

**Winnetka Village Council**  
**STUDY SESSION**  
**Village Hall**  
510 Green Bay Road  
Tuesday, February 12, 2013  
7:00 p.m.

Emails regarding any agenda item are welcomed. Please email [contactcouncil@winnetka.org](mailto:contactcouncil@winnetka.org), and your email will be relayed to the Council. Emails for a Tuesday Council meeting must be received by Monday at 4 p.m. Any email may be subject to disclosure under the Freedom of Information Act.

**AGENDA**

- 1) Call to Order
- 2) Municipal Financial Services Group (MFSG) Stormwater Utility Workshop #2
- 3) Public Comment
- 4) Executive Session
- 5) Adjournment

**NOTICE**

All agenda materials are available at [villageofwinnetka.org](http://villageofwinnetka.org) (*Council > Current Agenda*); the Reference Desk at the Winnetka Library; or in the Manager's Office at Village Hall (2<sup>nd</sup> floor).

Broadcasts of the Village Council meetings are televised on Channel 10 and AT&T Uverse Channel 99 every night at 7 PM. Webcasts of the meeting may also be viewed on the Internet via a link on the Village's web site:

[villageofwinnetka.org](http://villageofwinnetka.org)

The Village of Winnetka, in compliance with the Americans with Disabilities Act, requests that all persons with disabilities who require certain accommodations to allow them to observe and/or participate in this meeting or have questions about the accessibility of the meeting or facilities, contact the Village ADA Coordinator – Megan Pierce, at 510 Green Bay Road, Winnetka, Illinois 60093, 847.716.3543; T.D.D. 847.501.6041.

## Agenda Report

**Subject:** Stormwater Utility Feasibility Study – Workshop #2

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

Date: February 6, 2013

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

At the January 8, 2013 Study Session, MFSG presented Workshop #1, focused on levels of service associated with a stormwater program (the elements to be considered as part of the Village's program) and the source of program funding (property taxes, a utility fee, or a combination thereof). The Council raised a number of questions at Workshop #1, which MFSG has answered, in the first section of the "Stormwater Utility Feasibility Study Workshop #2 Report" (**Attachment #1**).

While Workshop #1 examined levels of service, which drive the *amount* of revenue needed to fund the program, Workshop #2 will examine the component elements of a stormwater fee, which drive the *means and proportions* by which that revenue is collected.

**In order to simplify the Village Council's task in evaluating possible financing alternatives, MFSG has recommended that for the purpose of Workshop #2, the Village Council consider a level of service consisting only of the following elements:**

- 1. Currently programmed capital improvements (i.e. the Willow Road Tunnel);**
- 2. Replenishing capital reserves to be expended for FY 2013-14 projects (i.e. the Winnetka Avenue Pump Station, the Northwest Winnetka project, and the two Spruce Street Outlet area projects in northeast Winnetka), and;**
- 3. Operation and Maintenance (O&M) expenses.**

This approach makes sense for several reasons:

- It simplifies the number of variables and options under consideration at one time, allowing for more focused and understandable presentations and policy discussions;

- It allows time for Village staff and its engineering consultants to complete benefit analyses requested by the Council, to allow the Council to prioritize implementation of these projects;
- It recognizes that many of the future projects either rely on the tunnel or other infrastructure being constructed or need further definition and refinement before they could be advanced, and;
- It recognizes that future Councils will be the ones setting fees and rates for future improvements, based on future fiscal conditions and environments, and that rates for these future actions do not need to be set now.

**It is important to understand that approaching the financing discussion in this way does not limit the Village from constructing other improvements in the future, or from funding long-term planned replacement of existing infrastructure. Neither does it obligate the Village to construct these improvements. It simply allows the Village to consider fee structures for the amount of revenue required to support the most likely near-term debt issuance, while still evaluating the other projects for inclusion in the program. MFSG has created a detailed, flexible, and scalable financial model that allows for evaluation of a wide range of construction and maintenance levels, bonding scenarios, and fee and tax rates.**

MFSG has provided a detailed narrative report that investigates the specific components of a stormwater fee, and the impacts of a stormwater fee and incremental taxes on actual representative single-family, commercial, and institutional parcels of land within the Village. Because this is a very technical and detailed report, it may be helpful to consider the following broader policy questions while reading and thinking about the report:

1. Level of Service. The gross magnitude of the stormwater revenue requirements is driven by the level of service. The number and cost of projects to be funded, whether to replenish reserves, whether to fund O&M costs, all determine the overall magnitude of the program expenditures. MFSG has recommended that the initial level of service to be analyzed consist of funding the proposed Tunnel project, the currently planned projects in the FY 2013-14 budget, and incremental O&M expenses. It is recognized that there is not yet consensus on whether to construct all of these projects (for example, the underpass portion of the Tunnel project) but *for the purposes of evaluating an appropriate method of project financing*, agreeing to evaluate a single, or at most two, levels of service will significantly simplify the policy issues involved. This will also allow the financial analysis to continue while staff develops the type of cost/benefit information that could be helpful to the Council in prioritizing levels of service.
2. Funding Source. In Workshop #1, MFSG presented some options on what funding source should be used for the proposed stormwater projects, such as property taxes, a stormwater fee, or a combination of the two. MFSG further expands on this discussion and recommends moving towards a stormwater fee to fund a majority of the improvements, primarily because of the interest expressed in funding the improvements in the most equitable manner possible. The Council should consider

how the alternative funding approaches will address questions of equity – who bears the cost of the improvements – raised by the Council and the community.

3. Rate Base (i.e. billing unit). If the Council makes the threshold decision that they wish to consider implementing a stormwater fee to fund some or all of the proposed stormwater program, then the next decision is what billing unit should be used. For the electric utility, the service is billed at a dollar rate per kilowatt-hour of electricity used. A stormwater fee is no different in structure, consisting of a dollar rate per billing unit. MFSG discusses three possible approaches to the billing unit – a single rate per parcel, a proxy such as zoning or lot size, or a measure of impermeable surface on a parcel, called an Equivalent Runoff Unit (ERU). MFSG recommends the ERU approach because the underlying data is available through the Village’s GIS, and because the ERU most equitably corresponds with the amount of runoff attributable to each parcel and therefore impact on the stormwater system.
4. Fee Structure (i.e. rate per billing unit). Once a billing unit is determined, then the rate per billing unit must be considered. Typically, stormwater utilities bill at a uniform rate per billing unit throughout a municipality, because it is relatively easy to communicate and to administer. However, there has been a desire expressed by the Council to consider differential billing rates proportional to stormwater contributions and project benefits. This is explored in detail by MFSG in their report and will be further explored in the workshop. It is possible to create further funding equity through differential stormwater rates based on the drainage area in which a parcel is located, (a location-based fee, similar to the difference between residential and institutional electric rates). However, this has the potential of becoming very complicated to communicate and administer. The Council should be thinking about the tradeoffs between the increased equity and the increased administrative complexity associated with a location-based stormwater fee.

A working draft of MFSG’s PowerPoint presentation is included in the Village Council’s packet, to help prepare for the discussion. There may be some minor edits to the PowerPoint before the meeting. The information contained in this report is the result of an extremely detailed analysis including the assessed valuation, land use, and impermeable surface coverage of each parcel in the Village. MFSG’s study has created a detailed, flexible, and scalable financial model that allows for evaluation of a wide range of construction and maintenance levels, bonding scenarios, and fee and tax rates. It is important to note that though Staff has worked closely with MFSG to provide budget numbers and improvement costs for utility modeling, the dollar figures presented are still estimates. MFSG has also made assumptions in the models that can be revised moving forward to understand potential cost implications of various policy decisions.

This analysis and model, combined with policy guidance received from the Council in Workshops #1 and #2, will be used by MFSG to produce detailed scenarios for comparison and discussion by the public and the Council in Workshop #3, tentatively scheduled for March 12, 2013.

**Recommendation:**

Provide policy direction and guidance to staff and MFSG for use in preparing materials and guidance for Workshop #3.

1. What level of stormwater service should the Village provide?
2. What funding source should be used for the chosen level of service?
3. What rate base should be used to measure stormwater contribution?
4. How should the stormwater fee be structured?

**Attachments:**

1. Stormwater Utility Feasibility Study Workshop #2 Report

# **ATTACHMENT #1**

## **Stormwater Utility Feasibility Study Workshop #2 Report**

Village of Winnetka



Stormwater Utility Feasibility Study  
Workshop #2 Reporting



February 6, 2013

Prepared by



Municipal & Financial Services Group

**TABLE OF CONTENTS**

**A. BACKGROUND FOR WORKSHOP #2..... 1**

**B. WORKSHOP #1 FOLLOW-UP..... 1**

**C. LEVEL OF SERVICE CONSIDERATIONS..... 3**

**D. STORMWATER FEE BACKGROUND ..... 5**

**E. STORMWATER UNIT OF MEASURE ..... 5**

**F. STORMWATER FEE STRUCTURE ..... 11**

**G. PROPERTY TAX APPROACH ..... 16**

**H. PARCEL OWNER IMPACTS..... 18**

**I. STORMWATER POLICY ISSUE CONSIDERATIONS ..... 22**

## A. BACKGROUND FOR WORKSHOP #2

This document presents specific responses to questions and requests for additional information arising from the first stormwater utility study workshop. The document also provides additional considerations regarding the level of service and the preliminary results of various methods that the Village could use to fund existing and future stormwater expenditures. The methods examined include the implementation of a stormwater fee, the continued use of property taxes or a combination of the two. The analysis was completed by the Municipal and Financial Services Group (MFSG), supported by Donohue and Associates, as part of the Stormwater Utility Feasibility Study.

