STORMWATER PROJECTS

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SUN PRAIRIE

Capital Improvement Plan

Stormwater Fund

Capital Item	2017 Projected ($)	2018 Projected ($)	2019 Projected ($)	2020 Projected ($)	2021 Projected ($)
Stormwater Extensions					
Renstone Phase 2 Extensions:					
Lori Lane	96,000				
Bruce Street	80,000				
Woodsend Court	35,000				
Steven Street		220,000	75,000		
Vandenburg Street			45,000		
Daniel Street			55,000		
Colorado Avenue				45,000	
Wyoming Avenue					88,000
Ditch Restoration					
Sheehan Park Ditch Restoration	50,000				
Street Reconstruction (Annual Stormwater Improvement)					
2017 Stormwater Improvements:					
North Street	165,000				
W. Goodland Street	20,000				
W. Kohler Street	105,000				
Wilburn Road	1,500				
Kelly Street	35,000				
Wilson Street	65,000				
Pennsylvania Avenue	205,000				
Birkinbine Drive	125,000				
W. Elm Street	90,000				
Flint Street	65,000				
Total Annual Stormwater Improvements		**465,000**	**1,354,000**	**453,000**	**635,000**
Stormwater Facilities					
NW Koshkonong Land Acquisition	1,600,000	600,000			
NW Koshkonong Construction		1,000,000			
NW Koshkonong Thompson Rd Upgrades		450,000			
S Koshkonong (Yelk Farm)				500,000	
TMDL Water Quality Requirements					
TMDL - Adaptive Management	31,000	31,000	31,000	31,000	31,000
TMDL Projects			200,000	200,000	200,000
Maintenance Equipment					
Street Sweeper			225,000		260,000
Utility Box Truck		57,000			
Ditch Mower		15,000			
Skidsteer				52,000	
Tandem Axle Trailer				15,000	
Debt Issuance Costs	75,400	52,400	43,200	18,900	10,860
	-	-	-	-	-
Total	**$ 2,843,900**	**$ 2,890,400**	**$ 2,028,200**	**$ 1,314,900**	**$ 1,224,860**

FINANCING SUMMARY:

Cash	$ 31,000	$ 31,000	$ 31,000	$ 31,000	$ 31,000
Debt	2,812,900	2,859,400	1,997,200	1,283,900	1,193,860
Grant	-	-	-	-	-
Restricted Funds	-	-	-	-	-
TIF Funded	-	-	-	-	-
Contributed Capital	-	-	-	-	-
Prior Year Debt Available	-	-	-	-	-
Total	**$ 2,843,900**	**$ 2,890,400**	**$ 2,028,200**	**$ 1,314,900**	**$ 1,224,860**

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Capital Improvement Plan 2017-2021

ST-17011 – Storm Sewer Extension
2017 Renstone Phase 2

Project Number: **ST-17011** **Priority:** No. 2
ST-17014
ST-17017

Department: Stormwater Utility **Type:** Storm Sewer

Contact: City Engineer **Useful Life:** 50-years

DESCRIPTION

The Storm sewer extension program identifies areas of the city that are absent of storm sewer systems. Introducing a storm sewer system can remove surface water from streets and curb, hook up sump pumps and increase the longevity of the street by reducing the freeze/thaw damage to asphalt and concrete.
The 2017 Renstone project includes the installation of a new storm sewer collection and conveyance system. Phase 1 of Renstone in 2016 started near Batz Pond and extends up through an easement located east of Jennifer Court and on out to Steven Street. The Phase 2 project includes the extension of storm pipe and inlets on Lori Lane, Bruce Street, and Woodsend Court. Future phases of this project extends storm sewer to the west to Blaser Court, and to the east to Vandenburg Street.

JUSTIFICATION

Storm sewer inlets and pipes remove surface water from streets and curb and gutter which extends the longevity of the street by reducing the opportunities for freeze/thaw damage to asphalt and concrete. Under larger storms, inlets and pipes can reduce street ponding of water and providing safe passage of vehicles.

The Renstone neighborhood has minimal existing storm sewer and primarily is drained by water flowing overtop and across roads and intersections.

