

TOWN OF GLOCESTER, RHODE ISLAND

Glocester Land Trust

PROPERTY MANAGMENT PLAN

Site Name: Scotstfun

Site Location: Northeast Side of Smith and Sayles Reservoir

President Date
Glocester Town Council

Chairperson Date
Glocester Land Trust

1.0 OVERVIEW

The property described herein consists of a 46.1 acre tract of land known as "Scotstoun" (meeting place of the Scots). This property (hereinafter called the site or the property) is to be purchased by the Town of Glocester, R.I. with funds made available under Rhode Island Public Law 419, 1986, entitled "Open Space and Agricultural Land Conservation".

The site consists of a portion of two lots presently listed in the Glocester Land Records: Lot 33, Plat 11 and Lot 153, Plat 14. It is bounded on the west side by Smith and Sayles Reservoir and on the east side by R.I. Route 102, from Pole 119 to Pole 131. Details pertaining to the site boundaries and location are provided in Appendix A (Property Map) and Appendix B (Topographical Map).

The site includes a mesic forest of unique stature, combining both northern and southern plant species including many that are listed in the Rhode Island Natural Heritage Program's "List of Species of Special Concern". Flora consists of a noteworthy mixture along with distinct communities of both northern and southern species, some of which approach 100 ft. in height. The area also provides habitat for a number of wildlife species.

Many of the various plant species that make the site exceptional are sensitive to even slight changes in environment. Special care must be taken to assure that the delicate natural balance at the site is maintained. This document defines a formal management plan that is designed to ensure that the site is kept, in perpetuity, as open space in its natural state, preserving its ecological and scenic value.

2.0 MANAGEMENT RESPONSIBILITY

The Gloucester Land Trust (hereinafter called the Trust) is a municipal body organized in accordance with Rhode Island Public Laws, Chapter 87-548, with authority to acquire, hold, and manage real property situated in the Town of Gloucester. Pursuant to action of the Gloucester Town Council at its regular meeting held on September 8, 1988, the Trust was designated as Manager of the site. The Trust was also designated as the responsible body, on behalf of the Town of Gloucester, for writing and executing this management plan as well as for supervising all management activities and use of the site.

Specific management activities may be assigned by the Trust to one or more designated persons or organizations. The Trust shall also solicit the advisory assistance of various personnel or organizations with expertise in disciplines such as forestry, botany, wildlife management, soil science, etc.

3.0 PROPERTY USE

The property shall be used for passive recreation (i.e. nature walks) and educational purposes only. Access by the general public for the purpose of observing the various natural features is allowed and encouraged.

4.0 ACCESS

The site may be accessed from Route 102 at a marked entrance to the primary access path located between Poles 124 and 125. In order to protect the various rare and fragile plant species, site access is to be limited to designated footpaths.

Other than official vehicles, such as fire apparatus, police vehicles, and maintenance vehicles, no motorized or other vehicles are allowed anywhere on the site. Official vehicles are limited to the primary access path (see attached Property Map).

5.0 PROHIBITED ACTIVITIES

The following activities are specifically prohibited:

- o Cycling
- o Boating or canoeing
- o Horseback riding
- o Walking or running on other than assigned footpaths (except for management-related activities)
- o Swimming
- o Skiing, sledding, skating
- o Fishing
- o Hunting
- o Trapping
- o Camping
- o Fires (including campfires)
- o Littering
- o Sound-amplified devices
- o Removing any matter (organic or mineral), except as required for property maintenance
- o Planting or transplanting of any vegetation
- o Collecting plants, plant parts or plant products
- o Timber harvesting
- o Soil grading or excavating
- o Soil draining
- o Soil paving or oiling
- o Fabricating or placing of structures of any kind

6.0 MANAGEMENT ACTIVITIES

6.1 Police Surveillance

Daily police surveillance shall be provided by the Gloucester Police Department. It should be noted that, beginning within the year 1989, the Gloucester Police Station will be located directly opposite the site on Route 102.

