

Village of Winnetka



# Stormwater Utility Feasibility Study Final Report



May 7, 2013

Prepared by



Municipal & Financial Services Group



## Municipal & Financial Services Group

---

May 7, 2013

Steven Saunders, P.E.  
Director of Public Works  
Village of Winnetka  
303 W. Commonwealth Ave.  
Winnetka, IL 92832

Dear Mr. Saunders:

The Municipal & Financial Service Group is pleased to submit to the Village of Winnetka, the attached Stormwater Utility Feasibility Study Final Report. The document represents the results of our analysis of the feasibility of the development of a stormwater utility within the Village to fund various aspects of the stormwater system. Based on our analysis we believe that a stormwater utility is a feasible option for funding at least a portion of the expenditures related to the stormwater system. The Village should strongly consider moving ahead with the formation of a stormwater utility and associated stormwater fee to provide an equitable and dedicated funding source for the Village stormwater system. The report provides a framework for how the Village should structure the fee and recommendations regarding the magnitude of the fee based on various funding scenarios.

It has been our distinct pleasure to work with and for the Village of Winnetka. The assistance and dedication you and other Village staff provided during the study process should be acknowledged and was vital to the completion and success of the study. Additionally, the participation and input provided by the Village Council played a key role in helping to examine the feasibility of a stormwater utility within the Village. Thank you for the opportunity to work with and for the Village of Winnetka on this study.

Very truly yours,

David Hyder  
Project Manager  
The Municipal & Financial Services Group

**TABLE OF CONTENTS**

**A. BASIS FOR THE STUDY ..... 2**

**B. KEY POLICY CONSIDERATIONS ..... 4**

**C. LEVEL OF SERVICE ..... 8**

**D. STORMWATER LEVEL OF SERVICE FUNDING ..... 9**

**E. PARCEL OWNER IMPACTS ..... 15**

**F. CONCLUSIONS AND RECOMMENDATIONS ..... 19**

**G. IMPLEMENTATION ..... 24**

**APPENDICIES**

**I. Draft Stormwater Utility Ordinance**

**II. Draft Credit and Incentive Manual**

**III. Stormwater Feasibility Workshop Materials**

- Workshop #1 - Presentation**
- Workshop #2 - Presentation, Summary Report**
- Workshop #3 - Presentation, Summary Report**

## A. BASIS FOR THE STUDY

The Village of Winnetka was incorporated in the 1869 and is located 16 miles north of the City of Chicago. The Village is situated on the shore of Lake Michigan, making the Village a desirable place to live. The Village is primarily residential with approximately 4,000 of the total 4,500 parcels containing single family residential homes. The remaining 500 parcels include multi-family, commercial and industrial uses.

The Village Public Works Department provides stormwater management throughout the Village including routine maintenance and capital improvements. The Village stormwater system is regulated under a permit issued by the United States Environmental Protection Agency (USEPA). Specifically, the Village's stormwater system discharges are subject to the National Pollutant Discharge Elimination System (NPDES) Small Municipal Separate Storm Sewer System (MS4) General Permit. Under this permit the Village is required to meet six minimum control measures which include public education and outreach, illicit discharge detection and elimination, construction site runoff control, post-construction runoff control, pollution prevention/good housekeeping and detention basin inspection.

In addition to routine maintenance of the stormwater system, the Village has made improvements to the system over the last two decades totaling over \$3.5 million. However, significant rain events occurring over the last few years and subsequent drainage studies have revealed the need for significant capital investments in the stormwater system. The Village has historically funded capital improvements within the stormwater system on a "pay-as-you-go" basis using funds from the General Fund. However, given the magnitude of the necessary capital investments identified for the stormwater system, this historical "pay-as-you-go" approach will no longer be feasible. The Village has engaged the Municipal & Financial Services Group (MFSG) to evaluate possible approaches of funding the stormwater system including the feasibility of implementing a stormwater utility and associated stormwater fee. The remainder of this report documents our analysis of the stormwater utility feasibility study.

### Scope of Work

To facilitate the stormwater utility feasibility study, MFSG completed the tasks identified in the scope of services set forth in the contract between the Village and MFSG. The specific scope of work included the following tasks:

- **Level of Service** - Identify and document the current and future expenditures associated with providing stormwater service within the Village. This includes the daily operations and maintenance of the system, the necessary repair and replacement of existing stormwater infrastructure and the need for stormwater system improvements.
- **Financial Plan for Funding Stormwater** - The defined levels of service (current and future) serve as the basis for the current and future levels of expenditures for the

Village's stormwater program. Based on the levels of service, develop funding options including assumptions on the use of debt and "pay-as-you-go" funding, varying maturity on debt, full stormwater fee funding, full property tax funding, split funding from property taxes and stormwater fees, available additional revenues from the General Fund and the use of and repayment of General Fund reserves.

- **Impervious Area Analysis** - Complete an analysis of the impervious area within the Village to determine the actual impervious area for all parcels in the Village.
- **Fee Structure Analysis** - Examine and develop various stormwater fee structures to be considered. For each fee structure alternative, develop and present: the stormwater rate for residential and non-residential parcels as well as the potential residential and non-residential financial impacts for various types of properties including a comparison of the amount paid by parcel under the stormwater rate versus the current property tax-based method.
- **Administration** - Identify and evaluate the key issues related to the administration of a stormwater utility including billing methodology, parcel owner appeals process, stormwater billing database management and the potential for stormwater credits.
- **Implementation** - Identify and develop items necessary for implementation of a stormwater utility including a draft stormwater utility ordinance, a credit and incentive manual and an implementation schedule.

## Study Process

The stormwater feasibility study was completed in a manner that allowed for significant input from the Village Council. MFSG, assisted by the Village staff, completed the various tasks within the scope of work and presented the initial findings and results to the Village Council at a series of three stormwater feasibility study workshops. The materials presented at each workshop, along with meeting notes from each of the workshops, are included in the appendices to this report. These materials provide the detailed analysis for many aspects of the study including the impervious area analysis, fee structure alternatives and full level of service analysis. To gain a full understanding of the analysis completed as part of this study the materials included in the appendices should be reviewed.

## **B. KEY POLICY CONSIDERATIONS**

Stormwater utilities are becoming more and more common in the State of Illinois and around the United States. There are currently 16 stormwater utilities in the State of Illinois and over 1,300 utilities around the country. Most industry experts agree that the number of utilities will grow exponentially over the next decade as Federal and State regulatory requirements force localities to address issues with their stormwater systems. Prior to the development of a stormwater utility it is important to ask some basic questions which frame some of the big picture policy considerations. The following section of the report examines a number of these key considerations.

### **Stormwater as a Utility**

The most basic question surrounding the formation of a stormwater utility is why should it be considered as a separate utility. The simple answer is that the community is accustomed to managing its infrastructure through utilities including the drinking water system and the wastewater sanitary system. In its most basic form a utility is comprised of the delivery of a measurable service and the management of the assets required to deliver the service. The stormwater system meets both of these characteristics. The stormwater system provides the service of managing stormwater runoff throughout the Village. The system consists of a significant amount of infrastructure that requires management and oversight to ensure that it continues to operate properly and meets regulatory requirements. As a result, the stormwater system is a logical candidate to be accounted for and managed like the Village drinking water and wastewater systems, as a separate utility.

### **Benefits of Stormwater as a Utility**

There are a number of benefits to managing stormwater as a utility and reasons why the Village currently manages other utilities such as the water and wastewater systems as utilities. These benefits include the following:

- **Improved Equity** - A stormwater utility provides improved equity among property owners within the Village. The formation of a stormwater utility and implementation of a stormwater fee allows for allocating costs of operating and maintaining the stormwater system to property owners based on their stormwater impact. Under the current approach property owners fund the stormwater system based on the value of their property which has very little correlation with their stormwater impact. Additionally, tax-exempt properties currently do not assist in funding the stormwater operations but do generate stormwater, impact the system and benefit from the infrastructure. As the cost of providing stormwater service increase, inequities associated with how costs are recovered become more evident.
- **Fiscal Accountability** - The formation of a stormwater utility and collection of a stormwater fee provides increased fiscal accountability. The fees collected would be

accounted for in an enterprise fund and would be exclusively used for stormwater needs. Additionally, the level of the fees would be driven by a defined level of service addressing maintenance needs, regulatory requirements and capital investment needs. The fees would be adjusted appropriately based on increases or decreases in related stormwater expenditures.

- **Dependable Revenue Stream** - The formation of a stormwater utility and collection of a stormwater fee provides a dependable revenue stream. Historically, the Village has been able to provide a stable revenue stream for costs associated with operating and maintaining the stormwater system. However, the availability of funds for capital projects is often not as readily available due to the magnitude of the funds required. This is very common among localities that use tax funds for stormwater operations. It is often the case that stormwater funding is made available based on a specific crisis or immediate need but withdrawn when more pressing needs for funds are identified. A stormwater fee would address these circumstances and allow the Village to fund significant capital investments required to improve the stormwater system.
- **Increased Public Awareness** - The formation of a stormwater utility brings increased public awareness of stormwater issues. Due to the fact that the current revenues for stormwater are unseen and included in taxes, the public is often not aware of the service they are receiving as well as the cost the Village incurs while providing stormwater service. Increased public awareness allows for public education and may result in property owners taking action to manage stormwater on their property. Additionally, public outreach and education is one of the key requirements within the Village's NPDES MS4 Permit.

### **Stormwater Utility Concerns**

While there are a number of specific and tangible benefits associated with implementing a stormwater utility and associated stormwater fee, there are often concerns that are expressed within the community related to taking such action. The most common concerns include the following:

- **Impact on Tax-Exempt** - Under the current funding approach used by the Village, tax-exempt properties do not contribute to the funding of the stormwater system. The adoption of a stormwater fee based on impervious area would result in tax-exempt properties contributing to funding the stormwater system based on their stormwater contribution. While it is in the community's best interest to assist tax-exempt properties in numerous ways, the cost associated with basic services such as utilities should be collected from all properties in the Village. Tax-exempt properties are not exempt from water bills, electric bills, trash collection, or other similar services.
- **More Government** - Another concern that is often expressed is the idea that additional layers of government are being created with the establishment of a stormwater utility.

This concern is really a misunderstanding of what exactly a stormwater utility is and how it would function. The stormwater utility is simply a way of accounting for and funding a program that already exists within the Village government. No new layers of management outside of what would be required to manage a properly functioning stormwater system are created with the new funding source. In fact, due to the increased accountability and a dedicated revenue stream, the Village will have the opportunity to more clearly evaluate the performance of the stormwater program and identify areas for increased efficiency.

In summary there are a number of benefits associated with the formation of stormwater as a utility as well as some areas of common concern.

### **Stormwater Utility Structure Key Policy Issues**

During the course of the study, the key policy issues related to the structure of the utility and fee were identified and presented to the Village Council at the stormwater utility workshops. The policy issues help to define the framework for how the Village may manage the stormwater system. The policy issues and a summary of the Village Council input provided at the workshops are presented below.

#### **Level of Service**

The level of stormwater service provided by the Village defines the expenditures that will be made by the Village as it maintains and improves the stormwater system. As part of the feasibility study, the full range of stormwater expenditures that the Village may fund, at some point in the future, were identified. The full range of expenditures were developed and provided at the first stormwater workshop and can be found in the appendices to this report. The general consensus among the Village Council was that the Village should provide a level of service that funds the ongoing operations and maintenance of the stormwater system and the current planned capital projects. It should be noted that this level of service excludes future planned projects and replacement of existing assets, both of which the Village will continue to evaluate and may fund at some point in the future.

