



STORMWATER UTILITY DEVELOPMENT

Board of Directors Presentation: Preliminary Program Costs
and Fee Structure (December 17, 2018)

BUILDING A WORLD OF DIFFERENCE®

Preliminary Results – Subject to Change



OUR PURPOSE TODAY

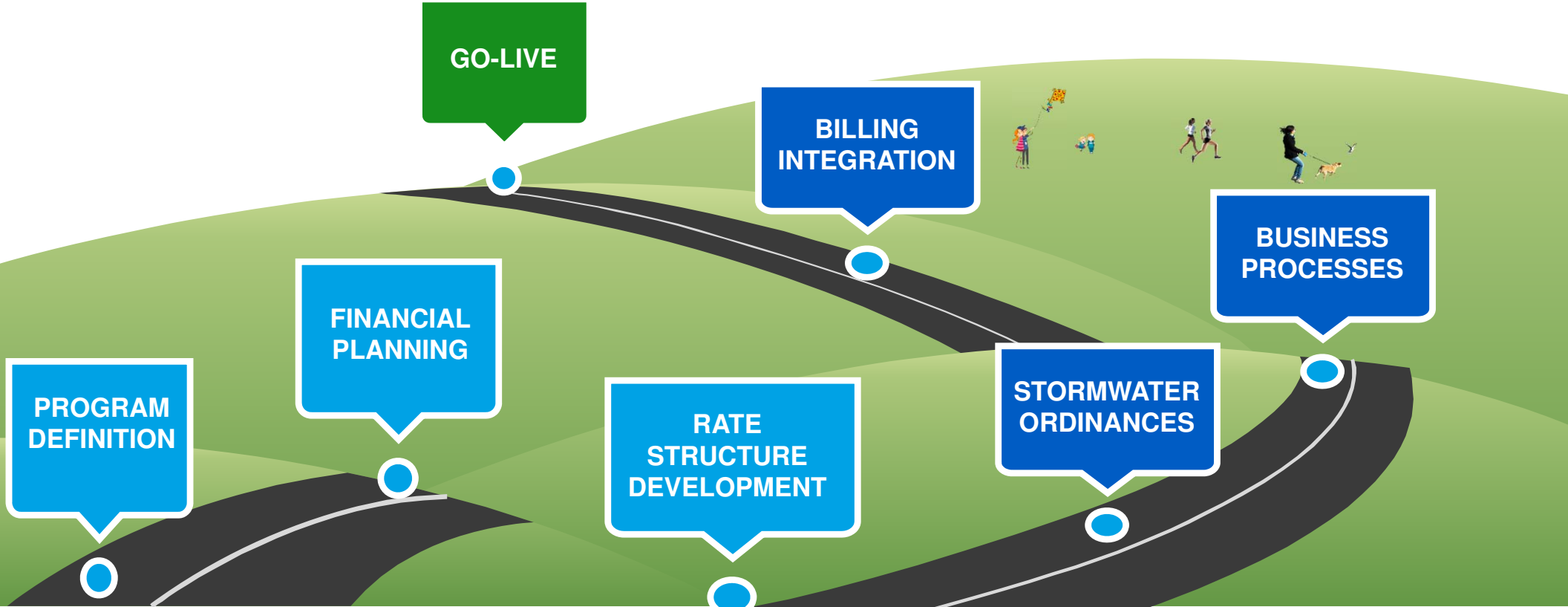
Recap of the Study Context

Understand the Study Approach

Review the Preliminary Results

Discuss Next Steps

What does a typical stormwater rate journey look like?



