Stormwater Management Program Development and Rate Study

Villa Park, Illinois

February 2014

Stanley Consultants INC.
A Stanley Group Company
Engineering, Environmental and Construction Services - Worldwide

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I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Illinois.

Debra K. Mathias 02/20/2014

My license renewal date is December 31, 2015.

Pages or sheets covered by this seal: Entire Report

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Executive Summary

General

This report presents the results of the Stormwater Management Program Development and Rate Analysis Study conducted for the Village of Villa Park (Village). The study involves assisting Village staff with laying the groundwork for a stormwater management program dedicated to providing storm drainage and flood control management services. The study also includes establishing a dedicated stormwater user charge to finance the stormwater management program, at least in part.

Purpose

Stormwater must be managed to protect homes, properties, the environment, streams, and rivers from damage due to flooding, pooling, erosion, and harmful pollutants. The Village of Villa Park (Village) faces the following challenges associated with managing stormwater:

- Transport of flow in defined channels so random flooding does not occur.
- Keeping streets drained and cleared so travel is safe.
- Protection of water quality and quantity impacts by preventing harmful pollutants from being washed into local streams and rivers by stormwater runoff as required by USEPA.
- Correction of drainage problems to reduce erosion and loss of property.
- Making necessary repairs of, or replacing, aging stormwater infrastructure including stormwater inlets, pipes, culverts, and other structures to safely collect and convey stormwater through all parts of the Village.
- Conducting ongoing inspection and maintenance to mitigate existing and future problems.
- Developing, administering, inspecting, and enforcing a federally mandated stormwater program that is required by USEPA's Phase II of the National Pollutant Discharge Elimination System (NPDES) program.

As cities grow and more development occurs, natural landscape is replaced by impervious surfaces. An impervious surface is any constructed hardened surface that inhibits the natural infiltration of stormwater into the soil. Constructed surfaces, including pavement and parking lots (asphalt, concrete, brick, compacted gravel, etc.), sidewalks, rooftops, and non-wooden decks and patios, are considered impervious surfaces.

Addition of impervious area on developed properties decreases the amount of groundwater recharge and increases the amount of stormwater runoff, flooding of local streams and rivers, and erosion of stream channels and banks.

The major contributing factor in water pollution is the amount of runoff. In general, increased impervious area correlates to contamination of stream ecosystems due to pollutants carried by the runoff from the site.

Stormwater Management Program

Establishment of a Stormwater Management Program as a self-supported "Enterprise Fund" allows generation of funding dedicated to stormwater management activities. An enterprise fund accounts for its revenues and expenses separately from other village funds, and assesses a charge for services provided. The revenue obtained from the dedicated Stormwater Management Program user charge stays in the enterprise fund to pay for stormwater management activities. The Stormwater Management Program can provide a sustainable source of revenue that supports stability of staff and operations, and allow continuity of a CIP program.

No tax dollars would be used to pay Stormwater Management Program expenses. The Stormwater Management Program revenue frees up general funds for other Village needs.

Revenue bonds can be issued by the Enterprise Fund to facilitate construction of stormwater management facilities because revenues generated are used to make principal and interest payments.

Operating Expenses

Expenses to be funded by stormwater charges include operating and maintenance costs and financing for capital improvement projects. Operating expenses are those expenses that occur while providing stormwater management service.

Working with Village staff, operating expenses for the Stormwater Management Program were identified. These expenses include operations previously funded by the Stormwater Buyout Fund, stormwater related expenses previously funded from the Street Fund, some Village administrative staff support, and three proposed full-time field staff.

Capital Financing Expenses

Table ES-1 presents the capital improvements and estimated stormwater portion of costs for projects identified in the Village's Capital Improvement Program (CIP). The projects construct storm sewers associated with roadway reconstructions, separate combined sewers, maintain the system, mitigate flooding, and address major drainage issues. This study projects financing

$1.0 million of construction through debt service each year beginning in Fiscal Year 2016. Annual principal and interest payments will be paid from stormwater charges revenue.

