

SESSIONS WOODS WILDLIFE MANAGEMENT AREA

452.9 Acres

Burlington, Connecticut

10-Year Forest Management Plan (1997-2007)

by David S. Irvin, E.P. Resource Technician

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A. HISTORY

The Sessions property was purchased by the State of Connecticut from the United Methodist Church in 1981 using Pittman-Robertson Federal Funds, for the purpose of enhancing the Wildlife Division's public education programs. In 1992, construction of a 15,840 square-foot education center was completed on the site. Other buildings include a workshop, laboratory, pole barn, and former office building. Road work on the property was completed in 1991 and special demonstration projects developed along the roads and trails are described in section E, "Wildlife Habitat."

In 1995, a Sessions Woods Committee was formed that determined focus was needed on three main messages to help the public learn about wildlife and the role of the Wildlife Division:

1. The Concept of Wildlife Population Dynamics
2. Wildlife and Habitat
3. Wildlife and People

These concepts are introduced to the public at Sessions through a combination of educational programs, demonstration sites, displays, and self-guiding trails.

The property shows evidence of past use for charcoaling and some use as open pasture, but very little agricultural use was likely in the past.

Little has been documented regarding past forest management activities, but logging took place during previous ownership to remove timber in more easily accessible areas, with apparent little regard for long-term stand improvements. From 1989-1991, during state ownership, several minor cuttings took place, primarily along the Beaver Pond Trail, including a white pine thinning, small clearcuts (some to be permanently maintained as openings rather than regenerating forests), a seedtree cut demonstration, and a red pine salvage cut. All forestry activities have been on a small scale and were located adjacent to the road system. No management has taken place on the majority of the forested acreage beyond view of the trails.

B. ACRES AND ACCESS

Acres:

There are 452.9 surveyed acres within Sessions Woods. Of this, 220 acres, or almost exactly one-half the total acreage, is accessible. The other half is inaccessible due to steep slope, ledge, and wetlands. An estimated 51 acres is wetlands, 32 of which is considered open water. Another 182 acres is inoperable due to isolation by terrain or impassable wetlands. Approximately 5 acres is occupied by the Sessions Wildlife Facility, a development composed of several buildings and a parking area in the northeast corner of the property. Manageable forest is 215 acres, and that portion will be the subject of this plan.

Present Access:

Both the east and west boundaries of Sessions are public roads. Sessions has 4/5-mile of frontage on State Route 69 to the east and 1/4-mile frontage on East Chippens Hill Road to the west (No land will be accessed from East Chippens Hill Road due to wetlands and ledge near the

road that preclude the installation of financially-feasible road access or landing areas.)

All vehicular access to Sessions is, and will continue to be, via Route 69, either directly or by the forest roads.

All existing forest roads are well-maintained for light vehicle traffic and recreational foot use. All roads are gated off, with restricted public motor vehicle access. There are four gates at the four primary access points: One is at Route 69 South of the facility entrance. The other three gates are at loop road entrances around and behind facility buildings at the northeast corner of the property.

The longest gated road is "Beaver Pond Trail," a 2.6-mile loop of gravel road that starts and ends at the main facility parking area. The only other forest road is the 0.6-mile loop known as "Deer Sign Trail." All roadwork on these trails was completed in 1991 (Please refer to maps for road placement).

Proposed Access:

Only one new entrance and access road is suggested for forest management activities at Sessions. It is recommended that an entrance be installed near the southeast corner of the parcel off Route 69, near the charcoal mound. It is believed that this site was previously used for access during charcoaling and the old roadbed can be followed. The soils are Hinckley gravelly sandy loam and provide a relatively flat, well-drained area between Negro Hill Brook and the state boundary to construct a short, inexpensive truck road and log landing.

Only 28 acres of manageable forest (one stand) will be accessed directly from this new entrance, but the proposed access is considered necessary to reach this stand. Doing so reduces skid and haul distance and impact area to reach stand 6, and eliminates need to cross the brook and Blue Trail to access the area.