#### **Stormwater Funding**

The Village has the option to fund stormwater expenditures completely from property taxes, completely from stormwater fees or any combination of the two. Of all the policy issues considered, this issue generated the most discussion among the Council. A wide range of opinions regarding how the level of service could be funded were provided in the second and third workshops. The general consensus among the Village Council was that additional information should be provided in terms of a uniform and clear picture of the various options for funding the level of service and the impact on parcel owners in the Village. As a result the majority of the subsequent sections of this report outline the various funding options.

## **Measure of Stormwater Contribution - Rate Base**

Should the Village decide to recover some or all of the stormwater expenditures using a stormwater fee, the rate base for the fee needs to be determined. During the second workshop, MFSG outlined the use of impervious area and the resulting equivalent runoff unit (ERU) approach as an appropriate rate base for the stormwater fee. The Village Council agreed with this approach with the guidance the calculation of the ERU not be rounded to the whole ERU but rather that ERU's be calculated to the fraction of an ERU. Alternative approaches, which include pervious area, were presented and discussed at the third workshop. These approaches included the Intensity of Development (ID) and Equivalent Hydraulic Area (EHA). While each of these approaches includes pervious area they both increase the complexity of the rate base calculation significantly without clear evidence of increased equity among parcels. Specifically using these approaches does not charge parcel owners in direct proportion to their relative stormwater discharge. A parcel could have a significant amount of impervious area (which contributes a significant amount of stormwater) but because the parcel also has a lot of pervious area the fee would be significantly lower than a parcel without the pervious area. Therefore based on the complexity and disadvantages of these approaches they are not further considered in this report.

## **Stormwater Fee Structure**

The final policy issue is the actual structure of stormwater fee. During the second workshop MFSG presented two stormwater fee structures that could be implemented by the Village, including a uniform fee structure and a location based fee structure. The uniform fee structure would charge all parcels the same fee per ERU regardless of location within the Village. The location based fee structure would charge parcels a stormwater fee per ERU based on the specific location of the parcel within the Village. Several members from the public expressed their concerns regarding the location based approach, mentioning that it divides up the Village and provides a false sense of equity. The Council agreed and suggested that the location based approach be excluded from consideration at this time.

Based on the results of the workshops, the framework for the stormwater fee and potential stormwater utility has been defined. The magnitude of the fee based on how the stormwater expenditures are funded remains in question. The following sections of the report document the level of service and the various funding options which define the magnitude of the stormwater fee.

### C. LEVEL OF SERVICE

Prior to demonstrating how the stormwater level of service may be funded, this section of the report provides a summary of the various cost components included in the level of service. The first cost category includes the ongoing operation and maintenance of the stormwater system. A summary of the annual operating and maintenance expenses are provided in Table 1.

*Table 1 - Stormwater Operating and Maintenance Expenses*

	2014	2015	2016	2017	2018
Public Works Administration	\$106,000	\$109,000	\$112,000	\$116,000	\$119,000
Training	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Engineering	\$36,000	\$37,000	\$39,000	\$40,000	\$41,000
Drainage Operations	\$278,000	\$287,000	\$295,000	\$304,000	\$313,000
<b>Total</b>	<b>\$422,000</b>	<b>\$435,000</b>	<b>\$448,000</b>	<b>\$462,000</b>	<b>\$476,000</b>

It should be noted that the increases in the operating and maintenance costs are due to inflation and not due to the potential formation of a stormwater utility.

The second cost category includes capital expenditures for the repair/replacement and expansion of the stormwater system. The capital costs included in the level of service are presented in Table 2. It should be noted that this table excludes possible future capital projects such as the additional drainage areas. This does not mean that the Village will not complete these projects. Rather, the Village will have the opportunity to continue to evaluate these projects and may, at some point in the future, decide to fund them.

*Table 2 - Current Planned Capital Projects*

	2013	2014	2015	2016	Total
Winnetka Avenue Pump Station	\$750,000				<b>\$750,000</b>
Tower Road / Foxdale	\$1,050,000				<b>\$1,050,000</b>
Lloyd Park / Spruce Street	\$364,000				<b>\$364,000</b>
Northwest Winnetka Greenwood / Forest Glen	\$4,040,000				<b>\$4,040,000</b>
Willow Road Tunnel	\$800,000	\$800,000	\$16,900,000	\$16,000,000	<b>\$34,500,000</b>
Stormwater Master Plan	\$70,000				<b>\$70,000</b>
Elm St. Storm Sewer Outfall Replacement	\$250,000				<b>\$250,000</b>
<b>Total</b>	<b>\$7,324,000</b>	<b>\$800,000</b>	<b>\$16,900,000</b>	<b>\$16,000,000</b>	<b>\$41,024,000</b>

The combination of operating and maintenance expenses and the current planned capital projects represent the total costs associated with the planned level of service.

#### D. STORMWATER LEVEL OF SERVICE FUNDING

The expenditures associated with the level of service define how much the Village plans to invest in the stormwater system over the next several years. This section of the report outlines the various options for how these expenditures may be funded by the Village. At the third stormwater workshop, MFSG presented stormwater fees that incorporated a number of assumptions regarding how the stormwater expenditures are funded. Table 3 documents the unfunded stormwater revenue requirements based on these funding assumptions and the calculation of the baseline stormwater fees per ERU.

*Table 3 - Calculation of Baseline Stormwater Fees per ERU*

	2014	2015	2016	2017	2018
<b>Expenditures</b>					
Operating and Maintenance	422,572	435,249	448,307	461,756	475,609
Project Debt - 30-Year Bonds	314,396	1,301,608	1,915,969	1,915,969	1,915,969
<b>Revenues</b>					
Current General Fund Revenues <sup>(1)</sup>	422,572	435,249	448,307	461,756	475,609
Additional Funds Available within General Fund <sup>(2)</sup>	200,000	700,000	700,000	700,000	700,000
<b>Unfunded Stormwater Revenue Requirements</b>	<b>\$114,396</b>	<b>\$601,608</b>	<b>\$1,215,969</b>	<b>\$1,215,969</b>	<b>\$1,215,969</b>
Number of ERU's in Village	6,639	6,639	6,639	6,639	6,639
<b>Baseline Annual Stormwater Fee per ERU</b>	<b>\$17.23</b>	<b>\$90.62</b>	<b>\$183.16</b>	<b>\$183.16</b>	<b>\$183.16</b>

<sup>(1)</sup> Revenues from General Fund to fund operating and maintenance expenses.

<sup>(2)</sup> Revenues from General Fund available due to debt payoff and reallocation of funds.

The funding assumptions that were incorporated in the calculation of the stormwater fees, shown in Table 3, included the following:

- The Village would issue debt to fund the stormwater capital projects occurring in 2014 - 2016 shown in Table 2, using bonds with 30 year maturity.
- Capital projects occurring in 2013, shown in Table 2, would be funded with reserves from the General Fund and these reserves would not be repaid.
- The Village would provide additional funds from the General Fund to pay a portion of the debt service on the bonds. Although the Village Council will need to confirm this funding strategy.

- Operating and maintenance expenditures, shown in Table 3, would continue to be funded from the General Fund and not through the stormwater utility fee.

Several members of the Village Council expressed concern with these assumptions. The Council requested that the impact of each of these funding assumptions be calculated individually and documented so that a complete picture of the range of options can be examined. To accomplish this analysis, we have assumed the fees shown in Table 3 are the minimum fees and that any changes to the assumptions listed above would increase the fees incrementally. The impacts of changing each of the funding assumptions are outlined below.

### Bond Maturity

Due to the magnitude of the current planned capital projects, the Village will need to issue debt to fund the projects. The assumptions regarding the issuance of bonds are presented in Table 4. The table shows that we have conservatively assumed a slightly higher interest rate on the 2015 bond issue under the assumption that interest rates will be increasing over the next few years.

*Table 4 - Stormwater Bond Assumptions*

Bond Issue	Bond Issuance Amount	Year of Issue	Interest Rate
2014 Bonds	\$17,965,500	2014	3.5%
2015 Bonds	\$16,240,000	2015	4.0%
Total	\$34,205,500		

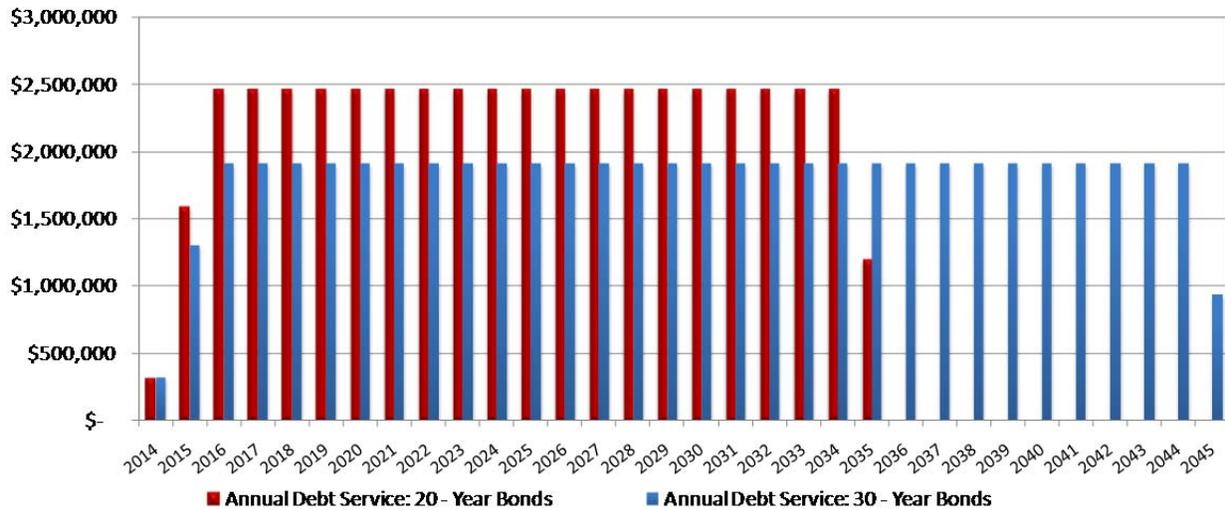
The calculation of the stormwater fees in Table 3 assume that the Village issues bonds with 30 year maturity. If the Village were to issue bonds with shorter maturities of 20 years, the annual debt service payments would be higher resulting in necessary increases in the fees. However due to the shorter maturity the Village would pay less in interest. Table 5 presents the total principal and interest associated with 30-year bonds and 20-year bonds.

*Table 5 - Bond Maturity Comparison*

	Present Value <sup>1</sup>	Total
30 Year Bonds		
Debt Service Principal	20,335,799	34,205,500
Debt Service Interest	16,807,398	23,912,765
<b>Total Debt Service 30 Year Bonds</b>	<b>\$37,143,197</b>	<b>\$58,118,265</b>
20 Year Bonds		
Debt Service Principal (20-Year Bonds)	24,208,395	34,205,500
Debt Service Interest (20-Year Bonds)	12,124,108	15,614,487
<b>Total Debt Service 20 Year Bonds</b>	<b>\$36,332,503</b>	<b>\$49,819,987</b>
<b>Difference</b>	<b>\$810,694</b>	<b>\$8,298,278</b>

The annual debt service using 30 year bonds and 20 year bonds is shown in Figure 1.

