



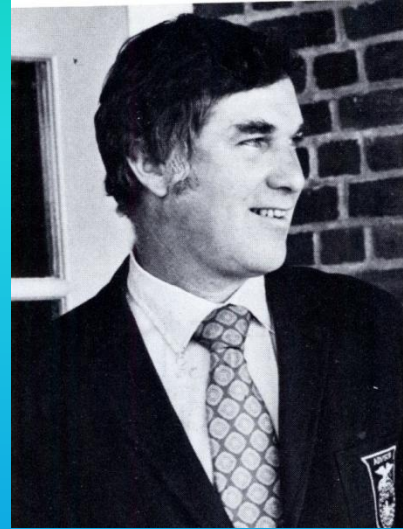
# Scituate High School Forest Management Plan

*Presented by the Scituate High School  
Environmental Science Class:*

Rob Brown, Katie Forge, Bobby Forrest, Jaime Fortier,  
Justin Gaffney, Krystal LaValley, Chris Panarello, Nick  
Panarello, Lizzie Russo, and Mike Wallitsch

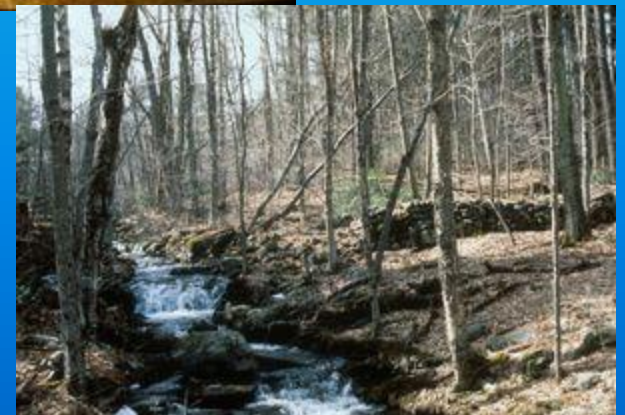
# Our History

- 1976 Mr. Leyden & the FFA students establish SHS Tree Farm
- Mr. Lewis & forestry classes demonstrated different management practices
- Current SHS students wish to honor this legacy and add their contributions



# Historical Land Use in RI

- 1600: estimated that RI was 95% forested
- 1874: 24 % forest cover in RI due to clearing of land for agricultural use
- 1950: 62% forested; regrowth resulting from abandonment during the industrial revolution
- 2009: 58% forested





1939



1951





1962



1976





1988





A recent look from above :



# Setting Goals

- Students conducted interviews of community members to assess shared goals for the property

## Community Goals and Objectives

The Forest Stewardship Plan for the Scituate High School Forest Classroom considers the natural resources on the school's property in crafting the goals and objectives for the project. Your contributions to our understanding of shared goals for the property are much appreciated. Rank the values you place on this forest either high (H), medium (M), low (L), not interested (NI), not applicable (NA), or don't know (DK).

	Maintaining habitat for a variety of plants and animals
	Maintaining habitat for specific wildlife (specify):
	Protecting rare and endangered plants and/animals or unique natural communities
	Managing the forest for periodic income from: ___ Logs, fuelwood, pulpwood ___ maple sugaring ___ Christmas trees ___ trees or shrubs for landscaping ___ recreation ___ other
	Providing recreation for families and the community: ___ cross-country skiing ___ hiking/walking ___ nature viewing ___ mountain biking ___ other
	Limitations on use
	Protecting water quality
	Preventing soil erosion
	Protecting wetlands
	Maintaining a healthy forest
	Peace & solitude
	Scenery (views, special trees, rock formations, special areas, etc.)
	Protecting historic sites (stonewalls, old foundations, etc.)
	Learning forestry practices
	Maintaining Tree Farm status
	Develop/maintain trail system for the following uses: Education (physical, environmental, science, etc.): _____ leadership training: _____ bicycling: _____ horses : _____ other: _____
	Please list and describe any other values you place on this property that you feel should be considered as this management plan is revised and implemented:

Survey completed by: \_\_\_\_\_

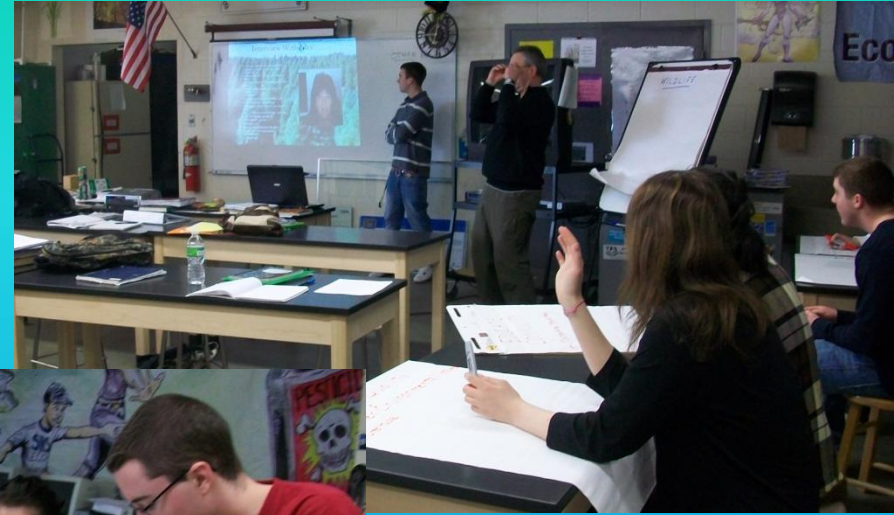
Role: \_\_\_\_\_

Date: \_\_\_\_\_



# Prioritizing Goals and Concerns

Students tallied the responses from the interviews to identify the overall priorities of school and community members.



# Summary of Shared Goals:

- Provide outdoor educational opportunities for students and community members
- Conserve and enhance habitat for plants and animals
- Protect groundwater and surface water resources



# Did someone say “Tree Farm?”

- **Clean water is a forest product!!!**
- We will also explore alternative forest products on a small scale primarily for educational purposes





# Silviculture

- The art and science of controlling the establishment, composition, growth, and quality of forest stands to achieve the objectives of the owner.
- To accomplish our goals, we will engage in silviculture. But, before we can do anything, we have to know what our resources are.



# Assessing Resources

- Before we can write an action plan to help us meet our goals, we must assess our resources
- But first we have to know where we are...





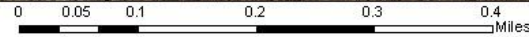
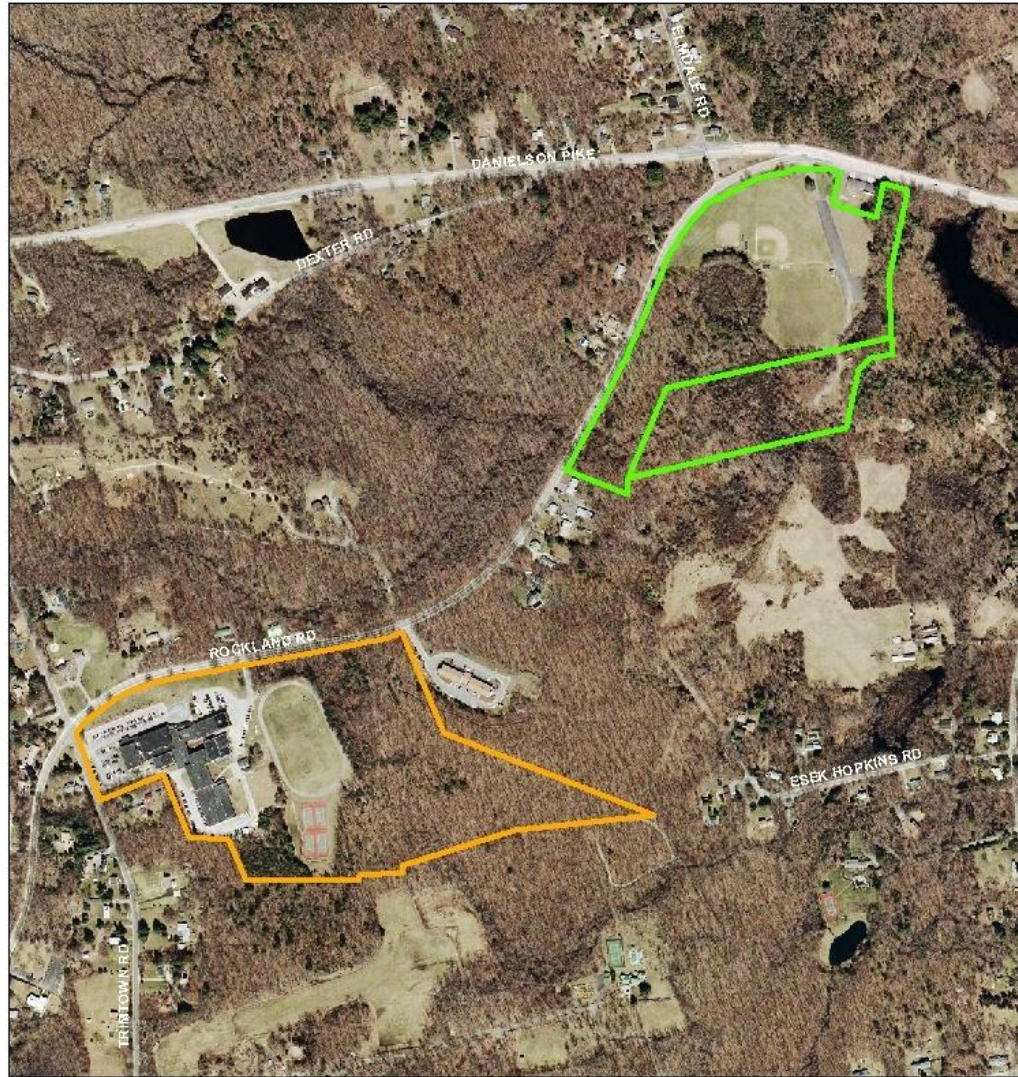
# Property Overview:

## Establishing boundaries and Context

- Background research on the property at the Town hall
- GPS & GIS



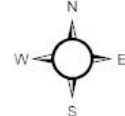




### Legend

-  SHS Block 1
-  SHS Block 2

1:7,000



Project: Scituate High School Tree Farm  
Town: Scituate  
County: Providence  
State: Rhode Island  
Date: 5/26/2010  
Prepared with assistance from RI RC&D



Data Sources: FRI&D, FRI&D 2003-2004, ©Hopholds 2003-2004 Globe, Plane Feet

# Assessing Resources:

## What are the Existing Conditions

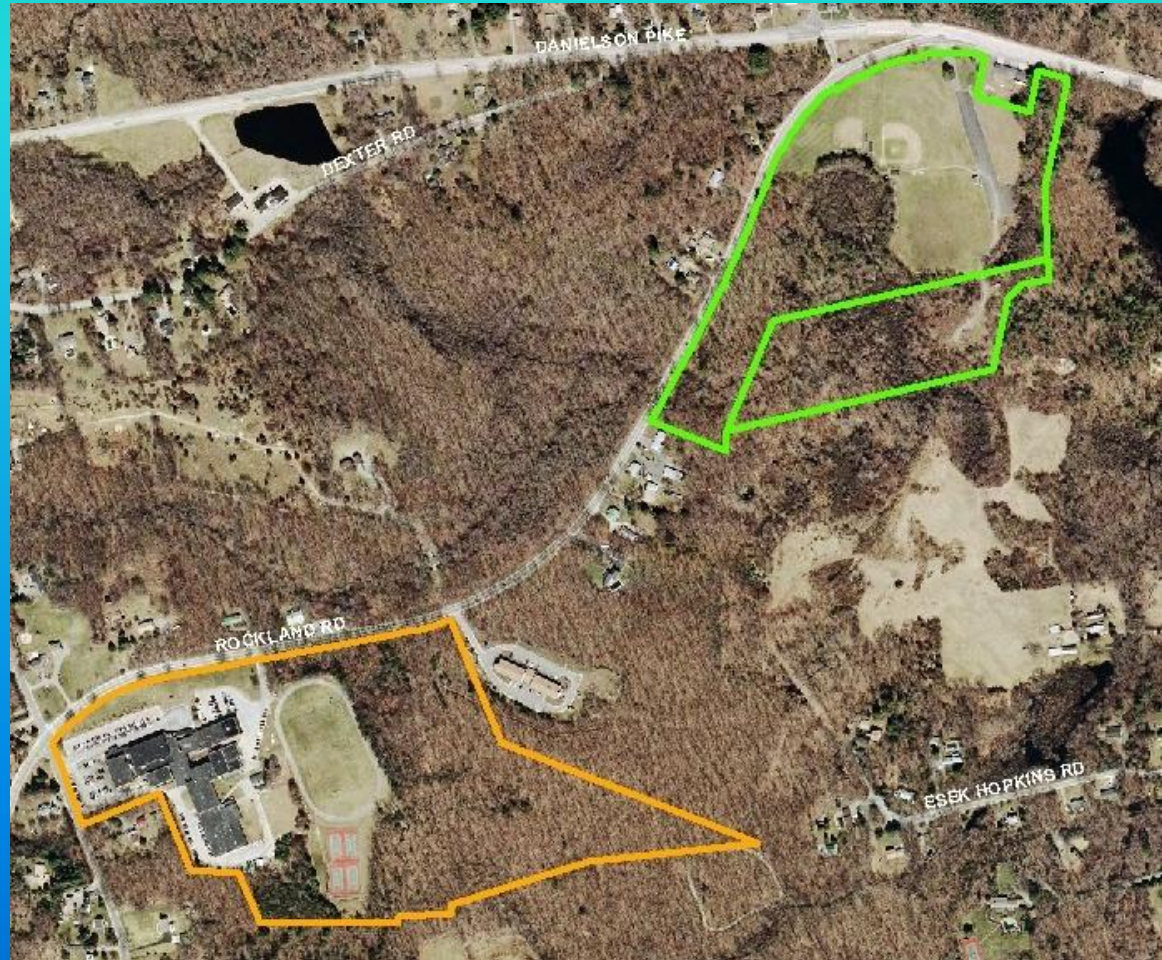


- Plant Communities:
  - inventory of tree species and size
  - Potential threats – invasive species, pest, disease, fire, human misuse
- Water:
  - Erosion issues
  - Wetland delineation
  - Any other threats to this important forest product
- Soils
- Wildlife habitat: food, water, cover, space
- Historical & Cultural issues
- Existing trails



# Our findings: Forestry Inventory

- Analyzed two parcels:
  - Block 1 = school
  - Block 2 = Manning
- Each block is divided into different “stands”







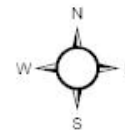
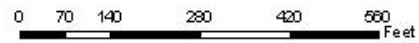
# Block 1 Forest Stand Map



1:3,000

### Legend

 Stands



Project: Schuette High School Tree Farm  
Town: Schuette  
County: Providence  
State: Rhode Island  
Date: 5/26/2010  