All remaining manageable forest, or 187 acres, will be accessed from the existing Beaver Pond Trail, and the gated spur road on Route 69 that connects with Beaver Pond Trail. Deer Sign Trail will probably not be needed during forest management activities, but use of Beaver Pond Trail is essential to access most stands.

Rights-of-Way:

The northern gate accesses a portion of Beaver Pond Trail that is not on state property. The beginning of the loop road parallels the state boundary but is actually on New Britain Water Department land for the first half-mile. A letter-of-intent from the water department has given Sessions permission to use and maintain the road. The company has reserved only its right to use the road if needed, and none of the land including this road was posted by the company.

The only right-of-way through Sessions property is a marked cut-line oriented northeast to southwest by Northeast Utilities, first described in deed in 1942. It has been reserved but not utilized.

Boundaries:

According to measured distances from the original deed, there are a total of 20,471.7' or 3.88 miles of boundaries around Sessions, including the public road frontages.

The boundaries were most recently marked in 1997.

There is one documented case of boundary trespass near the southwest corner of the property close to East Chippens Hill Road. An abutting landowner had moved the boundary signs and cut some trees on state land, approximately five years ago. Although the owner was investigated for potential violations by the town wetlands commission, no fines or charges were filed for encroachment on state land.

C. SPECIAL USE AREAS

Lakes and Ponds:

There is no appreciable use of open waters at Sessions for recreation such as fishing, swimming, or boating. The open waters are all considered to be open swamp, hardwood swamp, beaver flowage, ponds, or vernal pools left in a natural state for wildlife habitat.

Streams and Rivers:

The primary perennial stream, Negro Hill Brook, is fed from the large chain of ponds and swamps at the northwest boundaries. It flows east to Route 69, dividing the parcel. The brook's riparian zone will be protected and crossings minimized. Negro Hill Brook includes a scenic waterfall accessed by foot trail. A tributary of the brook, known as East Negro Hill Brook, connects the main brook with another wooded swamp at the edge of the property due northward.

Cultural Sites:

The only points of cultural/historical significance noted were a gazebo along the eastern end of the main loop road (representing the only remnant of the Sessions family ownership) and an identified charcoal mound near the southeast corner of the property, easily found from Route 69 and the state land corner. More mounds probably lie undiscovered deeper in the woods.
Foundation at the extreme northeast corner. ? Mill Foundation above the waterfall.

Recreation Sites:

Sessions Woods is actively used year-round by the public for recreation. Tunxis Trail, a Connecticut Blue Trail, runs the length of Sessions, roughly paralleling the South boundary, for about 7,000 feet, from Route 69 to East Chippens Hill Road. *Nature Center Connector*
Along the northern boundary @ 3000ft the Tunxis Trail Main Line runs along with the Beaver Pond Trail.
Both loop roads are used daily by nearby residents for walking, jogging, and dog-walking. Trails from the loop roads include a Tree I.D. Trail, and short spurs to a scenic waterfall, a fire tower, vernal pool, handicapped-accessible duck blind, and various demonstration areas adjacent to the loop roads. *Bowhunting for deer is allowed in fall/winter.*

Critical Habitat:

Areas of concern to be protected include all wetlands at Sessions, none of which will probably need to be disturbed during forest management except for minimal brook crossings. Swamps and ponds shall be given a buffer strip, and vernal pools avoided and protected.

An Endangered Species is listed for the large swamp in the northwest corner, the American bittern.

Dense thickets of mountain laurel will sometimes be untouched to provide a source of

small animal habitat.

Natural Areas:

There are no legislated or DEP-recognized Natural Areas. However, the half of the parcel inaccessible (almost exclusively to the west and southwest) will be left as a "natural area" by sheer inability to manage the forest there.

Research Areas:

Most "research areas" at Sessions serve the purpose of helping educate the public through various wildlife habitat enhancement demonstrations (described and listed in section E, "Wildlife Habitat"), improvement of food production, explanation of special features, and comparative demonstrations. As an example of the latter, an electric deer fence is shown to protect vegetation planted and maintained within from deer browse. Similar plantings outside the fence protection are clearly impacted. Similarly, a patch cut along Beaver Pond Trail saw two different treatments. Half the area was left "clean", with slash lopped carefully. The other half had slash left high and intact. Regeneration differs between the two sides, red maple more dominant where slash was left low, and oak more prevalent under the protection of higher slash. Rather than encompassing actual research projects for the biologists, these areas demonstrate principles to the public.