Figure 1 - Annual Debt Service Comparison



The incremental impact on the stormwater fees using 20 year bonds instead of 30 year bonds is shown in Table 6.

Table 6 - Incremental Impact of Using 20 Year Bonds

	FY14	FY15	FY16	FY17	FY18
Incremental Impact per ERU	\$0.00	\$43.27	\$81.80	\$81.80	\$81.80

Table 6 demonstrates that using the shorter bond maturity would result in an additional cost of approximately \$82 per ERU once all of the debt is issued. The incremental \$82 per ERU would continue past FY18 until the debt is retired in FY35.

### Repayment of General Fund Reserves

The Village is funding capital projects occurring in the current Fiscal Year (2013) with reserves from the General Fund. The total amount of reserves that will be used is estimated to be slightly over \$7.3 million. Since these projects will be used to fund stormwater projects, it is logical to consider refunding the reserves (which were generated from property taxes) from a stormwater fee. To demonstrate the impact of refunding the reserves, we have assumed that the reserves would be refunded from the stormwater fees on a “pay-as-you-go” basis over a 20 year period. This results in an annual reimbursement of approximately \$395,000. The incremental impact on the stormwater fees of refunding the reserves results in an increase in the stormwater fee per ERU of almost \$60 and is shown in Table 7.

*Table 7 - Incremental Impact of Refunding General Fund Reserves*

	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>
Incremental Impact per ERU	\$59.55	\$59.55	\$59.55	\$59.55	\$59.55

The incremental \$59.55 per ERU would continue past FY18 until the reserves are fully refunded in FY33.

### **Removal of Additional Funds from General Fund**

The baseline stormwater fees shown in Table 3 assume that the Village’s General Fund funds a portion of the debt service related to the stormwater projects. The funds consist of the following items:

- \$200,000 in reduced General Fund contributions to the street rehabilitation program which will be offset by directing Motor Fuel Tax funds to street repairs. These funds will be available in FY 2014.
- \$500,000 in existing debt service payments within the General Fund that will be retired in FY 2014. These funds will be available for stormwater expenditures in FY 2015.

If these funds are not provided from the General Fund, the stormwater fees will need to be increased to cover the annual debt service payments. The individual incremental impact on the stormwater fees of removing these funds are shown in Tables 8 and 9. The combined incremental impact is shown in Table 10.

*Table 8 - Incremental Impact of Removal of General Fund Funding (\$200k Street Funds)*

	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>
Incremental Impact per ERU	\$30.13	\$30.13	\$30.13	\$30.13	\$30.13

*Table 9 - Incremental Impact of Removal of General Fund Funding (\$500k Debt Retirement)*

	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>
Incremental Impact per ERU	-	\$75.31	\$75.31	\$75.31	\$75.31

*Table 10 - Incremental Combined Impact of Removal of General Fund Funding*

	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>
Incremental Impact per ERU	\$30.13	\$105.44	\$105.44	\$105.44	\$105.44

Table 10 demonstrates that the removal of funds from the General Fund would result in an increase of over \$105 per ERU by Fiscal Year 2015.

## Operating and Maintenance Expenses

The annual operating and maintenance expenses shown in Table 1 are currently funded within the General Fund. Funding these expenditures through the stormwater fee would result in an incremental increase of almost \$64 per ERU in Fiscal Year 2014 and shown in Table 11.

Table 11 - Incremental Impact of Funding Operating and Maintenance Expenses

	FY14	FY15	FY16	FY17	FY18
Incremental Impact per ERU	\$63.65	\$65.56	\$67.53	\$69.55	\$71.64

The incremental impact of funding operating and maintenance expenses would continue as long as the stormwater utility continued to fund these expenditures. The incremental impact would continue to increase based on increases or decreases in the cost of operating the system.

## Summary of Incremental Impacts

The incremental impacts associated with each of the funding assumptions are presented graphically in Figure 2.

Figure 2 - Summary of Funding Assumption Impacts on the Stormwater Fee



The incremental impacts are also presented in Table 12 to demonstrate the range of the stormwater fees based on the various funding assumptions.

*Table 12 - Summary of Stormwater Fee Funding Assumptions*

<b>Annual Fee per ERU</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>
<b>Baseline Stormwater Fee per ERU</b>	<b>\$17.23</b>	<b>\$90.62</b>	<b>\$183.16</b>	<b>\$183.16</b>	<b>\$183.16</b>
Impact of 20-Year Bonds vs. 30-Year Bonds	\$0.00	\$43.27	\$81.80	\$81.80	\$81.80
Impact of Reserves Refunding (\$7.3 million)	\$59.55	\$59.55	\$59.55	\$59.55	\$59.55
Impact of Removal of GF Funding (\$200k)	\$30.13	\$30.13	\$30.13	\$30.13	\$30.13
Impact of Removal of GF Funding (\$500k)	\$75.31	\$75.31	\$75.31	\$75.31	\$75.31
Impact of Funding Operating & Maintenance	\$63.65	\$65.56	\$67.53	\$69.55	\$71.64
<b>Maximum Stormwater Fee per ERU</b>	<b>\$170.56</b>	<b>\$364.44</b>	<b>\$497.48</b>	<b>\$499.50</b>	<b>\$501.59</b>

Figure 2 and Table 12 demonstrate the full range of stormwater fees per ERU depending on the various funding assumptions. By Fiscal Year 2016, the fees range from a baseline of about \$183 per ERU to a maximum of around \$500 per ERU. It should be noted that with the exception of the maturity on the bonds (20 years vs. 30 years), the funding assumptions all deal with how much funding is provided from the General Fund (i.e. property taxes) and how much is provided by a stormwater fee.

The maximum stormwater fees shown in Table 12 represent stormwater fees that fully support all costs associated with stormwater within the Village including operating and maintenance expenses, refunding of General Fund reserves and debt service associated with the capital projects. The maximum fees result in a stormwater utility that is fully self-supporting with no contributions from other sources such as the Village General Fund (i.e. property taxes).

The baseline stormwater fees shown in Table 12 represent stormwater fees that only fund a portion of the Village stormwater expenses. These fees are supplemented by a significant contribution from the Village General Fund. Specifically, the baseline fees assume that operating and maintenance expenses remain with the General Fund, that the reserves are not repaid and that \$700k of annual debt service associated with the stormwater capital projects is funded from the General Fund. The baseline fees represent the minimum stormwater fees feasible for the Village without reducing capital expenditures or identifying/raising additional revenues (i.e. increasing property taxes).

## E. PARCEL OWNER IMPACTS

This section of the report demonstrates the impact on actual parcels within the Village under each of the various approaches to funding stormwater expenditures shown in Table 12. The following tables present the impact on three single family residential parcels, two commercial parcels and two tax-exempt parcels. The tables present the minimum and maximum stormwater bills for each parcel and the incremental impacts associated with each of the funding assumptions discussed in the previous section of the report.

*Table 13 - Single Family Residential Parcel #1*

Impervious Area	ERUs				
3,000 sq ft	0.9				
Bill Comparison	FY14	FY15	FY16	FY17	FY18
<b>Baseline Stormwater Bill</b>	<b>\$16</b>	<b>\$82</b>	<b>\$165</b>	<b>\$165</b>	<b>\$165</b>
Impact of 20-Year Bonds vs. 30-Year Bonds	\$0	\$39	\$74	\$74	\$74
Impact of Reserves Refunding (\$7.3 million)	\$54	\$54	\$54	\$54	\$54
Impact of Removal of GF Funding (\$200k)	\$27	\$27	\$27	\$27	\$27
Impact of Removal of GF Funding (\$500k)	\$0	\$68	\$68	\$68	\$68
Impact of Funding Operating	\$57	\$59	\$61	\$63	\$64
<b>Maximum Stormwater Bill</b>	<b>\$154</b>	<b>\$328</b>	<b>\$448</b>	<b>\$450</b>	<b>\$451</b>

*Table 14 - Single Family Residential Parcel #2*

Impervious Area	ERUs				
5,330 sq ft	1.6				
Bill Comparison	FY14	FY15	FY16	FY17	FY18
<b>Baseline Stormwater Bill</b>	<b>\$28</b>	<b>\$145</b>	<b>\$293</b>	<b>\$293</b>	<b>\$293</b>
Impact of 20-Year Bonds vs. 30-Year Bonds	\$0	\$69	\$131	\$131	\$131
Impact of Reserves Refunding (\$7.3 million)	\$95	\$95	\$95	\$95	\$95
Impact of Removal of GF Funding (\$200k)	\$48	\$48	\$48	\$48	\$48
Impact of Removal of GF Funding (\$500k)	\$0	\$121	\$121	\$121	\$121
Impact of Funding Operating	\$102	\$105	\$108	\$111	\$115
<b>Maximum Stormwater Bill</b>	<b>\$273</b>	<b>\$583</b>	<b>\$796</b>	<b>\$799</b>	<b>\$803</b>

*Table 15 - Single Family Residential Parcel #3*

Impervious Area	ERUs				
8,600 sq ft	2.5				
Bill Comparison	FY14	FY15	FY16	FY17	FY18
<b>Baseline Stormwater Bill</b>	<b>\$43</b>	<b>\$227</b>	<b>\$458</b>	<b>\$458</b>	<b>\$458</b>
Impact of 20-Year Bonds vs. 30-Year Bonds	\$0	\$108	\$205	\$205	\$205
Impact of Reserves Refunding (\$7.3 million)	\$149	\$149	\$149	\$149	\$149
Impact of Removal of GF Funding (\$200k)	\$75	\$75	\$75	\$75	\$75
Impact of Removal of GF Funding (\$500k)	\$0	\$188	\$188	\$188	\$188
Impact of Funding Operating	\$159	\$164	\$169	\$174	\$179
<b>Maximum Stormwater Bill</b>	<b>\$426</b>	<b>\$911</b>	<b>\$1,244</b>	<b>\$1,249</b>	<b>\$1,254</b>

Table 16 - Commercial Parcel #1

Impervious Area	ERUs				
6,800 sq ft	2.0				
Bill Comparison	FY14	FY15	FY16	FY17	FY18
<b>Baseline Stormwater Bill</b>	<b>\$34</b>	<b>\$181</b>	<b>\$366</b>	<b>\$366</b>	<b>\$366</b>
Impact of 20-Year Bonds vs. 30-Year Bonds	\$0	\$87	\$164	\$164	\$164
Impact of Reserves Refunding (\$7.3 million)	\$119	\$119	\$119	\$119	\$119
Impact of Removal of GF Funding (\$200k)	\$60	\$60	\$60	\$60	\$60
Impact of Removal of GF Funding (\$500k)	\$0	\$151	\$151	\$151	\$151
Impact of Funding Operating	\$127	\$131	\$135	\$139	\$143
<b>Maximum Stormwater Bill</b>	<b>\$341</b>	<b>\$729</b>	<b>\$995</b>	<b>\$999</b>	<b>\$1,003</b>

Table 17 - Commercial Parcel #2

Impervious Area	ERUs				
2,900 sq ft	0.9				
Bill Comparison	FY14	FY15	FY16	FY17	FY18
<b>Baseline Stormwater Bill</b>	<b>\$16</b>	<b>\$82</b>	<b>\$165</b>	<b>\$165</b>	<b>\$165</b>
Impact of 20-Year Bonds vs. 30-Year Bonds	\$0	\$39	\$74	\$74	\$74
Impact of Reserves Refunding (\$7.3 million)	\$54	\$54	\$54	\$54	\$54
Impact of Removal of GF Funding (\$200k)	\$27	\$27	\$27	\$27	\$27
Impact of Removal of GF Funding (\$500k)	\$0	\$68	\$68	\$68	\$68
Impact of Funding Operating	\$57	\$59	\$61	\$63	\$64
<b>Maximum Stormwater Bill</b>	<b>\$154</b>	<b>\$328</b>	<b>\$448</b>	<b>\$450</b>	<b>\$451</b>

