

**Technical Advisory Committee
MINUTES | July 13, 2023**

A meeting of the Technical Advisory Committee (TAC) of the Shingle Creek and West Mississippi Watershed Management Commissions was called to order by Chairman Richard McCoy at 11:09 a.m., Thursday, July 13, 2023, at the Plymouth Community Center, 14800 34th Avenue North, Plymouth, MN.

Present: James Soltis, Brooklyn Center; Mitchell Robinson, Brooklyn Park; Mark Ray, Crystal; Nick Macklem, New Hope; Owen Mischio, Plymouth; Richard McCoy, Robbinsdale; Diane Spector, Todd Shoemaker, and Sarah Harding, Stantec; and Judie Anderson, JASS.

Not represented: Maple Grove, Minneapolis, and Osseo.

Also present: Burt Orred, Jr., Crystal; Andy Polzin, Plymouth; Mike Sorenson, Robbinsdale; and Sam Ketchum, Kennedy & Graven.

I. Motion by Ray, second by Robinson to **approve the agenda** with the addition of the Mississippi Riverbank Stabilization Feasibility Study under Other Business. *Motion carried unanimously.*

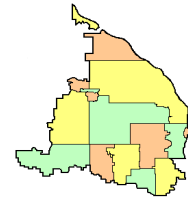
II. Motion by Ray, second by Robinson to **approve the minutes*** of the May 11, 2023, meeting. *Motion carried unanimously.*

III. BROOKDALE PARK SHINGLE CREEK REMEANDER, REGIONAL TRAIL BANK STABILIZATION, FISH ACCESS IMPROVEMENTS.* Stantec analyzed two segments of Shingle Creek within the City of Brooklyn Park, upstream and downstream of Xerxes Avenue for stream restoration purposes. **Segment 1** runs 700-foot downstream of Noble Avenue to Xerxes Avenue; **Segment 2** runs from Xerxes Avenue to the pedestrian bridge north of Palmer Lake.

A. The **primary project objectives** for Segment 1 are to remeander a previously straightened segment of the creek using natural channel design techniques, reduce soil loss to improve water quality and fish and wildlife habitat through biological enhancements, and integrate proposed improvements within the park for user educational and recreational opportunities. The primary project objectives for Segment 2 are to develop feasible solutions for bank stabilization and fishing access improvements within this reach. Restoration of these channel segments were implementation actions in the Shingle Creek Biotic and DO TMDL and the Fourth Generation Plan.

The project areas for both segments are within Minnesota Pollution Control Agency (MPCA) environmental justice areas of concern based on US Census Bureau's survey data for both proportion of low-income residents and people of color. This furthers the need for incorporation of an inclusive and equitable engagement process early and throughout this project's design.

B. Stantec staff performed a **desktop analysis** of wetlands and existing utilities and infrastructure. Staff also **visited the site** to perform a topographic survey, collect sediment samples for lab analysis, and perform field assessments. Stantec staff, along with staff from the City of Brooklyn Park,



Minnesota Department of Natural Resources (MnDNR), and Three Rivers Park District, attended the initial site visit.

Stantec performed a **topographic survey** to collect information about the existing channel corridor's topography as well as other relevant information, such as utilities, culverts, trails, crossings and bridges, tree locations, and infrastructure. Surrounding the current creek channel are wetlands categorized as seasonally flooded basins or shallow marshes, shallow open water, and riverine systems per the National Wetlands Inventory (NWI). Wetland delineation was not completed as part of this scope; however, Staff recommend that this be completed during detailed design.

Four **sediment samples** were collected from the stormwater ponds south of Shingle Creek in Brookdale Park, to assess potential sediment disposal requirements after dredging. Selection of this sampling area was based on aerial imagery of the historical creek route prior to straightening. Samples were analyzed for carcinogenic polycyclic aromatic hydrocarbons (cPAHs), arsenic, and copper, following the recommended sample parameters from MPCA for stormwater pond dredging.

Sediment results indicate the residential SRV for arsenic is exceeded at sites SP-2, SP-3, and SP-4. All sites exceeded the residential SRV for BaP Equivalents. Copper was not exceeded at any site. Dredged material removed from the creek/stormwater pond is suitable for industrial use or will need to be disposed of at a landfill that accepts hazardous waste.

The project is in a Federal Emergency Management Agency (FEMA) Zone AE floodplain and is within the regulated floodway. Thus, detailed **hydraulic modeling** will be required to determine the proposed restoration design impacts on the base flood (100-year) water surface elevation.

Based on existing channel conditions and flexibility in floodplain design, preliminary modeling indicates that a no-rise certification or no-fee LOMR should be achievable for either alternative, including the removal of Monkey Falls.