Three wildlife research projects are in progress on the Sessions property. Wildlife Biologist Paul Rego is conducting a radio telemetry study of raccoons to study home ranges and determine short-term movements of relocated nuisance raccoons and their effects on resident raccoons. This research project will not be impacted by active forest management activities, according to Mr. Rego.

Wildlife Biologist Jenny Dickson is conducting a study of eastern tree-roosting bats through 1999, involving radio telemetry and mist netting. Data collected may provide information on the types of habitats critical to these species for roosting, foraging, and migratory stopovers, and may one day be applied to management of state lands. This project would also be unaffected by forestry activities proposed in this plan.

Migratory bird stopover habitat survey plots are maintained at Sessions as part of the Silvio O. Conte National Fish and Wildlife Refuge Study of the Connecticut River watershed, a 3-year project that ends in June 1998. Requirements include an untouched buffer zone (unchanged canopy conditions) of about 50 meters width along Beaver Pond Trail, where all plot centers are located, and a suggestion of no logging in the area from late April to early June. Such activity could alter bird activity and therefore adversely affect research results. Because some use of Beaver Pond Trail and adjacent areas is inevitable in forestry activities, any harvests in this plan will not begin until after this study concludes.

D. EXTENSIVE AREAS OF CONCERN

The Blue Trail (Tunxis Trail) and demonstration/educational trails at Sessions are to be left open at all times, with minimal disturbance, crossing only when necessary. No more than

50% of the basal area shall be removed within 100 feet of these trails, except when part of the localized goal is to create a cutting demonstration in full view of such trail or other access.

In addition to protecting primary trails and demonstrations, any wetland crossing or wetland filter strip will be designed according to recommendations in the Best Management Practices guide for Timber Harvesting and Water Quality in Connecticut.

The northeasternmost corner of the property that contains the building complex is located in the watershed of the New Britain Reservoir. Little or no forest management is planned in this area.

E. WILDLIFE HABITAT

Special Developments and Demonstrations to enhance wildlife habitat and use include the following, all found along the two loop roads and easily accessed and viewed.

There are more than 80 stops with interpretive signs along the trails.

- a. Backyard Wildlife Habitat Demo, including small manmade pond and numerous plantings.
- b. Outdoor classroom/amphitheater to seat 50 people
- c. 25-foot observation tower (fire tower)
- d. Clearcut, seedtree cut, producing a small seedling-sapling component
- e. Vernal pool
- f. Berry release field
- g. Digger Dam, fish habitat demonstration site
- h. Permanent openings of grasses and shrubs, maintained by mowing and clipping of undesirable competitors. There are half-dozen such openings, comprising an estimated 4% of the manageable area, or no more than 8-9 acres.
 - i. Brush piles, preserved snags, and artificially created tree cavities for habitat.
 - j. Nesting boxes for squirrels, birds and waterfowl, and a roosting shelter for bats.
 - k. Special wildlife food and cover plantings.
 - l. Solar-electric deer fence.

Population Controls:

Sessions Woods was added to the Furbearer Permit program in 1994, but no bidder has taken advantage of trapping rights at Sessions to date. The only hunting allowed is fall bow-hunting for deer, and handicap-accessible duck blinds may see use in fall 1997 if there is interest.

Current Diversity:

It is estimated that 2% of the total forested acreage (managed and unmanaged) is seedling-sapling stage, virtually 0% is in poles alone, and the rest of the forest is stocked in sawtimber-size trees, sometimes in combination with poles. There are no conifers in large enough aggregates to be considered "pure" stands. However, 25% of the total forested acreage (102 acres of 397) has a conifer component. Approximately 4% of the area is in permanent

opening.

Since virtually all of the forest is sawtimber size, a lack of habitat diversity is a serious concern for wildlife management at Sessions.