Table 18 - Tax-Exempt Parcel #1

Impervious Area	ERUs				
200,000 sq ft	58.8				
Bill Comparison	FY14	FY15	FY16	FY17	FY18
<b>Baseline Stormwater Bill</b>	<b>\$1,013</b>	<b>\$5,328</b>	<b>\$10,770</b>	<b>\$10,770</b>	<b>\$10,770</b>
Impact of 20-Year Bonds vs. 30-Year Bonds	\$0	\$2,544	\$4,810	\$4,810	\$4,810
Impact of Reserves Refunding (\$7.3 million)	\$3,502	\$3,502	\$3,502	\$3,502	\$3,502
Impact of Removal of GF Funding (\$200k)	\$1,771	\$1,771	\$1,771	\$1,771	\$1,771
Impact of Removal of GF Funding (\$500k)	\$0	\$4,428	\$4,428	\$4,428	\$4,428
Impact of Funding Operating	\$3,743	\$3,855	\$3,971	\$4,090	\$4,212
<b>Maximum Stormwater Bill</b>	<b>\$10,029</b>	<b>\$21,429</b>	<b>\$29,252</b>	<b>\$29,371</b>	<b>\$29,494</b>

Table 19 - Tax-Exempt Parcel #2

Impervious Area	ERU				
40,600 sq ft	11.9				
Bill Comparison	FY14	FY15	FY16	FY17	FY18
<b>Baseline Stormwater Bill</b>	<b>\$205</b>	<b>\$1,078</b>	<b>\$2,180</b>	<b>\$2,180</b>	<b>\$2,180</b>
Impact of 20-Year Bonds vs. 30-Year Bonds	\$0	\$515	\$973	\$973	\$973
Impact of Reserves Refunding (\$7.3 million)	\$709	\$709	\$709	\$709	\$709
Impact of Removal of GF Funding (\$200k)	\$358	\$358	\$358	\$358	\$358
Impact of Removal of GF Funding (\$500k)	\$0	\$896	\$896	\$896	\$896
Impact of Funding Operating	\$757	\$780	\$804	\$828	\$853
<b>Maximum Stormwater Bill</b>	<b>\$2,030</b>	<b>\$4,337</b>	<b>\$5,920</b>	<b>\$5,944</b>	<b>\$5,969</b>

The tables show that impacts to actual parcels within the Village will vary significantly depending on the amount of impervious area and the magnitude of the fee based on the funding assumptions. As would be expected, parcels with a significant amount of impervious area will experience the most significant impact.

To provide a broader perspective of the impact on the parcels within the Village the stormwater fees were applied to all of the parcels using the impervious area database developed as part of the study. Tables 19 and 20 demonstrate the distribution of annual stormwater bills for parcel owners by land use type for the baseline stormwater fees by Fiscal Year 2016, as shown in Table 12. It is important to note that the parcel information used for the analysis was obtained from the Village geographical information system. While the data was reviewed for errors or other anomalies, it will require further review and analysis to ensure a high level of accuracy. As a result, the actual stormwater bills for all parcels may differ slightly from the bills shown in Tables 20 and 21.

Table 20 - Residential and Multi-Family Annual Stormwater Bill Distribution

Range of Stormwater Bills	Residential		Multi-Family	
	Number of Parcels	% of Total	Number of Parcels	% of Total
\$0 - \$100	365	9.0%	43	34.7%
\$101 - \$200	1,512	37.3%	28	22.6%
\$201 - \$300	1,242	30.6%	15	12.1%
\$301 - \$400	408	10.1%	10	8.1%
\$401 - \$500	277	6.8%	5	4.0%
\$501 - \$600	100	2.5%	5	4.0%
\$601 - \$700	84	2.1%	2	1.6%
\$701 - \$800	31	0.8%	4	3.2%
\$801 - \$900	18	0.4%	0	0.0%
\$901 - \$1,000	7	0.2%	0	0.0%
\$1,001 - \$1,500	10	0.2%	5	4.0%
\$1,501 - \$2,000	3	0.1%	5	4.0%
\$2,001 - \$2,500	0	0.0%	0	0.0%
Over \$2,500	0	0.0%	2	1.6%

Table 20 demonstrates that under the baseline stormwater fees the majority (approximately 77%) of residential parcel owners would be billed \$300 or less per year for stormwater. While there is a wider distribution for multi-family parcels, the majority (approximately 70%) would be billed \$300 or less per year. It is important to note that the bill for multi-family parcels is for the entire parcel not on a per dwelling unit basis. As a result, the stormwater bill would typically be divided amongst the owners or tenants within the multi-family dwellings, resulting in a lower per unit stormwater bill.

*Table 21 - Commercial, Industrial and Tax-Exempt Annual Stormwater Bill Distribution*

Range of Stormwater Bills	Commercial		Industrial		Tax-Exempt	
	Number of Parcels	% of Total	Number of Parcels	% of Total	Number of Parcels	% of Total
\$0 - \$100	16	14.0%	1	20.0%	49	34.5%
\$101 - \$200	32	28.1%	0	0.0%	9	6.3%
\$201 - \$300	14	12.3%	0	0.0%	9	6.3%
\$301 - \$400	14	12.3%	1	20.0%	14	9.9%
\$401 - \$500	16	14.0%	1	20.0%	10	7.0%
\$501 - \$600	4	3.5%	1	20.0%	4	2.8%
\$601 - \$700	6	5.3%	0	0.0%	5	3.5%
\$701 - \$800	4	3.5%	0	0.0%	2	1.4%
\$801 - \$900	5	4.4%	1	20.0%	4	2.8%
\$901 - \$1,000	1	0.9%	0	0.0%	3	2.1%
\$1,001 - \$1,500	0	0.0%	0	0.0%	7	4.9%
\$1,501 - \$2,000	2	1.8%	0	0.0%	7	4.9%
\$2,001 - \$2,500	0	0.0%	0	0.0%	2	1.4%
Over \$2,500	0	0.0%	0	0.0%	17	12.0%

Table 21 demonstrates the wide range of stormwater bills that parcel owners would experience based on the amount of impervious area located on their parcel. For commercial parcel owners, approximately 67% would be billed \$400 or less per year for stormwater. There are only five industrial parcels in the Village and Table 20 demonstrates the amount each parcel would be billed for stormwater. The widest distribution of stormwater bills occurs within the tax-exempt land use category. While almost 50% of parcel owners would be billed at \$300 or less, 28% would be billed over \$1,000 per year.

It is important to note that the stormwater bills shown in the figures are based on the baseline fee. If the funding assumptions were modified above the baseline fee, the bills would be proportionately higher for all parcel owners.

## F. CONCLUSIONS AND RECOMMENDATIONS

The following section of the report provides our conclusions and recommendations developed during the course of the study.

### Stormwater Utility Feasibility

The stormwater capital expenditures contemplated by the Village are about ten times the amount the Village has invested in capital projects in the system over the past two decades. Given the significant nature of these expenditures, careful consideration and planning are necessary for the Village to make informed and appropriate decisions on how to fund the expenditures. Based on our analysis and significant discussions with the Village Council and Staff, the use of a stormwater utility is a feasible option for funding at least a portion of the costs of the Village's Stormwater system. The implementation of a stormwater utility and associated stormwater fee will provide:

- A dedicated revenue source for stormwater expenditures allowing for funding of significant capital investments required to improve the stormwater system.
- Increased equity for all parcel owners, as costs will be allocated based on stormwater contribution rather than property value and those that do not contribute to stormwater funding now will pay their fair share.
- Fiscal accountability, due to the fact that stormwater fee revenues can only be used for stormwater expenditures and would be adjusted based on needs.
- Increased public awareness of stormwater issues and the significant investments that are required to manage stormwater in the Village.

For these reasons we recommend that the Village proceed with the implementation of a stormwater utility and stormwater fee.

### Stormwater Fee Structure

In regards to the structure of the stormwater fee, we recommend that the Village:

- Use measured impervious area as the rate base for the stormwater fee. The impervious area for each parcel in the Village is readily available and has been determined to be the single most important factor influencing the rate of peak runoff and the total runoff quantity.
- Implement the stormwater fee based on units of impervious using the ERU approach. Based on our analysis of the impervious area within the Village, the normalized average

residential parcel has approximately 3,400 square feet of impervious area. The average impervious should be used as the basis for one ERU.

- Implement the stormwater fee based on the number of ERUs on each parcel, allowing for fractions of ERUs.
- Use a uniform fee structure with all parcels, regardless of location within the Village, paying the same stormwater fee per ERU.

The implementation of a stormwater fee structure as recommended will provide an equitable allocation of stormwater expenditures throughout the Village based on parcel owner stormwater contribution.

### **Stormwater Funding**

In regards to the stormwater funding assumption, we recommend that the Village:

- Use 30-year bonds to fund the current planned capital projects, including the Tunnel project (shown in Table 2). The life of the capital projects funded with the bonds will exceed 30 years and the longer maturity will reduce the annual debt service payments, lowering the annual stormwater funding needs.
- Use General Fund reserves available to fund capital projects in 2013 and not refund these reserves from a stormwater fee.
- Utilize available General Fund revenues to assist in funding a portion of the level of service including: the short-term capital needs and a portion of future debt service.
- Fund the ongoing stormwater operating and maintenance expenses from stormwater fees.

Based on our funding recommendations the stormwater fee would consist of the baseline fee shown in Table 12 plus the incremental amount associated with funding operating and maintenance expenses also shown in Table 12. Given the significant discussion among the Village Council related to the funding assumptions, our reasoning for the recommendations related to the funding assumptions are provided. If the Village implements a stormwater utility we believe that all costs associated with stormwater should be accounted for within the stormwater utility, both operating and capital costs. The Village uses this approach for its water and sewer utilities (all expenditures, operating and capital, are accounted for in the water and sewer enterprise funds). The Village should use the same approach for the stormwater utility. Additionally, a stormwater fee is a much more equitable means of allocating the costs of the stormwater system among parcel owners within the Village. However we believe that given the magnitude of the expenditures facing the Village, the continued use of General Fund funding, is

appropriate initially as the Village transitions to collecting funds from a stormwater utility. It is common for communities to continue to provide some funding from the General Fund when a stormwater utility is first established and then transition to full stormwater fee funding over time. As the debt associated with the stormwater projects is retired, the Village should phase out General Fund stormwater funding.

## Administration

The key considerations related to the administration of a stormwater utility and fee were outlined in the documentation for the third workshop and presented to the Village Council. These considerations include the billing methodology and database management, stormwater credits and incentives and parcel owner appeals process. There was limited input from the Village Council related to these items as the bigger picture issues of how to fund the stormwater expenditures took precedence. However, based on limited input and our industry expertise in regards to the administration of a stormwater utility, we recommend that the Village:

- Consider implementing a stormwater fee credit program for non-residential properties to provide a reduction in the stormwater fee for those properties that provide on-site stormwater management that exceeds the current Village requirements. These requirements would result in limiting those properties that are eligible for credits to those that have the ability to significantly reduce their stormwater contribution. A draft credit and incentive manual is provided in the appendices of this report to serve as a template for the Village should a credit and incentive program be put in place.
- Consider implementing a stormwater incentive program for all property owners which would provide reimbursement for the purchase and installation of stormwater management controls. We recommend that the Village establish an annual budget for incentives with an initial a budget of \$20,000. The budget would be used to fund the incentives on a first come first serve basis until funds are exhausted during the year.
- Bill the stormwater fee on the water bill and develop an appeals process to handle property owner appeals. A sample appeals process is provided to serve as a template for the Village.

