



# City of Columbia

701 East Broadway, Columbia, Missouri 65201

Department Source: Parks and Recreation

To: City Council

From: City Manager & Staff

Council Meeting Date: July 15, 2024

Re: United States Department of Agriculture – U.S. Forest Service Cost Share Agreement

## Executive Summary

The Parks and Recreation Department is requesting City Council authorization for the City Manager to sign a challenge cost share agreement with the United States Department of Agriculture (USDA), Forest Service, Region 8. The agreement with the U.S. Forest Service will allow department staff to continue work that was started in 2021 related to the research, propagation and collection establishment of *Quercus acerifolia* (maple leaf oak) in Columbia, Missouri. The tree is listed as a vulnerable or endangered species in the International Union for Conservation of Nature and Natural Resources (IUCN) red list. The agreement with the U.S. Forest Service will reimburse the City up to \$60,000 for expenses incurred as part of the project.

## Discussion

In 2017, Stephens Lake Park was awarded Level II accreditation by the ArbNet Arboretum Accreditation Program and the Morton Arboretum. This was earned for achieving high standards of professional practices deemed important for the arboreta and botanic gardens, including planning, governance, public access, programming and tree science, planning and conservation. As the arboretum has continued to grow, park staff has looked at different options for new tree plantings and park development. In 2021, park staff received grant funding from ArbNet and Botanic Gardens Conservation International (BGCI) to complete research and propagation efforts to introduce a new species of trees in the arboretum with the hopes that it will continue the longevity of the *Quercus acerifolia* (maple leaf oak) tree species. The tree is listed as a vulnerable or endangered species in the International Union for Conservation of Nature and Natural Resources (IUCN) red list. Park staff has been successful related to the collection, propagation and planting of the Maple Leaf Oak in Columbia with initial collection plantings completed in Stephens Lake Park, Indian Hills Park, Louisville Park, Rock Quarry Park and A. Perry Philips Park.

The Parks and Recreation Department is requesting approval of an ordinance authorizing the City Manager to enter into a challenge cost share agreement with the United States Department of Agriculture (USDA), Forest Service, Region 8. The cost share agreement with the U.S. Forest Service will allow parks and recreation natural resources division staff to continue work that was started in 2021 related to the research, propagation and collection establishment of *Quercus acerifolia* (Maple Leaf Oak) in Columbia, Missouri.

The cost share agreement will reimburse the City 71.22% of the total cost for the continued work related to the preservation of the Maple Leaf Oak tree in Columbia, Missouri. The City will provide the 28.78% necessary match for the cost share agreement through noncash



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contributions totaling \$24,591.35. The noncash contributions include salary and labor for staff and volunteers, totaling \$23,746.35, and \$845.00 for materials and supplies. The total estimated project cost is \$85,433.35 and the U.S. Forest Service will reimburse the City up to \$60,000.

The funding will be used to continue all portions of the project that was started in 2021 and will also include working with staff at the Morton Arboretum to complete genotyping of the *Quercus acerifolia* currently located in Columbia, Missouri. Funding provided by the U.S. Forest Service will cover travel expenses for four trips to Central Arkansas to collect acorns and cuttings, genotyping work for the maple leaf oak, equipment for gps planning, label production, grafting and materials for planting small trees.

As outlined in the scope of work for the funding application, staff and volunteers will complete the following tasks related to the project.

- Staff will propagate additional in-situ (wild) collected specimens from each of the four known subpopulations of *Quercus acerifolia* (maple-leaf oak - MLO) for establishment of a new clonal seed orchard in Columbia, Missouri for R8 National Forest System.
- Staff will also propagate additional ex-situ (greenhouse/propagate) sourced selections from the species metacollection.
- Staff and volunteers will develop a “pipeline” model that can be adapted to other threatened and endangered species on NFS lands in R8, based on their experiences with *Q. acerifolia* (maple-leaf oak).
- Staff will consult with The Morton Arboretum to query their existing in situ and ex situ databases, to optimize development of an effective strategy to conserve known levels of intra-specific genetic diversity for the maple leaf oak.
- To further guide project-based propagation activities, staff will utilize proportional sampling approaches using computer simulations previously published by The Morton Arboretum to guide future in situ sampling work.

The work completed by park staff and volunteers will result in further propagation and planting of the maple leaf oak tree in Columbia, Missouri, additional research about the endangered species through the Morton Arboretum and the creation of a template for other agencies to focus efforts on endangered tree species in the United States.

## Fiscal Impact

Short-Term Impact: The total estimated project cost is \$85,433.35 and the U.S. Forest Service will reimburse the City up to \$60,000. Staff will provide noncash contributions through salary, labor costs, supplies and materials. Staff will return to City Council to appropriate the reimbursed funds after completion of the projects.

Long-Term Impact: None



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## Strategic & Comprehensive Plan Impact

### Strategic Plan Impacts:

Primary Impact: Not Applicable, Secondary Impact: Not Applicable, Tertiary Impact: Not Applicable

### Comprehensive Plan Impacts:

Primary Impact: Environmental Management, Secondary Impact: Land Use & Growth Management, Tertiary Impact: Not Applicable

## Legislative History

Date	Action
11/02/2020	B300-20: Authorizing an agreement with ArbNet for acceptance of a grant to fund travel expenses for two (2) tree collection trips to Arkansas for plant propagation; amending the FY 2021 Annual Budget by appropriating funds. <a href="#">B300-20</a>

## Suggested Council Action

Approve the ordinance authorizing the City Manager to execute the cost share agreement with the United States Department of Agriculture, Forest Service, Region 8.