



CITY OF NORMAN, OK STAFF REPORT

MEETING DATE: 04/15/2025

REQUESTER: Michele Loudenback, P.E., Utilities Engineer

PRESENTER: Michele Loudenback, Environmental and Sustainability Manager

ITEM TITLE: CONSIDERATION OF APPROVAL, ACCEPTANCE, REJECTION, AMENDMENT, AND/OR POSTPONEMENT OF DONATION OF 0.39 ACRES FROM THE BOARD OF CLEVELAND COUNTY COMMISSIONERS FOR REAL PROPERTY LEGALLY DESCRIBED AS SEQUOY TRAILS BLK A COMMON OPEN SPACE DETENTION POND, SECTION 17, RANGE 2 W, TOWNSHIP 9 N

BACKGROUND:

Lake Thunderbird, constructed in 1965 by the U.S. Bureau of Reclamation (BOR), is a vital water resource in central Oklahoma. It serves as the primary drinking water supply for Norman, Midwest City, and Del City and provides recreational opportunities such as fishing, boating, and water sports. Managed by the Central Oklahoma Master Conservancy District on behalf of the BOR, Lake Thunderbird is also subject to flood control oversight by the U.S. Army Corps of Engineers and recreational management by the Oklahoma Department of Tourism and Recreation.

Over the years, urban development has led to increased stormwater runoff, carrying pollutants—such as sediment, nitrogen, and phosphorus—into the lake. Excess sediment reduces water clarity and lake storage capacity, while nutrient loading contributes to harmful algal blooms. In recognition of these water quality concerns, the Environmental Protection Agency (EPA) designated Lake Thunderbird as an impaired waterbody on its 303(d) list in 2010. Subsequently, the Oklahoma Department of Environmental Quality (ODEQ) established a Total Maximum Daily Load (TMDL) in 2013 to set limits on pollutant levels and guide remediation efforts. In response, the City of Norman has implemented a monitoring and compliance program aimed at reducing nutrient and sediment loading into the lake.

DISCUSSION:

As part of its ongoing commitment to improving stormwater management and water quality, the City of Norman has identified an opportunity to enhance a detention pond located at the intersection of Sequoyah Trail and Wildwood Lane. Originally owned by the Sequoyah Trails Homeowners Association, the pond was transferred to Cleveland County in 2006 due to unpaid taxes. Currently, maintenance efforts are minimal, limited primarily to mowing.

The City of Norman contracted Freese and Nichols, Inc. to conduct a feasibility assessment of three sites, including this detention pond, within the Blue Neighborhood Pilot area. The assessment focused on identifying existing conditions and opportunities for stormwater improvements that would contribute to reducing sediment and nutrient loading into Lake Thunderbird.

The feasibility study outlines potential enhancements to the pond through the integration of green stormwater infrastructure (GSI). Sediment forebays and micro-pools can be incorporated to slow runoff and capture pollutants before they enter downstream waterways. Wetland vegetation can be established to enhance filtration and improve habitat. Controlled outlet structures can be installed to regulate water discharge, reducing erosion and improving water retention time.

The City has funding in the TMDL capital project fund to pay for the design and installation of the pond retrofit (estimated at \$284,000). Until the retrofitting project is officially designed and implemented, Stormwater Maintenance will be responsible for ongoing maintenance of the pond. Additionally, after retrofit implementation, educational signage will be installed to inform the public about the retrofit and the environmental benefits of improved stormwater management.

Implementing these improvements would help the City meet its pollutant reduction goals under the Lake Thunderbird TMDL by filtering stormwater before it reaches local streams. Additionally, the project complements other stormwater management initiatives, such as the Blue Neighborhood program and Artful Inlets, reinforcing a citywide strategy for reducing environmental impact.

RECOMMENDATION:

City staff recommend the acceptance of the deed for the detention pond property, with the understanding that further planning and budgeting will be required to implement retrofitting improvements. This property acquisition aligns with the City's long-term stormwater management goals and provides an opportunity to enhance water quality while supporting compliance with environmental regulations.