Any property owner may request a review of their stormwater utility fee at any time by completing an appeals form. The Village will perform the review of the property in question in a timely manner. The written results of the review will be provided to the property owner who requests the review. If the review reveals the property owner has been overcharged for the stormwater utility fee, the Village will notify the billing department of the amount of refund due to the property owner paying the stormwater fee. Any refund due as a result of overcharging of the stormwater utility fee may be either credited to the property owner's future stormwater fee or may be sent in the form of a check at the discretion of the

Village billing department. The maximum time frame for credit reimbursement shall be no more than six (6) months. If the review indicates the property owner has been receiving stormwater fee which is less than the amount they should have been charged, the Village shall notify the billing department of the increase necessary to bring the stormwater fee to the proper amount. The Village will not make any attempt to recoup the fees lost as a result of an error on the Village's part unless directed to do so by the Village Manager or Village Council.

## Stormwater Fee

Based on the recommended fee structure and funding approach, the recommended stormwater fees are presented in Table 22. The fees are subject to change based on modifications to capital costs. The table provides an estimate of the necessary addition to the fees due to the cost of the incentive program as described above.

*Table 22 - Recommended Stormwater Fees*

	FY14	FY15	FY16	FY17	FY18
Annual Stormwater Fee per ERU	\$80.88	\$156.18	\$250.69	\$252.71	\$254.80
Adjustment Due to Incentives	\$3.01	\$3.16	\$3.32	\$3.49	\$3.66
<b>Total Annual Stormwater Fee Per ERU</b>	<b>\$83.90</b>	<b>\$159.34</b>	<b>\$254.01</b>	<b>\$256.20</b>	<b>\$258.46</b>

To demonstrate the impact on parcel owners within the Village the distribution of stormwater bills by land use type are presented in the following tables based on the recommended fees (including the addition to due incentives) shown in Table 22 for FY16.

*Table 23 - Residential and Multi-Family Annual Stormwater Bill Distribution*

Range of Stormwater Bills	Residential		Multi-Family	
	Number of Parcels	% of Total	Number of Parcels	% of Total
\$0 - \$100	238	5.9%	22	17.7%
\$101 - \$200	586	14.4%	33	26.6%
\$201 - \$300	1,377	33.9%	18	14.5%
\$301 - \$400	821	20.2%	13	10.5%
\$401 - \$500	369	9.1%	6	4.8%
\$501 - \$600	266	6.6%	6	4.8%
\$601 - \$700	147	3.6%	3	2.4%
\$701 - \$800	88	2.2%	2	1.6%
\$801 - \$900	56	1.4%	5	4.0%
\$901 - \$1,000	48	1.2%	0	0.0%
\$1,001 - \$1,500	55	1.4%	5	4.0%
\$1,501 - \$2,000	3	0.1%	4	3.2%
\$2,001 - \$2,500	3	0.1%	4	3.2%
Over \$2,500	0	0.0%	3	2.4%

Table 24 - Commercial, Industrial and Tax-Exempt Annual Stormwater Bill Distribution

Range of Stormwater Bills	Commercial		Industrial		Tax-Exempt	
	Number of Parcels	% of Total	Number of Parcels	% of Total	Number of Parcels	% of Total
\$0 - \$100	13	11.4%	1	20.0%	44	31.0%
\$101 - \$200	25	21.9%	0	0.0%	6	4.2%
\$201 - \$300	14	12.3%	0	0.0%	9	6.3%
\$301 - \$400	10	8.8%	0	0.0%	5	3.5%
\$401 - \$500	9	7.9%	1	20.0%	9	6.3%
\$501 - \$600	14	12.3%	0	0.0%	14	9.9%
\$601 - \$700	7	6.1%	1	20.0%	4	2.8%
\$701 - \$800	4	3.5%	1	20.0%	2	1.4%
\$801 - \$900	3	2.6%	0	0.0%	3	2.1%
\$901 - \$1,000	3	2.6%	0	0.0%	4	2.8%
\$1,001 - \$1,500	10	8.8%	1	20.0%	12	8.5%
\$1,501 - \$2,000	0	0.0%	0	0.0%	3	2.1%
\$2,001 - \$2,500	2	1.8%	0	0.0%	6	4.2%
Over \$2,500	0	0.0%	0	0.0%	21	14.8%

## **G. IMPLEMENTATION**

If the Village decides to proceed with the implementation of a stormwater utility and stormwater fee a series of tasks will need to be completed to ensure that a properly functioning utility is put in place. A broad overview of the implementation tasks are presented in this section of the report. It is important to note that a typical stormwater implementation will take between twelve to eighteen months depending on resources available to complete each of the tasks. We have assumed an implementation schedule requiring approximately eighteen months. Each of the tasks are discussed below with a specific implementation schedule shown in Figure 3. As shown in the figure the tasks will need to occur concurrently in order for implementation to be completed within a reasonable amount of time.

### **Task 1: Stormwater Database Billing File**

As part of this Stormwater Utility Feasibility study, the initial components of the stormwater billing database have been developed. The amount of impervious area for each parcel in the Village has been determined. However, it will be necessary to further review the impervious area determinations to ensure a high level of accuracy. This task will include a detailed review of the draft impervious area database to identify all discrepancies in the data. Some of this may be accomplished in an automated fashion by screening the data for outliers, but in most instances, this task will require a significant amount of parcel by parcel analysis. Once the discrepancies have been identified each one will need to be addressed to ensure accurate impervious area is assigned to each parcel. The next step will be to assign the impervious area, stormwater fee and resulting bill to each billing account. The assignment to each account will depend on the method used for utility billing, whether on the existing utility bill or as a separate stormwater bill. The assignment of the stormwater bill will result in a billing file that identifies, at a minimum, the parcel impervious area, number of ERUs, stormwater bill, parcel identification number, parcel owner and billing address. Once the file has been developed it will need to be tested for accuracy and ultimately finalized. Based on our experience this task will require the most time and effort. As a result this task should be given priority among the other tasks required for implementation and started as early as possible to ensure adequate time for implementation.

### **Task 2: Legal Establishment of the Stormwater Utility**

To establish the stormwater utility and associated stormwater fee, the Village Council will need to approve and adopt a stormwater utility ordinance. A draft ordinance is included in the appendices to this report. The draft ordinance is provided as a starting point for discussions. The Village Attorney and Staff will need to provide a detailed review of the ordinance providing input as deemed necessary. The Village Council will need adequate time to review the ordinance to ensure full understanding prior to approval and adoption of the ordinance.

### **Task 3: Finalize Stormwater Fee**

A finalized stormwater fee will need to be developed and approved by the Village Council. This report provides the recommended stormwater fee as shown in Table 17. However changes in the cost of capital projects and input from the Village Council may modify the magnitude of the fee. Additionally, if a credit and incentive program is adopted by the Village Council, the estimated impact of this program will need to be incorporated in the stormwater fees. Once these factors are evaluated a finalized stormwater fee will need to be approved by the Village Council. The Village may place the fees in the stormwater ordinance or adopt a separate fee schedule referenced to in the ordinance.

### **Task 4: Stormwater Utility Policies and Procedures**

The Village will need to adopt policies and procedures for the stormwater utility. These policies and procedures will govern the day to day operation of the utility. Some of the key policies will be whether or not credits and incentives are provided. If the Village decides to offer a credit and incentive program the structure of the program will need to be reviewed and finalized. A draft credit and incentive manual is included in the appendices of this report. The Village will need to decide on how the stormwater bill will be billed, whether on the current utility bill or as a separate bill. Other policies and procedures include how appeals from parcel owners will be handled and how and if stormwater bill adjustments will be allowed and how these would be managed. Lastly, a procedure for the management of the billing database will need to be developed to ensure that it is kept up-to-date with any changes in impervious area within the Village.

### **Task 5: Public Outreach and Education**

A key component of the implementation of the stormwater utility will be providing public outreach and education throughout the Village. Residents, businesses and tax-exempt entities that will soon be paying the new utility fee need to understand the importance of stormwater management, the impacts that stormwater has within the Village and why a stormwater fee is an appropriate means of funding the system. The Village should use a number of methods to provide public outreach and education. We suggest that the Village consider the following activities during implementation.

- Develop a webpage on the Village website that serves as a central location for all stormwater information. All documents created related to the stormwater utility and videos of all presentations should be made available on the webpage.
- Identify a central point of contact within the Village for all activities related to the stormwater utility.
- Conduct a series of public meetings intended to educate the public on the results of the feasibility study and what the stormwater utility may look like. The Village may want to

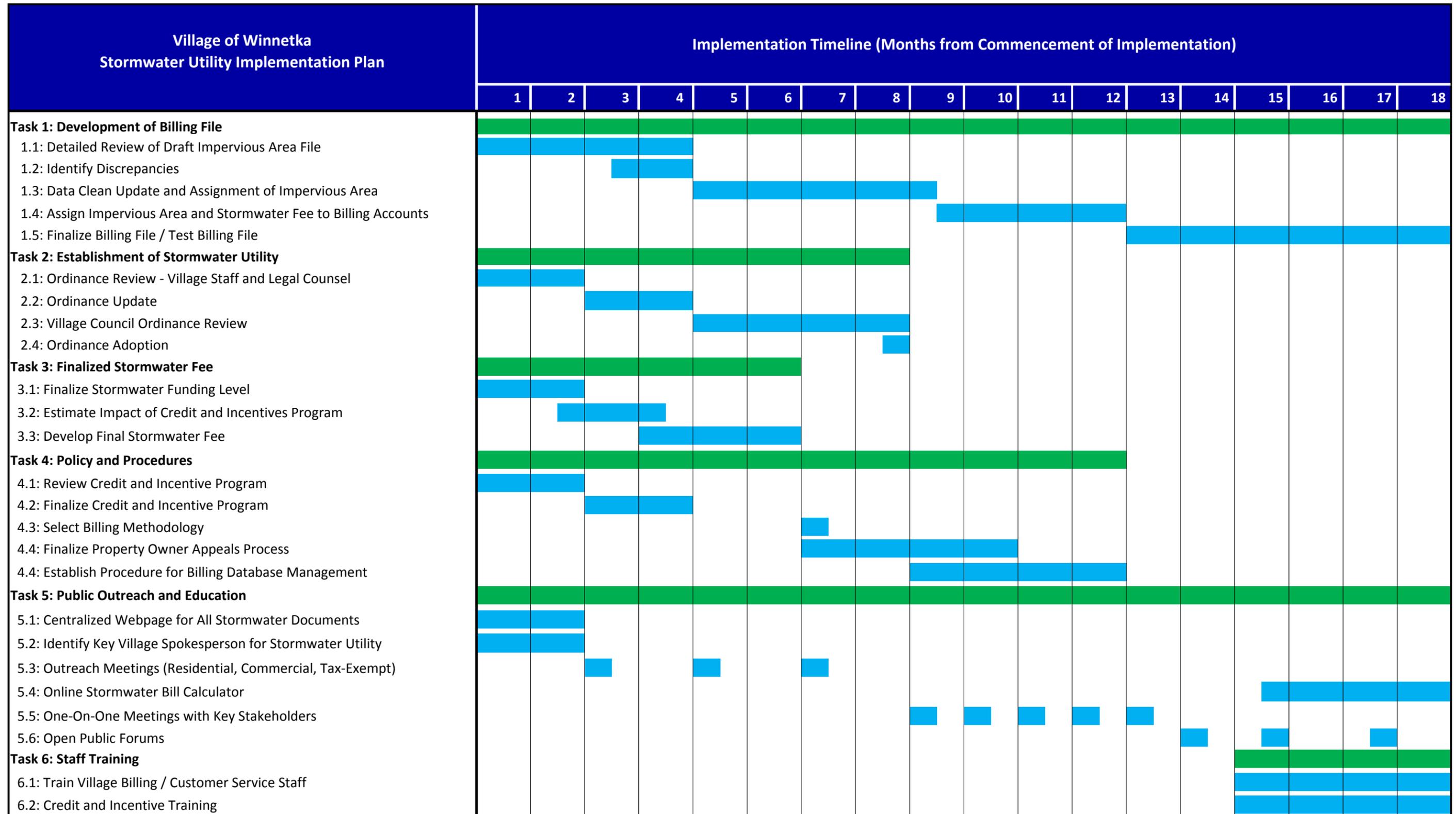
conduct at least three of these meetings designed to reach out to residents, business owners and tax-exempt parcels as each of these groups will have differing concerns and questions. These meetings should occur early in the implementation process to allow for key questions to be asked and to inform the Village of the key concerns within the community related to the stormwater utility.