Additional capital expenses include the Drainage Assistance Program and Engineering associated with design of the capital projects.

Table ES-1 Stormwater Capital Improvement Projects

Description	Estimated Engineering Cost	Estimated Construction Cost	Total Estimated Project Costs
Astor Court Improvement Project	$43,090	$215,449	$258,538
Maple Street Improvement Project	$78,711	$393,555	$472,266
Michigan Avenue Improvement Project	$66,645	$333,225	$399,870
Monterey Avenue Sewer Separation Project	$68,000	$289,500	$357,500
Myrtle Avenue Improvement Project	$46,906	$234,527	$281,433
Pine Street Improvement Project	$61,167	$305,836	$367,003
Summit Avenue Improvement Project	$30,261	$151,302	$181,562
Van Buren Street Improvement Project	$57,546	$287,727	$345,272
Yale Avenue Improvement Project	$69,871	$349,352	$419,223
Flood Control Study & Mitigation	$250,000	$2,500,000	$2,750,000
Rear Yard Drainage Projects		$160,000	$160,000
Jackson Pond Expansion		$850,000	$850,000
Lufkin Pond Expansion		$450,000	$450,000
Flood Damaged Property Buyout		$650,000	$650,000
TOTAL	**$902,195**	**$7,040,471**	**$7,942,665**

Source: Village of Villa Park

Proposed Stormwater Charge

Most of the current stormwater management related costs are paid using a combination of the Stormwater Buyout Fund, Street Fund, General Fund and Grants. These sources of revenue do not provide reliable or adequate revenue to meet stormwater management needs and do not recognize the contribution of each property to the stormwater system.

A recommendation of this study is a Stormwater Management Program rate structure that spreads increasing stormwater related costs among all users in an equitable manner. A fair and equitable method for calculating stormwater charges is to assess property owners in proportion to an estimate of the demand that each property places on the stormwater management system. Rain

and snowmelt is conveyed from properties as runoff to the public stormwater drainage system that includes streets, storm sewers, culverts, ditches, creeks, etc.

Impervious area can be measured and has a direct and accepted relationship to the estimated amount of water that leaves a property as stormwater runoff. The recommended rate structure uses the amount of impervious surface area (measured in square feet) as a measurement of the demand that each property places on the stormwater management system. A unit of impervious surface area on an average single-family, residential property, or "equivalent residential unit (ERU)," is the quantity used for assessing stormwater charges. The size of one ERU was determined by averaging the impervious surface areas of existing single-family properties in the Village. The value of one ERU is set at 3,000 square feet of impervious area for the Village of Villa Park.

A correlation generally exists between residential parcel size and amount of impervious surface area. Although pervious surface areas contribute to runoff from a property they are not factored into the recommended stormwater rate structure. Residential parcels of similar sizes generally have similar amounts of stormwater runoff and pollutant loading. A single-tiered rate structure for single-family residential properties simplifies the set-up of the billing system. Therefore, single-family residential properties are allocated one ERU and charged the equivalent of one ERU unit rate per month.

Stormwater charges for all other developed properties are based on the measured amount of impervious area on their property. Developed property is defined as property that has been altered from its natural state by the addition of impervious area. All other developed properties include apartments, multi-family residences, commercial businesses, industries, and institutional properties belonging to the City, schools, churches, and other non-profit organizations. The number of ERUs allocated to each property is determined by dividing the total impervious area for the parcel by 3,000 square feet (1 ERU) and rounding up to the nearest tenth.

Table ES-2 presents the proposed stormwater rate to pay Fiscal Years 2015 through 2017 projected expenses. The monthly unit rate for one ERU was calculated by dividing the total annual stormwater management expenses by the total number of ERUs that will be assessed on an annual basis. The total charge for each property is determined by multiplying the number of assessed ERUs for that property by the ERU unit rate.