Phased approach of the various tasks

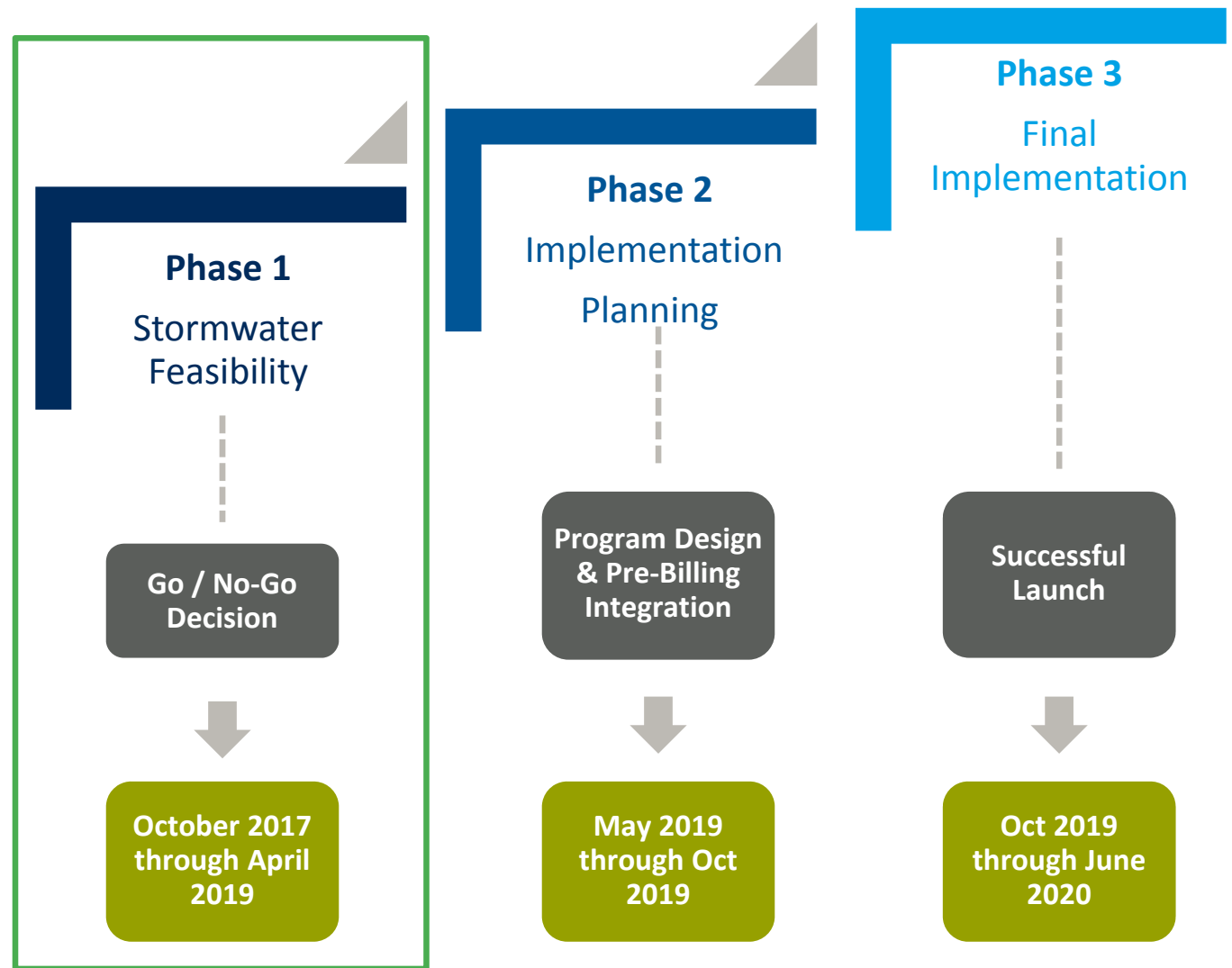
Benefit:
Adequate resources;

Phased budgeting

Effective outreach

Tasks & Outcomes

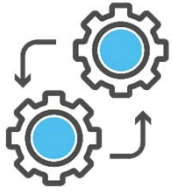
Timeline



Possible Go Live July 1, 2020

STUDY CONTEXT

The Stormwater Context in Hannibal



- **System Integrity** - Capital investment necessary to address stormwater conveyance and water quality