- Develop an online stormwater bill calculator that allows parcel owners to see their potential stormwater bill.
- Conduct one-on-one meetings within the Village with key stakeholders. These meetings may occur with the parcel owners that would receive the highest stormwater bills, environmental groups, media outlets, chamber of commerce and other interested parties.
- Conduct a series of open public forums near the end of the implementation process primarily designed to allow the public to ask questions and gain further understanding of the stormwater utility.

#### **Task 6: Village Staff Training**

The Village staff responsible for billing and customer service will require training to ensure the staff is adequately prepared to answer questions originating from parcel owners within the Village. The Village may develop a frequently asked questions sheet that allows for consistent and accurate responses to common questions. Staff responsible for applications for credits and incentives and appeals will also require training. The Village should consider providing additional customer service staff for a period of time following the first stormwater billing cycle.

Figure 3 - Implementation Plan Schedule



## **APPENDICIES**

**I. Draft Stormwater Utility Ordinance**

**II. Draft Credit and Incentive Manual**

**III. Stormwater Feasibility Workshop Materials**

**Workshop #1 - Presentation**

**Workshop #2 - Presentation, Summary Report**

**Workshop #3 - Presentation, Summary Report**

**I. Draft Stormwater Utility Ordinance**

# Village of Winnetka Stormwater Utility Ordinance

## **Section xx.1. Purpose**

## **Section xx.2. Stormwater utility fee and stormwater utility enterprise fund**

## **Section xx.3. Scope of responsibility of stormwater utility**

## **Section xx.4. Definitions**

## **Section xx.5. Stormwater utility fee structure**

## **Section xx.6. Impervious area database**

## **Section xx.7. Exemptions from stormwater utility fee**

## **Section xx.8. Stormwater utility fee credits**

## **Section xx.9. Stormwater utility fee amounts**

## **Section xx.10. Billing and collection procedures**

## **Section xx.11. Requests for adjustment of the stormwater utility fee**

## **Section xx.12. Accounts**

### **Section xx.1. Purpose.**

The purpose of this chapter is to establish a stormwater utility to protect the public health, safety and welfare of the residents of the Village of Winnetka from damage to property and local waterways caused by stormwater runoff and floods by reduction, control and discharge of pollutants to the Village's stormwater system. In order to provide an effective and long-term approach to stormwater management within the Village, an adequate and stable funding source must be identified. The establishment of a stormwater utility and dedicated funding source will ensure that the Village is able to proactively manage stormwater to the benefit of all residents, and, most specifically, the owners of real property, within the Village.

### **Section xx.2. Stormwater utility fee and stormwater utility enterprise fund.**

- (a) The Village hereby establishes a stormwater utility fee to provide an adequate and stable funding source for the management, operation, maintenance, enhancement and rehabilitation of the Village's stormwater infrastructure.
- (b) The Village hereby establishes a stormwater enterprise fund. The stormwater enterprise shall be established in the Village budget and accounting system, separate and apart from the Village's General Fund. All revenues from the stormwater utility fee shall be deposited in the stormwater enterprise fund and be used solely for the operation, maintenance, expansion and rehabilitation of the stormwater infrastructure as deemed appropriate by the Village Council. The governing body for the stormwater utility shall be the Village Council.

- (c) The stormwater utility fee is hereby imposed on the owner of property in the Village and shall be set by the Village Council. The stormwater utility fee is imposed upon all real property in the Village to fund stormwater management programs. Any real property completed or added to the State assessment role after January 1 or annexed into the Village after January 1 may be subject to a partial year charge.

**Section xx.3. Scope of responsibility of stormwater utility**

- (a) The Stormwater Utility shall be responsible for the operation, maintenance, management and improvement of the stormwater system owned by the Village including all activities required by the NPDES Stormwater Permit.
- (b) The management and supervision of the stormwater utility shall under the Director of Public Works.
- (c) The boundaries and jurisdiction of the stormwater management utility shall extend to the corporate limits of the Village.

**Section xx.4. Definitions.**

The following words, terms and phases, when used in this ordinance, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning.

*Credit* - means a conditional reduction in the amount of a stormwater fee to an individual property based upon the provisions of the Village Stormwater Credit and Incentive Manual.

*Developed Land* - means property altered from a natural state that contains impervious or partially impervious cover, including such development as buildings, pavement, gravel roads, recreation areas.

*Direct Discharge* - means the conveyance of stormwater runoff directly to receiving stream without entering the Village-owned stormwater system.

*Equivalent Runoff Unit (ERU)* - An ERU shall mean three thousand three hundred (3,400) square feet of impervious surface or any fraction thereof. Three thousand four hundred (3,400) square feet is the normalized statistical average for impervious surface area on a single family property in the Village of Winnetka.

*Impervious Area* - means area within developed land which prevents or significantly impedes the infiltration of stormwater into the soil. Common impervious areas include, but are not limited to, rooftops, patio areas, driveways and parking lots.

*NPDES or National Pollutant Discharge Elimination System* - means the national permitting program implemented under the Clean Water Act.

*Parcel* - means any, designated lot, trace or areas of land, established by a plat or other legal means and to be used, developed or built upon as a unit.

*Single Family Residential (SFR)* - means developed land containing one dwelling structure which contains one or more bedrooms, with a bathroom and kitchen facilities, designed for occupancy by one or two families. SFR units may include houses (including duplexes), manufactured homes and mobile homes located on one or more individual lots or parcels of land. Developed land may be classified as a SFR despite the presence of a commercial use within the dwelling unit so long as such use does not result in additional impervious area such as parking spaces, playgrounds, structures or additions to the buildings which are used for nonresidential uses.

*Stormwater System* - means a conveyance or system of conveyances and include sewers, storm drains, curbs, gutters, ditches, retention ponds or basins, dams, river impoundment, man made channels or storm drains and flood control facilities and appurtenances thereof which is designed or used for the collection, control, transportation, treatment or discharge of storm water.

*Stormwater Utility* - means a stormwater management program that may include all or part of the management, administration, maintenance, engineering, planning and capital investments related to the stormwater infrastructure.

*Undeveloped Parcel* - means a parcel that remains in its natural state with no impervious area.

*Village* - means the Village of Winnetka, a municipal corporation organized under the laws of the State of Illinois.

#### **Section xx.5. Stormwater utility fee structure.**

The stormwater utility fee shall be based on the extent to which each parcel creates a need for stormwater management; the amount of impervious area on each parcel; and the cost of maintaining, replacing and improving the stormwater system. The impervious area for all parcels in the Village is established by the Village based on site examination, mapping information, aerial photographs, geographic information system analysis and other available information.

- (a) The basis for determining the stormwater utility fee for each parcel shall be the amount of impervious area on the parcel. The billing unit shall be based on the impervious area on single family residential parcels. This billing unit is known as an Equivalent Runoff Unit (ERU) and is based on the normalized average impervious area for all residential properties in the Village initially established at 3,400 square feet based on analysis of the Village geographical information system.
- (b) All parcels in the Village shall be based on the measured number of ERUs on the parcel rounded to the 10<sup>th</sup> of an ERU.

**Section xx.6. Impervious area database.**

The Village shall maintain an impervious area database for all parcels within the Village which will serve as the basis for determination of the number of ERUs associated with each parcel. The database will be periodically updated based on available information.

**Section xx.7. Exemptions from stormwater utility fee.**

- (a) The Village Council finds that all real property in the Village contributes to runoff and either uses or benefits from the maintenance of the stormwater system. Therefore, except as otherwise provided in this Section, all real property in the Village, including property that is tax exempt from property tax shall be charged the stormwater utility fee.
- (b) Specific properties that shall be exempt from the stormwater fee include roadways, sidewalks and railways inside the public right-of-ways.
- (c) The Village Council recognizes that in certain instances, property owners within the Village may form unique partnerships with the Village in an effort to assist with the management of stormwater. These partnerships may include, but are not limited to, the donation of land for use in the stormwater system, significant capital contributions for the stormwater system or other such activities. In these instances the Council may deem a certain property or groups of properties exempt from the stormwater utility fee in recognition of the partnership.

**Section xx.8. Stormwater utility fee credits.**

The Village Council desires to encourage and recognizes the benefits of on-site stormwater management by individual property owners. As a result parcels shall be eligible to receive a stormwater utility fee credit based upon the requirements of the Village Stormwater Credit and Incentive Manual. Any credit allowed against the stormwater utility fee is conditioned upon continuing compliance with the Village Stormwater Credit and Incentive Manual.

**Section xx.9. Stormwater utility fee amounts.**

- (a) The stormwater utility fee amount for all parcels shall be based on number of ERUs assessed for each parcel times the established rate per ERU as published in the Village Utility Fee Schedule.
- (b) The stormwater utility fee for any parcel will remain constant from billing period to billing period unless the following changes occur:
  - (i) A physical modification to the parcel that changes its level of impervious area;

- (ii) A credit for on-site stormwater management is either awarded or revoked;
- (iii) The stormwater utility fee is changed by the Village Council; or
- (iv) An adjust is made to the bill as described in Section xx.10.