Expenditures	2017	2018	2019	2020	2021	Total
Renstone Project Phase 2 (Utility Construction)						
Lori Lane	96,000					96,000
Bruce Street	80,000					80,000
Woodsend Court	35,000					35,000
Annual Project	-	220,000	175,000	45,000	88,000	528,000
Total	**211,000**	**220,000**	**175,000**	**45,000**	**88,000**	**739,000**

Funding Sources	2017	2018	2019	2020	2021	Total
GO Bonds -Stormwater	211,000	220,000	175,000	45,000	88,000	739,000
Total	**211,000**	**220,000**	**175,000**	**45,000**	**88,000**	**739,000**

Capital Improvement Plan 2017-2021

Street Storm Sewers

Project Number: **See Street Project Sheets**

Priority: No. 1

Department: Storm water Utility

Type: Storm Sewer Conveyance

Contact: City Engineer

Useful Life: 50-years

DESCRIPTION

The following table summarizes the storm sewer projects funded by the City's Stormwater Utility. The storm sewer projects are scheduled to take place concurrently with the Pavement Rehabilitation or Total Reconstruction of the streets.

North Street	W. Goodland Street	W. Kohler Street	Kelly Street	Wilson Street	Pennsylvania Avenue	Birkinbine Drive	W. Elm Street	Flint Street
$165,000	$20,000	$105,000	$35,000	$65,000	$205,000	$125,000	$90,000	$65,000

JUSTIFICATION

Storm sewer inlets and pipes remove surface water from streets and curb and gutter which extends the longevity of the street by reducing the opportunities for freeze/thaw damage to asphalt and concrete. Under larger storms, inlets and pipes can reduce street ponding of water and provide safe passage of vehicles.

Expenditures	2017	2018	2019	2020	2021	Total
Stormwater Utility Construction						
North Street	165,000					165,000
W. Goodland Street	20,000					20,000
W. Kohler Street	105,000					105,000
Kelly Street	35,000					35,000
Wilson Street	65,000					65,000
Pennsylvania Avenue	205,000					205,000
Birkinbine Dr	125,000					125,000
W. Elm Street	90,000					90,000
Flint Street	65,000					65,000
2018 Utility Construction Projects		465,000				465,000
2019 Utility Construction Projects			1,354,000			1,354,000
2020 Utility Construction Projects				453,000		453,000
2021 Utility Construction Projects					635,000	635,000
Total	**875,000**	**465,000**	**1,354,000**	**453,000**	**635,000**	**3,782,000**

Funding Sources	2017	2018	2019	2020	2021	Total
GO Bonds - Stormwater	875,000	465,000	1,354,000	453,000	635,000	3,782,000
Total	875,000	465,000	1,354,000	453,000	635,000	3,782,000

Capital Improvement Plan 2017-2021

ST-17001 – NW Koshkonong Facility

Project Number: ST-17001 **Priority:** No. 2

Department: Stormwater Utility **Type:** Storm Water Project

Contact: City Engineer **Useful Life:** 50-years

DESCRIPTION

This project is for the anticipated cost of land acquisition ($2,200,000) in 2017 and 2018 and construction in 2018 ($1,000,000) for the NW Koshkonong stormwater facility. This facility is anticipated to be able to address stormwater quantity and quality needs for up to 110 acres.

Along with the Koshkonong facility, storm sewer upgrades ($450,000) will be needed under Thompson Road to convey water from W. Main Street to this facility.

JUSTIFICATION

The construction of this basin is to off-set anticipated increase in discharge rates from the upper portion of the watershed following completion of an outlet structure improvement project at Batz Pond north of STH 19. Because of the location of this basin there is the possibility to provide post-development stormwater management for approximately 110 acres of land to the west and south of the basin location which are currently untreated. This becomes more of a priority as the City is being required to meet TMDL requirements for Total Suspended Solids and Total Phosphorous reductions.

