of key corridors, we can preserve the cultural landscapes that give South County its unique visual character and quality of life. Specific cultural resource protection targets also include preserving and enhancing the Village Centers of Kenyon, Shannock, Carolina, and other historic commercial centers.



*The Pawcatuck River (left), the Peacedale Mills (center) and the South County Bike Path (right) represent the three themes of natural, cultural and recreational resources around which the Greenspace project was organized.*

- ❖ The historic village centers of the region are showpieces in what some may call the 'Living Museum of South County' and represent existing and future growth centers of population and commerce. These historical and cultural centers require special attention in the form of thoughtful land use regulation and preservation efforts.
- ❖ Using the existing South County Bike Path as a starting point, new multi-use trails could extend north and south to connect the historic seaside communities from Westerly through Charlestown to Wakefield, and from Point Judith through Narragansett and Wickford north into East Greenwich, with a potential link to bike paths under construction in Warwick and Coventry.
- ❖ Eleven areas within the region stand out from the rest because they have high concentrations of natural, cultural, *and* recreational resources. The following places were identified as 'Landscape Preservation Focus Areas':
  1. Chapman Pond-Tomaquag-Canochet Valley
  2. Hope Valley/Arcadia
  3. West Greenwich/Nooseneck
  4. Exeter/Queen River
  5. Belleville/North Kingstown
  6. Beaver River Valley
  7. Usquepaug-West Kingston
  8. Charlestown/Ninigret
  9. Perryville/Matunuck
  10. Naarragansett/Pettaquamscutt
  11. Upper Saugatucket

These areas are often overlooked by protection efforts that focus on one theme. Most however, can be largely preserved with a combination of acquisition, private management, and careful development that respects the existing character of each site and its context.

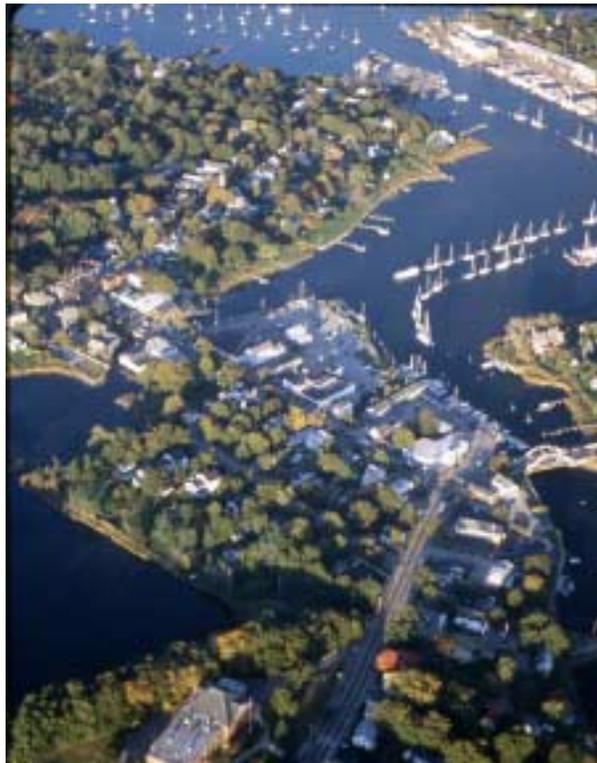
- ❖ The South County Communities should incorporate the resource maps and land use recommendations from this project into their community comprehensive plans and applicable land use ordinances.

## Community Implementation

The South County Greenspace Project succeeded in bringing together many diverse interests and fostered better communication between these groups. As a result, the project generated a high level of public engagement and response. In fact, it has already sparked community implementation before the project was entirely completed.

These actions are summarized here:

- ❖ Every town received a set of maps illustrating a comprehensive and up-to-date inventory of its natural, cultural and recreational resources.. This inventory included a compilation of federal, state, local, and non-governmental data that was previously never assembled in a single set of maps.



*The Greenspace planning process was designed to help towns with a broad range of capabilities work together on a shared Greenspace Protection Strategy. Thus waterfront villages like Wickford (above) were able to identify goals they share with very different communities in the interior:*

- ❖ Local protection priorities were mapped and linked into a regional greenspace strategy. Every community received 10 local resource maps and 16 regional maps, including the underlying geographic information system (GIS) data in electronic format so that it can be easily maintained.
- ❖ The multiple values of forestland for recreation, habitat, and water quality protection were demonstrated on the greenspace maps

and explained in an educational brochure called *Riparian Buffers & Healthy Watersheds*. The Wood Pawcatuck Watershed Association also produced a report on riparian buffers and river access for the watershed.

- ❖ An audit and written report were prepared for each community by Randall Arendt, a national expert, to recommend specific changes to comprehensive plans and zoning and subdivision regulations so towns may preserve meaningful open space and achieve their protection priorities as land is developed. Five communities – Charlestown, Exeter, Hopkinton, North Kingstown and Richmond – are currently working to revise their ordinances to include these recommendations following the lead of South Kingstown, which has adopted the conservation development technique.
- ❖ Towns have used the natural, cultural and recreational resource data to update their local comprehensive land use plans.
- ❖ Six communities successfully used the greenspace project maps to apply for RIDEM open space money in 2002. A total of \$1.98 million was awarded to these communities, which funded the protection of 495 acres.
- ❖ Local land trusts from throughout the region banded together to form the Washington County Land Trust Coalition to promote better coordination and communication across the municipal boundaries.