- **Level of Service** – Deferred maintenance, MS4 regulatory compliance mandates, community needs



- **Funding** - Need for adequate and stable level of funding to meet stormwater management obligations



- **Customer Experience** – Equitable recovery of costs through an impervious area based charge

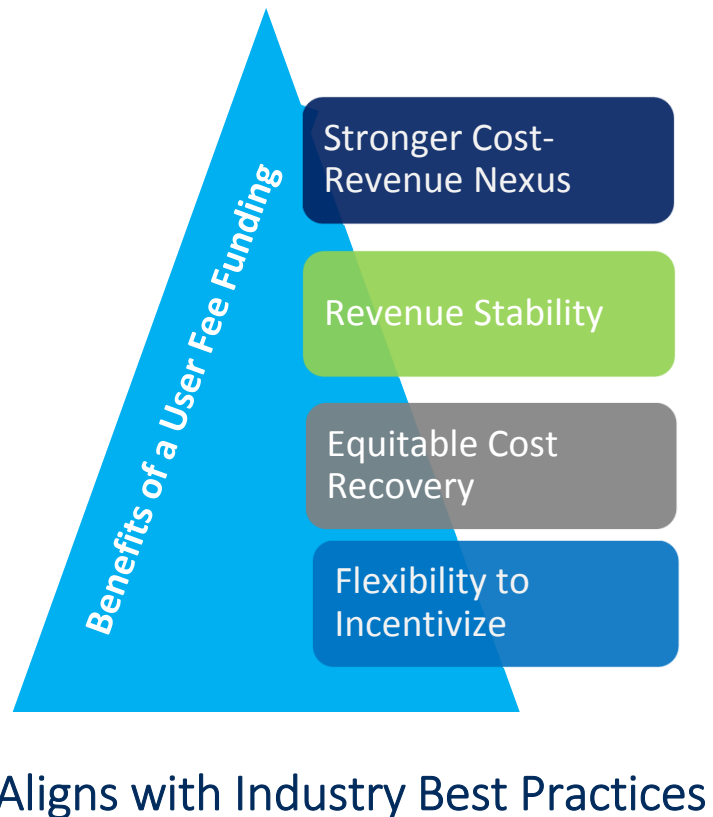
MS4 = Municipal Separate Storm Sewer System

Stormwater User Fee Feasibility Study Goals



- Determine Stormwater Program Needs and Costs
- Develop Multi-Year Stormwater Financial Plan
- Design Equitable Cost Recovery Mechanism

Benefits of a Stormwater User Fee Based Cost Recovery



- Enhances alignment between program costs and revenues generated
- Dedicated funding source for stormwater management
- Enables equitable cost recovery as impervious area provides a fair approximation of runoff
- Helps incentivize private stormwater *Best Management Practices* (BMPs)

How would Stormwater Program costs be funded if voters do not approve a Stormwater User Fee?