6.2 General Surveillance

General surveillance of the site shall be provided monthly by a person or persons designated by the Trust. General surveillance includes, but is not necessarily limited to, the following:

- o Inventory update of plant species, animal species, or other natural features
- o Verification of the general health of plant and animal species
- o Verification and reporting of fires
- o Reporting damage or potential for damage to the property or its natural features
- o Reporting violations of site regulations
- o Identification and reporting of site-maintenance needs
- o Identification of practices that would improve the management function

6.3 Scheduling of Activities

Organized activities at the site such as nature walks, botanical field studies, etc., shall be scheduled by the Chairperson of the Trust or by a person designated by the Chairperson.

6.4 Fire Control and Regulation

All fires on the site shall be promptly extinguished using methods that will minimize overall damage to vegetation. Fire control and regulation are the responsibility of state and local fire-protection authorities.

6.5 Maintenance

The property shall be maintained in its natural state. Maintenance activities shall generally be conducted on an as-needed basis by persons or organizations designated and supervised by the Trust. Associated maintenance costs are estimated at \$2500 per year. Funding shall be allocated for this purpose to the Trust from the Gloucester town budget.

Specific maintenance activities are listed below:

6.5.1 Litter Removal

Litter is defined as material that does not naturally occur at the site. Naturally occurring materials such as fallen trees, stones, leaves, etc. shall not be included in litter removal activities.

Historically, minimal accumulation of litter has occurred at the site and has generally been along the primary access path. It is not anticipated that the accumulation rate will change significantly. Litter removal shall be the responsibility of the Trust and shall be conducted at least once every month by one or more persons or agencies designated by the Trust.

6.5.2 Footpath Maintenance

Footpaths shall be maintained by one or more agencies or persons designated and supervised by the Trust. Maintenance shall essentially consist of removal of large obstructions. Such obstructions are generally limited to fallen timber. Only that portion of timber that obstructs the footpath shall be removed. Surface water shall not be rerouted or drained.

In cases of extensive fallen timber such as that due to hurricanes, tornadoes, etc., it may be environmentally prudent either to close or reroute a footpath. Decisions in this regard are the responsibility of the Trust.

6.5.3 Cutting and Trimming

Cutting, trimming, or mowing of any plant species is generally prohibited, except as indicated in Section 6.5.2. However, it is recognized that there may be rare cases where some activity in this regard is warranted. Such cases shall be evaluated individually by the Trust. Primary consideration shall be given to the continued natural evolution of the site.

7.0 PUBLIC AWARENESS

7.1 Informational Leaflet

An informational leaflet shall be published and periodically updated by the Trust. Copies of the leaflet shall be available at the Town Hall and other locations designated by the trust.

The leaflet shall describe the various natural features of the site and shall include a map illustrating the location of footpaths and noteworthy natural features. A list of prohibited activities shall be included in the leaflet.

7.2 Posting and Marking

Informational signs shall be posted at visible locations. These signs shall identify the site and acknowledge financial assistance provided by the State of Rhode Island for acquisition of the property. Public access shall also be acknowledged along with the hours that the site is open. Prohibited activities shall be listed.

The site access point, boundaries, and footpaths shall be clearly marked. That portion of the property that comprises a part of the shoreline of Smith and Sayles Reservoir shall also be posted as described in Section 9.0

The method, design, and materials for all signs and markings shall be compatible with the natural character of the site, shall be approved by the Trust, and shall comply with Rhode Island Department of Environmental Management requirements.

8.0 SPECIES INVENTORY

A breakdown of the general vegetation types is provided in Appendix B (Property Map). A detailed inventory of plant and animal species shall be completed progressively, (See Section 10.0), in three phases. Each phase shall be associated with one of three geographical segments of the property. The species inventory shall be continuously updated.

The Trust shall solicit the assistance of specialists in plant and wildlife in this effort. This might include, for example, naturalists, RI DEM foresters and conservation officers, and representatives of the Rhode Island Natural Heritage Program, The Rhode Island Audubon Society, The Nature Conservancy, and The Rhode Island Wild Plant Society.

