Agenda Report

Subject: **Stormwater Utility Feasibility Study – Workshop #1**

Prepared By: Steven M. Saunders, Director of Public Works/Village Engineer

Date: January 3, 2013

In the aftermath of the floods of 2008 and 2011, the Village has undertaken drainage studies to evaluate possible flood risk reduction improvements in 14 different drainage areas. The identified improvements would provide increased flood protection to the most susceptible areas of the Village against rain events up to a 100-year, 1% chance storm.

The Village Council has moved forward with engineering on some of the identified improvements, and has moved forward with planning on the most significant improvement, the Willow Road Stormwater Tunnel. Other improvements may also be considered in the future. The Stormwater improvement program can broadly be considered as follows:

VILLAGE OF WINNETKA STORMWATER IMPROVEMENTS
SUMMARY OF ALL ONGOING, PLANNED, AND POSSIBLE FUTURE IMPROVEMENTS

Estimate of Probable Cost by Project/Study Area

Project Description	Project Awarded or In Progress (Years 1-2)	Planned Improvements (Years 2-5)	Future Improvements (Years 5-10+)
Spruce Street Outlet Area Improvements			
Tower Road/Foxdale Area	$ 1,162,853		
Lloyd Park Outlet	$ 398,786		
Northwest Winnetka Improvements			
Tower Road/Greenwood Area	$ 3,581,924		
Forest Glen Extension	$ 685,000		
Winnetka Avenue Pump Station	$ 750,000		
Master Plan and Rate Study			
Stormwater Master Plan	$ 101,220		
Utility Feasibility Study	$ 72,100		
Willow Road Stormwater Tunnel Improvements			
North Willow, South Willow, & Provident		$ 27,969,048	
Cherry Street Outlet Area		$ 2,000,000	
Winnetka Underpass Area		$ 4,400,000	
Area F (west of Hibbard Road)		***	(Currently under study by CBBEL)
B&W Additional Drainage Areas (Reviewed by Council but not yet approved)			
Area A (Pine Tree/Asbury Area)			$ 500,000
Area C (Hubbard Woods Area)			$ 1,700,000
Area E (Boal/Heather/Hickory/Sumac Area)			$ 900,000
Area G (Tower to Pine Area)			$ 2,000,000
Area N (Appletree/Broadmeadow Area)			$ 130,000
Area O (West Elm/Green Bay Area)			$ 1,800,000
TOTALS	***$ 6,751,883***	***$ 34,369,048***	***$ 7,030,000*** ***$48,150,931***

As part of determining how to implement necessary flood risk reduction improvements, the Village has engaged the services of Municipal Financial Services Group (MFSG) to evaluate financing options and methods for the improvements, including evaluating the feasibility of funding improvements via a Stormwater Utility. MFSG's scope of work includes four workshops with the Village Council and public to evaluate and discuss various aspects of stormwater financing, including the proposed topics: 1) Stormwater Funding Mechanisms, 2) Level of Service, 3) Rate/Fee Analysis, and 4) Implementation.

At the November 2012 Study Session, the Council held a primer on various aspects of financing stormwater improvements, including technical and legal aspects of bond financing, stormwater utility details, use of reserves, and various rate and fee structures. MFSG's second meeting (Workshop #1) will address the following topics:

<u>"Levels of Service", or elements of a stormwater program.</u> There are several elements of a complete stormwater management program, including:

1. Ongoing operating and maintenance expenses, such as cleaning, inspection, management, and repairs;
2. Capital Improvements. In the case of the Village, capital improvements can be thought of as those improvements that are either underway or planned, and those improvements that may be considered in the future;
3. Long-term planning and funding for replacement of the Village's existing stormwater infrastructure, and;
4. Possibly replenishing, over a period of time, the approximately $6.8 million in General Fund Reserves that are being committed to the initial set of planned capital improvements. Potential replenishment of these reserves is one way to address the issue of intergenerational equity, in which prior taxpayer have over the years contributed funding for improvements that benefit current and future taxpayers.

<u>Level of Service Scenarios.</u> MFSG has developed several scenarios based on differing combinations of stormwater program elements. These scenarios are not intended to represent final recommendations, but rather are illustrative of the level of funding required to include certain plan elements. These scenarios are as follows:

1. Full Program. The full program of activities includes all of the possible identified components of a stormwater management program:
    a. Operation and maintenance activities;
    b. Planned Capital Improvements (northeast and northwest Winnetka, Tunnel project);
    c. Possible Future Capital Improvements (6 additional drainage areas);
    d. Asset Replacement (long-term planned replacement of existing storm sewers); and
    e. General Fund Reserve replenishment.

2. Phased Program. The phased program includes the following activities:

a. Operation and maintenance activities;
b. Planned Capital Improvements (northeast and northwest Winnetka, Tunnel project);
c. Possible Future Capital Improvements (6 additional drainage areas);

3. Base Program. The base program only includes operating and maintenance activities, and planned capital improvements.

The three scenarios capture key program elements the Village has identified and discussed. While some improvements are already underway, MFSG's modeling still allows the Council to continue to study the identified improvements, their priority level, and the level of protection to be provided. Scenario-based analysis, however, is critical to understanding short and long-term cost implications, as also related to the funding methods.

Funding Options. MFSG has constructed a financial model that identifies and reflects costs associated with each of the elements of a stormwater management program. They have also developed a preliminary simplified rate method, based on the level of impervious surface on a property, to begin to evaluate the magnitude of possible stormwater fees. This information was used for a preliminary comparison of the impact of stormwater fees with incremental property tax increases.

Using this approach, MFSG has developed several funding alternatives.

1. Alternative #1 – Stormwater Fee. This approach assumes that all of the stormwater related expenses will be funded via a stormwater fee.
2. Alternative #2 – General Fund. This approach assumes that all of the stormwater related expenses will be funded via General Fund property tax revenues.
3. Alternative #3 – Combination. This approach assumes that the capital projects would be paid for via a stormwater fee, and the operating and maintenance would be funded via the General Fund.

MFSG will be presenting this information at the January 8, 2013 Study Session. In order to continue to advance their financing study, MFSG will be seeking policy guidance from the Village Council on the following questions:

1. Does the Council wish to consider re-funding the General Fund reserve in the near term?
2. Does the Council wish to continue funding stormwater operations and maintenance from the General Fund, or should some or all of the operations and maintenance be funded through a stormwater utility?
3. Is full funding from property taxes (Alternative #2) something the Council wishes to continue to consider?

A working draft of MFSG's PowerPoint presentation is included in the Village Council's packet, to help prepare for the discussion. It is important to note that though Staff has

worked closely with MFSG to provide budget numbers and improvement costs for utility modeling, the dollar figures presented are still estimates. MFSG has also made assumptions in the models that can be revised moving forward to understand potential cost implications of various policy decisions.

Following the January 8 meeting, MFSG will begin to assess property tax and rate methodologies to determine the likely rate and property tax impacts on individual properties. The fee and tax implications for individual properties vary not only with the program elements, but also with the rate structure selected for the utility. Workshop #2, scheduled for February 12, 2013, will explore rate methodologies and individual property impacts using the scenarios discussed during Workshop #1.

Recommendation:
Provide policy direction.

Municipal & Financial Services Group

DONOHUE & ASSOCIATES

Village of Winnetka

Stormwater Utility Feasibility Study

Workshop #1:
Level of Service and Funding Options

January 8, 2013

Agenda

- Level of Service
- Stormwater Funding Scenarios
- Magnitude of Stormwater Fee / Tax Rate
- Discussion

Study Timeline

Workshop #1
January 8th

Level of Service

Current Maintenance Spending (MS4 Permit)

