

HISTORY

We know from its soils as well as from the first surveyors in 1837, what we today call the Orland Grassland was for thousands of years rich prairie with many ponds and wetlands.

With the coming of pioneer farmers in the 1800s, these 960 acres were divided into a patchwork of rectangular farms. Most of the prairie was destroyed, but a narrow remnant survived along the right-of-way of 175th Street. To increase the arable land, the owners drained wet areas by an underground tile system. When this property was bought for conservation, the Forest Preserve District of Cook County installed some trees (mostly around the edges) and planted most of the site with commercial meadow grasses to hold the soil. Along 175th Street, original prairie species began to spread into the planted meadows.

In 2002, the Forest Preserve District began true ecological restoration with support from Openlands, Audubon, the Village of Orland Park and local volunteers. Although this preserve had once been known for rare grassland birds, by that time the grassland had dwindled to about 100 acres – with more than 800 acres increasingly covered by invasive trees and brush. As a first step, 750 acres were cleared of woody plants and invasive weeds – and re-planted to prairie. Follow-up for the next seven years by Openlands, Forest Preserve staff and partners continued the work of battling weeds and brush, conducting controlled burns, gathering

seeds, and planting more than 100 species of rare prairie plants along with some native shrubs and trees in selected areas.

Soon the site became appreciated for its beautiful prairie wildflowers and wildlife.

Numbers of rare grassland breeding birds increased – especially Bobolinks, Henslow’s Sparrows, Eastern Meadowlarks, and Dickcissels. Rare oak savanna and native shrubland birds also increased, including the Eastern Kingbird, Orchard Oriole, Willow Flycatcher and Brown Thrasher.

In 2007, at the request of the Forest Preserve District, the U.S. Army Corps of Engineers approved a major program to complete the “heavy lifting” work, which would allow the District and other partners to complete the details of the restoration over the decades. The Corps has completed most tree and brush control, disabled the tile system, controlled invasive species, and planted a “starter matrix” of grassland, wetland and oak woods understory species.

MANAGEMENT GOALS AND TECHNIQUES

All the groups and agencies collaborating to restore the Orland Grassland follow the same plan:

- remove invasive woody plants from prairie .

- control other invasive plants (including reed canary grass, teasel and birdsfoot trefoil) with fire, pulling, mowing, or herbicide.
- seed with native species of prairie or oak woodland habitats.
- conduct occasional controlled burns in all prairie and oak woodland areas.
- maintain a narrow buffer of trees and shrubs around all edges of the site.

HYDROLOGY

Thanks to restoration of natural hydrology, the ecosystem acts much like a huge sponge, storing up rainwater and releasing it slowly through seepage and transpiration. Natural hydrology decreases flooding and siltation down stream and benefits many species of plants and animals in the Grassland. The rains no longer rush off through the drain tiles and into local streams and ditches, making the grassland a part of natural flood control and water quality improvement. When these drain tiles were disabled in 2010, a surprising number of springs, ponds and wetlands re-formed, just where they had been more than 100 years ago.

INVASIVE SPECIES

A few species can function like cancer in the ecosystem – crowding out all else until the natural community collapses. Many non-native species are no trouble at all, and we don’t bother with them. But a few are malignant: these include teasel, reed-canary grass, and white sweet-clover. Some invasives can be curbed by fire, some by pulling, but some are uncontrollable except by herbicide. When herbicide is needed, the least toxic

kinds are carefully applied, and signs identify areas where herbicide has recently been used. The public is asked not to enter those areas for 24 hours, just as when a landscaper has applied herbicide to a lawn.

Dense trees aren't natural to such a grassland. Most trees have now been removed except in two cases. First, on the border of the site, dense woody growth is being retained as buffer. Second, some areas are being restored as "oak savanna" (clumped or scattered oaks with an understory of grasses and wildflowers) and "shrub prairie" (a grassland with patches of shrubs as much as five to fifteen feet tall).

CONTROLLED BURNS

The goal is to foster good health for prairie, wetland and oak woods communities. Over millions of years, prairie and oak woodland animals and plants adapted to fire. Now these species don't reproduce or thrive without it. About one half of the site is burned each year during the dormant season (late fall, winter or early spring).

These burns typically last for two to four hours and are conducted when wind blows smoke away from roads and houses. Also, brush piles are burned when invasive brush is cut.

Controlled burns are essential to the long-term health of the grassland.

PLANTING SEEDS, PLUGS AND TREES

The goal is to restore the hundreds of species of now-rare plants to 750 acres of high quality prairie habitat and about 200 acres of mixed oak woods and shrubland habitats. The goal is a highly diverse plant community which is thereby mostly self-maintaining.

WHAT TO EXPECT IN THE NEXT FEW YEARS

Most of the site will gradually increase in stability, quality, habitat value and beauty as the slow-growing plants mature. Major brush clearing will be complete by late fall 2012. That brush will in most cases be removed by chipping and hauling rather than burning. About 20 acres of dense oaks and brush that deserve detailed attention have been retained for gradual thinning and planting over the years by trained volunteers and staff.

Some areas may be mowed from time to time if ecologists judge that mowing would discourage invasives and encourage quality plants. Some shrubland areas will be allowed to grow up for ten to fifteen years and then mowed or burned back. This will take place on a rotating basis so that there will always be some shrubland habitat at short, mid, and tall heights.

WHAT YOU CAN DO

Pat Hayes of the Orland Grassland Volunteers writes: "With so much large-scale work being done by the Corps, we volunteers can now target our work where our long-term dedication is needed most. Please check our website for current opportunities."

RESOURCES

Orland Grassland Volunteers
<http://www.orlandgrassland.org/www.orlandgrassland.org/>

Forest Preserve District of Cook County <http://fpdcc.com/>

ORLAND GRASSLAND UPDATE

September 2012

The restoration of the Orland Grassland to a state of ecological good health is one of the most ambitious projects of its kind in the Midwest. It has received wide recognition – both for its goals and for its successes to date. This brochure provides a brief summary of progress and plans.