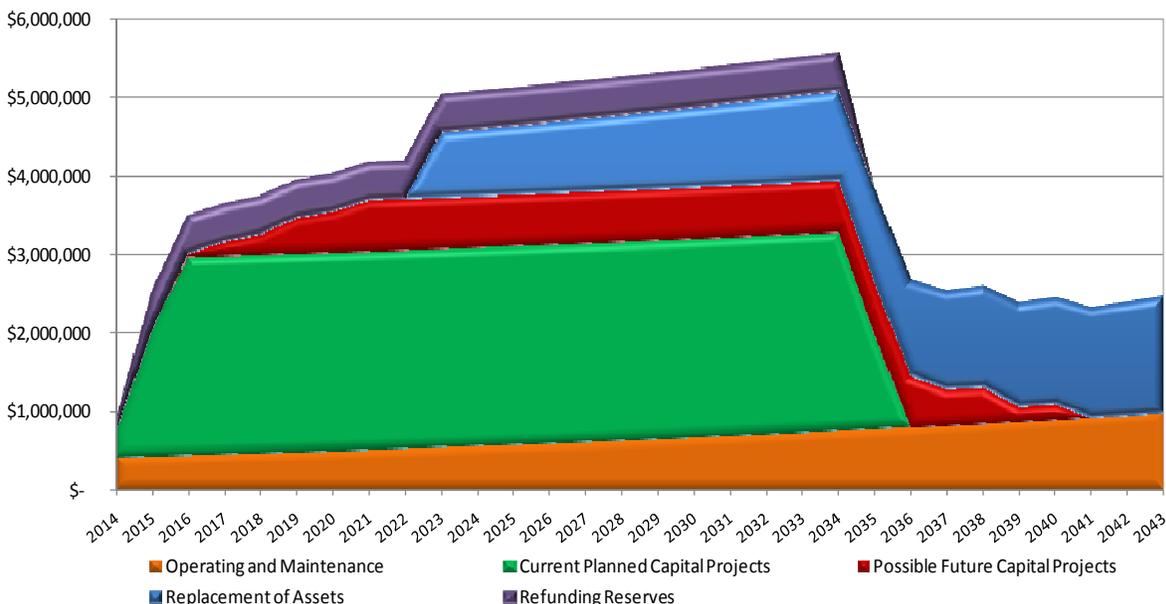
## B. WORKSHOP #1 FOLLOW-UP

On January 8<sup>th</sup>, MFSG participated in the first stormwater utility feasibility workshop with the Village Council. The first workshop focused on the current and potential future costs of providing stormwater management within the Village. The information provided at the workshop generated several questions and the desire for additional information from members of the Village Council. This section of the report provides responses to each of the questions.

### Question 1 - Extended Projection Period

MFSG presented a 20 year projection of potential stormwater expenditures. The Council requested that a longer projection period be provided. Figure 1 presents the full spending forecast (identifying each cost category) over a 30 year period. The longer projection period demonstrates the payoff of debt service (based on the use of bonds with 20 year maturities).

Figure 1 - Full Spending Annual Revenue Requirements



## Question 2 - Total Costs and Present Values

The Council requested that the total costs associated with the capital expenditures (including interest expense) be provided along with the present value of these expenditures. Table 1 presents the total principal and interest associated with current planned capital projects, possible future capital projects and refunding of General Fund reserves (the green, red and purple areas from Figure 1) which results in a total bond issuance of about \$48.2 million. It should be noted that we have assumed bond issuance costs of 1.5% of the bond issue bringing the principal on the bond issue up to \$50.7 million shown in Table 1.

*Table 1 - Total Stormwater Capital Expenditures*

	Present Value <sup>1</sup>	Total
Debt Service (Principal)	\$34,323,157	\$50,735,635
Debt Service Interest (Interest) <sup>2</sup>	\$18,041,272	\$23,660,726
Total	\$52,364,429	\$74,396,361

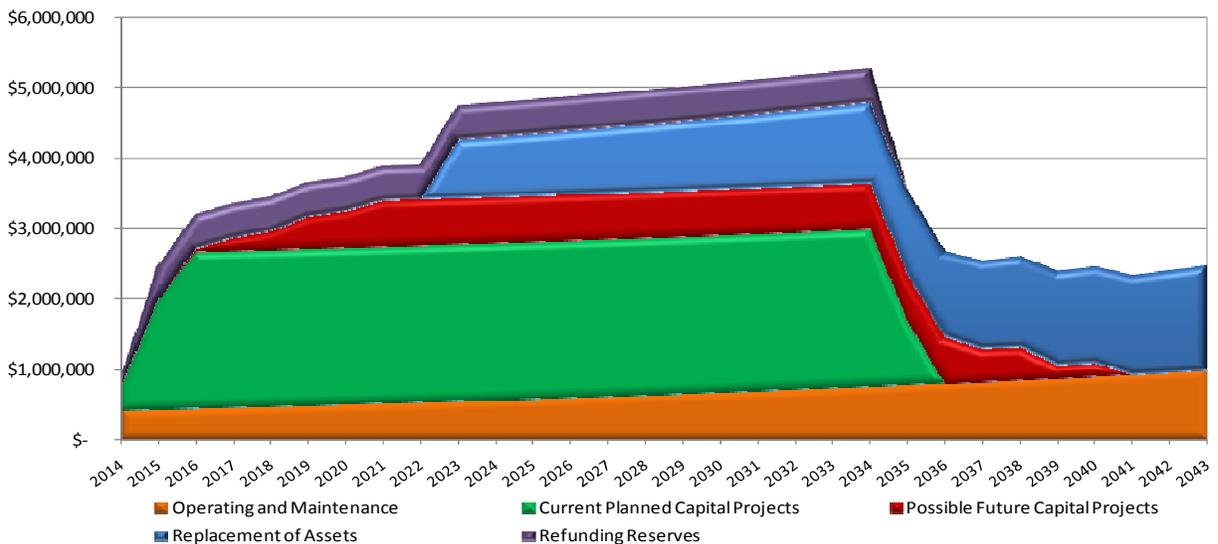
<sup>1</sup>Assuming a 3% discount rate

<sup>2</sup>Assuming bonds with 20 year maturities

## Question 3 - Exclusion of the Indian Hill Underpass

The Council requested that the impact of the exclusion of the Indian Hill Underpass be examined in the analysis. The Indian Hill Underpass is included as part of the “Current Planned Capital Projects” shown in Figure 1 and is estimated at \$4 million. The exclusion of this project will result in a reduction of approximately \$0.29 million in annual debt service payments (assuming 20 year bonds). Figure 2 presents the annual revenue requirements excluding this project.

*Figure 2 - Annual Revenue Requirements Excluding Indian Hill Underpass*



### Question 4 - Bond Maturity

The Council requested that longer termed bonds be considered in the analysis. To address this question, MFSG completed the analysis using 30-year bonds instead of 20-year bonds. Figure 3 presents the annual debt service associated with the use of 20-year and 30-year bonds. The debt service is based on the assumption that \$50 million in bonds are issued, as mentioned previously.

Figure 3 - Bond Maturity Comparison

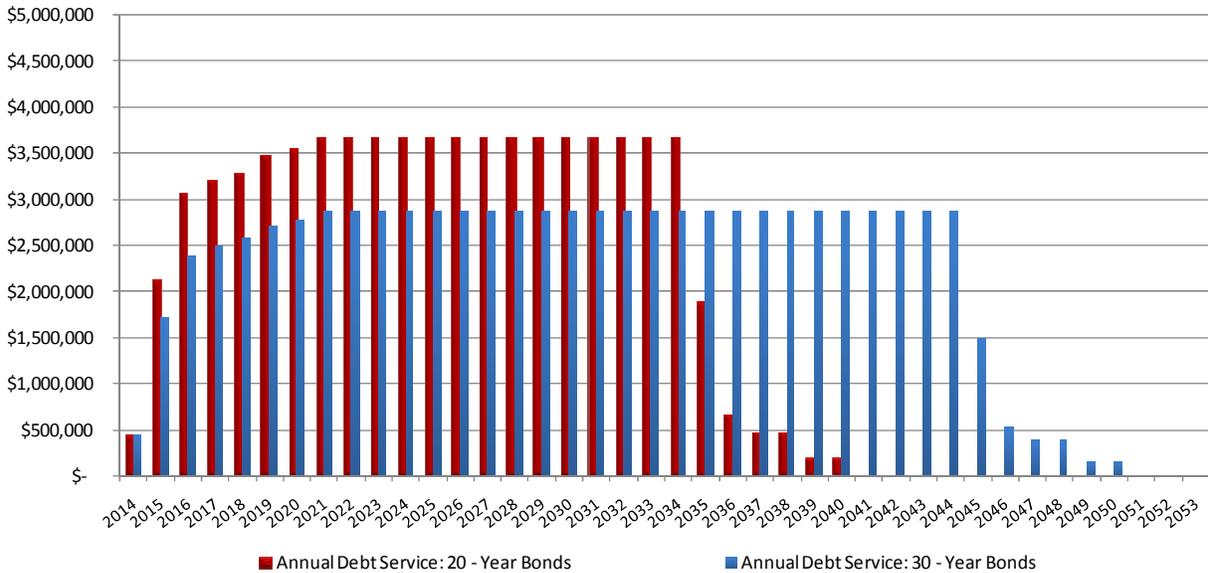


Table 2 shows the total interest paid using 30-year bonds compared to 20-year bonds.