Expenditures	2017	2018	2019	2020	2021	Total
Basin Construction		1,000,000				1,000,000
Storm Sewer Construction		450,000				450,000
Engineering						-
Land/ROW/Acquisition	1,600,000	600,000	-	-	-	2,200,000
Total	**1,600,000**	**2,050,000**	**-**	**-**	**-**	**3,650,000**

Funding Sources	2017	2018	2019	2020	2021	Total
GO Bonds - Stormwater		1,450,000				1,450,000
State Trust Fund Loan	1,600,000	600,000	-	-	-	2,200,000
Total	**1,600,000**	**2,050,000**	**-**	**-**	**-**	**3,650,000**

Capital Improvement Plan 2017-2021

ST-17003 – TMDL – MMSD Adaptive Management

Project Number: **ST-17003** **Priority:** No. 1

Department: Stormwater Utility **Type:** Stormwater

Contact: City Engineer **Useful Life:** N/A

DESCRIPTION

The US Evironmental Protection Agency (EPA) has approved a Total Maximum Daily Load (TMDL) for the Rock River Basin for phosphorus and total suspended solids (TSS) which includes the Yahara Watershed. Municipal Separate Storm Sewer Systems (MS4s), which Sun Prairie is, are required to meet surface water quality standards in the Yahara Watershed.

Madison Metropolitan Sewerage District (MMSD) has created a watershed adaptive management (AM) program that is a new, innovative and collaborative compliance approach designed to meet regulatory requirements for phosphorus throughout a watershed in a cost-effective manner. The Yahara Watershed Improvement Network (Yahara WINS) is made up of thirty partners across Dane County.

JUSTIFICATION

Since its inception in 2012, the Yahara WINS effort has made remarkable progress gathering community support and putting phosphorus reducing practices in place that will help improve water quality within the Yahara watershed. Based on the success of the pilot project, MMSD is working to develop a full scale AM project in the Yahara watershed in a collaborative effort with current partners in the pilot project. MMSD believes that AM is a fiscally and environmentally responsible approach to meeting phosphorus reduction goals in the watershed. The area of the City of Sun Prairie that drains to the Yahara watershed has few options for meeting these requirements and the MMSD AM program will be the more cost effective option for meeting the goals for this portion of the City.

Expenditures	2017	2018	2019	2020	2021	Total
TMDL Adaptive Mgmt Project Plan	31,000	31,000	31,000	31,000	31,000	155,000
Total	31,000	31,000	31,000	31,000	31,000	155,000

Funding Sources	2017	2018	2019	2020	2021	Total
Utility Rates - Stormwater	31,000	31,000	31,000	31,000	31,000	155,000
Total	**31,000**	**31,000**	**31,000**	**31,000**	**31,000**	**155,000**

Capital Improvement Plan 2017-2021

ST-17007 – TMDL – Water Quality Projects

Project Number: **ST-17007** **Priority:** No. 3

Department: Stormwater Utility **Type:** Stormwater

Contact: City Engineer **Useful Life:** N/A

DESCRIPTION

The US Evironmental Protection Agency (EPA) has approved a Total Maximum Daily Load (TMDL) for the Rock River Basin for phosphorus and total suspended solids (TSS) which includes the Yahara, Koshkonong and Maunesha Watershed. The City of Sun Prairie has areas that drain to all three watersheds. Municipal Separate Storm Sewer Systems (MS4s), which Sun Prairie is, are required to meet surface water quality standards in these watersheds.

Madison Metropolitan Sewerage District (MMSD) has created a watershed adaptive management (AM) program that addresses the City's needs for the Yahara watershed. The city will be responsible for achieving these stormwater goals in the Koshkonong and Maunesha watersheds.

JUSTIFICATION

The TMDL standards set forth by the EPA mandate the City to reduce phosphorous and TSS in these watersheds. The Yahara watershed goals are being met through the Adaptive Management program. In the absence of an Adaptive Management program for the Maunesha and Koshkonong watersheds, the city will have to design and construct stormwater facilities to achieve these water quality standards.

Expenditures	2017	2018	2019	2020	2021	Total
TMDL Adaptive Mgmt Project	-	-	200,000	200,000	200,000	600,000
Total	-	-	200,000	200,000	200,000	600,000

Funding Sources	2017	2018	2019	2020	2021	Total
GO Bonds - Stormwater Utility	-	-	200,000	200,000	200,000	600,000
Total	**-**	**-**	**200,000**	**200,000**	**200,000**	**600,000**

Capital Improvement Plan 2017-2021

ST-20001 – S Koshkonong Facility

Project Number: ST-20001 **Priority:** No. 3

Department: Stormwater Utility **Type:** Storm Sewer

Contact: City Engineer **Useful Life:** 50-years

DESCRIPTION

This project consists of the design and construction of a stormwater facility on city owned land. When completed, the facility will include components to address both stormwater quality and quantity issues. The project is projected to be designed in 2019 and constructed in 2020, tentatively. The existing site has environmental issues that could cause delays in the design and construction schedule.