8.1 Common Plant Species

The forest overstory and understory plant species inventory shall be completed using a CFI (Continuous Forest Inventory) plot system. The center of each plot shall be permanently marked. For tree specimens, general dimensions, quality, quantity, health, and damage, shall be recorded. For other common plant species, quality, health, damage, and a general estimate of quantity, shall be recorded.

8.2 Plant Species of Special Concern

This site contains many plant species that are listed on the R.I. Natural Heritage Program, "List of Species of Concern". It is a primary goal of this management plan to locate and inventory these species in order to insure their protection. Many of these species are in small quantity, in isolated locations. Use of the CFI system would not be totally effective in establishing an inventory of such species. A separate survey of the entire site, therefore, shall be conducted in the three phases previously discussed.

8.3 Animal Species

A number of animal species have been observed at the site. A more detailed inventory of these species shall be established. For bird species, this shall consist of surveillance during nesting periods for detection of audible and visible indications of the various species. Nesting areas shall be specifically identified.

The animal species inventory shall also be conducted coincidentally with other management activities (e.g. CFI inventory). If evidence of bird or mammal species of special concern is noted, an attempt shall be made to identify habitat (e.g. nesting areas) requiring special protection.

8.4 Shoreline Habitat

The species inventory shall also include an extensive survey of the shoreline habitat. A significant part of this inventory shall be completed by boat or canoe in order to minimize damage to the habitat. Plant and animal species shall be identified and recorded. Areas of high and low sensitivity shall be identified. The results of the shoreline survey shall be used, in part, for the practical location of vista points and footpaths.

9.0 SPECIAL PROTECTION CONSIDERATIONS

A number of rare plant species exist at the site. These include, but are not necessarily limited to, the following:

<u>Species</u>	<u>Common Name</u>	<u>Status</u>
<i>Thelypteris pheopteris</i>	Long Beech Fern	State threatened
<i>Taxus canadensis</i>	Ground Hemlock	State interest
<i>Streptopus roseus</i>	Twisted Stalk	State interest
<i>Fraxinus nigra</i>	Black Ash	Species of concern
<i>Viburnum latanoides</i>	Hobblebush	Species of concern

Such species are sensitive to changes in environment and general human influence such as foot traffic. The eastern shoreline of Smith and Sayles Reservoir and its associated habitat, part of which comprises the western edge of the site, are also vulnerable to human influences.

The location and design of footpaths is critical. They shall therefore be progressively designed and located based upon the results of the species inventory (See Section 8.0) so that rare plant species may be observed but not endangered by foot traffic. A limited number of vista points shall be established on the shoreline, at low-sensitivity locations determined from the shoreline survey (See Section 8.4).

Except for vista points, footpaths shall be located at a distance from the shoreline that is suitable for the protection of the high water shoreline habitat. The shoreline shall be posted with signs, facing the reservoir, informing boaters of the protected status of the site and prohibiting access from the reservoir. Additional reservoir protection is coordinated by other agencies such as the Sand Dam Reservoir Association.

10.0 MANAGEMENT PLAN SCHEDULE AND PERIODIC REVIEW

The Management Plan consists of a five-year program which includes informing the general public of the existence of the site, establishing a site maintenance and surveillance routine, and completing the species inventory, footpaths, and marking/posting. The schedule for this program is illustrated in Figure 1.

Information pertaining to the site biological status, management activities, and management plan schedule shall also be reported at regular meetings of the Trust. Reported items may or may not require resolution by the Trust.