Table 2 - Bond Maturity Comparison

	Present Value <sup>1</sup>	Total
Debt Service Interest (30-Year Bonds)	\$25,024,321	\$36,268,025
Debt Service Interest (20-Year Bonds)	\$18,041,272	\$23,660,726
<b>Difference</b>	<b>\$6,983,049</b>	<b>\$12,607,299</b>

<sup>1</sup>Assuming a 3% discount rate

### C. LEVEL OF SERVICE CONSIDERATIONS

The intention of the first Council workshop was to identify the full range of stormwater costs that the Village may fund at some point in the future. However, for financial planning purposes, it is necessary to make practical considerations about the level of service and timing of capital projects. Several of the capital projects discussed in the first workshop are contingent on the completion of other projects and therefore must be timed appropriately. Other issues such as the disruptions within the Village due to construction and the ability to manage a multitude of projects must be considered. As a result, we recommend focusing on the funding

requirements for stormwater expenditures and capital projects for the next 3 to 5 years. This will allow for a more focused analysis of the short term needs while allowing for continued evaluation of future possible projects. We recommend that the Village focus on funding stormwater operating and maintenance costs, refunding the General Fund and funding current planned capital projects (which includes the Willow Road tunnel project and Northwest Winnetka Greenwood / Forest Glen project). Table 3 presents the annual revenue requirements included in the recommended level of service.

*Table 3 - Recommended Level of Service - Annual Revenue Requirements*

	2014	2015	2016	2017	2018
<b>Operating Costs</b>					
Total Operating Expenses <sup>(1)</sup>	390,000	390,000	390,000	390,000	390,000
Total Operating Expenses <sup>(2)</sup>	32,000	45,000	58,000	72,000	86,000
<i>Total Operating Expenses</i>	<i>\$422,572</i>	<i>\$435,249</i>	<i>\$448,307</i>	<i>\$461,756</i>	<i>\$475,609</i>
<b>Projected Debt Service</b>					
Current Planned Capital Projects	324,220	1,634,473	2,520,994	2,520,994	2,520,994
Refunding General Fund Reserves	121,090	486,859	486,859	486,859	486,859
<i>Total Capital Expenses</i>	<i>\$445,310</i>	<i>\$2,121,332</i>	<i>\$3,007,854</i>	<i>\$3,007,854</i>	<i>\$3,007,854</i>
<b>Total SW Revenue Requirement</b>	<b>\$867,882</b>	<b>\$2,556,582</b>	<b>\$3,456,160</b>	<b>\$3,469,610</b>	<b>\$3,483,462</b>

<sup>(1)</sup> Operating costs funded by General Fund.

<sup>(2)</sup> Incremental Operating and Maintenance costs above current General Fund funding.

As noted above, the Village is currently funding approximately \$390,000 of stormwater operating and maintenance expenses from the General Fund. We have assumed that these costs will continue to be funded from the General Fund. The remaining unfunded revenue requirements are presented in Table 4.

*Table 4 - Unfunded Annual Stormwater Revenue Requirements*

	2014	2015	2016	2017	2018
Total SW Revenue Requirements	867,882	2,556,582	3,456,160	3,469,610	3,483,462
Current funding from General Fund	390,000	390,000	390,000	390,000	390,000
<b>Unfunded Revenue Requirements</b>	<b>\$477,882</b>	<b>\$2,166,582</b>	<b>\$3,066,160</b>	<b>\$3,079,610</b>	<b>\$3,093,462</b>

The following sections of the report discuss how the Village might recover these costs.

#### **D. STORMWATER FEE BACKGROUND**

The management of stormwater within the Village benefits all parcel owners. The proper handling of stormwater increases property values, reduces damage to property, increases environmental protection and allows for safe travel in and around the Village. As a result it is fairly common for stormwater expenditures to be funded from property tax revenues. However, as stormwater costs continue to increase (sometimes exponentially), it is becoming increasingly common for communities to implement a stormwater fee to recover some or all of the costs of providing stormwater service. One of the primary reasons for the implementation of a stormwater fee is to allow for a more appropriate allocation of expenditures among property owners. As costs increase, the desire to ensure that costs are equitably distributed to property owners becomes more pronounced. The implementation of a stormwater fee allows for cost allocation of operating and maintaining the stormwater system to property owners based on their stormwater impact.

The Village currently recovers the costs associated with operating and maintaining the stormwater system from property taxes. Under this 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 runoff and benefit from the infrastructure in place. The following two sections examine the development of a stormwater fee for the Village.

#### **E. STORMWATER UNIT OF MEASURE**

To equitably allocate the cost of providing stormwater services throughout the Village it is necessary to develop a stormwater impact unit of measure. The unit of measure used to develop the stormwater fee is often referred to as the rate base. A variety of rate bases are used by localities that have implemented stormwater fees. The rate bases can be categorized into three main types: proxy for stormwater (such as water use or zoning), intensity of development and impervious area. Since the objective for the stormwater fee is to assess the cost of providing the service based on the property owners impact, rate bases that directly correlate to stormwater runoff on the property are most commonly used.

The prevailing best practice rate base is impervious area, as it directly correlates with stormwater runoff and impact on the system. Impervious area has been determined to be the single most important factor influencing the rate of peak runoff, the total runoff quantity and transporter of pollutant loadings found in stormwater. Impervious area is defined as any surface that does not allow for the penetration of water such as driveways, roofs and sidewalks. Often times when an alternative rate base is selected, it is due to the fact that the impervious data is not readily available and therefore another proxy is selected. The Village does have impervious data readily available in its geographic information system (GIS) and therefore the use of impervious area was selected as the preferred rate base in our analysis.

## Impervious Area Analysis for the Village

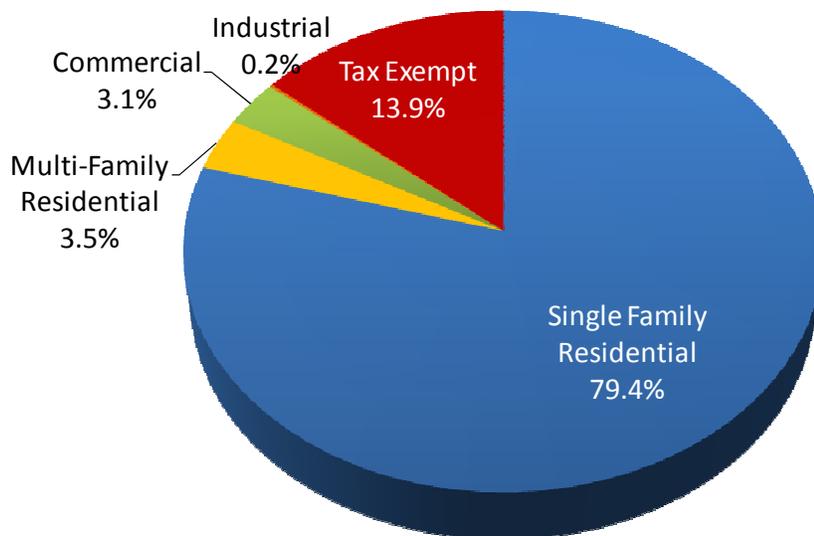
Based on the data provided in the Village’s GIS database, the actual impervious area for each individual parcel within the Village was calculated. Table 5 presents the information calculated from the GIS database for all of the parcels in the Village including the amount of impervious area by land use.

*Table 5 - Land Use Impervious Area Analysis*

Land Use	No. of Parcels	Gross Area (sq ft)	% Impervious	Impervious Area (sq ft)	% of Total Impervious
Single Family Residential	4,181	62,423,185	29%	17,909,452	79.4%
Multi-Family Residential	125	1,359,654	58%	791,475	3.5%
Commercial	124	820,552	85%	694,349	3.1%
Industrial	5	40,896	97%	39,530	0.2%
Tax Exempt	74	23,265,106	13%	3,127,926	13.9%
<b>Total</b>	<b>4,509</b>	<b>87,909,393</b>		<b>22,562,732</b>	<b>100%</b>

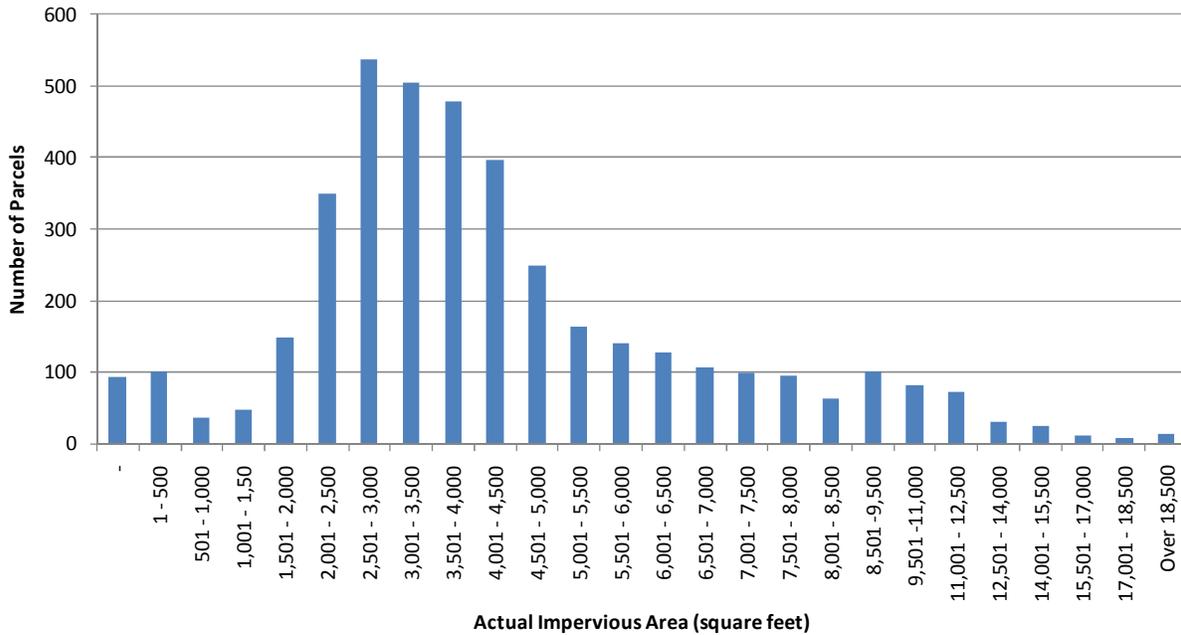
Table 5 demonstrates that the residential property class contains the most impervious area at about 18 million square feet. This is not surprising given that the majority of the parcels in the Village are single family residential. The following figure presents a percentage breakdown of the impervious area by land use.