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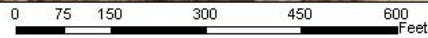




# Block 2 Forest Stand Map

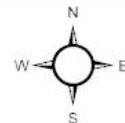


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### Legend

 Stands



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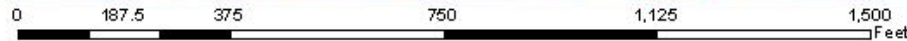
## MANAGEMENT UNIT ANALYSIS TABLE

STAND #	ACRES	COVER TYPE	SITE QUALITY	MANAGEMENT OBJECTIVES	TOTAL BASAL AREA	PERCENT STOCKING	AGE	TREES/ACRE	AVG. TREE DIAMETER
B1-1	13.74	MIXED HARDWOOD	GOOD	FOREST HEALTH EDUCATION RECREATION WATER QUALITY WILDLIFE HISTORIC/CULTURAL	116	103%	80- 100	204	10.6''
B1-2	0.47	HARDWOOD SWAMP	FAIR	FOREST HEALTH EDUCATION RECREATION WATER QUALITY WILDLIFE	90	78%	50-70	154	10.1''
B1-3	1.22	MIXED HARDWOOD	GOOD	FOREST HEALTH EDUCATION RECREATION WATER QUALITY WILDLIFE	100	82%	40-60	169	10.1''
B2-1	3.97	MIXED HARDWOOD	GOOD	FOREST HEALTH EDUCATION WATER QUALITY WILDLIFE	90	80%	50-70	207	9.0'
B2-2	6.15	HARDWOOD SWAMP	FAIR	FOREST HEALTH EDUCATION WATER QUALITY WILDLIFE	85	83%	40-60	319	8.3''
B2-3	5.41	MIXED HARDWOOD	GOOD	FOREST HEALTH EDUCATION RECREATION WATER QUALITY WILDLIFE	90	76	70-90	114	11.8'
B2-4	2.63	HARDWOOD SWAMP	FAIR	FOREST HEALTH EDUCATION WATER QUALITY WILDLIFE	85	65	70-90	80	13
B2-FS	1.0	FIRST SUCCESSIONA L	<b>RESTRICTED</b> <b>Former</b> <b>Landfill Site</b>	WILDLIFE EDUCATION	NA	NA	NA	NA	NA



