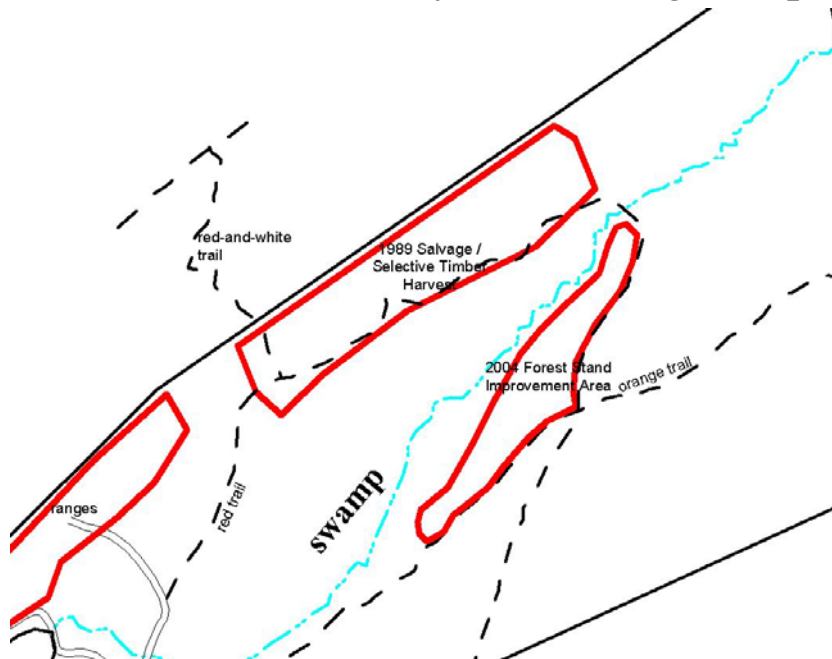


From the Forester: Intermediate Treatments

Camp No-Be-Bo-Sco

for Forestry Merit Badge Requirement 4D



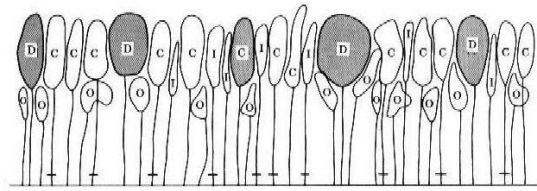
In forestry, intermediate treatments are used during the life cycle (or rotation) of a forest stand in order to improve a particular forest in accordance with the landowner's objectives. The Council has many objectives for its camps. Of primary importance are the health and safety of the Scouts, increasing the recreational value and the educational experience of the Scouts, and to do so in aesthetically pleasing surroundings. Secondary objectives would include providing clean water

for society, providing habitat for the greatest number of species of wildlife (biodiversity), conservation of endangered species, and providing periodic and sustainable income to the Council from timber.

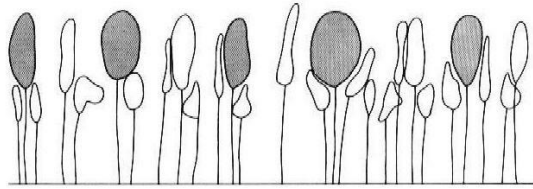
Forest Stand Improvement

The cutting you see here is a type of intermediate treatment known as "forest stand improvement." This forest stand was composed of tulip poplar (40%), red maple (40%), and other hardwoods (20%), such as yellow birch, beech, red oak, and black gum. Since many valuable tulip poplar trees were competing with low-value red maple trees, a decision was made to cut many (but not all) red maple trees. The trees to be cut were marked by the forester. The forester first looked at the tulip poplar and other desirable trees that the Council wished to favor. Then, the forester identified the trees that were competing with those desirable trees for sunlight, and marked some of them for cutting. Later, in 2004, those marked trees were cut.

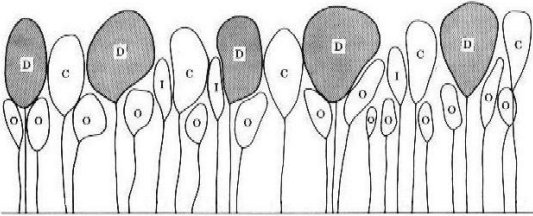
By cutting some of the undesirable trees that were directly competing with desirable trees, additional sunlight was gained for the desirable trees. As a tree captures more sunlight with its leaves, it can produce more energy from photosynthesis, and grow faster and become healthier. Within a few years, the small holes in the forest canopy will have been filled by additional growth of our desirable trees. This process of forest stand improvement is similar to weeding a garden, except on a much larger scale. This was a non-commercial treatment, since no forest product was gained by this treatment.



Before



Immediately after



Several years after

(These drawings were adapted from "The Practice of Silviculture" by Smith, Larson, Kelty and Ashton)

Salvage/Selective Timber Harvest

The cutting you see here was part of a timber harvest conducted in 1989. Between 1987 and 1989, an infestation of gypsy moths occurred at the camp. Gypsy moth larvae (caterpillars) will eat many leaves of chestnut oak, white oak, and other oak trees. Although the oak trees will resprout new leaves in the following year, the tree is weakened due to the loss of energy from photosynthesis. Following two or three consecutive years of defoliation, the tree may be so dramatically weakened that it may be unable to fight off other pests, and will die. A very large number of oak trees were killed in 1989. Since oaks have a very high value wood, the decision was made to harvest the many of the dead trees before the wood began to rot and lose its value. This type of intermediate treatment is known as a "salvage cut."

At the same time, a decision was made to harvest a small amount of living trees that were overmature and/or beginning to show signs of decline. Some trees, such as tulip poplar, lose a very large amount of their value upon death, because their wood is very likely to rot and become useless. This led the Council to decide to remove certain valuable trees that the forester believed would be dead or valueless within the next ten years or so. This type of thinning is known as a selective timber harvest.

Trees were marked by a forester. The forester ensured that some standing dead trees were left behind for woodpeckers, and as perching spots for hawks, owls, and other birds of prey. In addition, the number of living trees cut was limited, in order to protect the visual (aesthetic) beauty of the areas. Both of these intermediate treatments are considered commercial thinnings, since wood was harvested for wood products, and income was generated for the Council.