*Figure 4 - Impervious Area Breakdown*



To examine the distribution of impervious area within each of the land uses, the distribution of impervious on a per parcel basis was reviewed. The distribution for each land use is presented in the following figures.

*Figure 5 - Single Family Residential Parcel Impervious Area Distribution*



*Figure 6 - Multi-Family Residential Parcel Impervious Area Distribution*

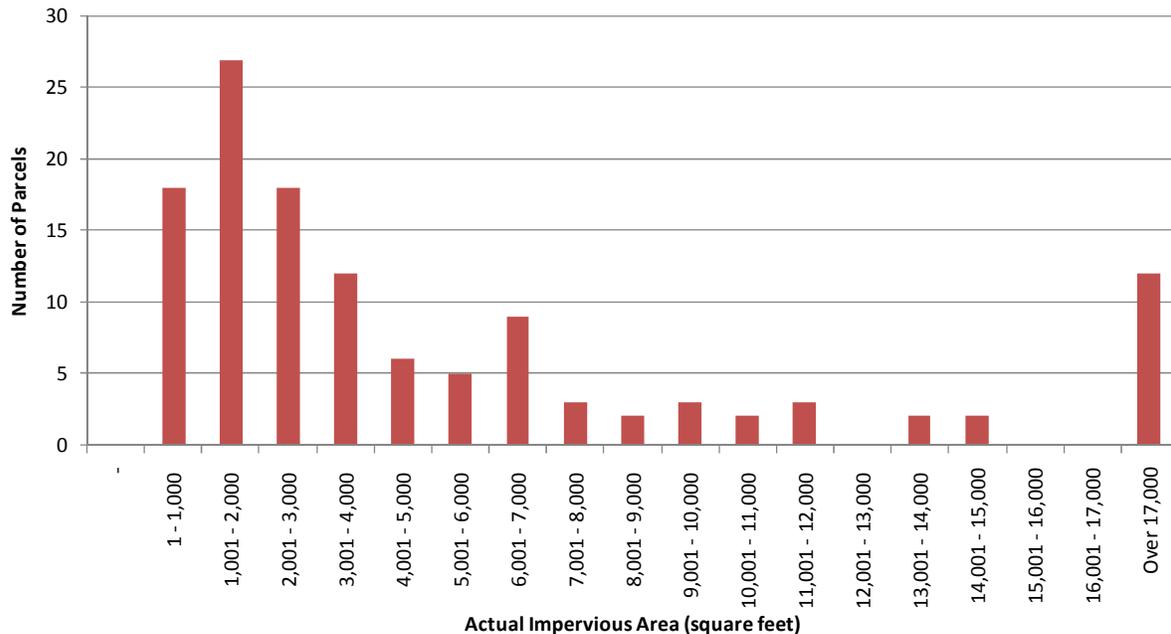


Figure 7 - Commercial Parcel Impervious Area Distribution

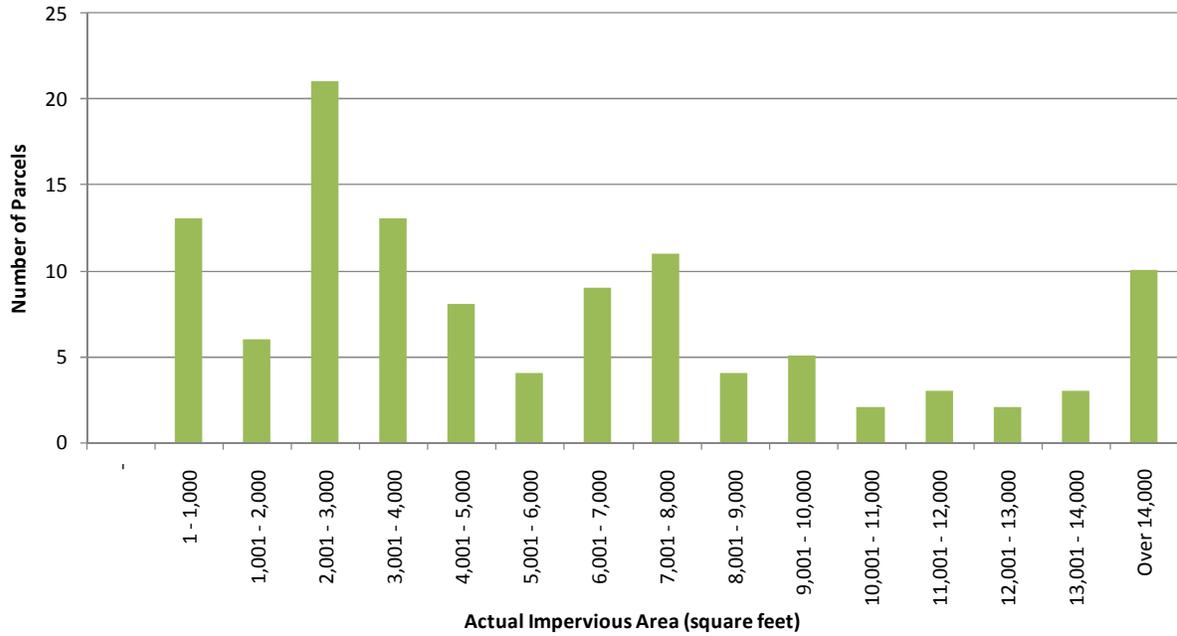


Figure 8 - Industrial Parcel Impervious Area Distribution

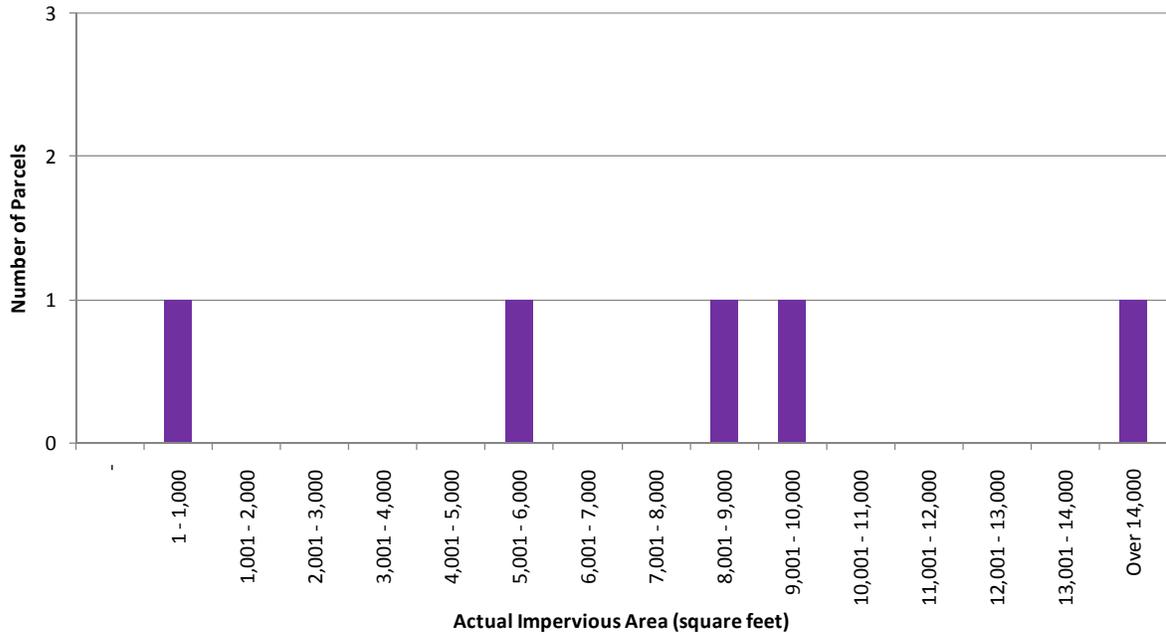
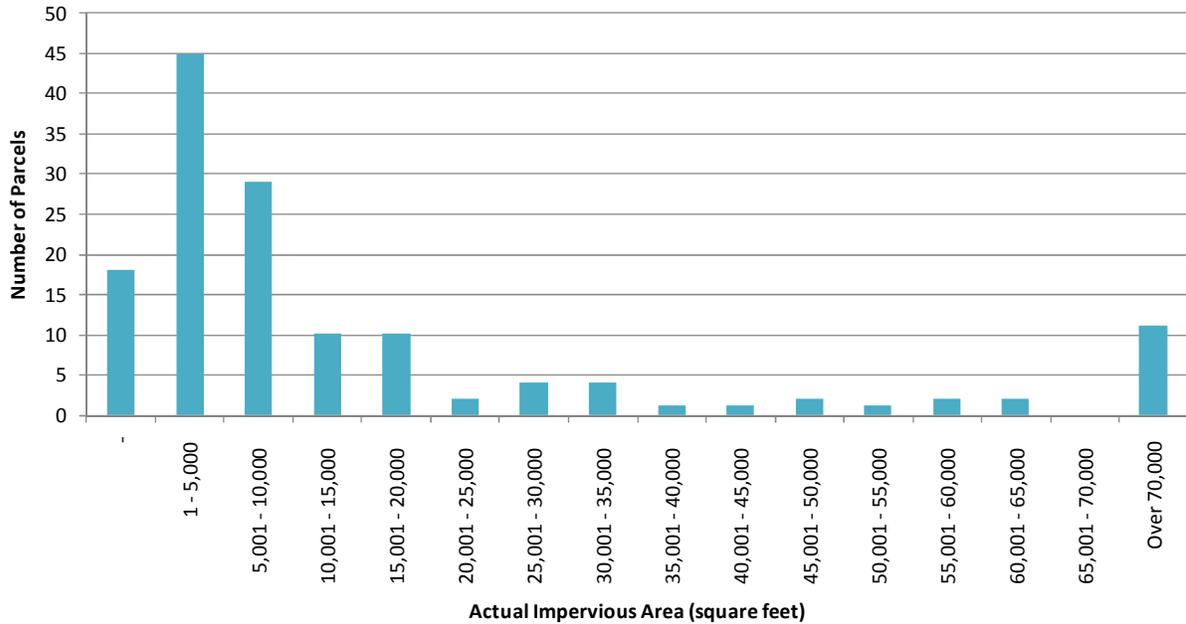