F. VEGETATIVE CONDITION

Only 30 acres of total manageable forest shows full stocking of acceptable growing stock (AGS). Most of the forest at Sessions is understocked with AGS and not utilizing the site well.

The largest stand at Sessions, 93 acres of mixed hardwood-white pine, is very poorly stocked with acceptable trees due to site conditions and perhaps previous logging. The sandy soils there are more suited for growing pine, and the oak predominating is of poor vigor. In addition, white pine advance regeneration is already established throughout this stand where an oak or oak-pine overstory exists.

FOREST SIZE CLASSES BY FOREST TYPE

<i>Type</i>	<i>Seedling-Sapling</i>	<i>Pole</i>	<i>Pole-Sawtimber</i>	<i>Sawtimber</i>	<i>All Sizes</i>	<i>Total</i>
<i>Oak-White Pine</i>	4	0	0	89	0	93
<i>Mixed Hardwood</i>	3	0	32	260	0	295
<i>Hardwood Softwood</i>	0	0	0	9	0	9
TOTAL	7	0	32	358	0	397

FOREST TYPE, SIZE CLASS, CONDITION CLASS ON AREAS TO BE MANAGED
(220 Acres)

Oak-White Pine Management Unit (93 Acres)			
Size Class	OK at Present	THIN-Overstocked Acceptable AGS	REGENERATE- Unacceptable AGS
Seedling-Sapling	4	-	-
Pole	-	-	-
Pole-Sawtimber	-	-	-
Sawtimber	-	-	89

Mixed Hardwoods (35 Acres)--Small Sawlog/Poles and 2-Aged Areas			
Size Class	OK at Present	THIN - Overstocked Acceptable AGS	REGENERATE - Unacceptable AGS
Seedling-Sapling	3	-	-
Pole	-	-	-
Pole-Sawtimber	-	3	29
Sawtimber	-	-	-

Mixed Hardwood-Softwood (9 Acres)			
Size Class	OK at Present	THIN - Overstocked Acceptable AGS	REGENERATE - Unacceptable AGS
Seedling-Sapling	-	-	-
Pole	-	-	-
Pole-Sawtimber	-	-	-
Sawtimber	9	-	-

Oak Stands (60 Acres) -- Small Sawlog			
Size Class	OK at Present	THIN - Overstocked Acceptable AGS	REGENERATE - Unacceptable AGS
Seedling-Sapling	-	-	-
Pole	-	-	-
Pole-Sawtimber	-	-	-
Sawtimber	-	-	60

Oak-Birch Stand (18 Acres) -- Proposed Uneven-Aged Management Area			
Size Class	OK at Present	THIN - Overstocked Acceptable AGS	REGENERATE - Unacceptable AGS
Seedling-Sapling	-	-	-
Pole	-	-	-
Pole-Sawtimber	-	-	-
Sawtimber	18	-	-

G. SPECIFIC ACQUISITION DESIRES

There are no urgent specific acquisition needs or desires for Sessions at this time. It would be desirable to acquire the remaining beaver pond acreage to the northwest if the water company ever decides to sell it.

H. PUBLIC INVOLVEMENT

Copies of the management plan will be made available to the Burlington Conservation

Commission for review and feedback.

I. TEN YEAR GOALS

1. Improve forest health and diversity by managing for an increased conifer component and more size classes (i.e. increase in the seedling/sapling and pole categories), regenerating those areas with unsatisfactory levels of AGS and showing poor vigor.
2. Improve wildlife habitat by increasing diversity of species composition and size classes.
3. Practice both even-aged and uneven-aged management for comparative demonstration purposes.
4. Create prescribed fire demonstration area while hopefully regenerating and perpetuating the native pitch pine component on the property.
5. To enhance the Sessions goal of public education in wildlife issues by expanding the demonstration area to a property-wide scope.
6. To carry out forest improvements in a cost-effective way and to generate some income for the Wildlife Division.