Capital
- 5-Year Scenarios
- 20 Year projection

SW Funding Options

General Fund
- Property Tax
- Reserves
- Other

Stormwater Fee

Combination
- GF Operating
- SW Fee Capital

Workshop #2
February 12th

Rate / Fee Analysis

General Fund
- Required Tax Rate
- Availability of Funds

Stormwater Fee
- Rate Base
- Fee Structure

Workshop #3
March 12th

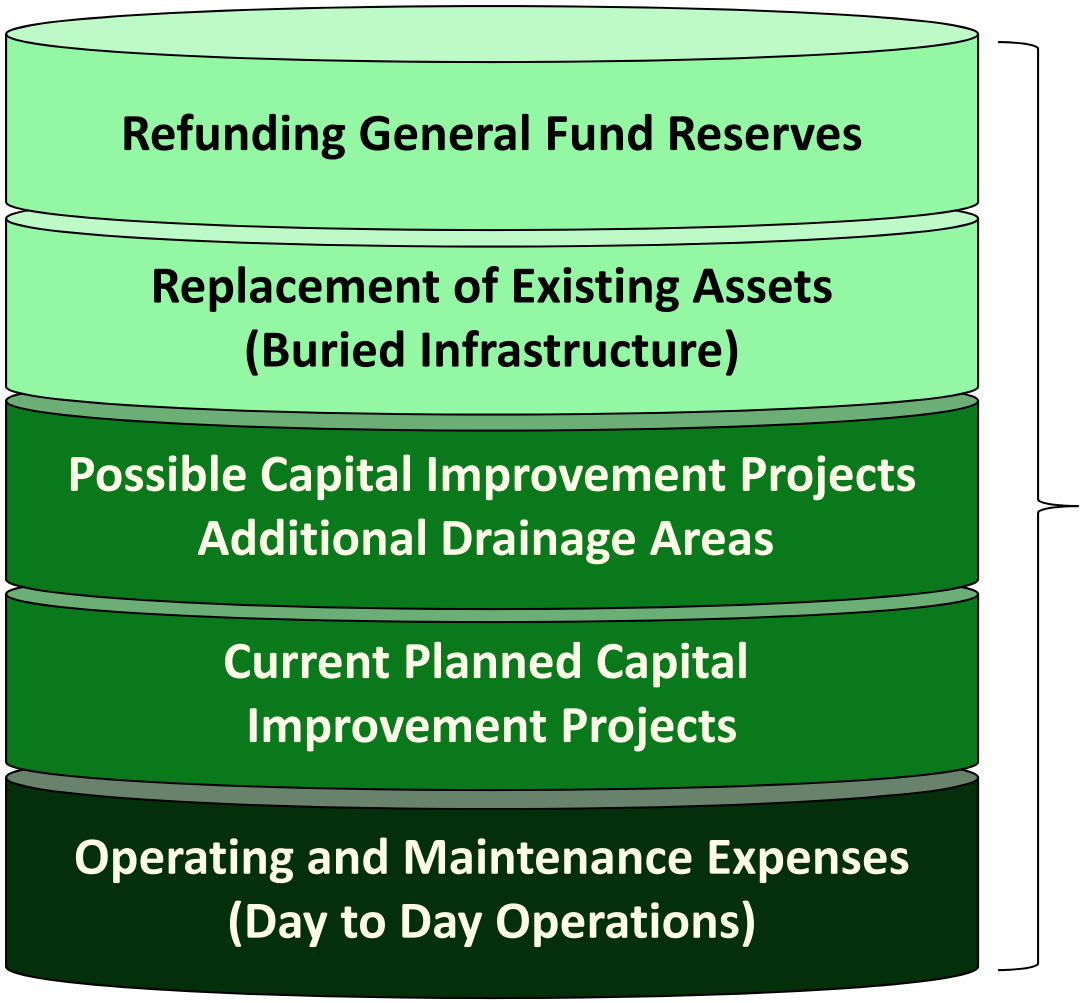
Implementation

General Fund Impacts

Stormwater Fee
- Administration
- Credits
- Billing
- Schedule
- Ordinance

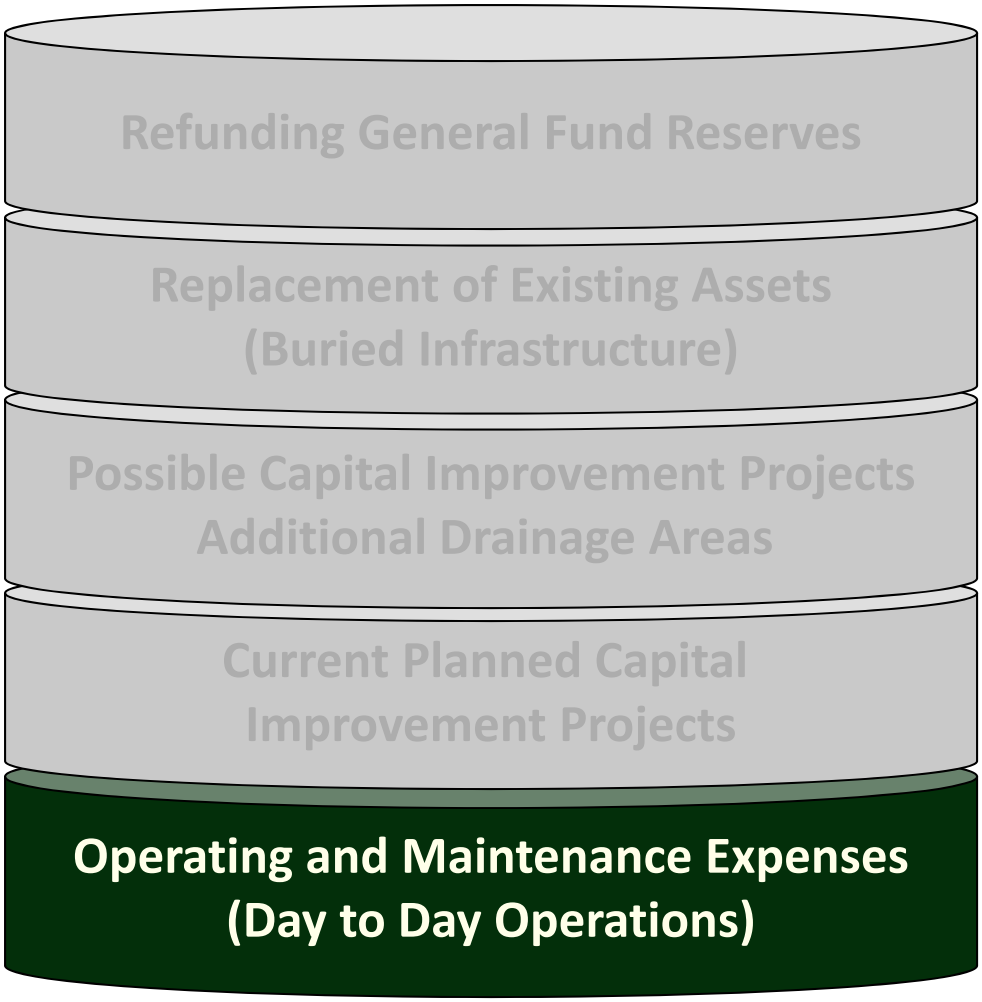
Level of Service

Level of Service - Options



Cost categories associated with Stormwater Management

Level of Service - Operating and Maintenance Expenses

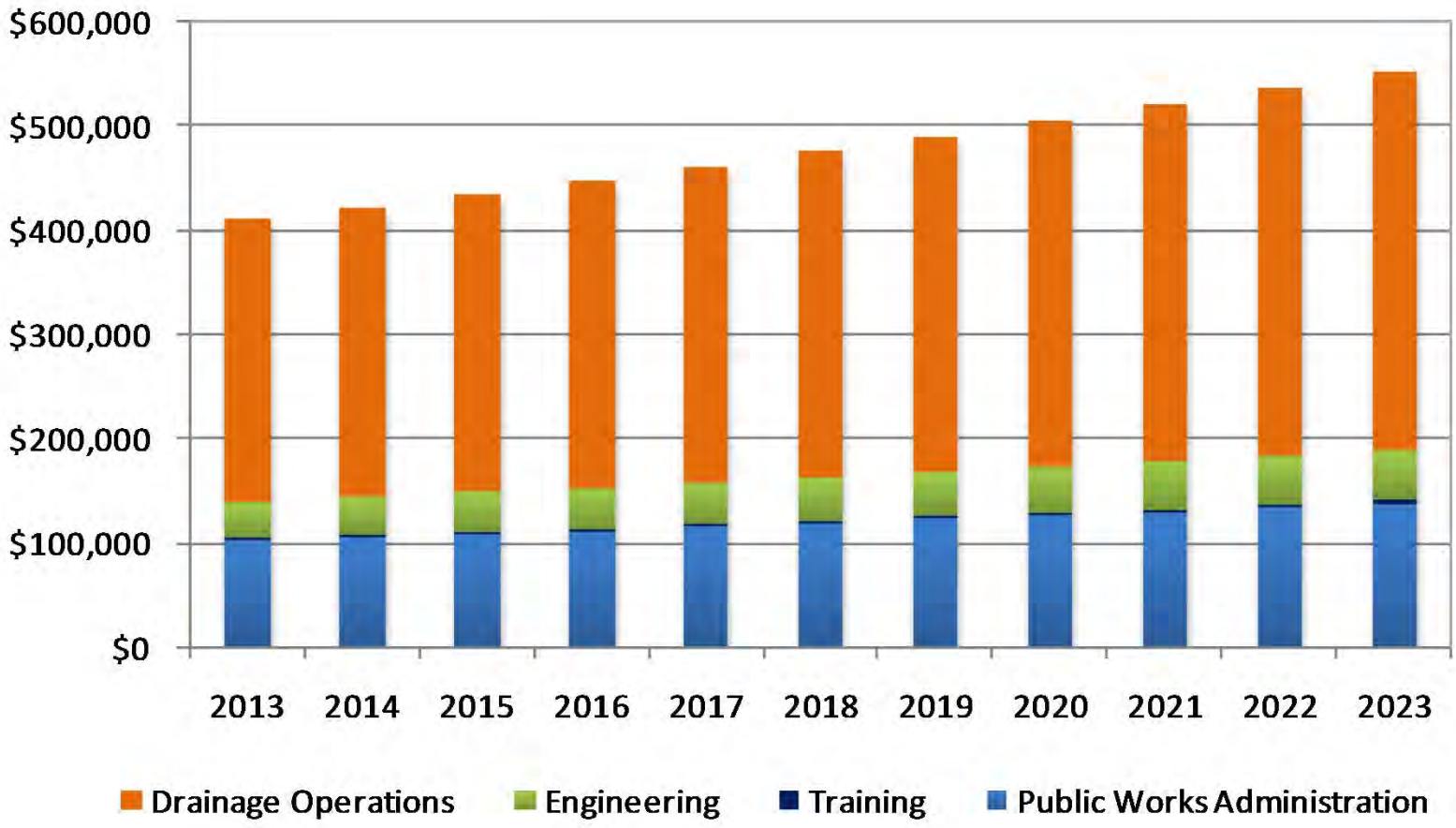


Stormwater Operating Expenses

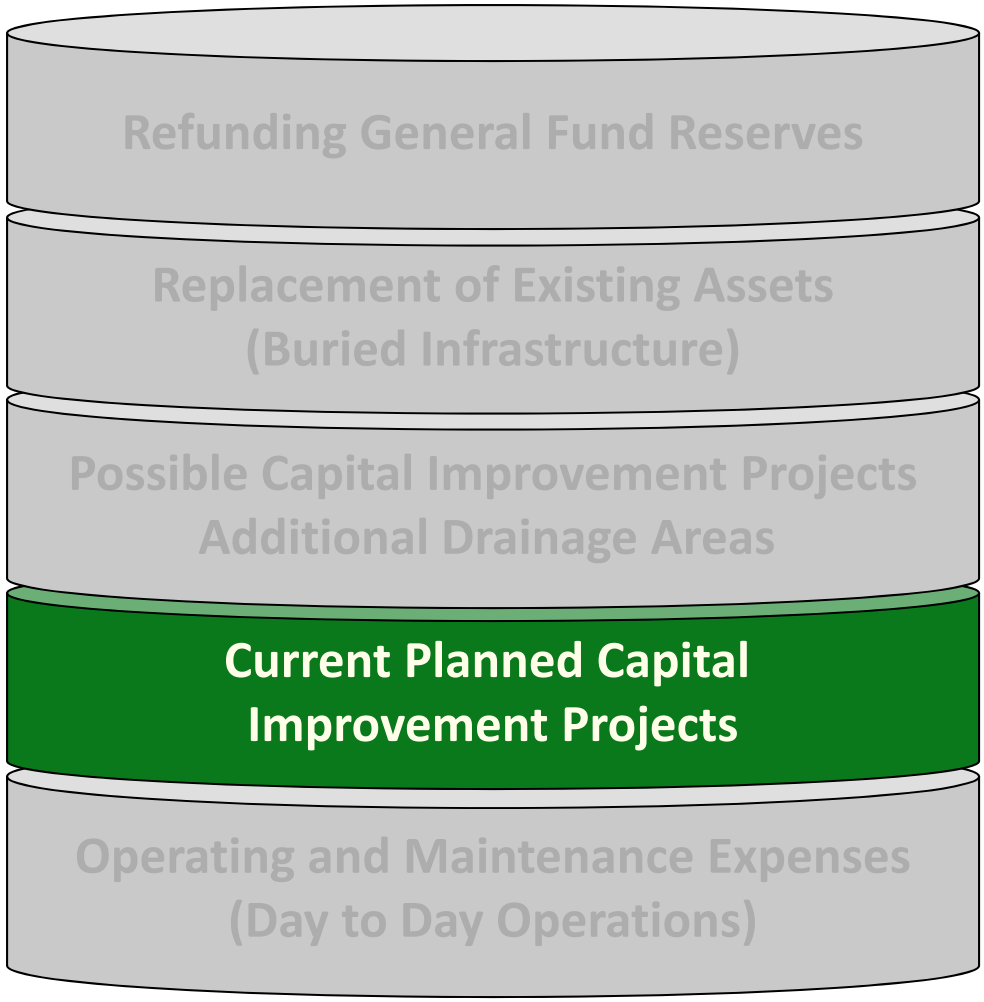
	2013	2014	2015	2016	2017
Public Works Administration	$103,000	$106,000	$109,000	$112,000	$116,000
Training	$2,000	$2,000	$2,000	$2,000	$2,000
Engineering	$35,000	$36,000	$37,000	$39,000	$40,000
Drainage Operations	$270,000	$278,000	$287,000	$295,000	$304,000
Total	**$410,000**	**$422,000**	**$435,000**	**$448,000**	**$462,000**