**Section xx.10. Billing and collection procedures.**

- (a) Billings for stormwater utility fees shall be rendered by the Finance Department on a monthly, bi-monthly, quarterly or annual basis at the discretion of the Finance Department.
- (b) All bills for the stormwater utility fee may be billed on a common statement and collected along with the Village water rents. If the stormwater utility fee is included on a common statement, and the party responsible for the payment of the stormwater utility fee makes a payment insufficient to pay the total amount required by the common statement, the payment shall be applied first to the stormwater utility fee, then to any water rents.
- (c) The owner of any parcel, building or premises and the occupant thereof and the customer of the water service of said system shall be jointly and severally liable to pay for such stormwater utility fee for said premises.
- (d) For those properties not receiving a water bill, the Village will send a separate stormwater utility fee bill to the owner of the property.
- (e) Payment must be received by the Village by close of business on the due date printed on the bill or a late charge of XX percent (XX%) shall be due after such due date, which due date shall not be earlier than the fifteenth day of the month in which the bill is rendered.
- (f) If the charges for services on the common statement are not paid for XX days after the rendition of the bill for services, such services shall be discontinued without further notice and shall not be reinstated until all claims are settled.
- (g) Whenever a bill for service remains unpaid for XX days after it has been rendered, the Village Treasurer shall file with the County Recorder of Deeds a statement of lien claim. This statement shall contain the legal description of the premises served, the amount of the unpaid bill and a notice that the Village claims a lien for this amount as well as for all charges subsequent to the period covered by the bill. If the user whose bill is unpaid is not the owner of the premises and the Village Treasurer has notice of this, notice shall be mailed to the owner of the premises if his/her address be known to the Treasurer, whenever such bill remains unpaid for the period XX days after it has been rendered. The failure of the Village Treasurer to record such lien or to mail such notice or the

failure of the owner to receive such notice shall not affect the right to foreclose the lien for unpaid bills as mentioned in the foregoing section.

- (h) Property subject to a lien for unpaid charges shall be sold for non-payment of the same, and the proceeds of the sale shall be applied to pay the charges, after deducting costs, as is in case in the foreclosure of statutory liens. Such foreclosure shall be by bill-in equity in the name of the Village. The Village Attorney is hereby authorized and directed to institute such proceedings in the name of the Village in any court having jurisdiction over such matters against any property for which the bill has after it has been rendered. The Village Attorney is entitled to attorney fees as determined by the court.

#### **Section xx.12. Requests for adjustment of the stormwater utility fee**

- (a) A property owner may request correction of the stormwater utility fee by submitting the request in writing to the Village Manager or his designee within XX days after the date the bill is mailed or issued to the parcel owner. The owner of the parcel is solely responsible for initiating any review of the amounts of the stormwater utility fee. Grounds for correction of the stormwater utility fee include:
  - (i) Incorrect classification of the property for purposes of determining the fee;
  - (ii) Errors in the square footage of the impervious surface area of the property;
  - (iii) Mathematical errors in calculating the fee to be applied to the property; and
  - (iv) Errors in the identification of the property owner of a property subject to the fee.
- (b) The Village Manager shall make a determination within XX days after receipt of the property owner's completed written request for correction of the fee. The Village Manager's decision on a request for correction of the fee shall be final.
- (c) A property owner must comply with all rules and procedures adopted by the Village when submitting a request for correction of the fee and must provide all information necessary for the Village Manager to make a determination on a request for correction of the Fee. Failure to comply with the provisions of this subsection shall be grounds for denial of the request.
- (d) If an adjustment is approved by the Village, the adjustment will be incorporated into the stormwater utility fee calculation for the specified parcel and will apply to the next regularly generated bill.

**Section xx.13. Accounts.**

The Village Treasurer shall establish a proper system of accounts and shall keep proper books, records, and accounts in which complete and correct entries shall be made of all transactions relative to the stormwater fund, and at regular annual intervals he shall cause to be made an audit by an independent auditing concern of the books to show the receipts and disbursements of the stormwater fund. In addition to the customary operating statements, the annual audit report shall also reflect the revenues and operating expenses of the stormwater facilities, including a replacement cost. The financial information to be shown in the audit report shall include the following:

- (i) Billing data to show total number of billing units per fiscal year.
- (ii) Debt service for the next succeeding fiscal year.
- (iii) Number of stormwater utility rate payers.

## **II. Draft Credit and Incentive Manual**



# **STORMWATER CREDIT AND INCENTIVE MANUAL**

**Village of Winnetka, Illinois**

## 1. Introduction

The intent of this manual is to outline the Village's Stormwater Utility Fee Credit and Incentive Policy and the procedure by which the policy is to be administered. In addition to describing those activities which may be used to qualify for a credit or incentive, the manual outlines the administrative and technical basis for determining the extent of the credit and incentive and the conditions required to remain eligible for a stormwater fee credit. The primary objective for the credit and incentive program is to encourage property owners to proactively manage stormwater on their property by incorporating sustainable stormwater management practices.

## 2. Definitions

The following definitions are applicable throughout the credit and incentive manual and shall have the meanings provided below. If not defined, the terms utilized in this manual shall have the meaning associated with current Village standards for stormwater management and design unless the context clearly indicates otherwise. In all other cases, the terms utilized in the manual shall have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

*Applicant* – An applicant is the person or entity financially responsible for the stormwater fee associated with a given account and the stormwater facility to be credited or incentivized.

*Best Management Practices (BMPs)* – Best management practices include a schedule of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to local waterways.

*Credit* – A credit shall mean on-going reductions in the stormwater fee applicable to a given property in recognition of onsite or off-site systems, facilities, measures, or other actions taken by customers to reduce or mitigate the impact of their property(s) or actions on the quantity or quality of stormwater run-off that would otherwise be managed in the stormwater system or proof of direct discharge outside the Village limits. Credits shall be conditioned on the continuing performance of the systems, facilities, measures, or other actions in reference to standards adopted by the Village Council upon which the credits are granted, and may be revised or rescinded.

*Credit Application* – A credit application is an application submitted in accordance with the Village's Stormwater Utility Fee Credit and Incentive Policy for an existing or new stormwater facility.

*Design Storm* – A design storm refers to a rainfall event of a certain size or intensity, duration, and return frequency that is used to calculate the peak stormwater discharge. For example, a 100-year storm refers to a rainfall event expected to occur an average of once every 100 years or an event which has a 1% chance of occurrence within any given year.

*Developed Land* – Developed land shall mean property altered from a natural state that contains impervious or partially impervious cover, including buildings, pavement, gravel roads, recreation areas (e.g. tennis courts), etc.

*Detention Basin* – A detention basin is a stormwater management facility that reduces the peak discharge stormwater rate by temporarily storing stormwater during storm events but generally not reducing the overall volume of stormwater runoff.

*Equivalent Runoff Unit (ERU)* – An ERU shall mean three thousand four hundred (3,400) square feet of impervious surface or any fraction thereof. Three thousand four hundred (3,400) square feet is the normalized average for impervious surface area on a single family property in the Village of Winnetka.

*Facility Maintenance* – Facility maintenance refers to the activities required to maintain a stormwater facility in proper working condition. Required maintenance activities associated with the facility(s) in question as defined by the Village Code, the Village's Standard Specifications, the Village's Stormwater Design Manual and any applicable Village policies.

*Incentive* – One-time rebate / reimbursement that is offered to the applicant, to assist in offsetting the cost of materials, construction and installation of qualifying stormwater facilities.

*Incentive Application* – An incentive application is an application submitted in accordance with the Village's Stormwater Utility Fee Credit and Incentive Policy for a new stormwater facility.

*New Stormwater Facility* – A new stormwater facility is meant to refer to any stormwater facility approved and constructed after implementation of the Village's Stormwater Utility and the stormwater utility fee.

*Peak Stormwater Discharge* – Peak stormwater discharge is the maximum rate of flow for water entering or exiting a drainage system or stormwater facility. Discharge is typically measured in cubic feet per second (cfs) and associated with a specific design storm.

*Pre-Development Conditions* – Pre-development conditions refer to the condition of a property before development of the property occurs.

*Post-Development Conditions* – Post-development conditions refer to the condition of the property once development of the property occurs.

*Retention Basin* – A stormwater management facility that reduces the total volume of stormwater contributed to the stormwater system by permanently storing stormwater captured during storm events.

*Stormwater* – Stormwater shall mean the run-off from precipitation that travels over natural or developed lands to the nearest stream, other conduit, or impoundment and appears in lakes, rivers, ponds, or other bodies of water.

*Stormwater Facility (Facility)* – A stormwater facility refers to any mechanism that is implemented to address water quality or quantity issues. Stormwater facilities can also be referred to as Best Management Practices (BMPs).

*Stormwater Fee* – The stormwater fee for a property is the charge established by the Village to cover the cost of operating and maintaining the Village’s Stormwater System. The charge is based on the impervious surface area associated with the property and the average impervious surface area for a single-family residential property within the Village limits (Equivalent Runoff Unit – ERU).

*Stormwater System* – The Village stormwater system consists of all of the physical components and attributes of the drainage system within the Village that manages and conveys stormwater including but not limited to drains, inlets, culverts, basins, ditches, creeks and streets.

*Village* – Village of Winnetka

*Village Standards* – Village Standards include those standards established by the Village for the design, construction, and maintenance of stormwater facilities. These standards include the Village’s Manual of Specifications, the Village’s Stormwater Design Manual, the Village Code, and all other applicable Village policies. These standards are the minimum requirements for Stormwater Control and may be altered or augmented at the discretion of the Stormwater Engineer or Director of Public Works due to unique site conditions and/or preexisting drainage problems within the area.

### **3. Stormwater Fee Credits**

The intent of the stormwater fee credit is to recognize and/or promote on-site systems, facilities, measures, or other actions that address stormwater quality, reduce peak stormwater flows and / or reduce overall stormwater volume. The fee credits also recognize those applicants that do not discharge to the Village stormwater system, educational institutions that provide qualifying instruction curricula and those entities that form partnerships with the Village to assist in managing stormwater.

While it is the intent of the Village to maintain a program to extend stormwater fee credits to applicants subject to the provisions included in this manual, should stormwater regulations change such that the conditions of the Stormwater Credit Program are no longer valid or significantly altered, the Village reserves the right to reduce or eliminate the credits available.

### **3.1 Eligibility**

In order to effectively manage the stormwater credit program, only non-residential properties may receive a stormwater fee credit. Individual single family residential and duplex residential units on individual lots of record are not eligible for stormwater credits. The only exception is for those properties that drain to privately-owned regional detention basins. Credits are not offered to single-family residential properties with individual onsite detention facility. In order for an applicant to be eligible to receive a stormwater fee credit, an applicant must receive a bill for Stormwater Service provided by the Village and the credit must apply to developed land containing the facility eligible for the credit. Where the facility is located in a common area such as that associated with an apartment complex or a commercial development, the credit shall be applied based on the allocation of the stormwater fees for the property unless other arrangements are made and approved in conjunction with the stormwater credit fee application. Credits will be offered only to those properties that exceed the current village standards. Accounts with past-due balances shall not be eligible to apply for stormwater fee credits. Credited accounts not paying monthly stormwater charges will be deemed ineligible, result in revocation of credits, and may be billed a surcharged amount to recover improperly issued credits.

### **3.2 Right-of-Entry**

As a condition of receiving a stormwater fee credit, an applicant must agree to allow the Village unrestricted access to inspect the facility(s) associated with the stormwater fee credit. The intent of the inspections will be to verify that the facility is being maintained as stipulated in the operation and maintenance agreement, the conditions on the ground are consistent with the documentation provided in conjunction with the bi-annual inspection report submitted by the stormwater fee credit recipient, and that the facility is operating as intended.

### **3.3 Credit Renewal**

Stormwater fee credits are provided for a period of two years. In order to continue to receive the credit in future years, the recipient is required to renew the credit application bi-annually. It is the responsibility of the recipient to submit the credit renewal stormwater application to the Village and to do so in a manner that insures that the credit remains continuous.

### **3.4 Stormwater Credit Application**

To receive the stormwater fee credit, the applicant must submit a Stormwater Credit Application which demonstrates the compliance with the stormwater management facilities or activities as detailed in Section 3.6 of this manual. The application must be completed and signed by a registered professional engineer. The Village will collect a stormwater credit application fee of \$x at the time of application submission. The application fee is subject to change as deemed necessary by the Village.