J. WORK PLANS

1. Road Maintenance: Roads are currently in good shape, and will be maintained as needed by contractor carrying out cutting operations during each phase of forest management.
2. Signs: Explanatory signs are to be placed in full view of any operation at public access points for information and education, to be paid for by buyers of timber sales.
3. Boundaries: All boundaries should be remarked for better visibility before any nearby cutting operations begin. All boundaries should be done every 8-10 years.
4. Prescribed Fire: A Burn Plan will be needed for the 2-3 acre burn to regenerate pitch pine, to be supervised by the Division of Forestry.
5. Uneven-Aged Management: Stand 6, 18 acres, is an oak-birch stand with mature/overmature oak, and the stand is fully-stocked with acceptable growing stock. This would be a suitable area to start uneven-aged management with a rotation of up to 150 years. A first thinning will be done by 2007.

6. Even-Aged Management -- Regeneration: Several areas are understocked with AGS and are priorities for regeneration, and prime candidates for wildlife openings to increase diversity through generation of more seedling-sapling size trees. Due to the size and remoteness of the stand, stand 5 is chosen for initial openings, with 22 acres regenerated every 10 years to achieve a 10% seedling-sapling component in the managed forest. Openings of approximately that acreage have already been created six years ago, and therefore, the next cut should occur in about 4 more years, or by 2001. Ten acres may also be cut every 4-5 years as an alternative in achieving the ten year guidelines. Stands designated as 2 and 3d are also of unacceptable AGS and stocking and could be regenerated, but are of lower priority at this time due to their locations.

7. Even-Aged Management -- Thinnings:

- a. Stand 1, 93 acres of mixed oak-white pine, is well under-stocked with AGS and is the first priority for management. If this stand does not receive attention promptly, the abundant healthy advance regeneration of white pine will be lost. To maintain a component of mast-producing hardwoods while also managing for pine on this site, scattered oak and hickory will remain during release cutting, which will primarily remove UGS during efforts to preserve some shade for the pine (to protect the young growth from weeviling). The mast trees left should be of good vigor and have large crowns for strong mast production. As a result of this policy, a mixed pine-hardwood stand can be maintained that will essentially be two-aged, but not truly uneven-aged. It will result in an even-aged white pine stand with a scattered older hardwood overstory. Due to the large size of stand 1, the unit will be divided into two sections before operations plans are written. At this time, it is expected that the Beaver Pond Trail loop road will divide the stand, with the west side of the road entailing one operation and the east side another.
- b. Stands 3c and 4, consisting of 2-aged mixed hardwoods and mixed hardwood-softwood respectively, are both fully-stocked or nearly so and worth saving and managing. These areas are of low priority, with only minor UGS thinning recommended after more priority areas have received attention.

In summary, work shall occur in stands 1 and 5 through two different even-aged cuttings as priority at Sessions Woods.

APPENDICES

REFERENCES

"Even-Aged Silviculture for Upland Central Hardwoods", USDA Forest Service Agriculture Handbook 355, by Benjamin A. Roach and Samuel F. Gingrich, 1968..

"A Silvicultural Guide for White Pine in the Northeast", USDA Forest Service General Technical Report NE-41, by Kenneth F. Lancaster and William B. Leak, 1978.

"Reference Handbook for Foresters", USDA Forest Service, NA-FR-15, by Burl S. Ashley, 1989.

"Ecology and Management of Northern Hardwood Forests in New England", USDA Forest Service General Technical Report NE-159, by James W. Hornbeck and William B. Leak, 1991.

"Crop Tree Management in Eastern Hardwoods", USDA Forest Service NA-TP-19-93, by Arlyn W. Perkey, Brenda L. Wilkins, and H. Clay Smith, 1990.

"How to Release Crop Trees in Precommercial Hardwood Stands", USDA Forest Service NE-INF-80-88, by Neil I. Lamson, H. Clay Smith, Arlyn W. Perkey, Brenda L. Wilkins, 1989.

"Textbook of Dendrology", McGraw Hill Sixth Edition, by William M. Harlow, Ellwood S. Harrar, and Fred M. White, 1979.

DEFINITIONS

Forest Stand Size Classes

Stand: an area of tree growth which constitutes a practical working unit.