If accepted, staff will work to finalize design and implementation plans for the pond retrofit using available TMDL capital project funding, as well as continue maintenance of the pond through the Stormwater Maintenance division until retrofitting is complete. Additionally, we will explore additional grant opportunities and partnerships to enhance the scope of improvements and maximize community benefits.

Photo 1: Blue Neighborhood Pilot Area

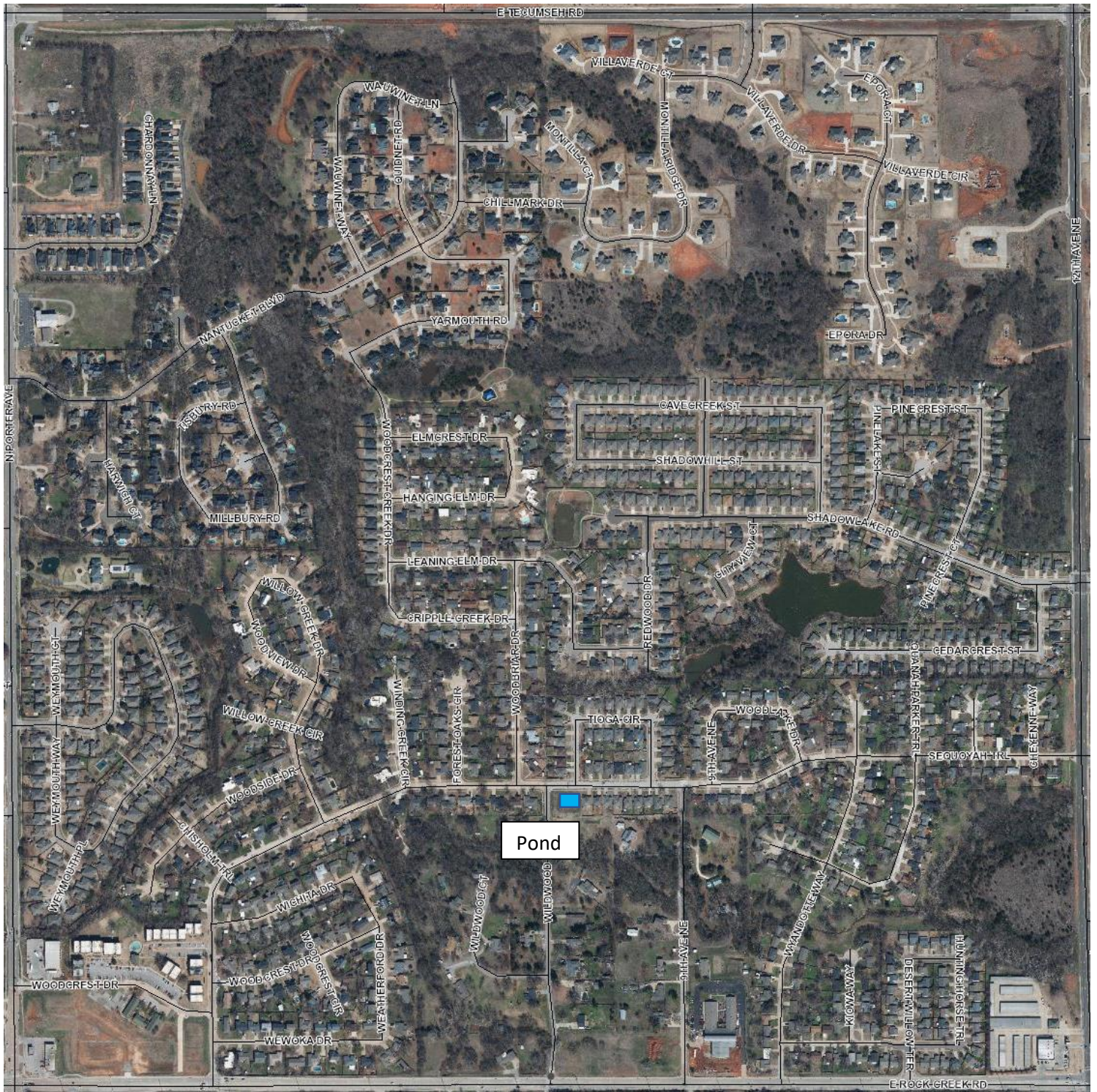


Photo 2: Pond under Discussion

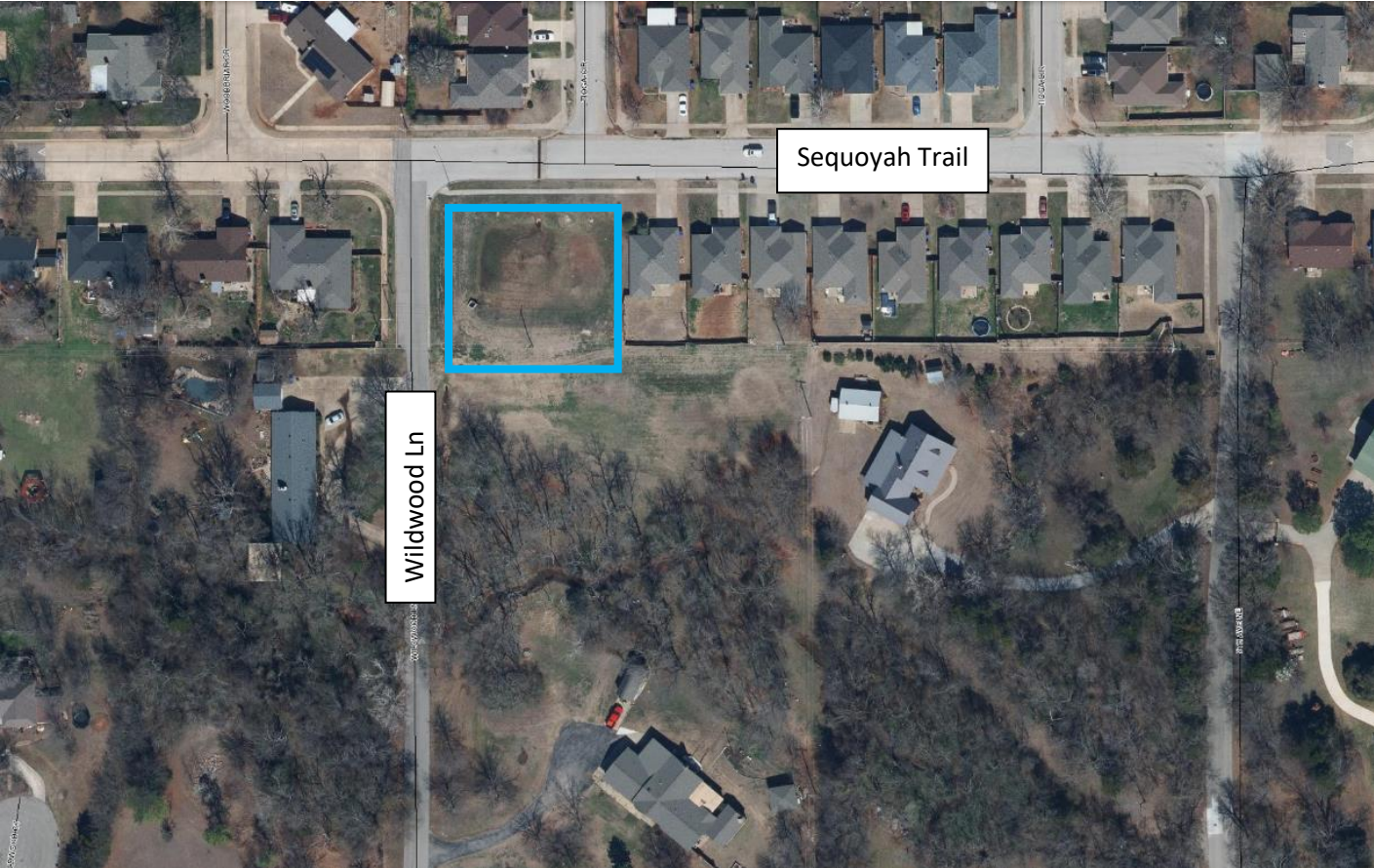


Photo 3: Potential Design Elements