### **3.5 Stormwater Fee Credit Implementation**

For those stormwater credit applications received (and subsequently approved) within 6 months of adoption of the stormwater fee credit program, the credit would be available retroactively to time of adoption of the stormwater credit policy. Credit will not be granted for an existing stormwater facility for any time preceding fee inception or for any time period prior to the date in which the stormwater facility was constructed and approved by the Village. Documentation will also be required to substantiate maintenance of the facility over the time for which a retroactive credit is requested. Credit applications received after the first 6 months will be processed and become effective on the first full billing cycle following approval of the Stormwater Credit Application by the Village.

### **3.6 Qualifying Stormwater Facilities / Activities**

The standard maximum stormwater fee credit available has been set at xx% of the stormwater fee for the property in question. This may be achieved through the use of one or more facilities or activities eligible for a stormwater credit under the stormwater credit policy. The only exceptions to the maximum credit provision apply to educational institutions that may qualify for a xx% credit plus an educational credit and to those entities that would qualify under the partnership credit.

The options eligible for receipt of a stormwater fee credit are as follow.

#### **3.7.1 Rate Reduction Credit**

A credit will be available for applicants who discharge all or a portion of their impervious area to a private detention basin. The detention basin must be designed and in compliance with Village standards as defined in Village Code which requires sufficient storage be provided such that the probability of the post-development release rate exceeding 0.1 cubic feet per second (cfs)/acre of development shall be less than one percent (1.0%) per year or a 100-year storm event. The maximum credit for rate reduction is xx%. The applicant will be required to submit site plans demonstrating the portion of the property draining to the stormwater facility.

#### **3.7.2 Volume Reduction Credit**

A credit will be available for applicants who install and maintain qualifying stormwater management facilities that reduce the volume of stormwater leaving the property. Volume reduction facilities include such facilities as retention basins, cisterns, green roofs and permeable pavement. The stormwater management facility must be designed and in compliance with Village standards as defined in the Village Code. The maximum credit for volume reduction is xx%. The credit should be calculated based on the portion of impervious area draining to the management device in the same manner as the rate reduction credit. The applicant will be required to submit site plans demonstrating the

portion of the property draining to the stormwater facility. Volume reduction facilities and activities also improve the quality of stormwater runoff and as a result an applicant qualifying for a water reduction credit in most instances will also qualify for a water quality credit.

### **3.7.3 Water Quality Credit**

A credit will be available for applicants who install and maintain qualifying stormwater management facilities and activities that improve the quality of stormwater runoff through best management practices (BMPs). The water quality credit would be granted if it is demonstrated that the BMPs are designed to remove x% of total suspended solids as measured on an annual basis. The suspended solid removal shall be based on engineering calculations, vendor specifications for manufactured BMPs demonstrating compliance. The maximum credit for water quality is xx%. The credit should be calculated based on the portion of impervious area draining to the BMP in the same manner as the rate reduction credit. The applicant will be required to submit site plans demonstrating the portion of the property draining to the stormwater facility.

### **3.7.4 Direct Discharge Credit**

A credit will be available to applicants who can demonstrate that their properties or a portion of their properties discharge outside the Village's stormwater system. Applicants are required to submit site plans for the property in question demonstrating which area(s) of the parcel qualify for the credit. Max credit would be xx% and based on portion of parcel discharged outside the Village stormwater system.

### **3.7.5 Education Credit**

The Village is required by its NPDES stormwater permit to provide a stormwater quality education program to elementary school children. For public and private elementary schools that develop a lesson plans and teach their students about stormwater management issues, the Village will provide an annual per-child instructed credit to schools that comply with the requirements of this credit.

The allowable education credit will be \$x per 3rd grade child taught per year. To remain eligible for this credit, the applicant shall, on an annual basis, provide a copy of the lesson plan(s), demonstrate that the lesson plan(s) is (are) consistent with the educational content deemed appropriate by the U.S. EPA for stormwater education, and provide documentation of the number of students taught that year. This credit is limited to the number of 3rd grade children enrolled in the applicant's school at the time of the application.

The initial application for the Education Credit will require an application fee. The applicant is required to provide an update of lesson plan(s) and number of students taught

each year to receive the credit. As the Education Credit is a non-technical application, it is not required to have a professional engineer complete the application form.

The Education Credit is exclusive of the xx% maximum credit limit. Eligible applicants may add the amount of the Education Credit to the total credits received for onsite stormwater facilities.

### **3.7.6 Partnership Credit**

A credit will be offered to applicants that operate in partnership with the Village to improve the overall stormwater system. These partnerships would include applicants who provide land and/or facilities for use by the Village to facilitate the management of stormwater. Applicants who form these partnerships will be eligible for a xx% stormwater credit.

## **3.8 Stormwater Facility Maintenance and Inspection**

The following stormwater facility maintenance activities are required for an applicant to be eligible for a stormwater fee credit. These activities are required to ensure that the facility performs as credited, complies with Village standards and State law, meets safety standards and is not a public nuisance. Maintenance activities are required on all drainage structures related to the facility, including the dam, inlets, headwalls, velocity dissipaters, spillways, pipes, feeder channels, discharge channels, etc. The applicant of a credited Stormwater Facility must comply with all applicable maintenance practices below that are relevant to the credited facility.

- Debris and Litter Removal – This activity must be performed after storm events totaling approximately two inches over a 24-hour period or as needed in order to prevent the structure from clogging and failing and to prevent a public nuisance.
- Erosion and Structural Repair – Side slopes, emergency spillways, and embankments all may periodically suffer from slumping and erosion. Regrading, revegetating, compacting and/or installing or replenishing rip-rap may be required to correct erosion problems that develop.
- Mowing – Side slopes, embankments, emergency spillways and other grassed areas of stormwater facilities should be periodically mowed to prohibit woody growth. More frequent mowing may be required in residential areas by adjacent homeowners. Native grasses, which are water-tolerant, pest-tolerant, and slow growing, are recommended.
- No Blockages – Remove sediment or any blockage from pipes, channels, spillways, inlets and outlets as needed to keep the facility in proper working condition.

- Nuisance Control – Standing water or soggy conditions within a “dry” stormwater facility can create nuisance conditions for nearby residents. Common nuisance conditions may include odors, mosquitoes, litter and weeds. Regular maintenance to remove debris and ensure control structure functionally is required to control these potential problems. In addition, well maintained and established wetland plants in wet detention ponds or bird nesting boxes around the pond can provide a habitat for birds and predacious insects and fish that can actively serve as a natural check on nuisance insects such as mosquitoes. Cyclical alteration of the water level in the pond or installation of aeration/agitation features will also disrupt most unwanted larval growth.
- Outlet Control – Maintain outlet control devised to ensure proper functioning in the control of stormwater velocities at the outlet of the stormwater facility. Revegetating and/or replenishing or reinstalling rip-rap may be required to correct erosion problems at the outlet of stormwater facility pipes.
- Removal of Log Jams and Debris – All streams and ditches within the stormwater system should be inspected periodically for blockages. If identified, the blockages and debris should be removed as quickly as practicable.
- Sediment Removal – This activity is to be performed as needed or as required by the Village to ensure proper working order of the facility and its related stormwater facility features (channels, pipes, etc.).
- Structural Repairs and Replacement – Eventually, stormwater control structures will deteriorate and must be replaced. Structural damage to outlet structures (i.e. cracks, leaks or failure) must be repaired as soon as possible.

### **3.9 Bi-Annual Documentation**

Bi-Annual documentation must be submitted to the Village to continue receiving a credit. The required documentation consists of the following.

- Bi-Annual inspection report from an independent engineer that conforms to Village requirements.
- Recently dated photographs showing the condition (including any known damage or disrepair) of a Stormwater Facility. For stormwater ponds, these photos should include views of the outlet structure, all side slopes, vegetated littoral zones, a view from the downstream channel looking upstream at the dam and emergency spillway, a view from the dam showing the condition of the downstream channel, and a view of areas designed to catch sediment (if possible).

- Records demonstrating that required maintenance activities and/or repairs have been completed.

### **3.10 Facility Inspections**

Each applicant that has applied for and received a credit for a Stormwater Facility has the private responsibility to inspect and repair their facility to ensure that it is functioning as credited. In addition, the Village reserves the right to inspect Stormwater Facilities receiving a credit at any time. If the field inspection proves that any of the bi-annual documentation submitted for continuation of the credit is not accurate, or the facility is not maintained, or if the facility is not operating as credited, the credit will be forfeited and the customer must repay the Village in the form of a surcharge the amount of credit received during the period for which the Village determines the Stormwater Facility was out of compliance. Inspections will be performed at the discretion of the Village to assure that a facility is operating as credited (no blockage due to excessive silt, logs, or debris). Annual inspection is possible with additional inspections of problematic areas following large storm events (two inches of rainfall or more over a 24-hour period).

### **3.11 Enforcement**

Inspections and bi-annual documentation are the primary methods employed to monitor credits. Failure to maintain and operate the Stormwater Facility in strict compliance with Village standards will result in the loss of the credit and possible surcharge to recapture improper credits.

## **4. Incentives**

The Village provides incentives in the form of one-time rebates / reimbursements to applicants who install qualifying stormwater facilities.

### **4.1 Eligibility**

All applicants within the Village will be eligible to receive a stormwater incentive for the purchase, construction and installation of qualifying stormwater facilities. The incentives are offered on a first come, first serve basis with an annual allocation of available funds provided from the Stormwater Utility. Applicants receiving stormwater fee credits are not eligible to receive a stormwater incentive. Applicants must submit a stormwater incentive application with proof of purchase and demonstrated installation of the stormwater facility. The Village reserves the right to inspect the installed facility prior to approving the application.

### **4.2 Stormwater Facility Incentives**

The following stormwater management facilities will be considered eligible for stormwater incentive funding.

**Rain Barrels** – Rain barrels are stormwater management devices that typically collect stormwater from roof drains and thereby reduce peak stormwater discharge rates from properties. Applicants who purchase and install rain barrels will be eligible for a rebate of \$x per gallon of installed storage, with a minimum volume of xx gallons. The maximum available rebate per property is \$xxx.

**Rain Gardens** – A rain garden is a shallow depression that is planted with deep-rooted native plants and grasses. Rain gardens are typically positioned near a stormwater source like a roof drain, driveway or sump pump. Rain gardens reduce the peak stormwater discharge rates, the overall stormwater volume and improve stormwater quality by settling out suspended solids. Applicants who install rain gardens will be eligible for reimbursement of the costs of materials (including plants) and construction for up to \$xxx per property. To be eligible for the rebate the rain garden must be at least xxx square feet in size. The rebate is offered at \$x per square foot of the garden.

**Other Facilities** - Applicants who install other stormwater facilities that reduce the total volume of stormwater, reduce the peak volume of stormwater and / or improve the quality of stormwater leaving the property will be eligible for reimbursement for the costs of materials, installation and construction of the stormwater facility. Examples of such stormwater facilities include green roofs, cisterns and permeable pavement. The reimbursement is based on xx% of the cost of each stormwater facility with a maximum per property of \$xxx.

### **III. Stormwater Feasibility Workshop Materials**

**Workshop #1 - Presentation**

**Workshop #2 - Presentation, Summary Report**

**Workshop #3 - Presentation, Summary Report**