JUSTIFICATION

This project becomes more of a priority as the City is being required to meet TMDL requirements for Total Suspended Solids and Total Phosphorous reductions.

Expenditures	2017	2018	2019	2020	2021	Total
Basin Construction				500,000		500,000
Engineering						-
Land/ROW/Acquisition	-	-	-	-	-	-
Total	**-**	**-**	**-**	**500,000**	**-**	**500,000**

Funding Sources	2017	2018	2019	2020	2021	Total
GO Bonds - Stormwater	-	-	-	500,000	-	500,000
Total	**-**	**-**	**-**	**500,000**	**-**	**500,000**

Capital Improvement Plan 2017-2021

V-18811 – Utility Box Truck w/ Mounted Crane

Project Number: V-18811 **Priority: High 2**

Department: Stormwater **Type: Vehicle 811**

Contact: J.R. Brimmer **Useful Life: 10 Years**

DESCRIPTION

The replacement of one utility box truck with mounted crane. This unit will replace a 2008 Ford Utility box truck with mounted crane. This unit is used for day to day operations in the Stormwater utility department. The use of the crane is needed for lifting large heavy castings and parts associated with the maintenance of the storm water system.

JUSTIFICATION

This truck is used in the Storm Water Utility department and is designed for specialized tasks for the Stormwater Utility. Having this unit available is essential in the day to day operations. Keeping the unit on the proper replacement schedule is crucial to making sure the proper equipment and technology is aiding staff for efficient maintenance of the Storm Water system.

Expenditures	2017	2018	2019	2020	2021	Total
Equipment	-	57,000	-	-	-	57,000
Total	**-**	**57,000**	**-**	**-**	**-**	**57,000**

Funding Sources	2017	2018	2019	2020	2021	Total
GO Notes - Stormwater	-	57,000	-	-	-	57,000
Total	**-**	**57,000**	**-**	**-**	**-**	**57,000**

Capital Improvement Plan 2017-2021

V-18814 – Roadside Ditch Mower

Project Number: V-18814 **Priority: High 2**

Department: Storm Water **Type: Vehicle 814**

Contact: J.R. Brimmer **Useful Life: 8 Years**

DESCRIPTION

The replacement of one roadside ditch mower. This unit will replace a 2010 Land Pride roadside ditch mower. This unit is used for the mowing of roadside ditches and around detention facilities. The unit is towed behind a tractor and is operated throughout the summer months.

JUSTIFICATION

This mower is a vital part of the maintenance of roadside ditches and detention facilities. The areas this unit is used in are often rough and heavily overgrown causing extreme wear and tear on this unit. Keeping it within the scheduled replacement period will assure that the unit will perform its tasks through its life cycle.

Expenditures	2017	2018	2019	2020	2021	Total
Equipment	-	15,000	-	-	-	15,000
Total	**-**	**15,000**	**-**	**-**	**-**	**15,000**

Funding Sources	2017	2018	2019	2020	2021	Total
Utility Rates - Stormwater	-	15,000	-	-	-	15,000
Total	**-**	**15,000**	**-**	**-**	**-**	**15,000**

Capital Improvement Plan 2017-2021

V-19812 – Three Wheeled Street Sweeper

Project Number: V-19812 **Priority: High 2**

Department: Storm Water **Type: Vehicle 812**

Contact: J.R. Brimmer **Useful Life: 10 Years**

DESCRIPTION

The replacement of one Three Wheeled Street Sweeper. This unit will replace a 2009 Elgin Pelican street sweeper. This unit is used for the sweeping of all city streets and the sweeping/collecting of leaves in the fall. This is a broom type of sweeper and one of the two styles of sweepers the city operates. This unit is effective for the removal of heavy buildup of material on roadways such as mud and during the first sweeping in the spring.

JUSTIFICATION

This sweeper is used heavily during the months where the temperature is above freezing and may occasionally be used without water in colder temperatures. Sweeping is a very dusty and dirty environment and causes wear and tear faster on equipment than those being driven for other jobs. Replacing this unit will assure the operators will be able to continue to meets the demands of sweeping and with newer technology they will be more efficient at their job.