Figure 9 - Tax-Exempt Parcel Impervious Area Distribution



A summary of the average impervious area and median impervious area of all parcels, as well as the largest amount of impervious area associated with a single parcel are shown in in Table 6.

Table 6 - Land Use Impervious Area Summary

Land Use	Average Impervious (sq ft)	Median Impervious (sq ft)	Largest Single Parcel Impervious (sq ft)
Single Family Residential	4,414	3,728	32,652
Multi-Family Residential	6,383	2,873	56,094
Commercial	6,091	4,412	31,509
Industrial	7,906	8,231	14,943
Tax Exempt	22,028	6,196	272,038

### Impervious Area Analysis Findings

The review of the impervious area within the Village reveals the following:

- The single parcel with the largest impervious area in the Village is located within the Tax-Exempt land use. This is noteworthy because Tax-Exempt properties currently do not contribute to funding the Village’s stormwater system.
- Figure 5 demonstrates that there is a fairly even distribution of impervious area by parcel within the single family residential land use type. The most common impervious area falls between 2,500 and 3,000 square feet. The average impervious area among single family residential parcels is 4,461 square feet. However it should be noted that

while the distribution of impervious area is fairly even, there is a wide range - some parcels with less than 500 square feet and a significant number of parcels having impervious area well above 8,500 square feet. If the parcels with over 8,500 square feet of impervious area are excluded, the average impervious area per parcel is 3,400 square feet, which is much closer to a national average impervious area for a single family parcels (approximately 3,000 square feet)<sup>1</sup>. Approximately 90% of the total single family residential parcels have less than 8,500 square feet of impervious surface area.

- Examination of the other land use types does not reveal a similar distribution of impervious area which would be expected based on the significant differences in the types of development on non-residential parcels.
- As shown in Table 5, commercial parcels have a high percentage of impervious area in relation to the total parcel area (at 85% impervious), but the commercial properties are generally small parcels and there are a limited number of these parcels in the Village. As a result, the use of a stormwater fee will not significantly shift stormwater expenditures to commercial properties.

### **Equivalent Runoff Unit**

Once the rate base has been established it is common to develop a standard unit of the rate base often termed an equivalent runoff unit (ERU), also known as an equivalent residential unit. *The number of ERU's on a parcel multiplied by the stormwater fee results in the stormwater bill per parcel.* The ERU is typically based on the average impervious area for single family residential parcels. Based on the impervious area findings mentioned above, we recommend that an ERU of impervious area be established at 3,400 square feet.

It is not uncommon for a locality to simply take the ERU value and apply it to all single family residential property owners. As a result, all property owners in that class would pay the same stormwater fee, regardless of impervious area on their property. This approach is often selected because it is easy to administer. However, due to the large disparity in the amount of impervious area within the Village's, single family residential land use, this approach would result in a significant reduction in the equity of the stormwater fee. For example, under the average approach, a parcel with 500 square feet of impervious area would be assessed the same stormwater fee as a parcel with 9,000 square feet of impervious area. Therefore, we recommend that the Village calculate the ERU's for all land uses based on actual impervious area, rounding to the nearest whole ERU. Under this approach, a parcel with 7,000 square feet of impervious area would be 2 ERU's (7,000 sq ft / 3,400 sq ft = 2.05). The same calculation would be used for all land uses resulting in a number of ERU's per parcel. Table 7 presents the calculated number of ERU's by land use under this approach.

---

<sup>1</sup> Western Kentucky University Stormwater Utility Survey 2012

Table 7 - ERUs by Land Use

Land Use	Equivalent Runoff Units (ERUs)	Percentage of Total
Single Family Residential	5,386	79.6%
Multi-Family Residential	237	3.5%
Commercial	211	3.1%
Industrial	11	0.2%
Tax Exempt	925	13.7%
<b>Total</b>	<b>6,769</b>	<b>100.0%</b>

## F. STORMWATER FEE STRUCTURE

The establishment of the number of ERU's in the Village allows for the calculation of the actual stormwater fee. The most common approach among communities with stormwater fees is to assess the same stormwater fee per ERU across the entire community. A national stormwater benchmarking survey completed in 2010<sup>2</sup> found that 93% of communities with stormwater fees impose the same fee over the entire community. There are, however, alternative approaches to structuring the fees which involve dividing up the community based on watershed, drainage area or some other factor and imposing stormwater fees that vary based on location and associated level of service provided within each area. While the location based stormwater fee is not very common, it may result in a more accurate allocation of costs based on the varying levels of stormwater service provided throughout a service area, particularly when significant capital expenditures are included in the level of service.

The calculation used to determine the uniform stormwater fee is simply the annual stormwater revenue requirements divided by the total number of ERU's in the Village, resulting in a uniform stormwater fee per ERU. The approach used to calculate the location based stormwater fee is far more complicated. To develop a location based stormwater fee it is necessary to allocate each of the stormwater cost categories throughout the stormwater system based on level of service received and common benefits realized by all parcels. Table 8 presents the approach used to allocate the cost components.

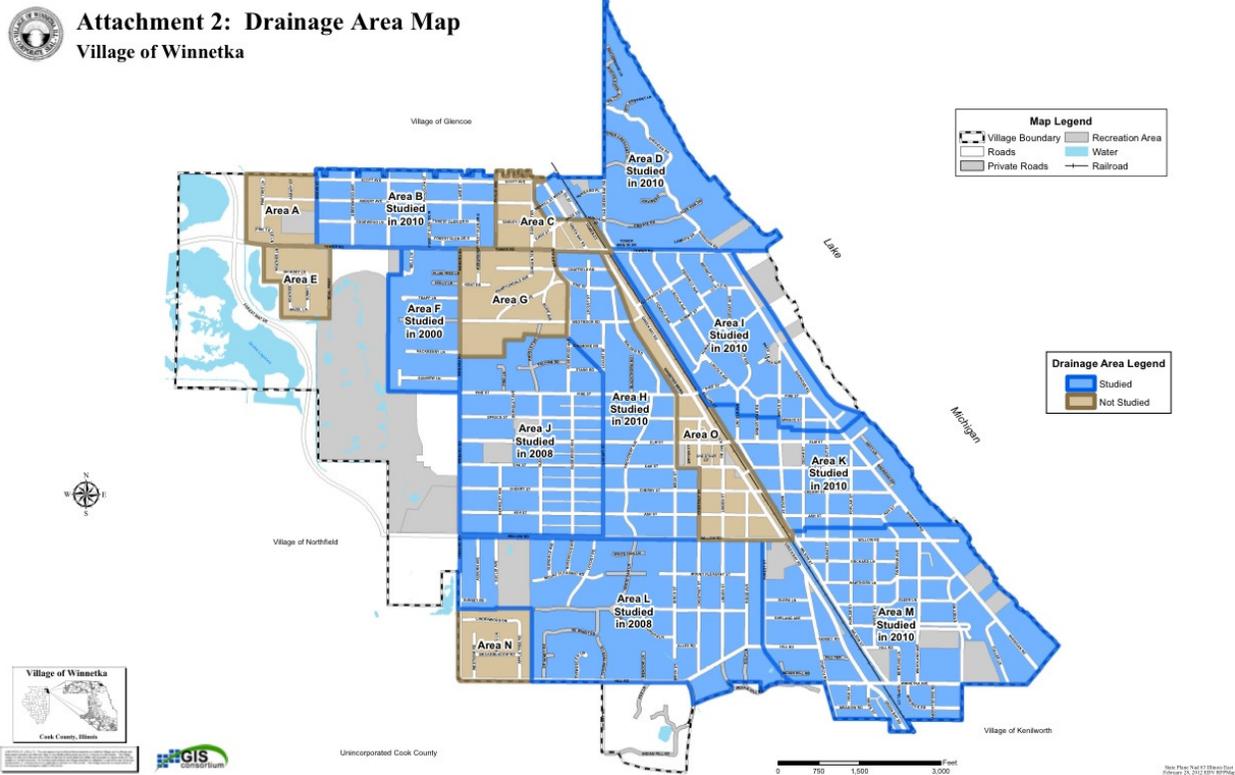
Table 8 - Stormwater Cost Allocations

Cost Category	Allocation
Operating and Maintenance Expenses	All Parcels
Capital Projects	50% to All Parcels / 50% to Specific Drainage Area
Refunding of General Fund Reserves - General Benefit Projects (SW Masterplan, etc)	All Parcels
Refunding of General Fund Reserves - Specific Drainage Area Projects	50% to All Parcels / 50% to Specific Drainage Area

<sup>2</sup> Stormwater Utility Survey 2010, Black & Veatch

The approach used to allocate the cost components includes an allocation of common stormwater costs and 50% of capital projects to all parcels, which establishes a minimum stormwater fee for all parcels. The remaining 50% of capital projects are allocated to the specific drainage area serviced by the capital project. Figure 10 presents the drainage areas within the Village.