Current General Fund Funding	$390,000	$390,000	$390,000	$390,000	$390,000
Incremental O&M	**$20,000**	**$32,000**	**$45,000**	**$58,000**	**$72,000**

- Forecast assumes operating costs increase annually at 3% due to inflation

Stormwater Operating Expenses



Level of Service - Current Planned Capital Projects

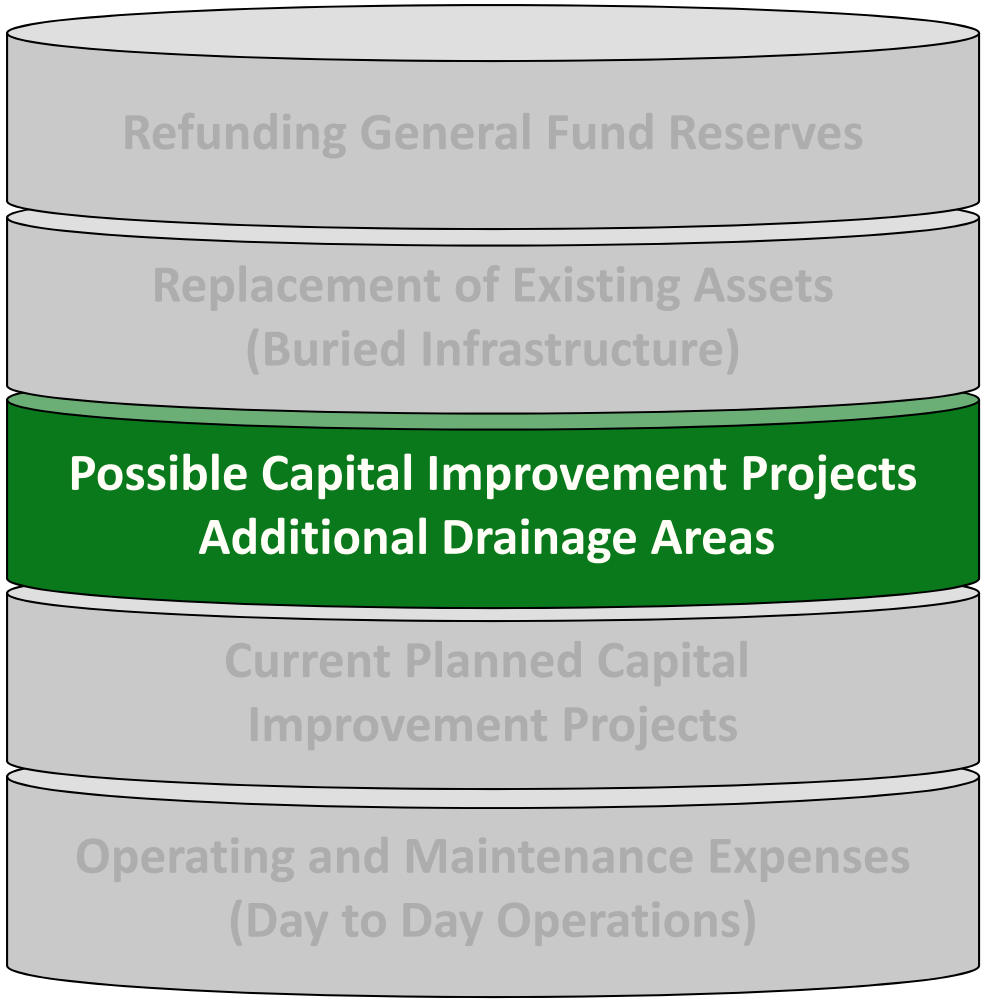


Capital Projects – Current Planned

Project	2012*	2013*	2014	2015	2016	Total
Winnetka Avenue Pump Station	$29,300	$720,700				
Tower Road / Foxdale	$111,429	$1,051,424				
Lloyd Park / Spruce Street	$37,143	$361,643				
Northwest Winnetka Greenwood / Forest Glen	$226,874	$3,000,000	$1,040,050			
Willow Road Tunnel	$55,350	$800,000	$800,000	$16,413,000	$16,300,698	
Stormwater Rate Study	$72,100					
Stormwater Master Plan	$80,000	$21,220				
Elm St. Storm Sewer Outfall Replacement		$250,000				
Total	**$612,196**	**$6,204,987**	**$1,840,050**	**$16,413,000**	**$16,300,698**	**$41,370,931**

*2012 and 2013 Capital projects currently budgeted to be funded through General Fund reserves. 2014 – 2016 projects currently budgeted to be bond funded.

