

Science and Project Quercus®:

MCCD's 2007 Oak Study. In 2007, the McHenry County Conservation District completed an assessment of how the extent of oak woodlands had changed in McHenry County between the time of the first Public Land Survey, 1837, and 2005. The study documented those areas that had been wooded continuously over that timeframe, as revealed through 1837 Public Land Survey notes, a detailed Plat Map from 1872, the first aerial photos of the region in 1939 and the most recent high resolution aerial photos of the region in 2005. Some of the findings included:

- About 95% of the tree species noted in the original Public Land Survey notes were oaks. Red, white, scarlet and black were also noted (listed in order of relative dominance).
- Nearly 90% of the 143,000 acres of oak woodlands noted in 1837 were gone by 2005. Over half were removed between 1837 and 1872, leaving just 72,000 acres of oak woods as land was cleared for farming and settlement. Between 1872 and 1939, 62% of the original stands of woods were removed, resulting in just 26,350 acres remaining. By 2005, an additional third were gone, leaving just 18,000 acres.
- There were 2,888 remnant oak woodlands identified that were at least 1 acre in size. However, there were just 157 blocks of 25 acres or greater, 48 blocks 50 acres or larger and only 8 that were larger than 100 acres. Just three of the oaks woodlands larger than 100 acres were publicly protected – the other five had no protection, and shortly after the study was complete, one of those was destroyed when roads were installed throughout for a subdivision.
- Of the remaining oak woodlands that were at least 1 acre in size, 84% were located on private land, and very little was known about those woodlands.



TLC's Oak Keepers® 2008-2012. Release of the MCCD study made it clear not only that the vast majority of remnant oaks were on private land, but also that the ownership of these woodlands was fragmented and there was very little known about the composition or condition of the woods. As a result, TLC developed a curriculum to train citizen scientists to evaluate the structure and condition of privately owned oak woodlands.

- Between 2008-2012, 65 Oak Keepers® were trained, and all but two privately owned oak woodlands larger than 50 acres in size were at least partly surveyed.
- Woodland ownership is highly fragmented even for the largest remaining blocks of woods. Over 500 individual landowners were identified at the 42 privately held oak woodlands that were larger than 50 acres. Between 2008-2009, all of these landowners were contacted to determine their interest in having their woods surveyed.
- The condition of remaining oak woods varies greatly, even within individual woodland blocks. This is due to the fragmented ownership. While one owner may restore her oak woods, the neighbor may prefer to “let nature take its course.”
- There is still a lot to learn about the privately owned oak woods and savannas. For example:
 - o The first documented population of pre-settlement swamp white oaks was found by Oak Keepers® in 2008. Subsequently, they found two additional populations in the same large

- woodland north of Marengo. Prior to their discovery, swamp white oaks were not known to occur in the county.
- Two witness trees were found by Oak Keepers® – one north of Harvard and another in Ringwood.
 - The largest white oak in the county was found in 2011.
 - The largest red oak in the county was documented by Oak Keepers® in 2012. The previous “largest red oak” was found by Oak Keepers® in 2009.

Community Research Forest. Summer 2013, TLC and MCCD worked together to preserve nearly 100 acres of remnant oak woods in Dunham Township. The site includes 53 acres that are owned by MCCD and 40 acres of private land that is permanently protected from development by a conservation easement held by TLC. The woodland will be managed jointly as a living laboratory and will be used for educational programs, scientific research, hands-on restoration training projects meant to benefit public and private owners of oak woodlands throughout the region.

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The Land Conservancy of McHenry County (TLC) is a 501(c)(3) not-for-profit organization that works with individuals and communities to preserve and restore natural, scenic and agricultural land and water resources throughout the county. TLC has preserved nearly 2,000 acres of land, the vast majority of which is owned by private landowners who donated permanent conservation easements on their property to ensure it will never be developed. TLC is supported by members and grants from charitable foundations.

TLC founded Project Quercus® in 2006, and created Oak Keepers® in 2008.

Project partners include: The Care of Trees, Davey Tree Expert Company, Glacier Oaks Nursery, McHenry County Nursery, Illinois Department of Natural Resources-Forestry Division, Illinois Nature Preserves Commission, McHenry County Conservation District, McHenry-Lake County Soil and Water Conservation District, and the USDA Natural Resources Conservation Service.