

Forest Resources

Major Forest Types

The following types can classify the forest resources of Cornwall:

Oak – Hickory

This type is composed of 60% or more hardwoods with oaks or oaks and hickory making up 50% or more of the area's stocking of trees. This type is found on well drained to extremely well drained soils. The predominant species in this type are northern red oak, black oak, white oak, shagbark hickory, pignut hickory, and mockernut hickory. Associate species are chestnut oak, scarlet oak, red maple, white pine, white ash, hemlock, paper birch, black birch, tulip poplar, aspen, American beech, and black cherry. Northern hardwoods or hemlock usually succeed this type.

Mixed Hardwoods

This type is composed of 60% or more hardwoods with oaks or oaks and hickories making up less than 50% of the area's stocking of trees. This type occurs on well-drained soils. Tree species found in this type are northern red oak, black oak, white oak, chestnut oak, scarlet oak, hickories, red maple, white ash, black birch, paper birch, yellow birch, white pine, hemlock, tulip poplar, aspen, American beech, and black cherry. Northern hardwoods or hemlock usually succeed this type.

Northern Hardwoods

This type is composed of 60% or more of shade tolerant hardwoods. This type occurs on fertile moist well-drained soils. The predominant species in this type are sugar maple, yellow birch, and American beech. Associated species are black cherry, red maple, white ash, basswood, white pine, hemlock, red oak, black birch, aspen, yellow poplar, and eastern hop hornbeam. This type tends to be climax.

White Pine

This type is composed of 60% or more white pine or white pine/hemlock with white pine as the predominant stocking. This type is found on a variety of sites. Stands with a higher percentage of white pine develop best on soils that are well drained sands or sandy loams. White pine/hemlock stands favor cool sites such as moist ravines and northern slopes. Associates to purer white pine stands are aspen, red maple, paper birch, black birch, yellow birch, black cherry, white ash, red oak, black oak, sugar maple, basswood, hemlock, pitch pine, scarlet oak, chestnut oak, white oak, and hickories. Associates to white pine/hemlock stands are beech, sugar maple, yellow birch, basswood, red maple, black cherry, white ash, tulip poplar, red oak, white oak, black oak, and chestnut oak. This type growing on dry sandy soils may persist a long time and even approach climax.



On heavier soils, northern hardwoods, hemlock, or white oak usually succeeds white pine.

Hemlock

This type is composed of 60% or more of hemlock or hemlock/white pine with the hemlock predominating. This type develops best on sites that are cool and moist such as ravines and north slopes. Trees associated with this type are beech, sugar maple, yellow birch, basswood, red maple, black cherry, white ash, white pine, paper birch, black birch, yellow poplar, red oak, and white oak. This type tends to be climax.

Plantation

This type is recognized as any area greater than two acres in size on which hardwood or softwood trees were planted. The planted trees are expected to dominate the area for the life of the trees.

Oak Ridge

This type is composed of 60% or more of mixed hardwoods. This type occurs on shallow very well drained to extremely well drained rocky outcrops and ridge tops. The tree growth is usually stunted due to the soil conditions. Species present are chestnut oak, black oak, scarlet oak, white oak, red oak, black birch, gray birch, red maple, hickory, white pine, and hemlock. This type is self-sustaining.

Hardwood Swamp

This type is composed of at least 60% hardwoods. The type is found on inland wetland soils that are flooded or have water at or near the surface for a portion of the year. Species found in this type are red maple, elm, white ash, black ash, yellow birch, black gum, white pine, and hemlock. This type is self-sustaining. Hemlock may eventually succeed it.

Field

This type is open or agricultural land that has not yet become covered with tree growth or has been cleared of tree growth and is maintained in an open condition.

Shrub-Old Field

This type is abandoned agricultural fields reverting to forest and is characterized by old-field grasses, shrubs, and small trees, or barrens on dry sites persisting in shrubs such as blueberry or huckleberry

Open Wetland

This type is a wetland area that has not yet become covered by tree growth or that the tree growth has been killed off by flooding from the activity of beavers. This type is dependent on the beaver activity to maintain water levels.