Level of Service - Possible Future Projects



Capital Projects – Possible Future Projects

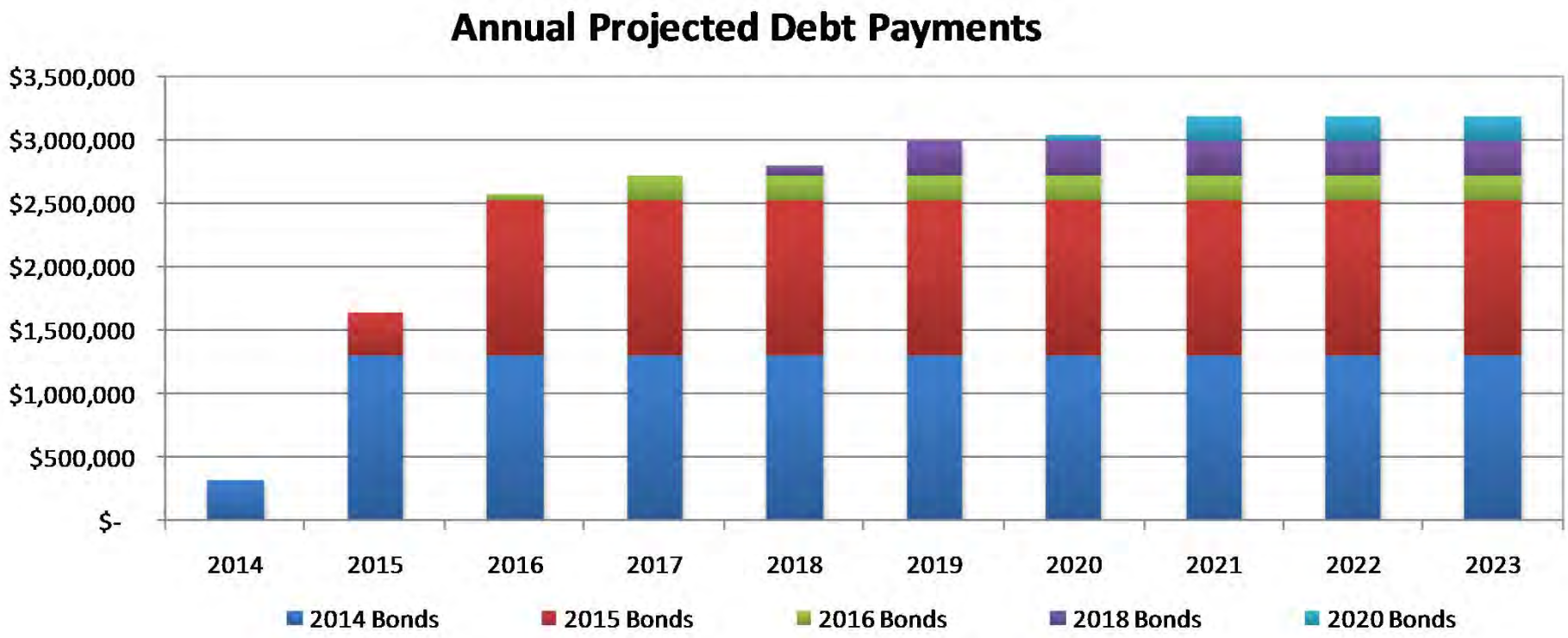
Project	2017	2018	2019	2020	2021	2022	Total
Drainage Area A	$571,995						
Drainage Area C		$1,992,086					
Drainage Area E			$1,061,080				
Drainage Area G				$2,484,478			
Drainage Area N					$130,477		
Drainage Area O						$2,374,800	
Total	**$571,995**	**$1,992,086**	**$1,061,080**	**$2,484,478**	**$130,477**	**$2,374,800**	**$8,614,916**

- All possible future projects currently budgeted to be bond funded.
- All projects inflated to future dollars using 3% annual inflation rate.

Capital Project – Financing

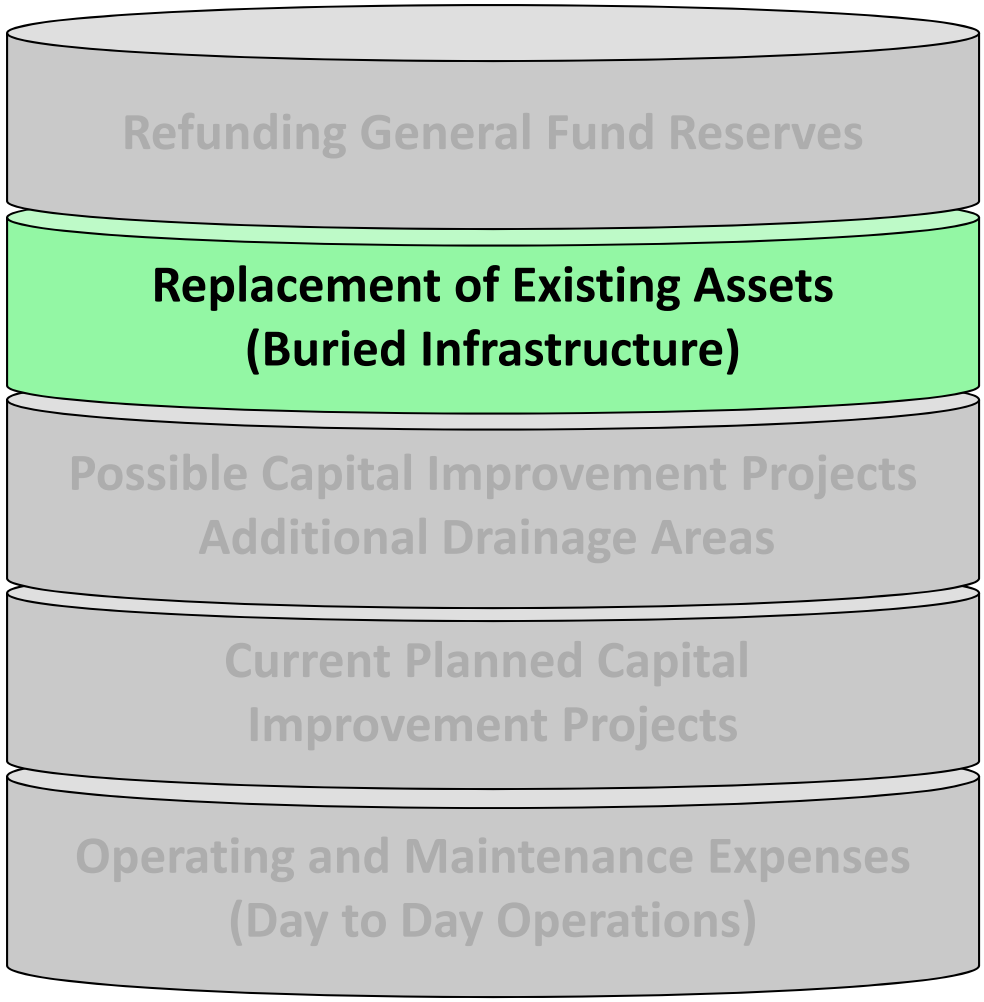
Bond Issue	Project Included	Bond Issue Amount	Year of Issue	Interest Rate	Debt Maturity
2014 Bonds	Northwest Winnetka Greenwood / Forest Glen Willow Road Tunnel	$18,253,050	2014	3.5%	20 years
2015 Bonds	Willow Road Tunnel	$16,300,698	2015	4.0%	20 years
Possible Future Projects					
2016 Bonds	Drainage Area A Drainage Area C	$2,564,082	2016	4.0%	20 years
2018 Bonds	Drainage Area E Drainage Area G	$3,545,558	2018	4.5%	20 years
2020 Bonds	Drainage Area N Drainage Area O	$2,505,277	2020	4.5%	20 years
Total		$43,168,665			

Capital Projects - Projected Debt



- Debt payments assume an interest payment is due the year of the bond issue with full principal and interest payment due the following year.

Level of Service - Asset Replacement



SW Line Replacement Costs

- Identification of Assets

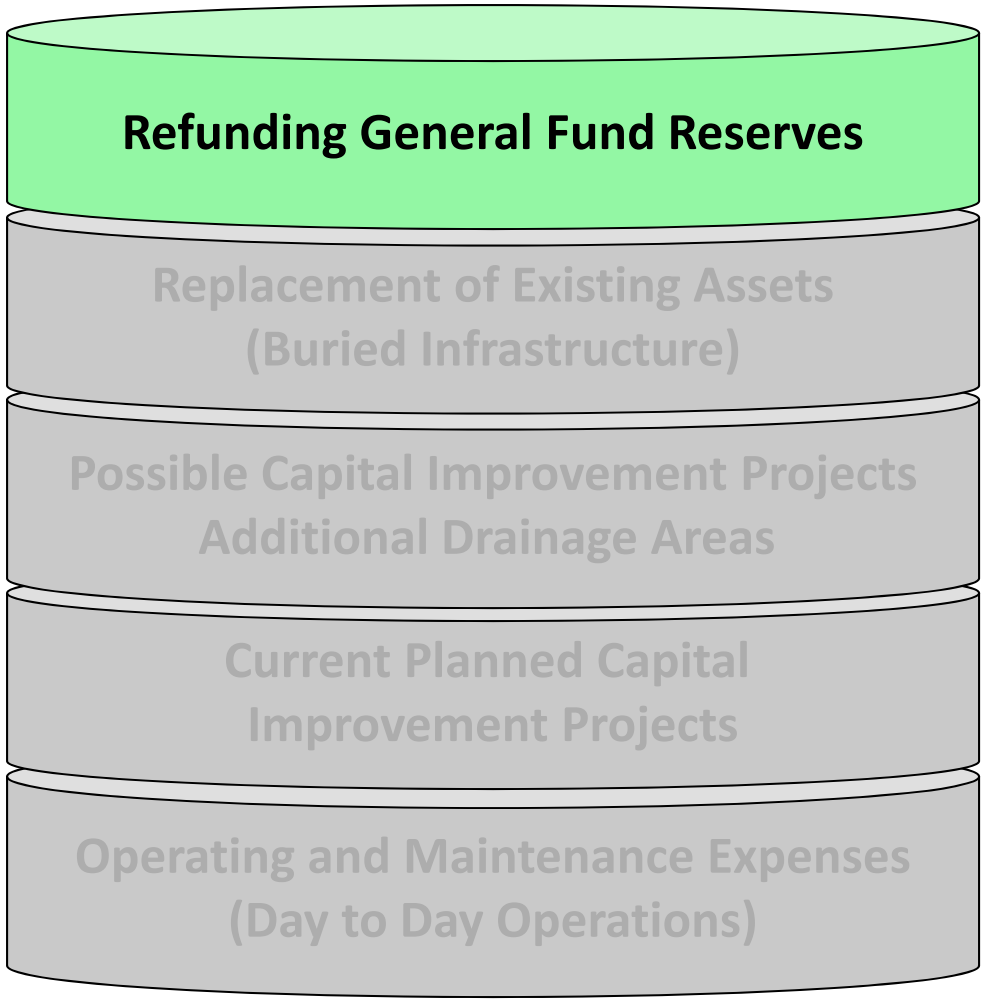
Village Stormwater Lines	Size of Lines	Estimated Replacement Cost (2012 $)
57 Miles	Ranging from 4” to 96”	$100,700,000

