

Cherokee Marsh Oak Savanna / Prairie Complex Restoration

Historic Background:

- Oak Savanna's covered 5.5 million acres of Southern Wisconsin in 1850
- Definition: Open grown oaks with canopy coverage that does not exceed 50% with an understory of grasses, forbs, and shrubs.
- In Dane County it was the dominant plant community interspersed with open prairie.
- Today only approx. 500 acres of high quality oak savanna remains in all of Wisconsin

Project Background:

- In 2011 we set a goal to restore up to 50 acres of oak savanna in Cherokee Marsh at the North Unit over a 5-7 year timeframe.
- In Fall 2011 we began using a forestry mower to mow exotic brush (honeysuckle and buckthorn) in the oak woodlands.
- In these areas the regrowth of the exotic shrubs was treated with a herbicide application in 2012 to eliminate them.
- Along cleared woodland edges native seeds were sown in 2011-12.

Project Phase 2013-14:

- Identified 3 oak woodland units (16.2 acres total) suitable for this initial phase of oak savanna restoration based on their location on the landscape, and the presence of open grown oaks.
- Restoration will involve thinning the tree canopy to restore the structure of an oak savanna. Species to be thinned: white and black oaks, black cherry, hackberry, aspen.
- Appropriate oak savanna species (grasses, sedges, forbs) will be reintroduced after the canopy thinning creates conditions suitable for their growth.
- **Unit 1 (3.4 acres)** is a hedgerow of trees approx. 200 ft. wide by 1,000 ft. long. It consists of historic open grown oaks in the original east-west property line, and white oaks planted 30 years ago to provide screening (to buffer a proposed residential housing development). The development did not occur and today it is part of the conservation park. Thinning of this hedgerow of trees will create a habitat connection between the restored prairies to the north and south of this solid tree barrier. All the original open grown oaks will remain along with selected younger oak, hickory, hackberry, and hawthorn (a total of 60 trees to remain after the thinning). **Completed May 2013**
- **Unit 2 (7.9 acres)** The 1937 area photo clearly shows that individual open grown trees are present. The presence of a farmstead is also present at that time which means that this oak grove was likely used as a pasture. The grazing maintained the structure of an oak savanna until grazing stopped around 1960. Trees will be removed to restore the oak savanna structure as many of the open grown trees noted in 1937 are still present today. **Programmed for Winter 2013-14**

- **Unit 3 (4.9 acres)** In 1937 air photos show this area as a pencil thin fencerow of trees between a crop field and a wetland. Today this linear woods is 140 to 220 ft. wide. The open grown oaks, and some of the smaller younger oaks, and hickories would remain after the canopy thinning to recreate the structure of an oak savanna. The thinning would increase the functional value of the open wetlands and prairie plant communities currently divided by the dense tree canopy that grew up after agricultural operations ceased in the 1960's. **80% Completed in September 2013**

Project Phase 2014-16:

- **Unit 4 (8.3 acres)** The 1937 air photo shows a thin strip of trees on the northwest slope of this glacial drumlin. Crops are apparent northwest and southeast of this slope. A small farmstead is present on this site. The wooded area has since expanded with green ash, cottonwood, silver maple, and box elders the dominant tree species. There are some larger oaks and hickories in the fence line along the south property boundary and a few smaller trees scattered nearby. The understory of the unit is dominated by buckthorn and honeysuckle (to be cleared using a forestry mower). The northern portion of this unit along the steep northwest slope would be cleared and seeded to tall grass prairie. This would connect the adjacent prairie restorations expanding the effective open habitat unit. In the southern part of the unit existing trees would be thinned to favor oaks / hickories to restore oak savanna habitat.
- **Unit 5 (12.4 acres)** Exotic shrubs have largely been controlled in this unit, and some tree canopy thinning (using chainsaws) has occurred. Native grass, sedge, and wildflower seeds were sown in the more open areas. These plantings have been very successful due to the favorable light regime. The next step will involve additional thinning of the tree canopy to reach the goal of 50 to 70 percent coverage. Larger oaks and hickories will remain along with native hawthorns in the understory.
- **Unit 6 (1.2 acres)** Consists of several open grown bur oaks adjacent to a high quality wet prairie remnant. Thin over abundant oak saplings to maintain oak savanna / wet prairie habitats.
- **Unit 7 (10.5 acres)** The northern portion of this unit was a crop field in 1937 surrounded by open oak woodland (individual trees can be seen on 1937 aerial photograph). The goals in this unit are to remove trees surrounding the remaining open grown oaks, thin existing even aged oaks / hickories, and select future open grown trees. Continue to target reduction of exotic shrubs and increase floral diversity in the ground layer.