The tree size class that predominates in the forest types is sawtimber. This is defined as trees with a diameter of 12 inches or larger measured at a point on the trunk that is 4.5 feet from ground level or diameter at breast height (dbh).

State Forest Management

Forestry operations will be used to maintain a mix of plant species and ages, improve plant productivity, provide forest products, provide a variety of forest habitats, protect and improve aesthetics and long term recreational opportunities and to educate the public about forests. All operations will be conducted following best management practices to minimize erosion and protect the water resource.

Forest stands will be managed as even-aged or all-aged (uneven-aged). Natural regeneration will be the primary means of regenerating stands. Planting will be used on a limited basis to supplement natural regeneration, and to introduce species as future seed source. Use of non-native species will be avoided, but with the loss of native species to insects and diseases, it may be necessary to plant non-native species to provide specific habitats.

The priority for deciding to harvest in a forest will be:

1. Salvage or pre-salvage of damaged or threatened stands.
2. Regeneration of understocked stands, which will support a commercial operation
3. Regeneration of fully stocked stands to maintain forest age class distribution.
4. Thinning overstocked stands, which will support a commercial operation.
5. Regeneration or timber stand improvement in stands, which will not support a commercial operation.

The removal of poor quality trees may result in the removal of more trees of one species than another and may result in some forest type changes such as hemlock to mixed hardwood, but type conversion is not the harvest objective.

All-aged management will be applied in northern hardwood, mixed hardwood, and hemlock types. A 20-year cutting cycle will be used. Group selection method will be the primary regeneration system. Harvest openings will be generally less than one acre.

Even-aged management will be applied in oak-hickory and white pine types. Management will be for trees of one age class, but stands where a deferred cut is to be conducted may include trees of two age classes for a portion of the rotation. One hundred

years will be the rotation age of the stands. On average one percent of the even-aged stands will be regenerated annually.

Questions concerning the management of State Forest lands in Cornwall should be directed to Jerry Milne, CT DEP Division of Forestry, PO Box 161, Pleasant Valley, CT 06063, Office: (860) 379-7085, Fax: (860) 379-7103, E-Mail:

gerard.milne@po.state.ct.us.

Forest Management on Private Land

The primary consideration in practicing forest management on private lands in Cornwall is the landowners seeking out professional forestry advice from certified foresters. The Connecticut Division of Forestry Cooperative Forest Management Program offers free technical assistance and advice to private forest landowners. Forest landowners in Cornwall should contact Larry Rousseau, Service Forester, Western Headquarters, 230 Plymouth Road, Harwinton, CT 06791, Phone: (860) 485-0226, Fax: (860) 485-1638, E-Mail: Lawrence.rousseau@po.state.ct.us .

Significant Forest Areas

The two significant forest areas on state-owned land in Cornwall are the Black Spruce Bog Natural Area Preserve and the Gold's Pines Natural Area Preserve.

The Black Spruce Bog Natural Area Preserve consists of 19 acres of state-owned land lying within Mohawk State Forest. The Preserve encompasses an acidic bog located within the Northwest Uplands Ecoregion. The site has long been recognized as a unique natural area and represents one of the few such plant communities of its type in Connecticut. This plant community is considered an outstanding example of a late stage peat bog. Individual specimens of black spruce and larch have achieved a stature rarely found in the state. The bog is a popular site for educational activities and scientific purposes and features a trail and boardwalk.



The Gold's Pines Natural Area Preserve consists of 12 acres of state-owned land lying within the Housatonic State Forest. The Preserve is located south off CT Route 128 and is across the road from the Cornwall Consolidated School. Located within the Northwest Uplands Ecoregion, Gold's Pines is a mixture of tree species of varying size and age with one portion containing a unique assemblage of very large and very old white pine. This stand of large mature individuals is approximately 180 years old and considered the

oldest stand of white pine in Connecticut. The area has a well-documented history of forest management activities and contains a “Blue Ribbon” long-term forest research plot established by the State in 1932. These plots are among the oldest such research plots in the nation and are an extremely valuable scientific resource.

(Invasive plant information may be found in Appendix A.)