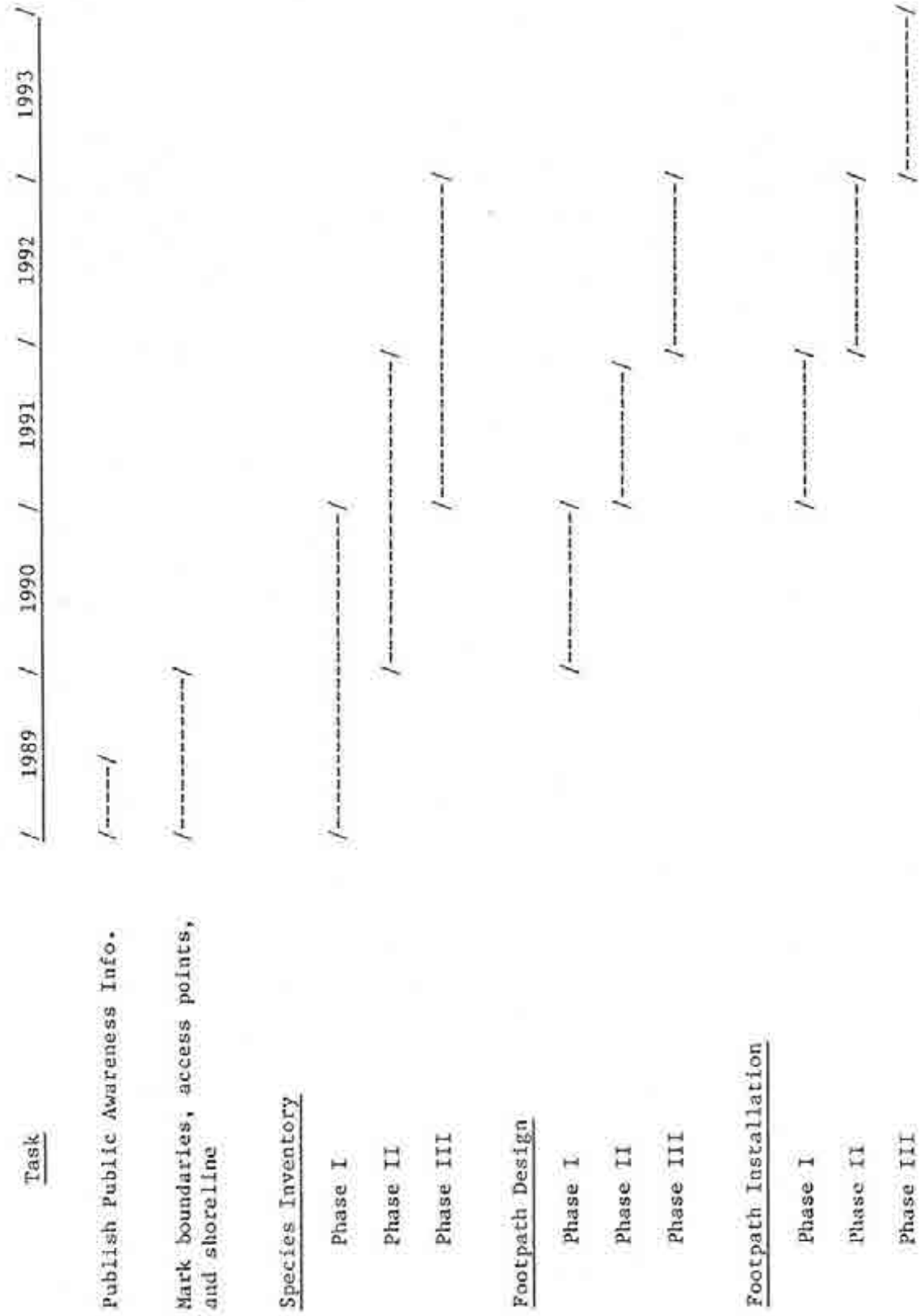
At least once every calendar year, the Trust shall meet for a general review of the site status. As a minimum, the following shall be included in the annual review:

- o Schedule update
- o Review of personnel or agencies involved in active management functions
- o Update of plant and animal species inventories
- o General overview of the natural evolution of the site
- o Identification of problem areas which may require changes in management methods

The Management plan shall be modified no more frequently than once every five years, at which time a new five-year program shall be established. Plan modification shall be only for improvement in protecting the natural evolution of the site.