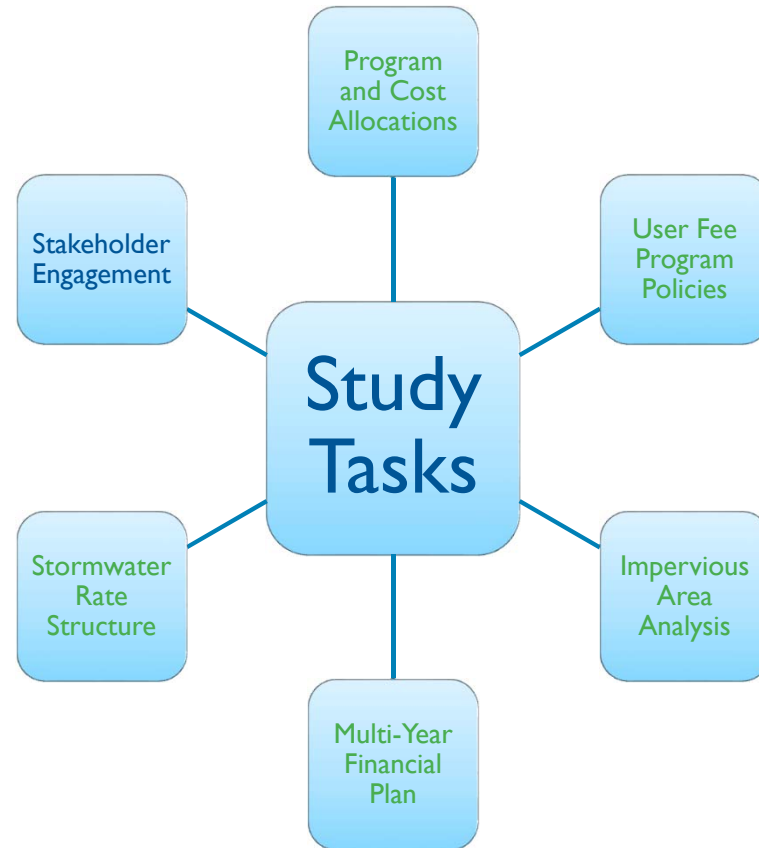
- Stormwater Program costs **would have to be recovered through Sewer rates**
- The Average Monthly Residential Sewer bill could increase \$6-9 / month
- Sewer funding of Stormwater results in **inequitable cost recovery**
 - Parcels with no current utility bill impact the stormwater program but would not contribute their fair share of costs

Funding the Stormwater Program with sewer utility rates would result in inequitable cost recovery

WHAT WAS OUR STUDY APPROACH?



The Overall Approach



PRELIMINARY SYSTEM-WIDE STORMWATER BILLING UNITS (STORMWATER UNITS)

Stormwater Billing Units Estimation

A *Stormwater Billing Unit* is a basic unit of measure for setting a system-wide stormwater rate

Preliminary Billing Unit Methodology

- Basic Billing Unit = 500 square feet (sf)
- System-wide rate = \$/500 sf
- Billing Units for a Parcel: Parcel's Effective Impervious Area / 500 sf

Initial Stormwater Billing Units Estimation

Stormwater Class	Parcel Count	Gross Area (sf)	Estimated Effective Impervious Area	Billable Stormwater Units
Marion County				
Residential	6,099	111,041,286	19,596,812	39,194
Condominium	26		45,162	90
Non-Residential	803	160,160,708	83,665,537	167,331
Vacant/Undeveloped	967	81,632,282	5,283,576	10,567
Total	7,895	352,834,276	108,591,087	217,182
Ralls County				
Residential	126	4,017,974	709,101	1,418
Non-Residential	68	12,764,213	9,573,159	19,146
Ag Land	5	1,618,690	242,803	486
Total	199	18,400,877	10,525,064	21,050
BPW Total	8,094	371,235,153	119,116,151	238,232

Note:

The Initial SWUs are further adjusted to reflect potential loss in units due to the following factors:

