

2017 Urban Water Quality Grant

Application Summary

UWQG Applications for Consideration as Ranked by Staff - Tuesday, August 22, 2017
6 Projects Requesting a Total of \$911,574 in Cost Share

Staff Review Status: Approved

(1) Town of Middleton - Prairie Home Estates - Stormwater Management Facility

**Top Ten Priority Outfall: Pheasant Branch North (Lake Mendota)*

County Cost Share Amount - \$189,074 (75% of Total Cost)

Total Project Cost: \$252,098

Performance Summary:

Annual Phosphorus Delivery to Lake Mendota: 64 lbs.

TP Removal Efficiency: 81% (52 lbs./yr.)

Annual Sediment Delivery to Lake Mendota: 13,243 lbs.

TSS Removal Efficiency: 88% (11,622 lbs/yr.)

Project Description:

The preliminary design consists of a wet detention pond and an infiltration basin. Construction will bring the Prairie Homes Estate neighborhood up to date on stormwater management requirements in place today. Additionally, the site is visible to the public which will create an opportunity to educate the public on water quality.

(2) City of Madison - Rimrock Greenway Wet Pond Conversion

County Cost Share Amount - \$100,000 (47% of Total Cost)

Total Project Cost: \$212,000

Performance Summary:

Annual Phosphorus Delivery to Waterbody: 78 lbs.

TP Removal Efficiency: 59% (46 lbs./yr.)

Annual Sediment Delivery to Waterbody: 30,238 lbs.

TSS Removal Efficiency: 80% (24,119 lbs/yr.)

Project Description:

This project will convert existing sections of greenway into a wet pond. The City of Madison believes it is cost-effective and will remove phosphorus while also improving water quality. Additionally, the bike path runs parallel to the site making it visible and accessible.

(3) City of Madison - Wingra Park Screen Structure

County Cost Share Amount - \$100,000 (29% of Total Cost)

Total Project Cost: \$350,000

Performance Summary:

Annual Phosphorus Delivery to Waterbody: 91 lbs.

TP Removal Efficiency: 40% (36 lbs./yr.)

Annual Sediment Delivery to Waterbody: 35,305 lbs.

TSS Removal Efficiency: 40% (14,144 lbs/yr.)

Project Description:

This design consists of a screen structure. The design will create a new educational component, including a viewing port and a small sign with information on how the device works.

(4) City of Madison - Nautilus Pond Retrofit

County Cost Share Amount - \$100,000 (22% of Total Cost)

Total Project Cost: \$450,000

Performance Summary:

Annual Phosphorus Delivery to Waterbody: 112 lbs.

TP Removal Efficiency: 81% (91 lbs./yr.)

Annual Sediment Delivery to Waterbody: 37,921 lbs.

TSS Removal Efficiency: 58% (22,176 lbs/yr.)

Project Description:

This project includes retrofitting two existing dry basins. Construction will include a wet pond followed by a bioretention basin with an iron enhanced sand filter to remove dissolved phosphorous.

(5) City of Madison - Sauk Creek Greenway Iron Enhanced Biofilter Conversion

County Cost Share Amount - \$85,000 (50% of Total Cost)

Total Project Cost: \$170,000

Performance Summary:

Annual Phosphorus Delivery to Waterbody: 447 lbs.

TP Removal Efficiency: 20% (91 lbs./yr.)

Annual Sediment Delivery to Waterbody: 137,392 lbs.

TSS Removal Efficiency: 2% (2,370 lbs/yr.)

Project Description:

This project will include the construction of an iron enhanced biofilter and improvements to the existing greenway. The goal is to improve channel flow and minimize flooding while also treating the water through the biofilter. This biofilter will be by a proposed bike path, making it accessible to the public. Additionally, the anticipated public information meetings will inform the public about storm water management.

(6) City of Madison - Jacobson - Furey Pond

**Top Ten Priority Outfall: Starkweather Creek East Branch (Lake Monona)*

County Cost Share Amount - \$337,500 (75% of Total Cost)

Total Project Cost: \$450,000

Performance Summary:

Annual Phosphorus Delivery to Lake Monona: 30 lbs.

TP Removal Efficiency: 43% (13 lbs./yr.)

Annual Sediment Delivery to Lake Monona: 12,345 lbs.

TSS Removal Efficiency: 63% (7,745 lbs/yr.)

Project Description:

Construction will include two stormwater retention ponds. The intent of this project is stormwater treatment and area improvement. This project will clean up a historically contaminated site while also improving the abandoned site by providing a walking path which will connect a proposed bike path. Additionally, the neighborhood has requested signs for educational purposes, and other place-making features.