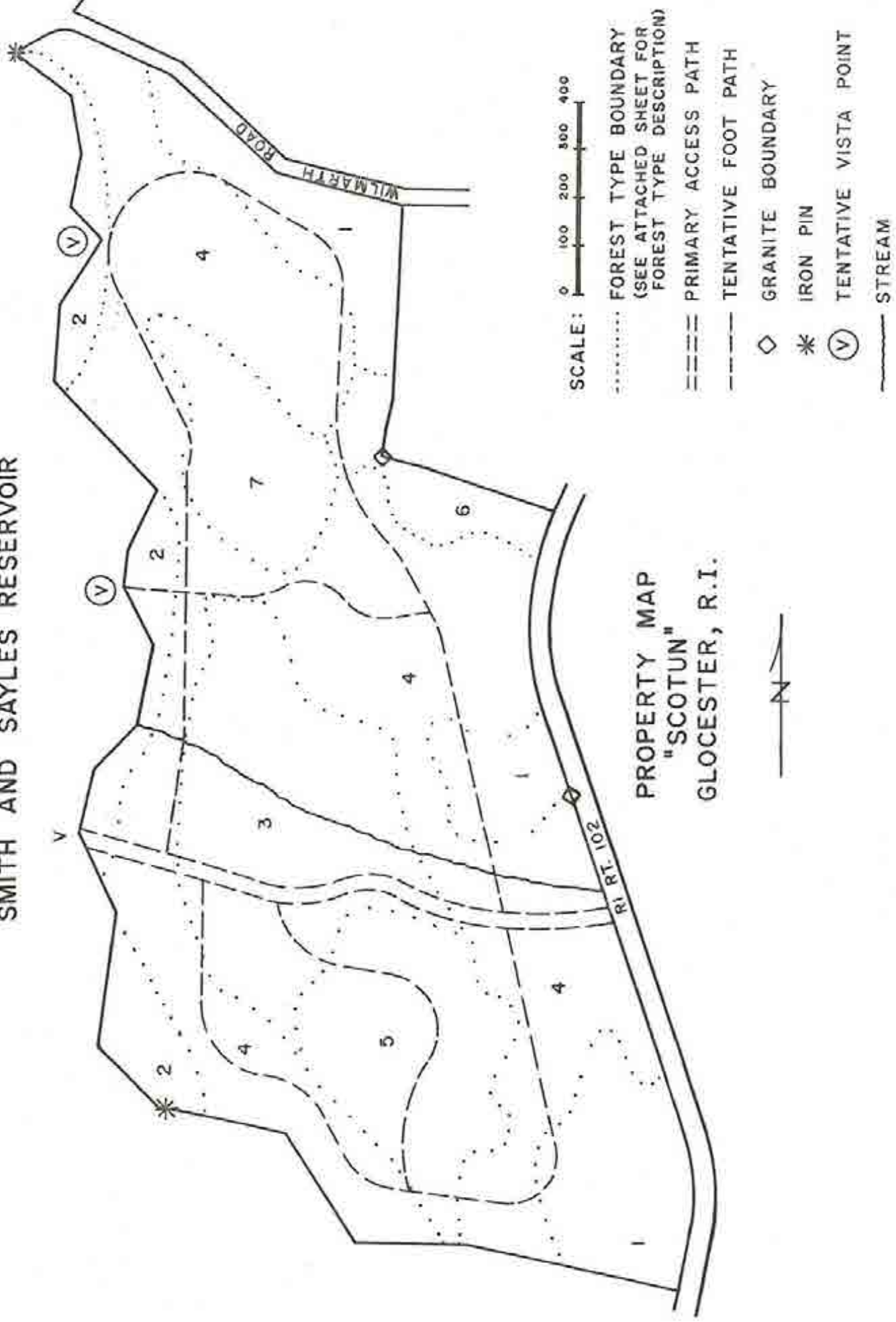
FIGURE 1

MANAGEMENT PLAN SCHEDULE



APPENDIX A
PROPERTY MAP

SMITH AND SAYLES RESERVOIR



PROPERTY MAP
"SCOTUN"
GLOUCESTER, R.I.