- Plan for funding

Assumed Replacement Cycle	Annual Replacement Spending (2012 $)	Timeframe*
150 years	$614,000	2023 - 2173

*Commence investment following completion of drainage areas and assume “pay-as-you-go” funding of replacement

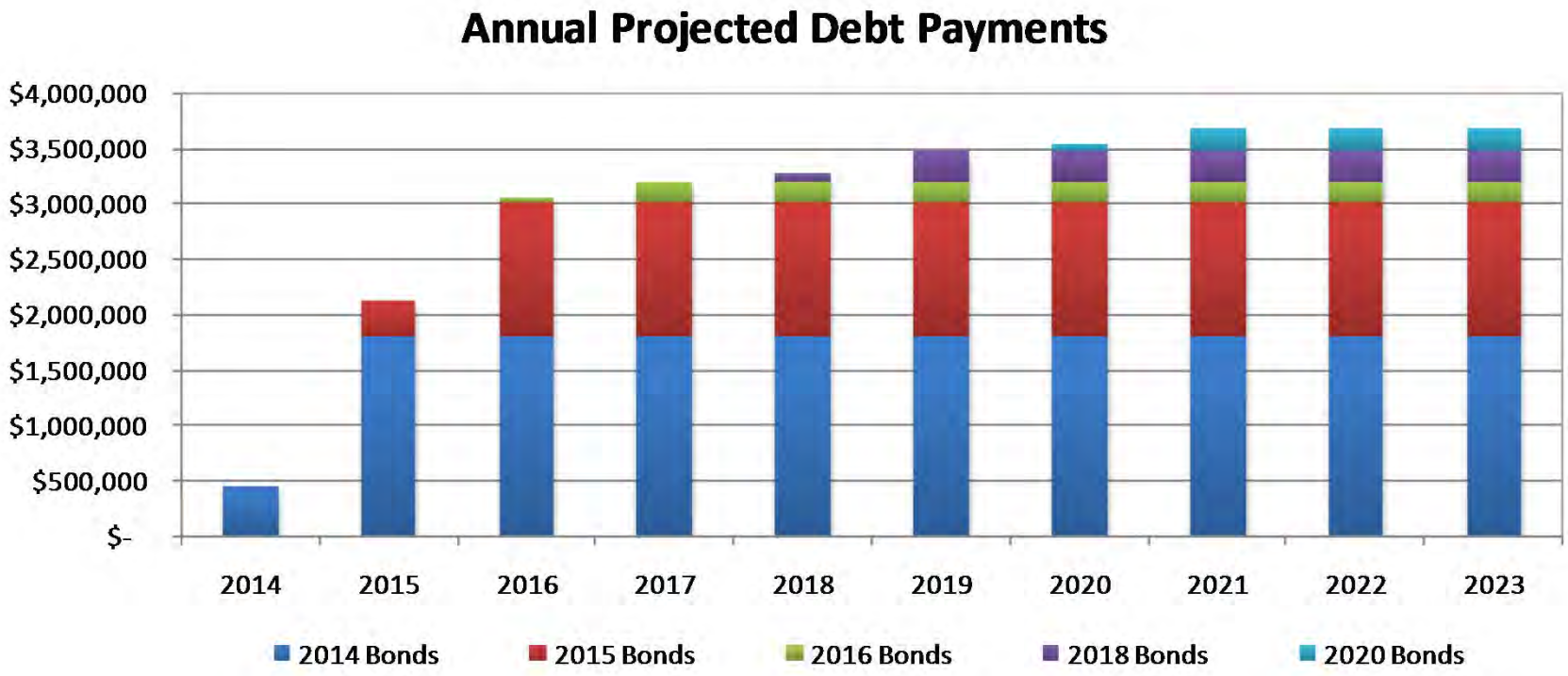
Level of Service - Refunding Reserves



Refunding General Fund Reserves

	2012	2013	Total
Capital Projects Funded through General Fund Reserves	$612,196	$6,204,987	**$6,817,183**

- The size of the 2014 Bonds would be increased by $6.8 million to refund the reserves, with resulting debt service shown below.