Figure 10 - Village Drainage Areas



The drainage map is for illustrative purposes only. The Village is still in the process of defining the actual drainage projects. This will be vitally important should the Village proceed with a location based stormwater fee. An inventory of the capital projects likely to be allocated to each drainage area, along with the cost of the project and number of ERUs located in the area is shown in Table 9.

Table 9 - Drainage Area Projects

Capital Project	Associated Drainage Area	ERUs	Cost of Project
Tower Road / Foxdale	Area: I	527	\$1,162,853
Lloyd Park Outlet / Spruce St	Area: I	527	\$398,786
NW Winnetka / Forest Glen	Area: B	382	\$4,266,924
Willow Road Tunnel	Areas: G,H,J,K,L,M	3,998	\$34,369,048
Winnetka Ave Pump Station	Areas: G,H,J,L,N	2,509	\$750,000

Table 9 presents the total cost of each of the projects by drainage area, of which 50% is allocated to all parcels and the remainder of which is allocated to the specific drainage area, using the location based fee approach. Under the uniform fee approach all of these projects are allocated to all of the parcels in the Village.

These two approaches were used to develop actual stormwater fees within the Village and are presented below for comparison.

### Uniform Stormwater Fee

The uniform stormwater fee assumes all parcels pay the same stormwater fee per ERU regardless of location in the Village. As mentioned above, the uniform stormwater fee is calculated by taking the annual stormwater revenue requirements divided by the total number of ERU's. Table 10 presents the uniform stormwater fee assuming that stormwater fees fully fund the unfunded stormwater revenue requirements presented in Table 4.

*Table 10 - 100% Stormwater Fee Funding - Annual Uniform Stormwater Fee per ERU*

	FY14	FY15	FY16	FY17	FY18
<i>Collected via Stormwater Fees</i>	\$477,882	\$2,166,582	\$3,066,160	\$3,079,610	\$3,093,462
<b>Annual Stormwater Fee per ERU</b>	<b>\$70.60</b>	<b>\$320.06</b>	<b>\$452.95</b>	<b>\$454.94</b>	<b>\$456.99</b>

Table 10 shows that the stormwater fee would quickly ramp up to around \$450 per ERU per by FY16, at which time it levels off due to the leveling revenue requirements.

The same approach was used to calculate a uniform stormwater fee under a combined funding approach (50% property taxes and 50% stormwater fees). In other words, the costs shown in Table 4 are split between property taxes and stormwater fees 50/50. The resulting stormwater fees and incremental property tax bill is shown in Table 11. It is important to note that the annual stormwater fee per ERU represents the stormwater bill for a parcel with 1 ERU of impervious area. Parcels with greater impervious area would pay multiples of an ERU based on the size of their impervious area. Additionally the tax bill shown in Table 11 is based on a home with an equalized assessed value (EAV) of \$400,000. Lastly, Table 11 calculates the property tax deduction taken as a result of the increased tax bill. This assumes that the parcel owner has the ability to deduct property taxes and is not subject to the alternative minimum tax (AMT).

Table 11 - Combined Funding - Annual Uniform Stormwater Fee per ERU and Incremental Annual Tax Bill

	FY14	FY15	FY16	FY17	FY18
Collected via Stormwater Fees (50%)	\$238,941	\$1,083,291	\$1,533,080	\$1,539,805	\$1,546,731
Collected via Property Taxes (50%)	\$238,941	\$1,083,291	\$1,533,080	\$1,539,805	\$1,546,731
<b>Annual Stormwater Fee per ERU</b>	<b>\$35.30</b>	<b>\$160.03</b>	<b>\$226.48</b>	<b>\$227.47</b>	<b>\$228.49</b>
<b>Incremental Property Tax Bill<sup>1</sup></b>	<b>\$59.54</b>	<b>\$269.93</b>	<b>\$382.00</b>	<b>\$383.68</b>	<b>\$385.41</b>
Tax Deduction <sup>2</sup>	(\$22.62)	(\$102.57)	(\$145.16)	(\$145.80)	(\$146.45)
<b>Resulting Total Tax Bill After Deduction</b>	<b>\$36.91</b>	<b>\$167.36</b>	<b>\$236.84</b>	<b>\$237.88</b>	<b>\$238.95</b>

<sup>1</sup>Assumes a single family home with annual tax bill of \$27,000.

<sup>2</sup>Assumes an individual filing with income of \$275,000, Federal tax bracket of 33% plus IL State income tax of 5%.

Table 11 demonstrates a lower stormwater fee due to the additional funding from property taxes which would fund 50% of the unfunded stormwater revenue requirements.

### Location Based Stormwater Fee

Table 12 presents the location based stormwater fee assuming full stormwater fee funding (funding all unfunded revenue requirements shown in Table 4 from the stormwater fee).

Table 12 - 100% Stormwater Fee Funding - Annual Location Based Stormwater Fee per ERU

	FY14	FY15	FY16	FY17	FY18
Collected via Stormwater Fees	\$477,882	\$2,166,582	\$3,066,160	\$3,079,610	\$3,093,462
<b>Areas: A,C,D,E,F,O (Minimum)</b>	<b>\$38.26</b>	<b>\$165.61</b>	<b>\$233.02</b>	<b>\$235.00</b>	<b>\$237.05</b>
<b>Area: B (Minimum + NW Winnetka)</b>	<b>\$137.53</b>	<b>\$564.73</b>	<b>\$632.14</b>	<b>\$634.12</b>	<b>\$636.17</b>
<b>Areas: N (Minimum + Pump Station)</b>	<b>\$40.91</b>	<b>\$176.28</b>	<b>\$243.69</b>	<b>\$245.68</b>	<b>\$247.72</b>
<b>Area: I (Minimum + Tower Road/Foxdale + Lloyd Park)</b>	<b>\$64.58</b>	<b>\$271.42</b>	<b>\$338.83</b>	<b>\$340.82</b>	<b>\$342.86</b>
<b>Areas: G,H,J,L (Minimum + Pump Station + Tunnel)</b>	<b>\$81.05</b>	<b>\$379.04</b>	<b>\$557.32</b>	<b>\$559.31</b>	<b>\$561.36</b>
<b>Areas: K,M (Minimum + Tunnel)</b>	<b>\$78.40</b>	<b>\$368.37</b>	<b>\$546.65</b>	<b>\$548.64</b>	<b>\$550.68</b>

Table 12 demonstrates a wide variation in stormwater fees per ERU under the location based approach depending on which drainage area the parcel is located. The highest fees would be in Area B, which includes the minimum plus the costs of the NW Winnetka / Forest Glen project.

The reason for the high fee in this area is the relatively high cost of the capital project and the limited number of ERUs in the area (only 382).

The same analysis was completed assuming the use of combined funding (50% property taxes and 50% stormwater fees). The stormwater fees and property tax bill under this approach are shown in Table 13.

*Table 13 - Combined Funding - Annual Location Based Stormwater Fee per ERU and Incremental Annual Tax Bill*

	FY14	FY15	FY16	FY17	FY18
<i>Collected via Stormwater Fees</i>	\$477,882	\$2,166,582	\$3,066,160	\$3,079,610	\$3,093,462
<b>Areas: A,C,D,E,F,O (Minimum)</b>	<b>\$19.13</b>	<b>\$82.80</b>	<b>\$116.51</b>	<b>\$117.50</b>	<b>\$118.53</b>
<b>Area: B (Minimum + NW Winnetka)</b>	<b>\$68.76</b>	<b>\$282.36</b>	<b>\$316.07</b>	<b>\$317.06</b>	<b>\$318.09</b>
<b>Areas: N (Minimum + Pump Station)</b>	<b>\$20.46</b>	<b>\$88.14</b>	<b>\$121.85</b>	<b>\$122.84</b>	<b>\$123.86</b>
<b>Area: I (Minimum + Tower Road/Foxdale + Lloyd Park)</b>	<b>\$32.29</b>	<b>\$135.71</b>	<b>\$169.41</b>	<b>\$170.41</b>	<b>\$171.43</b>
<b>Areas: G,H,J,L (Minimum + Pump Station + Tunnel)</b>	<b>\$40.53</b>	<b>\$189.52</b>	<b>\$278.66</b>	<b>\$279.66</b>	<b>\$280.68</b>
<b>Areas: K,M (Minimum + Tunnel)</b>	<b>\$39.20</b>	<b>\$184.18</b>	<b>\$273.32</b>	<b>\$274.32</b>	<b>\$275.34</b>
<b>Incremental Property Tax Bill<sup>1</sup></b>	<b>\$59.54</b>	<b>\$269.93</b>	<b>\$382.00</b>	<b>\$383.68</b>	<b>\$385.41</b>
Tax Deduction <sup>2</sup>	(\$22.62)	(\$102.57)	(\$145.16)	(\$145.80)	(\$146.45)
<b>Resulting Total After Deduction</b>	<b>\$36.91</b>	<b>\$167.36</b>	<b>\$236.84</b>	<b>\$237.88</b>	<b>\$238.95</b>

<sup>1</sup>Assumes a single family home with annual tax bill of \$27,000.