SCALE: 0 100 200 300 400

- - - - - FOREST TYPE BOUNDARY
(SEE ATTACHED SHEET FOR FOREST TYPE DESCRIPTION)
- ==== PRIMARY ACCESS PATH
- TENTATIVE FOOT PATH
- ◇ GRANITE BOUNDARY
- * IRON PIN
- Ⓟ TENTATIVE VISTA POINT
- STREAM

FOREST COVER TYPES

1. White Pine Type

This area consists of relatively large white pine, scattered in small blocks on the northern and eastern sides of the property. The soil is Hinckley sandy loam. The soil is sandy and well drained, and more ecologically suited to pine than hardwoods.

Year 1988 Initial Conditions
 Age=75, Stand site index=55.0

Species	Live Tree/Ac	BA/Acre	Avg DBH
White pine	72	130.1	17.7
Red maple	9	10.0	14.0
other hdwds	15	10.0	11.0
Totals	97	150.1	16.3

Board foot volumes in international 1/4 inch

Species	Sawtimber		Pulpwood		Residue	
	cuft	bdft	cuft	cords	cuft	tons
White pine	2451	15102	487	6.2	1845	31.8
Red maple	183	1144	27	0.3	106	2.6
Other hdwd	156	1043	48	0.6	104	2.6
Totals	2790	17290	562	7.1	2055	37.0

FOREST COVER TYPES

2. Hardwood Swamp

This area is located along the shoreline of the Reservoir making the soils extremely wet. Due to the high water table, trees are shallow rooted, resulting in high windthrow danger. Red maple and yellow birch are the principal species on this site.

Year 1988 Initial Conditions
 Age=60, Stand site index=57.0

<u>Species</u>	<u>Live Tree/Ac</u>	<u>BA/Acre</u>	<u>Avg DBH</u>
Red maple	315	60.0	5.8
Y.birch	369	60.0	5.3
<u>Totals</u>	<u>684</u>	<u>120.0</u>	<u>5.5</u>

Board foot volumes in international 1/4 inch

<u>Species</u>	<u>Sawtimber</u>		<u>Pulpwood</u>		<u>Residue</u>	
	<u>cuft</u>	<u>bdft</u>	<u>cuft</u>	<u>ords</u>	<u>cuft</u>	<u>tons</u>
Red maple	0	0	781	9.9	455	11.2
Y. birch	0	0	712	9.0	595	17.2
<u>Totals</u>	<u>0</u>	<u>0</u>	<u>1493</u>	<u>18.9</u>	<u>1050</u>	<u>28.4</u>

FOREST COVER TYPES

3. Mixed Hardwoods (oak type)

This area consists of mixed hardwoods, primarily oak types and is located in the central part of the property. The understory is dominated by a dense growth of Mountain Laurel.

Year 1988 Initial Conditions
 Age=80, Stand site index=60.0

<u>Species</u>	<u>Live Tree/Ac</u>	<u>BA/Acre</u>	<u>Avg DBH</u>
White pine	80	7.4	3.6
Hemlock	21	9.9	8.3
Red maple	66	22.5	7.4
White oak	4	5.0	14.2
Red oak	87	80.0	12.6
Other hdwds	133	5.0	2.4
<u>Totals</u>	<u>392</u>	<u>129.7</u>	<u>6.2</u>

Board foot volumes in international 1/4 inch

<u>Species</u>	<u>Sawtimber</u>		<u>Pulpwood</u>		<u>Residue</u>	
	<u>cuft</u>	<u>bdft</u>	<u>cuft</u>	<u>cords</u>	<u>cuft</u>	<u>tons</u>
White pine	61	383	7	0.1	208	3.7
Hemlock	78	461	3	0.0	86	1.6
Red maple	120	747	266	3.4	206	5.1
White oak	43	272	55	0.7	55	1.6
Red oak	1074	6861	488	6.2	828	25.5
<u>Totals</u>	<u>1375</u>	<u>8725</u>	<u>848</u>	<u>10.7</u>	<u>1446</u>	<u>39.0</u>

FOREST COVER TYPES

4. Mixed Hardwoods

This area is composed of exemplary specimens of mixed hardwoods. Red oak and white ash are the principal species, with tulip poplar the most common associate. This is the most common forest type on the property.