- *Customer appeals*
- *Stormwater credits*

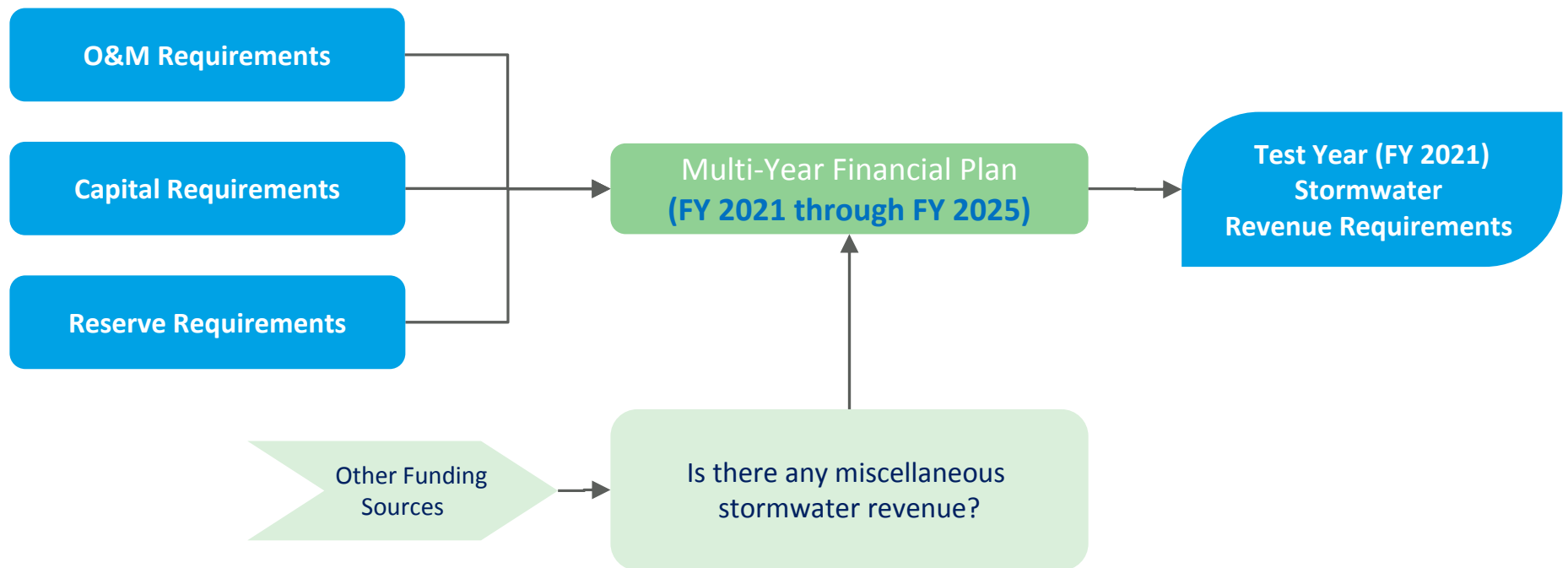
Billing Unit Modifications

Line No.	Description	2021			Modification Factors				Estimated Billable SWUs
		Test Year			Appeals		IA Credits		
		No. of Parcels	Total IA	No. of SWUs	Factor %	SWU Loss	Factor %	SWU Loss	
Customer Class									
1	Vacant/Undeveloped	972	5,526,379	11,053	5.0%	553	0.0%	-	10,500
2	Condominium	26	45,162	90	5.0%	5	0.0%	-	86
3	Residential	6,225	20,305,913	40,612	5.0%	2,031	0.0%	-	38,581
4	Non-Residential	871	93,238,696	186,477	10.0%	18,648	5.0%	9,324	158,506
5	Subtotal	8,094	119,116,150	238,232		21,235	0	9,324	207,673

PRELIMINARY RESULTS:
MULTI-YEAR
STORMWATER FINANCIAL PLAN
(FY 2021 THROUGH FY 2025)



How did We Develop a Multi-Year Financial Plan?

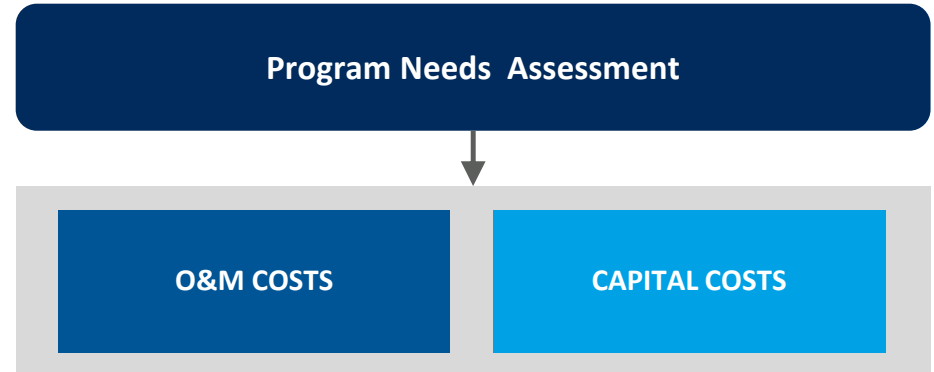


Multi-year financial plan & rate structure is critical for the development of impervious area based user fee