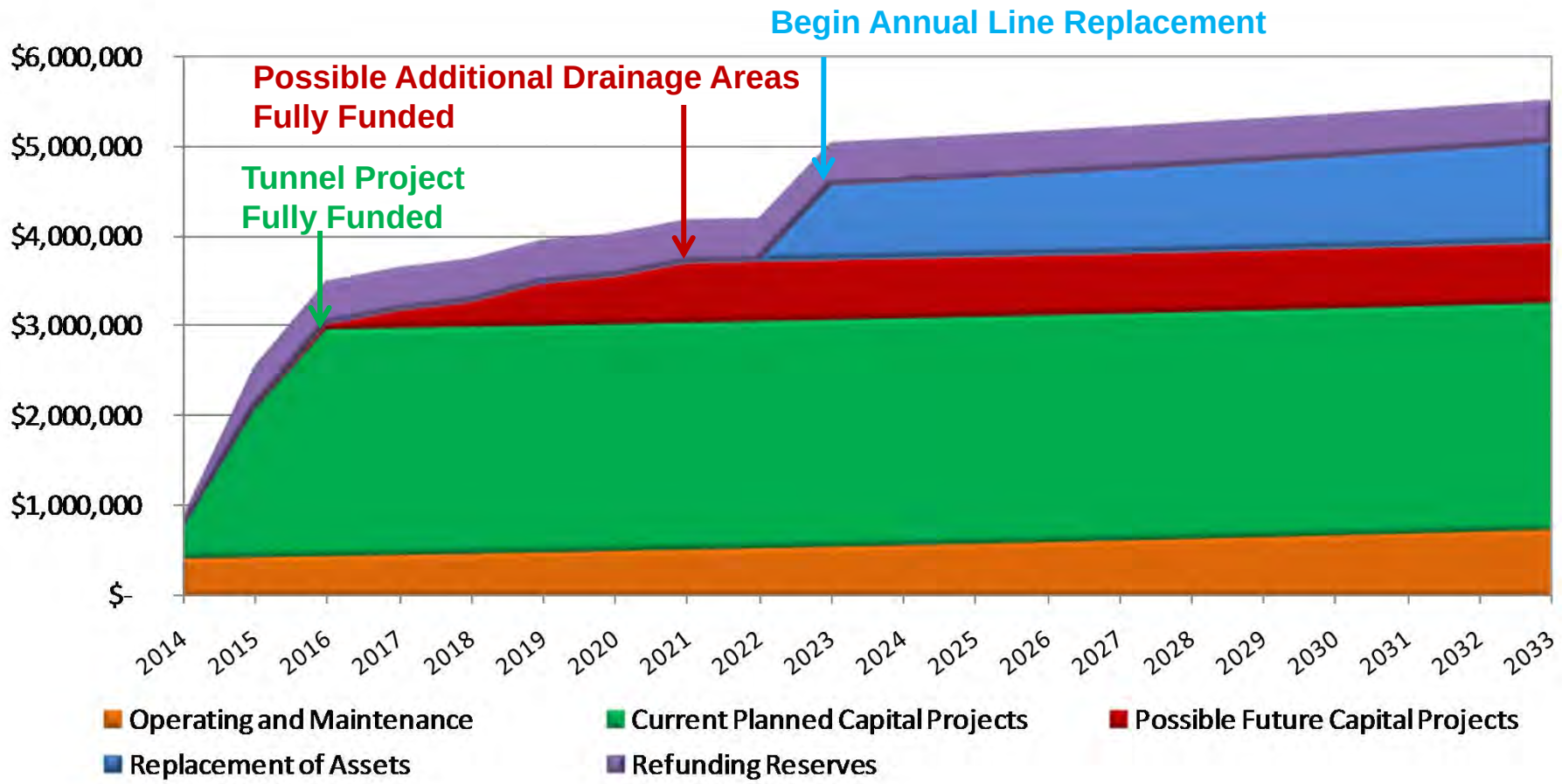


Total Annual Revenue Requirements

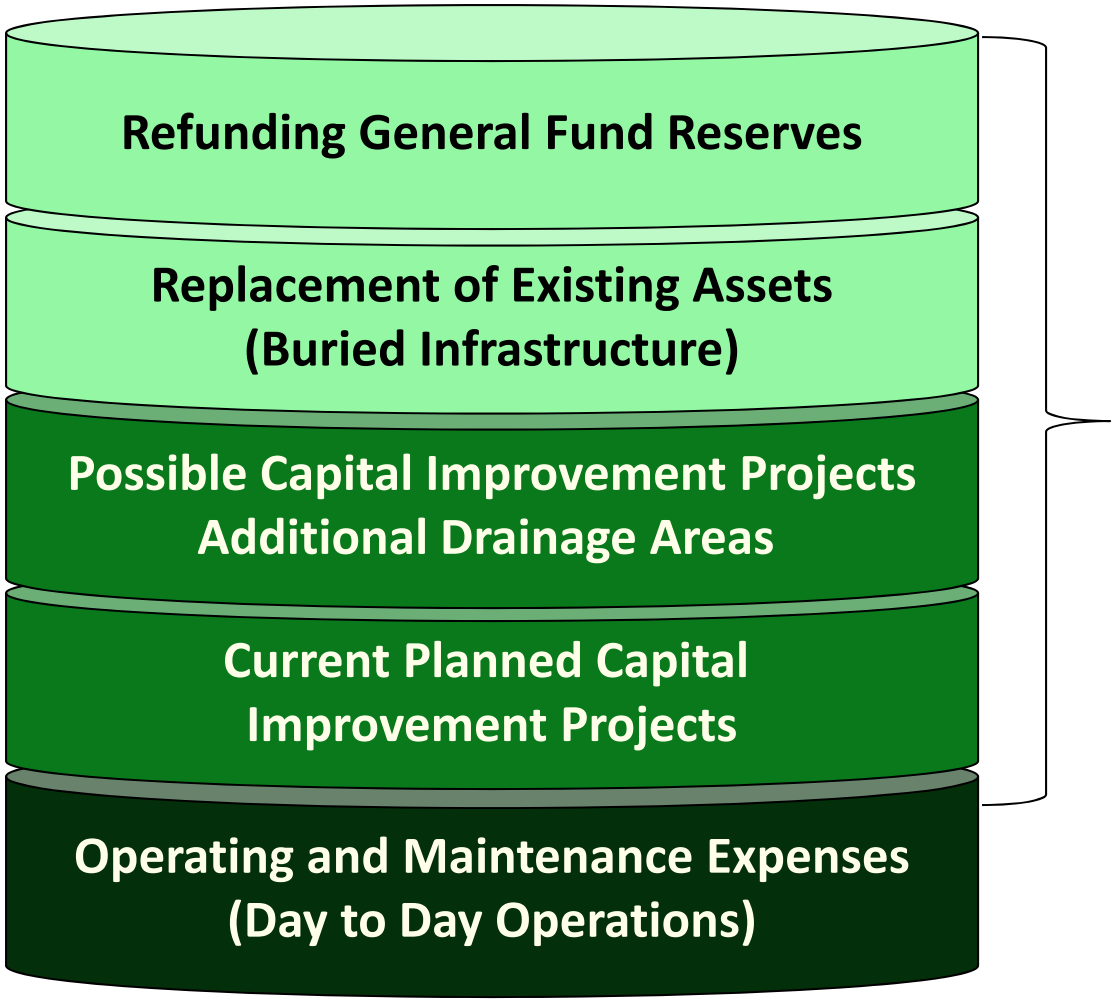
Project	2014	2015	2016	2017	2018
Operating Costs					
Total Operating Expenses(1)	390,000	390,000	390,000	390,000	390,000
Total Operating Expenses(2)	32,000	45,000	58,000	72,000	86,000
Total Operating Expenses	*$422,572*	*$435,249*	*$448,307*	*$461,756*	*$475,609*
Capital Costs					
Projected Debt Service Expense(3)	445,310	2,121,332	3,059,904	3,199,353	3,280,325
Total Capital Expenses	*$445,310*	*$2,121,332*	*$3,059,904*	*$3,199,353*	*$3,280,325*
Total SW Revenue Requirement	***$867,882***	***$2,556,582***	***$3,508,211***	***$3,661,109***	***$3,755,934***

(1) Operating funded by General Fund
(2) Incremental Operating and Maintenance above current GF funding
(3) Projected debt includes bond issues 2014 - 2018

Total Annual Revenue Requirements

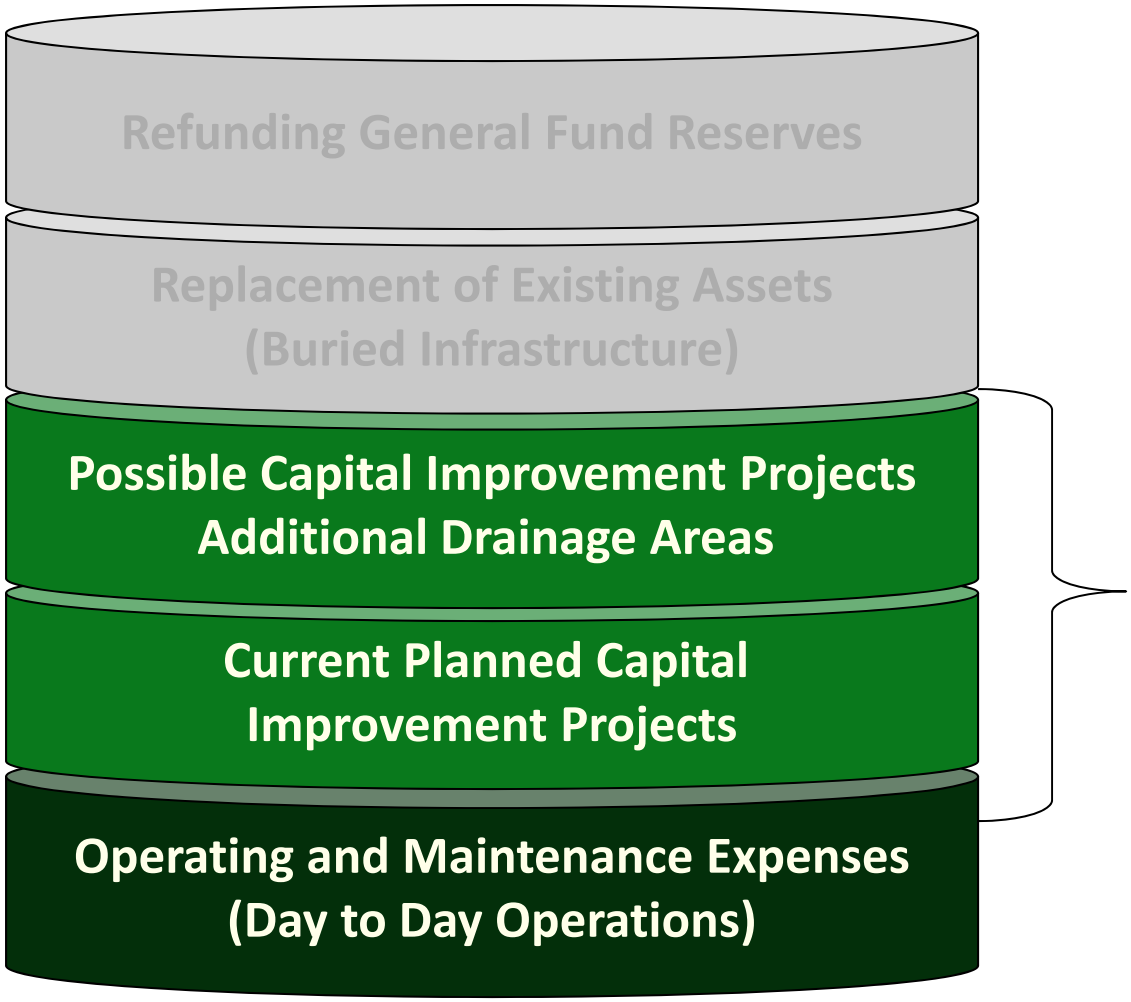


Level of Service - Scenarios



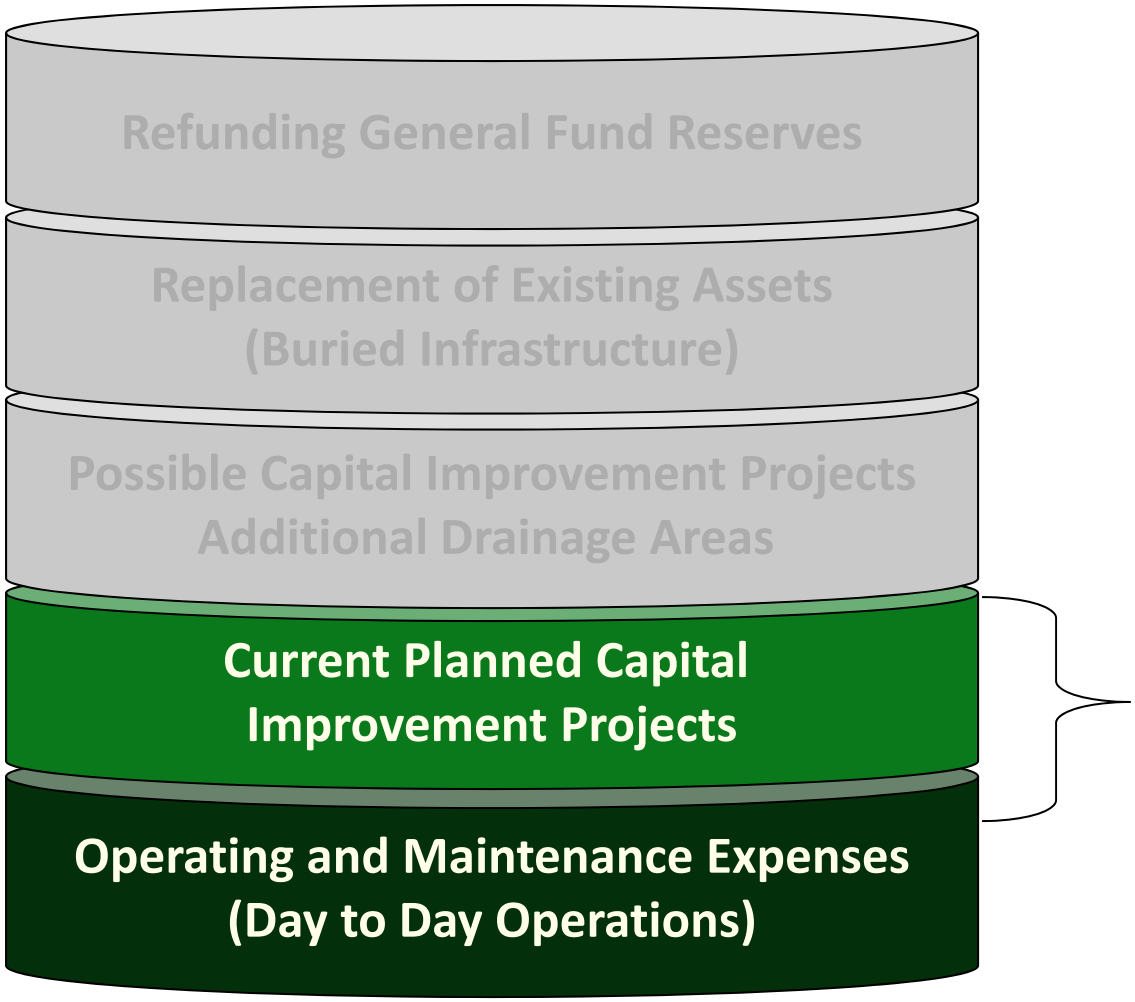
<u>Full Spending</u>
includes all capital costs associated with Stormwater Management and incremental increases in Operating and Maintenance (above current funding of $390,000)