<sup>2</sup>Assumes an individual filing with income of \$275,000, Federal tax bracket of 33% plus IL State income tax of 5%.

### Stormwater Fee Observations

Based on the analysis and development of the stormwater fees the following observations are provided.

- Regardless of the approach that is used to calculate the stormwater fees, the magnitude of the stormwater fees calculated in our analysis are significantly higher than those currently implemented in the State of Illinois or elsewhere around the country.
- The primary reason for the high stormwater fee is due to the size of the capital projects contemplated by the Village and the number of ERUs from which these costs would be recovered. Other communities have completed stormwater capital projects of similar

magnitude considered by the Village but typically have a much larger service area resulting in significantly more ERUs.

- As mentioned previously, the use of a uniform stormwater fee is by far the most common approach for calculating and implementing stormwater fees. A uniform stormwater fee significantly reduces the complexity of the fee as well as the administration of the fee. Any increased equity as the result of a location based fee is typically overshadowed by the complexity and administrative burden.

## G. PROPERTY TAX APPROACH

The stormwater fee calculations in the previous section demonstrated the annual property tax bill if 50% of costs are collected through property taxes. This section examines the use of only property taxes to fund stormwater expenditures. Under this approach the Village would not implement a stormwater utility or stormwater fee and would continue to fund stormwater expenditures through property taxes. Table 14 shows the incremental tax rate and the impact on a property owner’s property tax bill using this approach.

*Table 14 - 100% Property Tax Funding - Incremental Annual Property Tax Bill*

	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>
<i>Collected via Property Taxes</i>	\$477,882	\$2,166,582	\$3,066,160	\$3,079,610	\$3,093,462
Tax Rate per \$100 assessed value	\$0.0298	\$0.1350	\$0.1910	\$0.1918	\$0.1927
<b>Incremental Property Tax Bill<sup>1</sup></b>	<b>\$119.08</b>	<b>\$539.86</b>	<b>\$764.01</b>	<b>\$767.36</b>	<b>\$770.81</b>
Tax Deduction <sup>2</sup>	(\$45.25)	(\$205.15)	(\$290.32)	(\$291.60)	(\$292.91)
<b>Resulting Total After Deduction</b>	<b>\$73.83</b>	<b>\$334.71</b>	<b>\$473.69</b>	<b>\$475.76</b>	<b>\$477.90</b>

<sup>1</sup>Assumes a single family home with annual tax bill of \$27,000.

<sup>2</sup>Assumes an individual filing with income of \$275,000, Federal tax bracket of 33% plus IL State income tax of 5%.

It is important to note that the incremental property tax bill shown in Table 14 is for a sample property. The property tax bill will vary significantly depending on the equalized assessed value of each property. For example, a parcel with a high assessed value but with limited impervious area, would pay significantly more under the property tax approach. Also as previously mentioned, the deductibility of the incremental property tax bill will depend on the individual parcel owner’s specific income.

## Land Use Revenue Comparison

As demonstrated in the previous sections, the use of stormwater fees or property taxes to generate revenues to fund stormwater expenditures will have varying impacts on each type of parcel within the Village. Specific land uses will be required to fund a greater or lesser share of

the cost of stormwater depending on the approach used. Table 15 presents the percentage of revenues generated by land use type under each approach.

*Table 15 - Land Use Revenue Comparison*

Land Use	Percentage of Revenue Collected	
	Stormwater Fee	Property Taxes
Residential	82.9%	95.2%
Commercial	3.1%	4.4%
Industrial	0.2%	0.4%
Tax-Exempt	13.9%	0.0%

Table 15 reveals that the use of a stormwater fee would redistribute costs from residential, commercial and industrial land uses to tax-exempt properties. This result is not surprising given the fact that these properties would not contribute to stormwater funding when using property taxes even though they have impervious area which contributes runoff to the stormwater system and benefit from the existing stormwater infrastructure.

## H. 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. The following tables present the impact on three single family residential parcels, two commercial parcels and two tax-exempt parcels. It is important to note that the tables show comparisons of total stormwater bills based on each approach. The Figure 10 Drainage Area Map, on page 12, can be referenced to see where each parcel is located within the Village.

*Table 16 - Single Family Residential Parcel #1*

<b>Impervious Area</b>	<b>EAV</b>	<b>Drainage Area</b>			<b>ERUs</b>	
3,000 sq ft	\$325,000	C			1	
<b>Bill Comparison</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	
<b>Uniform 100% SW Fee Bill</b>	<b>\$71</b>	<b>\$320</b>	<b>\$453</b>	<b>\$455</b>	<b>\$457</b>	
<b>Location 100% SW Fee Bill</b>	<b>\$38</b>	<b>\$166</b>	<b>\$233</b>	<b>\$235</b>	<b>\$237</b>	
100% Property Taxes (Tax Bill)	\$97	\$438	\$620	\$623	\$625	
Tax Deduction	(\$37)	(\$166)	(\$236)	(\$237)	(\$238)	
<b>Tax Bill After Deduction</b>	<b>\$60</b>	<b>\$272</b>	<b>\$384</b>	<b>\$386</b>	<b>\$388</b>	
Uniform 50% SW Fee	\$35	\$160	\$226	\$227	\$228	
50% Property Taxes (Tax Bill)	\$48	\$219	\$310	\$311	\$313	
Tax Deduction	(\$18)	(\$83)	(\$118)	(\$118)	(\$119)	
Tax Bill After Deduction	\$30	\$136	\$192	\$193	\$194	
<b>Total SW Bill (50% / 50%)</b>	<b>\$65</b>	<b>\$296</b>	<b>\$419</b>	<b>\$420</b>	<b>\$422</b>	
Location Based 50% SW Fee	\$19	\$83	\$117	\$118	\$119	
50% Property Taxes (Tax Bill)	\$48	\$219	\$310	\$311	\$313	
Tax Deduction	(\$18)	(\$83)	(\$118)	(\$118)	(\$119)	
Tax Bill After Deduction	\$30	\$136	\$192	\$193	\$194	
<b>Total SW Bill (50% / 50%)</b>	<b>\$49</b>	<b>\$219</b>	<b>\$309</b>	<b>\$310</b>	<b>\$312</b>	

Table 17 - Single Family Residential Parcel #2

Impervious Area	EAV	Drainage Area			ERUs	
5,330 sq ft	\$464,000	M			2	
Bill Comparison	FY14	FY15	FY16	FY17	FY18	
<b>Uniform 100% SW Fee Bill</b>	<b>\$141</b>	<b>\$640</b>	<b>\$906</b>	<b>\$910</b>	<b>\$914</b>	
<b>Location 100% SW Fee Bill</b>	<b>\$157</b>	<b>\$737</b>	<b>\$1,093</b>	<b>\$1,097</b>	<b>\$1,101</b>	
100% Property Taxes (Tax Bill)	\$138	\$626	\$886	\$889	\$893	
Tax Deduction	(\$52)	(\$238)	(\$337)	(\$338)	(\$340)	
<b>Tax Bill After Deduction</b>	<b>\$86</b>	<b>\$388</b>	<b>\$549</b>	<b>\$551</b>	<b>\$554</b>	
Uniform 50% SW Fee	\$71	\$320	\$453	\$455	\$457	
50% Property Taxes (Tax Bill)	\$69	\$313	\$443	\$445	\$447	
Tax Deduction	(\$26)	(\$119)	(\$168)	(\$169)	(\$170)	
Tax Bill After Deduction	\$43	\$194	\$275	\$276	\$277	
<b>Total SW Bill (50% / 50%)</b>	<b>\$113</b>	<b>\$514</b>	<b>\$727</b>	<b>\$731</b>	<b>\$734</b>	
Location Based 50% SW Fee	\$78	\$368	\$547	\$549	\$551	
50% Property Taxes (Tax Bill)	\$69	\$313	\$443	\$445	\$447	
Tax Deduction	(\$26)	(\$119)	(\$168)	(\$169)	(\$170)	
Tax Bill After Deduction	\$43	\$194	\$275	\$276	\$277	
<b>Total SW Bill (50% / 50%)</b>	<b>\$121</b>	<b>\$562</b>	<b>\$821</b>	<b>\$824</b>	<b>\$828</b>	

Table 18 - Single Family Residential Parcel #3

Impervious Area	EAV	Drainage Area			ERU	
8,600 sq ft	\$656,000	L			3	
Bill Comparison	FY14	FY15	FY16	FY17	FY18	
<b>Uniform 100% SW Fee Bill</b>	<b>\$212</b>	<b>\$960</b>	<b>\$1,359</b>	<b>\$1,365</b>	<b>\$1,371</b>	
<b>Location 100% SW Fee Bill</b>	<b>\$255</b>	<b>\$1,195</b>	<b>\$1,762</b>	<b>\$1,768</b>	<b>\$1,774</b>	
100% Property Taxes (Tax Bill)	\$195	\$886	\$1,253	\$1,259	\$1,265	
Tax Deduction	(\$74)	(\$337)	(\$476)	(\$478)	(\$481)	
<b>Tax Bill After Deduction</b>	<b>\$121</b>	<b>\$549</b>	<b>\$777</b>	<b>\$781</b>	<b>\$784</b>	
Uniform 50% SW Fee Bill	\$106	\$480	\$679	\$682	\$685	
50% Property Taxes (Tax Bill)	\$98	\$443	\$627	\$629	\$632	
Tax Deduction	(\$37)	(\$168)	(\$238)	(\$239)	(\$240)	
Tax Bill After Deduction	\$61	\$275	\$389	\$390	\$392	
<b>Total SW Bill (50% / 50%)</b>	<b>\$166</b>	<b>\$755</b>	<b>\$1,068</b>	<b>\$1,073</b>	<b>\$1,077</b>	
Location Based 50% SW Fee Bill	\$127	\$598	\$881	\$884	\$887	
50% Property Taxes (Tax Bill)	\$98	\$443	\$627	\$629	\$632	
Tax Deduction	(\$37)	(\$168)	(\$238)	(\$239)	(\$240)	
Tax Bill After Deduction	\$61	\$275	\$389	\$390	\$392	
<b>Total SW Bill (50% / 50%)</b>	<b>\$188</b>	<b>\$872</b>	<b>\$1,270</b>	<b>\$1,274</b>	<b>\$1,279</b>	

