

THURSTON NATURE CENTER OAK SAVANNA PROJECT NARRATIVE

A. Purpose of Proposed Project

This project application requests funding to purchase trees to be planted to create an oak savanna community element in the Thurston Nature Center (TNC).

The TNC is a Dedicated Michigan DNR Conservation Education Reserve, and is located on the grounds of the Thurston Elementary Public School in Ann Arbor, Michigan. The Thurston Nature Center Committee (TNCC), a non-profit, standing committee of the Thurston School Parent-Teachers Organization (PTO), has successfully managed and maintained the TNC since its DNR dedication in 1968. The TNCC reports annually to the PTO. The Ann Arbor Public School system uses the TNC extensively as an outdoor classroom for elementary and middle school students. In addition to its role as an educational resource, the TNC also supports extensive community use.

A 1998 poll of homeowners in the adjacent neighborhoods revealed 82% of 211 respondents visited the TNC on a regular basis. The addition of an oak savanna element, with its component of native oaks and highly diverse understory of native grasses and forbs, would be a compelling, living demonstration to students and other visitors of a historically important southern Michigan terrestrial ecosystem that was lost following European settlement by conversion to agriculture and subsequent suppression of wildfires. Fires are needed to maintain the open canopy state in the oak savanna community. The addition of an oak savanna community element would also serve to demonstrate to students and other TNC visitors the successional link between the prairie and the closed-canopy oak forest community elements already established in the TNC.

B. Describe project goals, anticipated outcomes and deliverables.

The TNC covers about 12 acres of gently rolling terrain and includes a shallow, 8.4-acre pond with fringing wetlands. The terrestrial component includes a mixed hard- and softwood forest with a woody shrub understory; a mature, closed-canopy oak woodland; a prairie; and a mowed grassland.

The immediate project goal is to plant the mowed grassland with native oak trees of species that typically occurred in the oak savanna communities of southern Michigan, including some of those that presently occur in the closed-canopy oak forest community element in the TNC. The longer term goal is to establish native grasses and forbs typically found in oak savanna communities in southern Michigan, including some or all of those that presently occur in the prairie community element in the TNC. Long-term project success would be evaluated by the number of species of native grasses, forbs and animals typically found in oak savanna communities in southern Michigan** that ultimately become established there, including some or all of those that now occur in the prairie community element in the TNC. The deliverables by September 1, 2009, would be the establishment of an oak savanna community element in the TNC with the planting, in spring 2009, of 16 oak trees of

appropriate species. Grass mowing there would cease in spring 2009 in preparation for the establishment of a natural community of native prairie grasses and forbs. Signage would be erected informing the public of the project goals and recognizing DNR assistance in the project.

The area where the oak trees are proposed to be planted at Thurston Elementary School is identified for reforestation by the Millers Creek Watershed Improvement Plan*. The tree planting is recognized as a storm water best management practice and will help meet a level 2 priority of the plan.

C. Describe what planning has gone into this project. Also, in preparing the budget, has applicant received any quotes or estimates for project?

Yes, provide a copy. Copies are attached.

Planning for the development of an oak savanna community element in the TNC began with discussions at the October 2005 TNCC meeting, but development was prevented by lack of funds and competition from other ongoing TNCC restoration work. In 2006, the project was proposed to principals in the Ann Arbor Public Schools system who viewed it favorably. Project planning resumed recently with the discovery of the MDNR Urban and Community 2008-09 Forestry Grant Program. We secured copies of the recommended guidance documents for nursery stock acquisition, tree planting, and tree maintenance (USDA/FS NA-FR-01-95; and DNR IC 4108 and 4108-1) and incorporated that guidance into our planning.

This application reflects our planning activities to date. Attached is an aerial photo of the project area (Thurston Nature Center Oak Savanna Site) and a drawing of the site with proposed tree locations and the planting plan (Oak Savanna Project Tree Planting Plan). Copies of quotes and estimates for project element costs are also attached. (Oak Savanna trees, sources, prices, and related information, compiled by Neal Foster, 8/12/08 and backhoe rental from Carpenter Brothers Hardware and Rental)

D. Who will be involved with and/or responsible for the project?

The project will be managed by the TNCC. The TNCC meets monthly during the school year and has an elected board composed of a Chair, a Secretary-Treasurer, a Land Steward, and a Water Steward. TNCC members are homeowners in the Orchard Hills and Bromley subdivisions that border the TNC. The Land Steward will provide detailed oversight and management of the planting project.

E. Upon Completion how will the project be maintained and/or updated?

The TNCC organizes spring and fall work days that draw substantial volunteer support from the homeowners, who maintain nature trails, take down dead trees (mostly ash) that pose a threat to TNC users, and remove invasive species (e.g., buckthorn). The TNCC has instituted a popular Adopt-a-Tree Program (ATP), which enlists volunteers who pledge to maintain one or more trees in the TNC. These volunteers perform tree maintenance as needed throughout the year. Over the last 7 years, 50 families have adopted and maintained more than 100 specimen trees;

survival of these trees has been excellent. ATP volunteers would also be enlisted to care for trees planted in the oak savanna project, consistent with advice provided in DNR approved guidelines. Work would be managed by the Land Steward and backed by TNCC members with expertise in tree care.

Tree maintenance in the oak savanna community will follow the DNR Tree Maintenance Guidelines and will include regular watering during the first growing season following planting to help ensure successful establishment. Water would be pumped from the adjacent pond or drawn from a source of City water or both, and distributed to the trees via a flexible irrigation hose system. Maintenance after the first year would include watering and pruning as needed. Burning of the project area would be scheduled as needed after the first year to prevent invasion by unwanted woody plants and to encourage the establishment of a desirable and diverse understory community of native grasses and forbs. TNCC members have successfully performed seven burns of the prairie ecosystem element in the TNC since 1990 and a vigorous and diverse grass and forb prairie flora now exists there.

References

*Millers Creek Watershed Improvement Plan, Prepared by Ayres, Lewis, Norris, & May, Inc., Huron River Watershed Council, Tilton and Associates, Inc. Ann Arbor, Michigan, April 20, 2004, pages 86, 88, 105.

**Cohen, J. G. 2004 (updated 2008). Natural community abstract for oak openings. Michigan Natural Features Inventory, Lansing, MI. 13 pp.
(click on heading "Oak Openings" at following website:
<<http://web4.msue.msu.edu/mnfi/pub/abstracts.cfm#Communities>>).

Bedker, Peter J, Joseph G. O'Brien and Manfred M. Mielke, USDA Forest Service, NA-FR-01-95, "How to Prune Trees".

Attachments

Thurston Nature Center Oak Savanna Site aerial photo-site map
Thurston Nature Center Oak Savanna Site as seen from the southwest-photo
TNC Oak Savanna Project Tree Planting Plan
Approval of Project from Ann Arbor Public Schools
Tree Planting Detail, DNR IC-4108, (6194)
Tree Maintenance Guidelines (minimum) DNR IC4108-1 (Rev.03/19/2004)
IRS Determination of non-profit status
Oak Savanna trees, sources, prices, and related information, compiled by Neal Foster, 8/12/08-quote
Backhoe rental from Carpenter Brothers Hardware and Rental-quote
Letters of support- Thurston Elementary School Parents Teachers Organization, Thurston Elementary School, Ann Arbor Public Schools, Huron River Watershed Council's Miller Creek Action Team