Mature Timber: timber that has reached the diameter specified for the site and rotation, as based on black oak site indices and modified as necessary for specific management situations.

Sawtimber: hardwood trees 12 inch diameter class and larger, and softwood trees 10 inch diameter class and larger, that contain at least one eight-foot sawlog.

1. Acceptable growing stock (AGS)---These are salable trees that are not large enough to be mature, but are of acceptable species, form, and quality and would be satisfactory as crop trees in a final stand on the site, or that have value as a potential product for an intermediate cut within 20 years.
2. Undesirable growing stock (UGS)---These are salable trees that are not mature for the site, but are undesirable because of species, defect, or form.

Poletimber: hardwood trees 5.0 inches to 10.9 inches at d.b.h., and softwood trees 5.0 inches to 8.9 inches at d.b.h. Consists of trees that are too small for sawlogs, but could be sold as pulpwood, fuelwood or other small products where such markets exist.

1. Acceptable growing stock (AGS)---Trees salable for small products, and of such species, form, and quality that they are suitable for crop trees if the size class is managed as the main stand, or that are suitable to leave as potential products for future intermediate cuts within the next 20 to 40 years.
2. Undesirable growing stock (UGS)---Trees salable for small products, but because

of undesirable species or poor form, or quality, should be removed or deadened as soon as practical.

Saplings: trees of commercial species 1.0 inches to 4.9 inches at d.b.h. that are too small to be merchantable under normal conditions.

1. Acceptable growing stock (AGS)---Trees that are of acceptable species, form, and quality and could be selected as future crop trees if this size class were selected as the main stand, or that would be suitable to leave for 40 to 60 years as potential products for future intermediate cuts.
2. Undesirable growing stock (UGS)---Trees not acceptable on a site because of species, form, or condition. Should be removed or deadened as soon as practical.

Seedlings: trees of commercial species less than 0.9 inches at d.b.h. that are normally unmerchantable as forest products.

Cull Trees: live trees in any size class that are not now and never will be merchantable for the principal products to be harvested from the site.

Forest Type Description: In the description of the types mentioned above will be found percentage figures. These mean the percentage of trees 5" DBH and over, except in the first age class. In that class they mean the percentage of all trees found on the area, except as noted later in the discussion of age. It should be borne in mind that it is not the origin, but rather the composition and the future management which are important in determining any type.

1. Pine - The pine type is composed of 60% or more of pine, or pine and hemlock with pine predominating; and not over 40% of other species. The pine may be either white or pitch, although the latter is relatively infrequent; while the other species generally will be hardwoods such as birches, maple, cherry, ash, oaks and basswood. Management will be for pine primarily.
2. Hemlock - The hemlock type is composed of 60% or more of hemlock, or pine and hemlock with hemlock predominating; and not over 40% of other species. The other species, as a general rule, will be such hardwoods as beech, maples, birches, basswood, cherry, white ash and oaks. Management will be for hemlock primarily.
3. White Cedar - The white cedar type is composed of 40% or more of white cedar and not over 60% of other species. The other species generally are hemlock, pine, larch, red maple, oaks, black ash, and black gum. The type is always found in swamps. Management will be for white cedar.

If a stand should happen to have 40% of white cedar and 60% of hemlock it would be recognized as white cedar, since the management is primarily for white cedar, even though the type description for hemlock is such that this stand could be called hemlock.