Level of Service - Scenarios



Phased Spending
Excludes refunding general fund reserves and annual replacement of assets

Level of Service - Scenarios

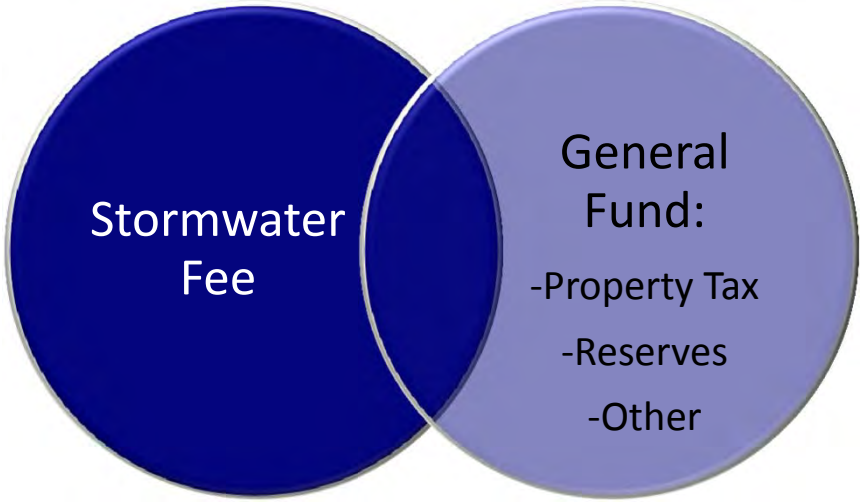


Base Spending
includes only funding incremental O&M expenses above current funding and the Tunnel Project

Funding Options

Stormwater Funding

Funding Options



	2014	2015	2016	2017	2018
Current funding from General Fund*	**$390,000**	**$390,000**	**$390,000**	**$390,000**	**$390,000**

*We have assumed Current funding from the General Fund will remain available to fund stormwater operating expenses in all funding alternatives. As a result only the incremental operating and maintenance costs associated with inflation are included in the funding alternatives.

Base Property Used in Analysis

To demonstrate impact on property owner of level of service and funding approaches a base property was selected with the following attributes:

<u>Single Family Home</u>

- Impervious area of 3,400 square feet (1 ERU)
- $1,200,000 market value home
- Annual tax bill of $27,000

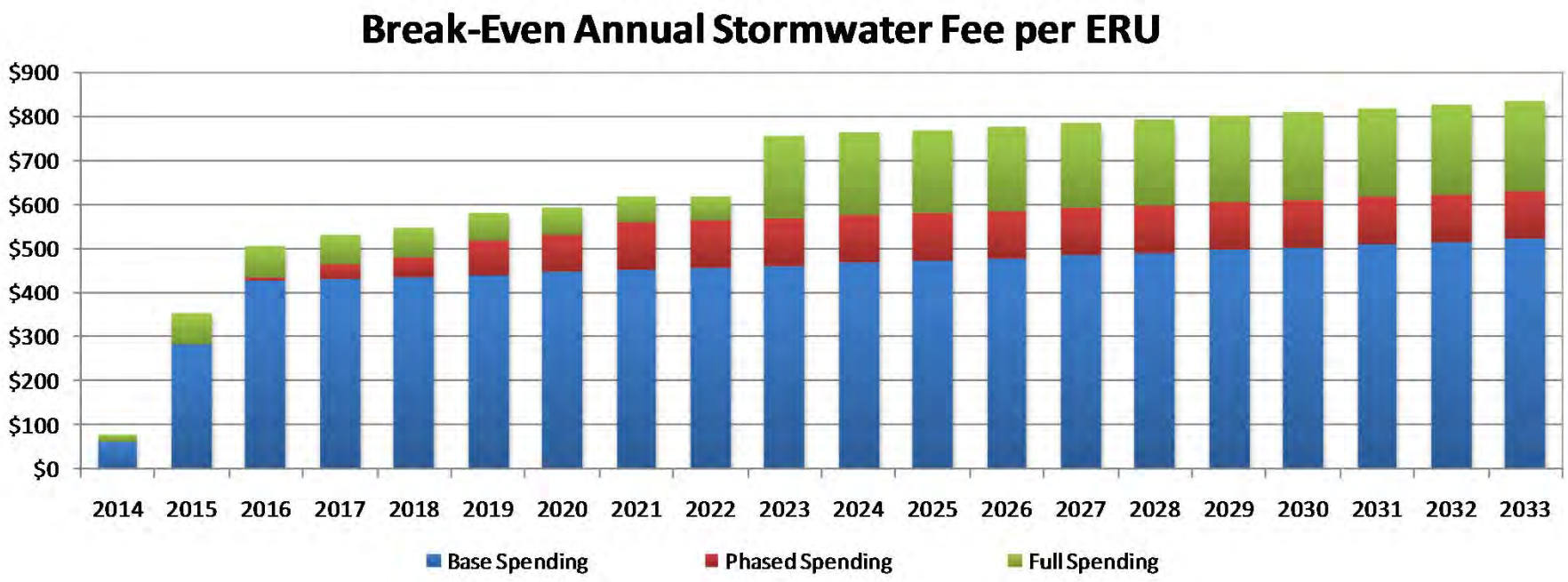
Funding Alternative #1

100% Stormwater Fee Funding

Stormwater fees calculated on a per ERU basis for each spending scenario.

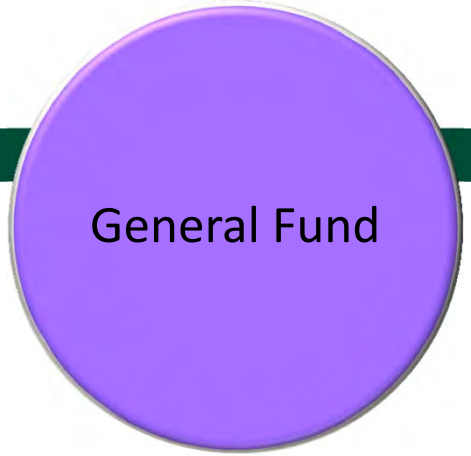
Stormwater fee funding incremental operating and maintenance expenses (above current $390,000) and all capital projects.

Alternative #1 - All Stormwater Fee



- Full - Incremental O&M, Tunnel, Drainage Areas, Refund GF, Line Replacement (Begin Replacement 2023: **SW Fee: $755**)
- Phased - Incremental O&M, Tunnel, Possible Drainage Areas (Drainage Areas Fully Funded by 2022: **SW Fee: $563**)
- Base - Incremental O&M and Tunnel Project (Tunnel Fully Funded by 2016: **SW Fee: $428**)

Funding Alternative #2

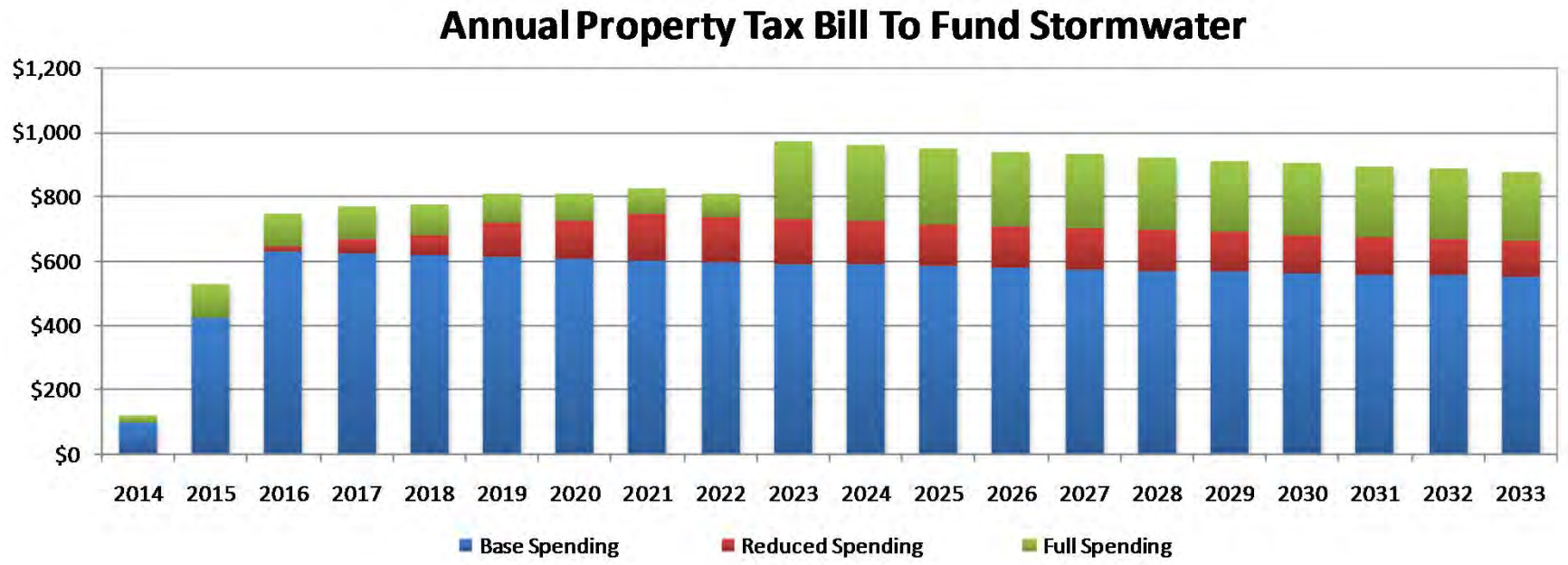


100% Property Tax Funding

Incremental property tax increases calculated for each identified spending scenario

