Protect it. Pass it on.

MISSISSIPPI WATERSHED MANAGEMENT ORGANIZATION

Request for Board Action

Attachment 6.3

Agenda Item: Sylvan Hills Park Regional Treatment

Presenter: Shawn James

Meeting Date: 12 March 2024 **Flexibility**: ☐ Yes ☒ No

Estimated Time: ☐ Consent Agenda ☒ 10 Min. ☐ 15 Min. ☐ 30 Min. ☐ 45 Min. ☐ 1 Hour

Action Request: ☐ Information/Review ☒ Motion to approve ☐ Budget Change ☐ Other

Board Action: ☐ Approved ☐ Denied ☐ Tabled ☐ Accepted Report ☐ Other

Date of Action: 12 March 2024

Background

At its September 2023 meeting, the Board approved funding for a feasibility study to identify opportunities for water quality and habitat improvement at Sylvan Hills Park in the City of Fridley (City). MWMO staff have worked closely with the City, Houston Engineering, Inc., and Davey Resource Group over the past five months to develop and analyze two alternative concept plans and complete a cost-benefit analysis of each, leading to the selection of one preferred concept for implementation (see Attachment A).

The preferred stormwater concept represents a combination of surface and underground stormwater treatment features and maximizes the amount of stormwater that can be captured through curb cuts, stormsewer pipe redirection, and an underground pipe diversion, all of which bring off-site water into the neighborhood park. The underground features include an infiltration tank, along with its accessory pre-treatment and conveyance infrastructure. Surface features include two smaller infiltration basins (around 2,500 square feet each), one larger infiltration basin (around 7,000 square feet) and two bioswales that act as ephemeral streams. The surface stormwater features are accompanied by native pollinator habitat throughout the park and a nature-focused play area (Aspen

Basin) that integrates the natural areas with the more traditional playground. These features expand on the concept plan previously adopted by the City while still reflecting the interests of the community.

The feasibility study for this project identified water quality, habitat, and flooding benefits. The preferred concept is designed to capture and treat stormwater from up to a 1.1-inch rainfall event from an approximately 77-acre drainage area upstream of the park. Estimated water quality benefits include approximately 16.1 pounds per year of total phosphorus (TP) removal and over 5,000 pounds per year of total sediment removal. The preferred concept would also reduce flooding in and around the park in both 10- and 100-year events, including reduced flooding at nearby intersections. In addition to the native plantings associated with the infiltration basins (around 12,000 square feet), an additional 15,000 square feet of native plantings would be created along the bioswales and at other areas of the park, for a total of 27,000 square feet of newly created habitat. Factoring in maintenance costs and an assumed lifespan of 30 years, the cost-benefit ratio is $3,406 per pound of TP removed, which is equivalent to or better than similar projects the MWMO has previously funded. The preferred concept represents the efficiencies that can be achieved with regional treatment and could serve as a model for other neighborhood park redesign efforts.

Sylvan Hills Park is identified in the 10-Year Watershed Management Plan as a Capital Improvement Project with eligible costs that include both a feasibility study and implementation. Staff is requesting a not-to-exceed amount of $1,493,000, as estimated in the feasibility study, which includes design, construction administration, and contingency. Design is planned to begin immediately, and construction would follow in Summer 2024.

Mississippi Watershed Management Organization

RESOLUTION 2024-010

A RESOLUTION TO APPROVE A GRANT TO THE CITY OF FRIDLEY FOR REGIONAL WATER QUALITY, FLOOD MITIGATION, AND HABITAT FEATURES AT SYLVAN HILLS PARK.

WHEREAS, the MWMO strives to protect and improve water quality within its jurisdiction through planning and implementation of stormwater best management practices; and

WHEREAS, the MWMO strives to enhance and restore ecosystem functionality within its jurisdiction through the planning and implementation of habitat projects; and

WHEREAS, the Sylvan Hills Park project is prioritized in the Capital Improvement Projects (CIP) program within the 10-Year Watershed Management Plan to improve water quality, mitigate flooding, and restore habitat; and

WHEREAS, the Sylvan Hills Park Stormwater and Habitat Enhancement Feasibility Study identified a preferred concept to implement water quality, flooding, and habitat improvements agreed upon by both MWMO and City staff; and

WHEREAS, the MWMO has funds available in the Capital Project fund to cover the cost of the Sylvan Hills Park project.

WHEREAS, Staff recommends the Board of Commissioners approve funding for the Sylvan Hills Park project.

NOW THEREFORE BE IT RESOLVED, the MWMO Board of Commissioners approves up to $1,493,000 for the Sylvan Hills Park Regional Water Quality, Flood Mitigation, and Habitat project and authorizes MWMO staff to take all necessary administrative actions to implement the resolution.

Adopted this the 12th day of March, 2024.

Review for the Board: _____

Randy Stille, Chair

Review for Administration: _____

Kevin Reich, Executive Director