Expenditures	2017	2018	2019	2020	2021	Total
Equipment	-	-	225,000	-	-	225,000
Total	**-**	**-**	**225,000**	**-**	**-**	**225,000**

Funding Sources	2017	2018	2019	2020	2021	Total
GO Notes - Stormwater	-	-	225,000	-	-	225,000
Total	**-**	**-**	**225,000**	**-**	**-**	**225,000**

Capital Improvement Plan 2017-2021

V-20813 – Skid Steer Loader

Project Number: V-20813 **Priority: High 2**

Department: Storm Water **Type: Vehicle 813**

Contact: J.R. Brimmer **Useful Life: 10 Years**

DESCRIPTION

The replacement of one Skid Steer loader. This unit will be replacing a 2010 John Deere Skid Steer. This unit is used for numerous jobs such as snow blowing, snow plowing, stump grinding, mowing, loading trucks, fork lift, auguring holes, planting trees, and several other duties.

JUSTIFICATION

This unit is one of the most versatile pieces of equipment for the many different operations the city does. It is used by the Storm Water, Public Works, and Parks departments so it is used daily for jobs by them. Replacing this on the scheduled time will assure that all three departments will have a dependable unit for their day to day operations. New technology will help increase the productivity of the employees.

Expenditures	2017	2018	2019	2020	2021	Total
Equipment	-	-	-	52,000	-	52,000
Total	**-**	**-**	**-**	**52,000**	**-**	**52,000**

Funding Sources	2017	2018	2019	2020	2021	Total
GO Notes - Stormwater	-	-	-	52,000	-	52,000
Total	**-**	**-**	**-**	**52,000**	**-**	**52,000**

Capital Improvement Plan 2017-2021

V-20815 – Tandem Axle Trailer

Project Number: V-20815 **Priority: High 2**

Department: Stormwater **Type: Trailer 815**

Contact: J.R. Brimmer **Useful Life: 10 Years**

DESCRIPTION

The replacement of one Tandem Axle Trailer. This unit will replace a 2010 Felling tandem axle trailer. This unit is used for the hauling and transportation of various pieces of equipment such as a mini excavator, two wide area mowers at once, skid steer, and toolcat.

JUSTIFICATION

This unit is a necessity to the Storm Water, Public Works, and Parks departments. Hauling equipment to and from jobs is done every day, and having a trailer in good operating condition is important to accomplish that task. Replacing this unit as scheduled will reduce the higher maintenance cost associated with older equipment.

Expenditures	2017	2018	2019	2020	2021	Total
Equipment	-	-	-	15,000	-	15,000
Total	**-**	**-**	**-**	**15,000**	**-**	**15,000**

Funding Sources	2017	2018	2019	2020	2021	Total
GO Notes - Stormwater	-	-	-	15,000	-	15,000
Total	**-**	**-**	**-**	**15,000**	**-**	**15,000**

Capital Improvement Plan 2017-2021

V-21818 – Vacuum Street Sweeper

Project Number: V-21818 **Priority: High 2**

Department: Stormwater **Type: Vehicle 818**

Contact: J.R. Brimmer **Useful Life: 8 Years**

DESCRIPTION

The replacement of one Vacuum Street Sweeper. This unit will replace a 2013 Tymco 600 Vacuum street sweeper. This unit is used for the sweeping of all city streets and the sweeping/collecting of leaves in the fall. It is also used for the maintenance of storm water catch basin by vacuuming debris out. This is a vacuum type of sweeper and one of the two styles of sweepers the city operates. This unit is effective for the removal of fine particulate material on roadways.

JUSTIFICATION

This sweeper is used heavily during the months where the temperature is above freezing and may occasionally be used without water in colder temperatures. Sweeping is a very dusty and dirty environment and causes wear and tear faster on equipment. Replacing this unit will assure the operators will be able to continue to meet the demands of sweeping and storm water maintenance. Newer technology will allow staff to be more efficient at their job.

Expenditures	2017	2018	2019	2020	2021	Total
Equipment	-	-	-	-	260,000	260,000
Total	**-**	**-**	**-**	**-**	**260,000**	**260,000**

Funding Sources	2017	2018	2019	2020	2021	Total
Utility Rates - Stormwater	-	-	-	-	260,000	260,000
Total	**-**	**-**	**-**	**-**	**260,000**	**260,000**