Full property tax funding would result in no stormwater fee

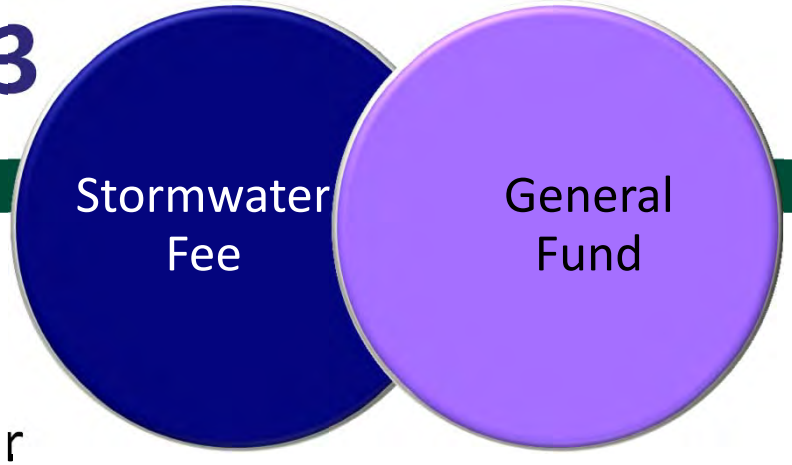
Scenario #2 - All Property Taxes



**Analysis assumes annual 2% appreciation in property values*

- Full - Incremental O&M, Tunnel, Drainage Areas, Refund GF, Line Replacement (Begin Replacement 2023: **Tax Bill: $971**)
- Phased - Incremental O&M, Tunnel, Possible Drainage Areas (Drainage Areas Fully Funded by 2022: **Tax Bill: $739**)
- Base - Incremental O&M, Tunnel Project (Tunnel Fully Funded by 2016: **Tax Bill: $631**)

Funding Alternative #3

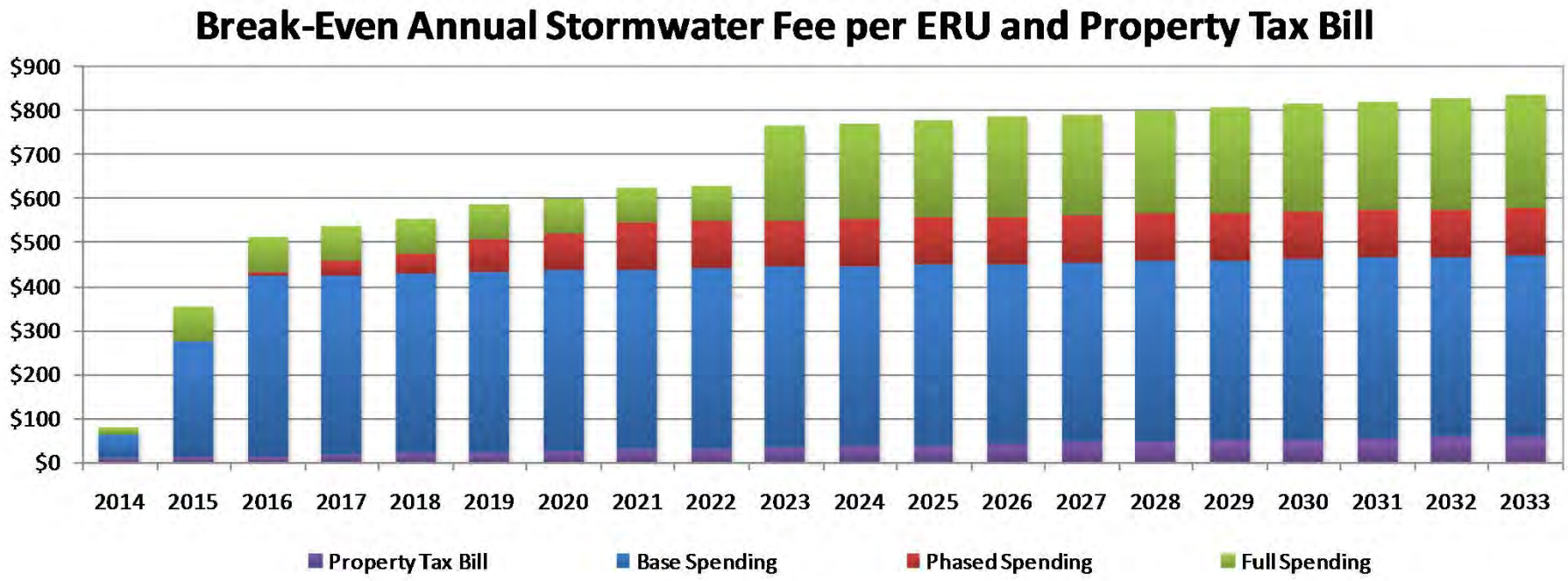


Combined Property Tax and Stormwater Fee Funding

Increases in operating costs (due to inflation) recovered through property tax increase and stormwater fee funding all capital projects.

Operating costs remain constant among each funding scenario, therefore resulting incremental tax rate would be equal among all spending scenarios.

Scenario #3 - Combined Taxes and SW Fee



- Full - Incr. O&M, Tunnel, Drainage Areas, Refund GF, Replacement (Begin Replacement 2023: **SW Fee: $730, Tax Bill: $34**)
- Phased - Incr. O&M, Tunnel, Possible Drainage Areas (Drainage Areas Fully Funded by 2022: **SW Fee: $516, Tax Bill: $31**)
- Base - Incremental O&M, Tunnel Project (Tunnel Fully Funded by 2016: **SW Fee: $409, Tax Bill: $14**)

Property Owner Impact - 2014

Average Single Family Residential Property
$27,000 annual property tax bill
1 ERU (3,400 sq. ft. of impervious area)

	Incremental Annual Tax Bill	Annual Stormwater Fee	Total Annual Bill
Alternative #1 All Stormwater Fee Funding			
Full Spending	$ -	$78	**$78**
Phased Spending	$ -	$63	**$63**
Base Spending	$ -	$63	**$63**
Alternative #2 Total General Fund Funding			
Full Spending	$119	$ -	**$119**
Phased Spending	$97	$ -	**$97**
Base Spending	$97	$ -	**$97**
Alternative #3 Combined Funding – Stormwater Fee and Tax			
Full Spending	$8	$72	**$80**
Phased Spending	$8	$53	**$61**
Base Spending	$8	$53	**$61**

Property Owner Impact - 2016

Average Single Family Residential Property
$27,000 annual property tax bill
1 ERU (3,400 sq. ft. of impervious area)

	Incremental Annual Tax Bill	Annual Stormwater Fee	Total Annual Bill
Alternative #1 All Stormwater Fee Funding			
Full Spending	$ -	$506	**$506**
Phased Spending	$ -	$436	**$436**
Base Spending	$ -	$428	**$428**
Alternative #2 Total General Fund Funding			
Full Spending	$747	$ -	**$747**
Phased Spending	$644	$ -	**$644**
Base Spending	$632	$ -	**$632**
Alternative #3 Combined Funding – Stormwater Fee and Tax			
Full Spending	$14	$497	**$511**
Phased Spending	$14	$418	**$432**
Base Spending	$14	$409	**$423**

Property Owner Impact - 2020

Average Single Family Residential Property
$27,000 annual property tax bill
1 ERU (3,400 sq. ft. of impervious area)

	Incremental Annual Tax Bill	Annual Stormwater Fee	Total Annual Bill
Alternative #1 All Stormwater Fee Funding			
Full Spending	$ -	$592	**$592**
Phased Spending	$ -	$531	**$531**
Base Spending	$ -	$446	**$446**
Alternative #2 Total General Fund Funding			
Full Spending	$807	$ -	**$807**
Phased Spending	$725	$ -	**$725**
Base Spending	$608	$ -	**$608**
Alternative #3 Combined Funding – Stormwater Fee and Tax			
Full Spending	$25	$573	**$598**
Phased Spending	$25	$494	**$519**
Base Spending	$25	$409	**$434**

Study Timeline Recap

Workshop #1
January 8th

Level of Service

Current Maintenance Spending (MS4 Permit)

Capital
- 5-Year Scenarios
- 20 Year projection

SW Funding Options

General Fund
- Property Tax
- Reserves
- Other

Stormwater Fee

Combination
- GF Operating
- SW Fee Capital

Workshop #2
February 12th

Rate / Fee Analysis

General Fund
- Required Tax Rate
- Availability of Funds

Stormwater Fee
- Rate Base
- Fee Structure

Workshop #3
March 12th

Implementation

General Fund Impacts

Stormwater Fee
- Administration
- Credits
- Billing
- Schedule
- Ordinance

Questions / Discussion