Program Review

Identification of stormwater program costs

- 3 Workshops: Collaborated with staff to determine:
 - BPW role and responsibility for stormwater management
 - Program needs and service levels
 - Capital needs



Preview of Financial Plan – Key Assumptions

- Customer Growth: 0%
- Inflation: 3%
- Uncollected Revenues: Projected revenue is adjusted to reflect:
 - Stormwater only accounts could have higher rate of non-payment than accounts with electric, water and sewer
 - Assumed “expense” (loss of revenue) for Uncollected Revenues based on a collection rate of:
 - Stormwater Only: 60% in 2021, increasing to 80% by 2025
 - All Other: 95%

Preview of Financial Plan – O&M

Projected Operation and Maintenance Expense

Line No.	Description	Projected					
		2020	2021	2022	2023	2024	2025
		\$	\$	\$	\$	\$	\$
	Stormwater Direct						
1	System Operations & Maintenance	370,300	552,800	566,800	606,300	601,300	619,400
2	System Management & Engineering	125,600	155,800	324,400	24,700	25,400	26,200
3	MS4 Regulatory Compliance	25,800	90,200	90,100	92,800	95,600	98,500
4	Stormwater Utility Implementation	272,700	52,600	108,800	55,800	57,500	59,200
5	Stormwater Program Administration	386,400	499,500	514,500	529,900	545,800	562,300
6	Total Operation & Maintenance Expense	1,180,800	1,350,900	1,604,600	1,309,500	1,325,600	1,365,600

Preview of Financial Plan – Capital Plan

Line No.	Description	Projected						
		2020	2021	2022	2023	2024	2025	Total
		\$	\$	\$	\$	\$	\$	\$
Stormwater CIP Summary by Function Category								
1	Miscellaneous Capital Replacements	0	1,000,000	1,000,000	400,000	1,100,000	1,500,000	5,000,000
2	Vehicles/Heavy Equipment	0	25,000	160,000	525,000	485,000	0	1,195,000
3	Total - Uninflated	0	1,025,000	1,160,000	925,000	1,585,000	1,500,000	6,195,000
4	Total - Inflated	0	1,066,400	1,231,000	1,001,200	1,750,000	1,689,200	6,737,800

Preview of Financial Plan

Line No.	Description	Fiscal Year Ending June 30,						
		2019	2020	2021	2022	2023	2024	2025
		\$	\$	\$	\$	\$	\$	\$
1	Revenue Under Existing Rates	0	0	0	0	0	0	0
	Increased Revenue (a)							
2	\$1.39 Effective July 1, 2020			3,175,300	3,464,000	3,464,000	3,464,000	3,464,000
3	Total Revenue from Rates	0	0	3,175,300	3,464,000	3,464,000	3,464,000	3,464,000
4	Other Revenue	0	0	0	0	0	0	0
5	Loan from Electric Utility	400,000	1,200,000	0	0	0	0	0
6	Interest Income (b)	700	0	400	1,300	1,600	1,700	1,800
7	Total Revenues	400,700	1,200,000	3,175,700	3,465,300	3,465,600	3,465,700	3,465,800
	Operation & Maintenance Expense							
8	Direct	897,000	1,180,800	1,350,900	1,604,600	1,309,500	1,325,600	1,365,600
9	Uncollected Revenues	0	0	214,956	234,500	225,743	216,986	199,471
10	Net Revenue	(496,300)	19,200	1,609,844	1,626,200	1,930,357	1,923,114	1,900,729
	Debt Service Requirements							
11	Existing Debt	40,000	120,000	118,000	116,000	714,000	0	0
12	Proposed Debt	0	0	178,100	178,100	178,100	178,100	178,100
13	Total Debt Service	40,000	120,000	296,100	294,100	892,100	178,100	178,100
	Transfers & Other Expenses							
14	Cash Financing of Capital Projects	0	0	1,066,400	1,231,000	1,001,200	1,750,000	1,689,200
15	Total Expenses	937,000	1,300,800	2,928,356	3,364,200	3,428,543	3,470,686	3,432,371
16	Net Balance	(536,300)	(100,800)	247,344	101,100	37,057	(4,986)	33,429
17	Beginning Fund Balance (c)	600,000	63,700	(37,100)	210,244	311,344	348,401	343,415
18	End of Year Balance	63,700	(37,100)	210,244	311,344	348,401	343,415	376,844
	Number of Days (c)							
19	Number of Days - Stormwater Only	25	(10)	47	60	58	83	89
20	Number of Days - Target	60	60	60	60	60	60	60