Year 1988 Initial Conditions
 Age=72, Stand site index=67.0

<u>Species</u>	<u>Live Tree/Ac</u>	<u>BA/ Acre</u>	<u>Avg DBH</u>
Hemlock	28	5.0	5.3
Red maple	42	25.1	10.2
Y. birch	33	6.7	5.6
White ash	73	30.1	8.3
Red oak	32	30.0	12.7
Noncom.	10	3.3	7.8
Other hdwds	62	23.4	7.4
Totals	281	123.7	8.3

Board foot volumes in international 1/4 inch

<u>Species</u>	<u>Sawtimber</u>		<u>Pulpwood</u>		<u>Residue</u>	
	<u>cuft</u>	<u>bdft</u>	<u>cuft</u>	<u>cords</u>	<u>cuft</u>	<u>tons</u>
Hemlock	22	127	20	0.3	76	1.5
Red maple	173	1088	301	3.8	255	6.3
Y. birch	25	160	35	0.4	83	2.4
White ash	89	528	438	5.5	297	7.0
Red oak	1074	6861	488	6.2	828	25.5
Noncom.	0	0	62	0.8	32	0.8
Other hdwds	210	1109	193	2.4	254	6.4
Totals	892	5354	1249	15.8	1312	34.0

FOREST COVER TYPES

6. Hardwood-Pine

This is a mixed pine-hardwood type located in the northeastern part of the property. This area is well suited as wildlife habitat due to the mixture of species.

Year 1988 Initial Conditions
 Age=75, Stand site index=55.0

<u>Species</u>	<u>Live Tree/Ac</u>	<u>BA/Acre</u>	<u>Avg DBH</u>
White pine	63	40.2	9.8
Red maple	9	5.0	10.0
Red oak	107	75.3	9.4
Other hdwds	57	5.0	4.0
Totals	236	125.5	8.2

Board foot volumes in international 1/4 inch

<u>Volumes:</u>	<u>Sawtimber</u>		<u>Pulpwood</u>		<u>Residue</u>	
	<u>cuft</u>	<u>bdft</u>	<u>cuft</u>	<u>cords</u>	<u>cuft</u>	<u>tons</u>
White pine	467	2765	234	3.0	447	7.7
Red maple	0	0	81	1.0	49	1.2
Red oak	915	5935	418	5.3	857	26.6
Other hdwds	0	0	0	0	131	3.3
Totals	1382	8699	733	9.3	1484	38.8

FOREST COVER TYPES

7. Hemlock

Hemlock is the principal species in this forest type (over 90%), dominating in both the overstory and understory positions. The high growth density has limited the establishment of other species. This forest type is located in the central part of the property.

Year 1988 Initial Conditions
 Age=65, Stand site index=57.0

Species	Live Tree/Ac	BA/Acre	Avg DBH
White pine	7	10.1	16.0
Hemlock	186	230.0	14.7
Red maple	74	20.0	6.9
Totals	266	260	12.6

Board foot volumes in international 1/4 inch

Species	Sawtimber		Pulpwood		Residue	
	cuft	bdft	cuft	ords	cuft	tong
White pine	199	1188	23	0.3	123	2.1
Hemlock	3834	22711	79	1.0	2353	42.8
Red maple	0	0	311	3.9	169	4.2
Totals	4033	23899	413	5.2	2645	49.1

APPENDIX B
TOPOGRAPHICAL MAP

Town of Glocester, R.I.
Management Plan
"Scotun"
TOPOGRAPHICAL MAP