Table 19 - Commercial Parcel #1

Impervious Area	EAV	Drainage Area			ERU	
6,800 sq ft	\$823,000	C			2	
Bill Comparison	FY14	FY15	FY16	FY17	FY18	
<b>Uniform 100% SW Fee Bill</b>	<b>\$141</b>	<b>\$640</b>	<b>\$906</b>	<b>\$910</b>	<b>\$914</b>	
<b>Location 100% SW Fee Bill</b>	<b>\$77</b>	<b>\$331</b>	<b>\$466</b>	<b>\$470</b>	<b>\$474</b>	
<b>100% Property Taxes (Tax Bill)</b>	<b>\$245</b>	<b>\$1,111</b>	<b>\$1,572</b>	<b>\$1,579</b>	<b>\$1,586</b>	
Uniform 50% SW Fee Bill	\$71	\$320	\$453	\$455	\$457	
50% Property Taxes (Tax Bill)	\$123	\$556	\$786	\$790	\$793	
<b>Total SW Bill (50% / 50%)</b>	<b>\$193</b>	<b>\$876</b>	<b>\$1,239</b>	<b>\$1,245</b>	<b>\$1,250</b>	
Location Based 50% SW Fee Bill	\$38	\$166	\$233	\$235	\$237	
50% Property Taxes (Tax Bill)	\$123	\$556	\$786	\$790	\$793	
<b>Total SW Bill (50% / 50%)</b>	<b>\$161</b>	<b>\$721</b>	<b>\$1,019</b>	<b>\$1,025</b>	<b>\$1,030</b>	

Table 20 - Commercial Parcel #2

Impervious Area	EAV	Drainage Area			ERU	
2,900 sq ft	\$218,000	O			1	
Bill Comparison	FY14	FY15	FY16	FY17	FY18	
<b>Uniform 100% SW Fee Bill</b>	<b>\$71</b>	<b>\$320</b>	<b>\$453</b>	<b>\$455</b>	<b>\$457</b>	
<b>Location 100% SW Fee Bill</b>	<b>\$38</b>	<b>\$166</b>	<b>\$233</b>	<b>\$235</b>	<b>\$237</b>	
<b>100% Property Taxes (Tax Bill)</b>	<b>\$65</b>	<b>\$295</b>	<b>\$417</b>	<b>\$419</b>	<b>\$421</b>	
Uniform 50% SW Fee Bill	\$35	\$160	\$226	\$227	\$228	
50% Property Taxes (Tax Bill)	\$33	\$147	\$209	\$209	\$210	
<b>Total SW Bill (50% / 50%)</b>	<b>\$68</b>	<b>\$307</b>	<b>\$435</b>	<b>\$437</b>	<b>\$439</b>	
Location Based 50% SW Fee Bill	\$19	\$83	\$117	\$118	\$119	
50% Property Taxes (Tax Bill)	\$33	\$147	\$209	\$209	\$210	
<b>Total SW Bill (50% / 50%)</b>	<b>\$52</b>	<b>\$230</b>	<b>\$325</b>	<b>\$327</b>	<b>\$329</b>	

Table 21 - Tax-Exempt Parcel #1

Impervious Area	EAV	Drainage Area			ERU
200,000 sq ft	\$-	J			59
Bill Comparison	FY14	FY15	FY16	FY17	FY18
<b>Uniform 100% SW Fee Bill</b>	<b>\$4,165</b>	<b>\$18,884</b>	<b>\$26,724</b>	<b>\$26,842</b>	<b>\$26,962</b>
<b>Location 100% SW Fee Bill</b>	<b>\$5,009</b>	<b>\$23,509</b>	<b>\$34,653</b>	<b>\$34,770</b>	<b>\$34,891</b>
<b>100% Property Taxes (Tax Bill)</b>	-	-	-	-	-
Uniform 50% SW Fee Bill	\$2,083	\$9,442	\$13,362	\$13,421	\$13,481
50% Property Taxes (Tax Bill)	-	-	-	-	-
<b>Total SW Bill (50% / 50%)</b>	<b>\$2,083</b>	<b>\$9,442</b>	<b>\$13,362</b>	<b>\$13,421</b>	<b>\$13,481</b>
Location Based 50% SW Fee Bill	\$2,504	\$11,754	\$17,327	\$17,385	\$17,446
50% Property Taxes (Tax Bill)	-	-	-	-	-
<b>Total SW Bill (50% / 50%)</b>	<b>\$2,504</b>	<b>\$11,754</b>	<b>\$17,327</b>	<b>\$17,385</b>	<b>\$17,446</b>

Table 22 - Tax-Exempt Parcel #2

Impervious Area	EVA	Drainage Area			ERU
40,600 sq ft	\$-	M			12
Bill Comparison	FY14	FY15	FY16	FY17	FY18
<b>Uniform 100% SW Fee Bill</b>	<b>\$847</b>	<b>\$3,841</b>	<b>\$5,435</b>	<b>\$5,459</b>	<b>\$5,484</b>
<b>Location 100% SW Fee Bill</b>	<b>\$941</b>	<b>\$4,420</b>	<b>\$6,560</b>	<b>\$6,584</b>	<b>\$6,608</b>
<b>100% Property Taxes (Tax Bill)</b>	-	-	-	-	-
Uniform 50% SW Fee Bill	\$424	\$1,920	\$2,718	\$2,730	\$2,742
50% Property Taxes (Tax Bill)	-	-	-	-	-
<b>Total SW Bill (50% / 50%)</b>	<b>\$424</b>	<b>\$1,920</b>	<b>\$2,718</b>	<b>\$2,730</b>	<b>\$2,742</b>
Location Based 50% SW Fee Bill	\$470	\$2,210	\$3,280	\$3,292	\$3,304
50% Property Taxes (Tax Bill)	-	-	-	-	-
<b>Total SW Bill (50% / 50%)</b>	<b>\$470</b>	<b>\$2,210</b>	<b>\$3,280</b>	<b>\$3,292</b>	<b>\$3,304</b>

The tables show that impacts to actual parcels within the Village will vary significantly depending on the amount of impervious area, location and assessed value. As would be expected, parcels with a significant amount of impervious area will experience the most significant impact under the stormwater fee approach and conversely parcels with high assessed values will experience the most significant impact under the property tax approach.

## **I. STORMWATER POLICY ISSUE CONSIDERATIONS**

There are a number of ways to fund stormwater expenditures, all of which will have varying impacts on parcels within the Village depending how the costs are recovered and the specific attributes of the parcel. The key policy issues that require consideration by the Village are summarized below.

### **Policy Issue #1 - What level of stormwater service should the Village provide?**

As mentioned previously in this report, we recommend that the Village focus on funding stormwater expenditures over the next three to five years. This would include funding of the incremental cost of operating and maintaining the stormwater system (above the current funding from the General Fund), refunding the General Fund reserves used to fund stormwater projects and the funding of the Willow Road Tunnel and the Northwest Winnetka Greenwood / Forest Glen project. The total cost of refunding the General Fund and these capital projects will total \$41.1 million.

### **Policy Issue #2 - How should the level of service be funded?**

The Village has the option to fund stormwater expenditures completely from property taxes, completely from stormwater fees or any combination of the two (50% / 50% was provided in this report to demonstrate the combination funding). The use of property taxes would be consistent with the Village's historical practices for funding stormwater expenditures. However, using this approach would allocate costs to property owners based on the value of their property which has limited, if any, correlation to their stormwater runoff contribution. Given the magnitude of the stormwater capital expenditures facing the Village, we believe that the equitable allocation of costs will be of significant importance and as a result we would recommend that the Village recover the majority of the stormwater expenditures through a stormwater fee.

### **Policy Issue #3 - What rate base should be used to measure stormwater contribution?**

Should the Village decide to recover some or all of the stormwater expenditures using a stormwater fee, the rate base for the fee will need to be determined. We recommend that the Village use actual measured impervious area as the rate base for the 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.

### **Policy Issue #4 - How should the stormwater fee be structured?**

This report developed 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. The most common approach is to use a uniform fee. The administrative complexity of a location based stormwater fee is often a major deterrent to that approach. However, a location based approach may result in increased equity of the stormwater fee. Several potential issues related to the location based structure would need to be addressed including:

- How to assess a stormwater fee to parcels that straddle a drainage area boundary.
- How to manage the complexity associated with having multiple stormwater fees, particularly as expenditures change (such as the addition of possible future drainage area projects).
- How to address customer appeals regarding location within drainage area and actual stormwater contribution.

While the location based stormwater fee approach may provide a greater level of equity these policy issues and other factors must be carefully considered by the Village.