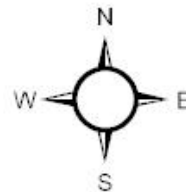


# SHS Block 1 - Wetlands



**Legend**

- SHS Block 1
- Streams
- Drainage ditch
- Wetland
- Flagged wetland



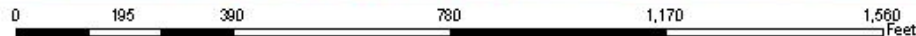
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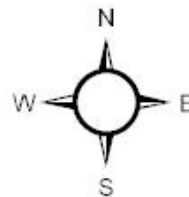


## SHS Block 2 - Wetlands



### Legend

-  SHS Block 2
-  Streams
-  Wetland



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County: Providence  
State: Rhode Island  
Date: 5/26/2010  
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# SHS Block 1 - Soils



### Legend

- Soils
- SHS Block 1

Soils Description:

- CkC - Canton, Charlton, extremely fine sandy loams, 3-15% slopes
- PbB - Paxton, very stony fine sandy loam, 0-8% slopes
- PbC - Paxton, very stony fine sandy loam, 8-15% slopes
- Rf - Ridgebury, Whitman, and Leicester extremely stony fine sandy loams
- WoB - Wappin silt loam, 3-8% slopes



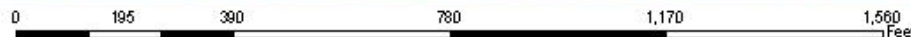
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## SHS Block 2 - Soils

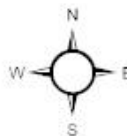


### Legend

-  Soils
-  SHS Block 2

### Soils Description:

- Aa - Adrian muck
- GhC - Gloucester-Hinkley very stony sandy loams, rolling
- HkC - Hinkley gravelly sandy loam, rolling
- Sb - Scarborough mucky sandy loam
- UD - Udorthents-Urban land complex
- Wa - Walpole sandy loam



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# Conclusion from assessment:

- This land has the resources available to allow us to achieve our goals
- Our long term success depends on continued interest and support from all vested parties: students, staff, administrators, and community members and leaders:



*We all share responsibility  
for the stewardship of this land*

# Going forward:

## Short Term Goals (within 2 years)



- Install Tree Farm sign
- Install educational signs along the trail in partnership with BSA
- Clear and mark existing trails in partnership with BSA
- Install tree identification tags on existing trails with partners from the Conservation Commission
- Establish outdoor classroom space and inform faculty of its availability: establish protocol for sign-up
- Clearly post property lines



# Short Term Goals (within 2 years) (continued)

- Address invasive plant species problem: bittersweet & poison ivy
- Complete botanical inventory
- Investigate alternate forest product opportunities: Shitake mushrooms, maple syrup, witch hazel, ginseng



# Midrange goals (within 5 years)

- Continue invasive species control
- Establish permanent forest inventory plots





# Long range goals

- Reestablish forest management demonstration plots
- Maintain and update educational features of our forest

# Lessons learned

- Lots of community members value this resource and are interested in its conservation
- Writing management plans is a very involved process that takes longer than expected
- Writing a management plan helps focus our actions to ensure that they will help us achieve our goals
- Gina DeMarco, Paul Dolan, and Chris Modisette are the best volunteers, tutors, and friends of our class!!!  
THANK YOU!!!!!!!



# Summary

We, members of the Scituate Community, are stewards of this land. Being a good steward requires a lot of knowledge and commitment. We hope that our plan serves the community well and helps to conserve this valuable resource for generations of students and community members to enjoy.



# Acknowledgments

Many thanks to the following individuals for their considerable work on this project:

Gina DeMarco

Paul Dolan

Chris Modisette

Thanks also to the following folks for their support of our work:

Michael Sollitto, Carlo Catucci, David Sweet, Peggy Long, The Rhode Island Wild Plant Society, The Scituate Art Festival Committee, all our guest speakers including Kat Zuromski, Tom Abbot, Maggie Paine, Ruth Strach, and Cynthia Gianfrancesco.