(a) Assumes 1 month lag before rates are fully effective.

(b) Includes interest earnings on Operating Fund.

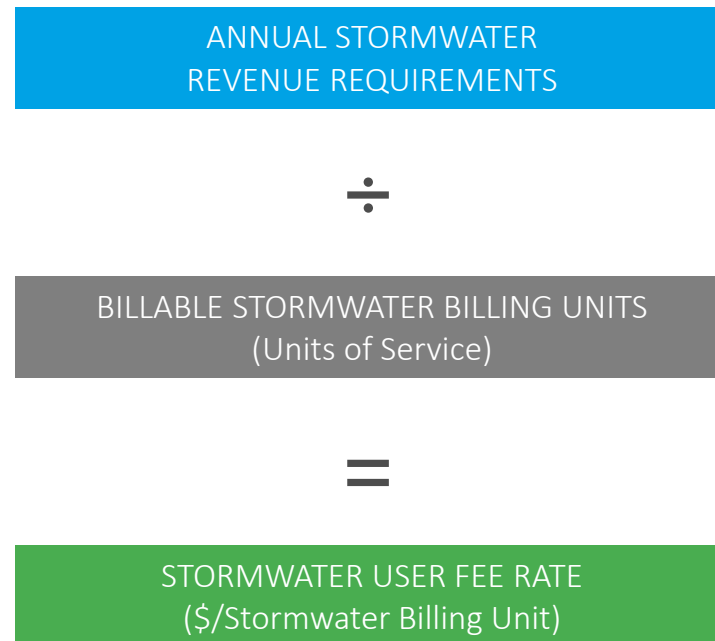
(c) BOY Balance for FY19 reflects estimated funds from electric utility loan as of July 1, 2018.

Preliminary Results – Subject to Change

PRELIMINARY RESULTS:
STORMWATER FEE
(FY 2021)



How do we Determine the System-Wide Stormwater User Fee Rate?



Rates effective July 1, 2020 (11 months of revenue)

Preliminary Rate Structure

Individually calculated based on parcel specific impervious area

Stormwater Rate = \$1.39 per 500 square feet of Calculated Impervious Area*

** Methodology for calculating billable impervious area varies by customer class based on data availability and characteristics of each customer class.*

Examples of Monthly Fee Calculation

Single Family Residential			
Lot Size		0.46	acres
Lot Size		20,000	sf
Building Footprint		1,500	sf
Allocated Driveway IA		685	sf
Total Billable IA		2,185	sf
Estimated SW Units		4.4	
Preliminary FY2021 SWU Charge	\$	1.39	
Preliminary FY2021 Monthly Fee	\$	6.07	

Non-Residential			
Lot Size		5	acres
Lot Size		217,800	sf
Building Footprint		20,000	sf
Calculated Associated IA		98,900	sf
Total Billable IA		118,900	sf
Estimated SW Units		237.8	
Preliminary FY2021 SWU Charge	\$	1.39	
Preliminary FY2021 Monthly Fee	\$	330.54	

Preliminary Results – Subject to Change

NEXT STEPS





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