



MEMORANDUM

TO: Mayor Laurel Lunt Prussing and Members of the City Council
FROM: William R. Gray, Public Works Director
Michael J. Brunk, City Arborist
DATE: March 20, 2014
RE: Request to Utilize City Funds for Sim Hackberry Memorial
(312 South Coler Avenue)

Introduction

The City has recently removed one of the City's oldest trees due to its declining condition. If the trunk is sufficiently solid, this presents an unfortunate but rare opportunity to preserve portions of the tree for historic and educational use. Through a public forum with the Tree Commission in January, the community has expressed interest in memorializing this hackberry tree. Numerous suggestions and artisan proposals have been forwarded to the City Arborist and presented to the Urbana Tree Commission at its March 5th meeting.

Staff would like to request approval to pursue the memorial idea with the use of city funds. Staff proposes to utilize an amount not to exceed **\$5,000** in remaining tree inventory funds to cover costs for selected memorial projects that are being proposed for this historic hackberry.

Public Works staff has worked with the City public arts coordinator, to create a request for proposal (RFP) application that is ready to be advertised upon committee approval. The RFP is to seek any additional proposals from area artisans and finalize the list of memorial projects. Following suit with the public arts program, a temporary selection committee will be created that consists of two members from the Urbana Tree Commission, two members from the Public Arts Commission, community members and city staff. This selection committee will cull the proposals and suggest an order of preference for the projects. The number of projects that would be awarded will be limited to those selected by the jury and the available funds that are approved for memorial project use.

Fiscal Impact

Utilize a portion of remaining funds from budget line item, B09-1-0400-0416 "Tree Inventory Costs," in an amount not to exceed \$5,000. The remaining tree inventory funds in this line item are surplus from the completed 2013/14 tree inventory project.

Recommendation

It is recommended a motion to allow the use of the above funds for the Sim Hackberry memorial be approved.

Some details on the a few of the popular projects.

A handcrafted conference table has been proposed to be made from the hackberry trunk wood by a fine furniture maker. The suggested location for this table is the City Council Chambers as the information table when you first come into the room or as the public speaking table. This project requires the milling and drying of trunk wood. There is a sawyer in Argenta, Illinois that can mill large size trunk material such as this hackberry and is willing to mill and dry wood for no cost in return for 50% if the finished lumber. The sawyer will mill and dry the wood so it can be used to build the conference table and or other wood furniture / crafts. There would be lumber left over that could be provided to the Landscape Recycling Center to sell or sold by the City to the public for recouping some costs. The cost for conference table project and milling the wood would not exceed \$1,000. If the City prefers to keep 100% of the milled and kiln dried wood this cost would increase another \$1,500.



The rough sawn bench is proposed at \$360 per bench. The bench would be made from a raw slice of the tree trunk as its back and rough sawn trunk wood for the remainder of the bench. The bench back would incorporate a historic time line showing some notable events in the history of Urbana along the tree ring lines. The bench is suggested to be displayed inside such as the public library foyer or similar location but could also be treated to be placed outside. Outside exposure will shorten its life expectancy and may degrade the historic time line art work.



The preserved tree cookie (3” – 4” thick) would be a polished cross section of the trunk displayed with historical points of interest marked at various tree rings. The piece could be displayed horizontally to accentuate its size or vertically in a custom cradle if there were space constraints. The public library, civic center or city hall could be potential locations for display. This cost would be around \$2,500 and include a stand (\$1,280) for displaying the piece.



*Note - Any of the above proposals could generate funds that could recoup some of the project expense if the City were to sell the items to the community by auction or bid.

Details on preserving tree cookies

The main component of this preservation effort is a highly specialized chemical called polyethylene glycol or PEG. PEG is a white, wax like chemical that resembles paraffin. A solid at room temperature, PEG readily dissolves in warm water, is nontoxic, noncorrosive, odorless, colorless, and has a very high fire point, 580 degrees Fahrenheit. Although chemically related to antifreeze (ethylene glycol, a monomer) PEG is a polymer more closely related to various other polyethylene glycol polymers with substantially different properties. (From "*How PEG Helps the Hobbyist Who Works with Wood*" by H.L. Mitchell U.S. Dept. of Ag. Forest Service Forest Products Laboratory 1972)

PEG is sold retail in 10 lb/5 gallon buckets or wholesale for half the retail price in 555 lb/ 55 gallon drums. This project requires 550 lbs of product, one 55 gallon drum of PEG product, to preserve one to three 3" to 4" thick by five foot diameter tree trunk disks. The chemical is a high grade material that professional woodworkers use to preserve natural wood pieces in a pristine condition. Wood has a tendency to crack, check and warp as it dries once cut and exposed to air. This is especially true of cross sectional pieces of wood such as tree cookies. To eliminate this problem wood workers soak wood in a PEG solution. This wax like polyethylene glycol liquid soaks into the wood's pores to fill voids as the moisture content evaporates thus eliminating shrinkage and cracking. Many artisans use the chemical for stabilizing green wood prior to working the wood by sculpting, cutting or sanding.

This project would entail soaking the stacked tree cookies in a plastic 6-7ft diameter round by 2ft deep horse trough type tank for several months. The cookie would then be air dried for several more months. Once dry the preserved tree cookie would be ready to be worked and finished to its desired state. This may take some staff time unless a volunteer is found to sand the treated piece. A sealer such as moisture-cure polyurethane could be used to provide a quality a high gloss finish for a display piece. This cookie could then be artistically marked with dates, historic points of interest, and sealed for display.