4. Tamarack - The tamarack type is one composed of 60% or more of tamarack and not over 40% of other species. The other species may be red maple, black ash or black gum. Management will be for tamarack primarily.
5. Softwoods-Hardwoods - The softwoods-hardwoods type is one composed of any combination of percentages, from 60% softwoods and 40% hardwoods to 40% softwoods and 60% hardwoods, except where white-cedar forms 40% of the stand in which case the type is white cedar. Pine, hemlock, oaks, white ash, birches, beech, basswood and maples in combinations are the usual species occurring in this type. Management will be for a mixed stand.
6. Mixed Hardwoods - The mixed hardwoods type is one composed of 60% or more of hardwoods and not over 40% of softwoods. The hardwoods are the so-called transition hardwoods, red oak, ash, maple, basswood, birch and tulip and/or the Connecticut hardwoods, white, red, black, scarlet and chestnut oaks, hickory and/or small percentage of other species such as beech, birch, and maple. Management will be primarily for the hardwoods.
7. Northern Hardwoods - The northern hardwoods type is one composed of 60% or more of beech, yellow birch, and sugar maple and not over 40% of other species. The other species may be either hardwoods or softwoods. If the stand contains less than 60% of beech, yellow birch, and sugar maple, but does contain 60% or more of hardwoods it is not northern hardwoods but mixed hardwoods. The northern hardwoods type is a special type of mixed hardwoods. Management will be primarily for the northern hardwoods.
8. Oak Ridge - The oak ridge type is composed of at least 60% of hardwoods and not over 40% of softwoods. The hardwoods are practically always chestnut, ash or scarlet oaks or both with a small mixture of hickory and other species. The softwoods are usually hemlock and pitch pine. The type is characterized by its stunted growth, the malformation of the trees and its occurrence on the thin soil of rock ridges and outcrops. The occurrence of chestnut or scarlet oaks is not a sure indication of an oak ridge type as these trees are very common in the "mixed hardwoods" type. The stunted growth, on the other hand, is one of the main characteristics. Care must be taken to avoid including stands which are really "mixed hardwoods" under this type just because of the occurrence of chestnut or scarlet oaks.

9. Hardwood Swamp - The hardwood swamp type is composed of at least 60% of hardwoods and not over 40% of softwoods. The type is usually composed of red maple with elm, black ash, yellow birch, black gum and occasionally tulip. The softwood when it occurs, is usually hemlock. This type always occupies a water area.
10. Old Field - The old field type is not based on any percentage figures although in all cases, except one (red cedar), the species are predominantly hardwoods. This type is largely grey birch, red cedar, or both, bird cherry, or scattered other trees and brush species such as alder, laurel, hardhack, etc. It is in reality a temporary type composed of relatively worthless growth. It is always abandoned pasture, mowing or farmland which is reverting to a poor stand. A hill top which is growing mostly juniper, hardhack, laurel, etc. is old field, so is a pure stand of grey birch, red cedar or both. A stand of maple coming in on an abandoned field or pasture is not recognized as old field but as a mixed hardwoods stand. A stand of pine, hemlock, or both, or mixtures of these with hardwoods is not called old field even if they do come in on abandoned pastures or fields; but is recognized as pine, hemlock, or softwoods-hardwoods.
11. Plantation - The plantation type is recognized as any area upon which any planting has been done with either softwoods or hardwoods. An area of some other cover type which has been underplanted successfully is recognized as a plantation.

A plantation, established as an underplanting, which is growing and has a sufficient number of trees to make a final stand will be recognized as a plantation, and the management will be the removal of the overstory. A plantation, established as an underplanting which is suppressed and cannot recover if released or which has not enough trees to make a final stand will be recognized as the type of the overstory. Management will be through the overstory with the planted trees being ignored. In the case of some of the older plantings, particularly at Meshomasic, where some of the plantations were neglected and as a result occur as small groups or scattered trees, the planted trees will not be recognized as a plantation; but since these planted trees now form part of the main canopy on a well developed understory they must be considered in determining the type. They will often cause what was originally a mixed hardwoods stand to be classified as a softwoods-hardwoods stand.
12. Field - The field type is farm or pasture land which has not yet become covered with a tree growth. A clear cut area is not recognized as field as it will become some type, the first growing season after cutting, due to the growth from the stumps, seedlings or seeds.
13. Open Swamp - The open swamp type is a swampy area not yet producing forest tree growth. It is usually a swamp meadow composed of bunch grass with a scattering

of alder or other species.

14. Water - Any area too wet to fit the description for open swamp.
15. Christmas Trees - Any plantation of suitable species that is being managed for Christmas tree production.

SESSIONS W.M.A.

BURLINGTON, CT

APRIL 28, 1997