Pollutant Reduction Estimate. Stantec calculated the Expected Lateral Recession (ELR) of the stream banks due to erosion. Using lateral recession rates from Wisconsin's Natural Resource Conservation Services (NRCS) Field Office Technical Guide for Streambank Erosion, Staff estimated the streambank had a lateral recession rate of 0.01-0.5 ft/yr.

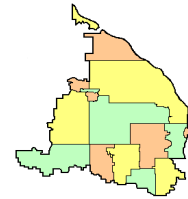
These recession rates can be used to calculate the average soil loss per year (TSS, tons per year) based on eroded bank height. The average soil loss per year can then be used to estimate the total phosphorus (TP) load. Estimated annual project reductions for both TSS and TP, respectively, are:

Segment 1 – upstream of Xerxes – 18 tons and 3.7 lbs.

Segment 2 – downstream of Xerxes – 7 tons and 1.4 lbs.

C. Design Concept Alternatives. Stantec used field and desktop base data and field survey information to develop channel design iterations in AutoCAD. The proposed low flow channel is a trapezoidal channel with 5-ft bottom width and 1-ft channel depth. The preliminary channel cross section has an overall width of 36-feet, which is narrower than the existing channel condition. Banks of the existing and proposed channel are proposed to be regraded and stabilized with deep rooted vegetation and wood toe wherever possible. In areas where sloping is not feasible, hard armoring practices may be utilized. Based on initial evaluation and analysis, Stantec presented two design alternatives for consideration.

D. Scheduling Considerations. Stantec envisions this to be a collaborative design process with input from city residents and various City offices including parks, engineering, and public works as



well as Three Rivers Park District and the Minnesota Department of Natural Resources. Since this work aims to achieve positive outcomes on ecological, recreational, environmental justice, and aesthetic levels, Staff recommend a deliberate, inclusive, and robust outreach and engagement process for feedback during design. Ample time for public outreach efforts is necessary.

E. The partners will “pause” in order to receive the City of Brooklyn Park’s response to the three concepts, begin the search for eligible grant programs, switch some funding from the design phase to begin the engagement process, and identify next steps. It was also suggested that Monkey Falls should be renamed.

IV. CLEAN WATER FUND GRANTS.* The Board of Water and Soil Resources (BWSR) opened the annual solicitation for Clean Water Fund Grants on June 29, 2023. Grant applications are due by August 24. The program is similar to the grant solicitation in past years with a few exceptions:

This \$8.5 million is funding from the ongoing Legacy Amendment and is one of the primary funding sources for surface water improvements in Minnesota. Up to 20% of that amount may be reserved by BWSR for focus on projects that protect or improve drinking water sources. Projects must be identified in a watershed management plan that has been state approved and locally adopted or an approved total maximum daily load study (TMDL), Watershed Restoration and Protection Strategy (WRAPS), Groundwater Restoration and Protection Strategy (GRAPS), surface water intake plan, or well head protection plan. Unlike previous years, the required match has been reduced from 25% to 10%. These are very competitive funds, so well thought out, targeted projects with local consensus and significant cost-effective removals will complete best.

The Commissions’ Fourth Generation Watershed Management Plan contains a lake internal load improvement project for Eagle and Pike Lakes in Maple Grove. The project would be a good fit for Clean Water Funds and would be a holistic lake management project involving internal load treatment, aquatic vegetation management, and potential fisheries monitoring and/or management. Staff recommend submitting a proposal to BWSR for Eagle Lake.

Motion by Ray, second by Robbinsdale to forward this recommendation on to the Shingle Creek Commission. *Motion carried unanimously.*

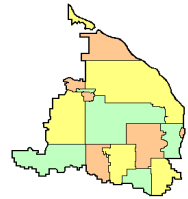
V. OTHER BUSINESS.

A. Mississippi Riverbank Stabilization Feasibility Study. This item is included in the regular meeting packet for today’s meeting. The Alternate Commissioner from Osseo has queried whether the West Mississippi Commission has jurisdiction over this project which, if approved, would authorize Staff to study the extent of erosion along the western bank of the Mississippi River in Brooklyn Park and identify potential stabilization methods and costs. Staff noted that the proposed Study Area is within the current West Mississippi legal boundary within the City of Brooklyn Park corporate limits, and that a referenced map was an old, incorrect depiction of the boundary that has since been corrected. This change does not affect the study area.

Motion by Ray, second by Robinson to recommend to the Commission approval of this application for Watershed-Based and City Cost Share funding at an estimated cost of \$60,000. *Motion carried unanimously.*

B. The **next TAC meeting** is scheduled for Thursday, August 10, 2023, at 11:00.

There being no further business, the TAC meeting was adjourned at 12:12 p.m.



Respectfully submitted,

A handwritten signature in black ink that reads "Judie A. Anderson". The signature is written in a cursive style.

Judie A. Anderson
Recording Secretary
JAA:tim

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