Table ES-2 Proposed Monthly Stormwater Rates

	Proposed Monthly Rate
Stormwater Unit Rate (per ERU per month)	$5.45
Single-Family Residential Parcels	$5.45
Other Parcels	$5.45 x # ERUs

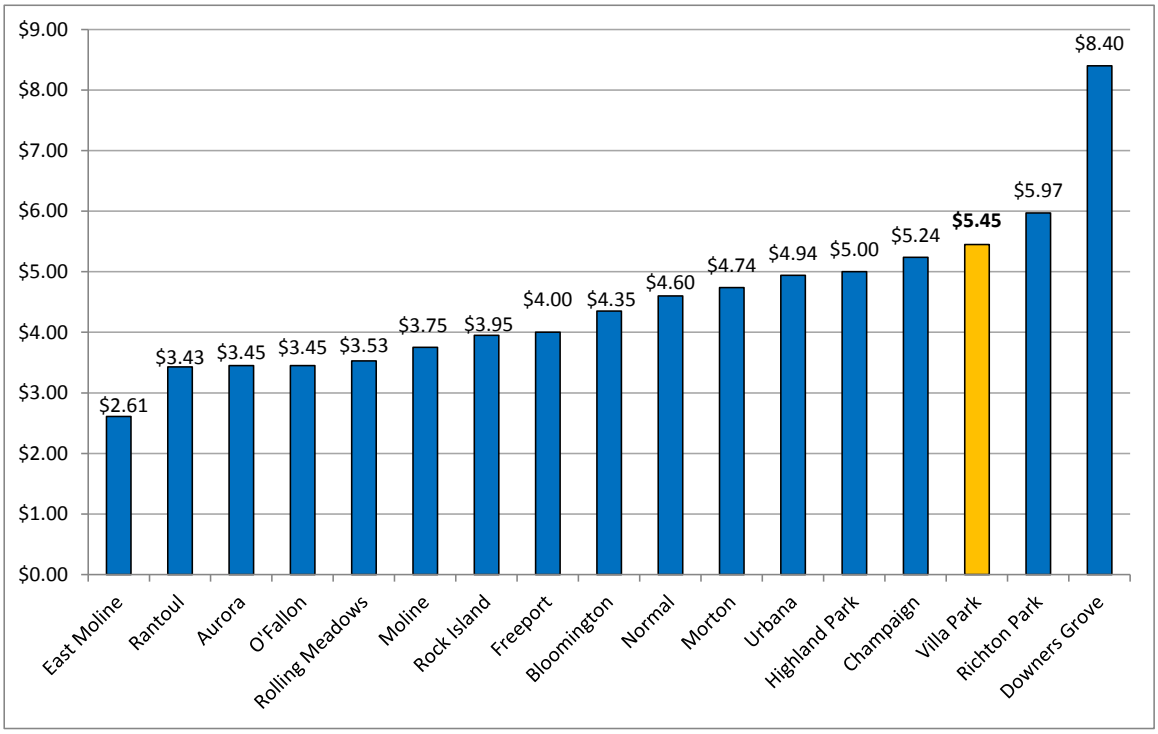
Source: Stanley Consultants, Inc.

For estimating purposes, adjustments to stormwater management capital expenses would have the following impact:

1. A change of $500,000 in capital costs, based on a 3 percent, 20 year bond, results in $33,000 change in annual expenditures or about $0.21 change per ERU per month.
2. A change of 1% in bond interest rate results in $6,000 change in annual expenditures or about $0.04 change per ERU per month.

Stormwater Rate Comparison with Other Illinois Communities

Figure ES-1 presents a comparison of Villa Park's proposed Fiscal Year 2015 stormwater rate to other Illinois communities. The comparison is only with communities that have a stormwater rate structure based on impervious area.



ERU Rate per Month
Figure ES-1

Conclusions/Recommendations

Establishment of a Stormwater Management Program as a self-supported "Enterprise Fund" is recommended to generate revenue specifically for stormwater management activities. The revenue collected directly supports maintenance of existing storm drain systems, development of drainage plans, flood control measures, water quality programs, and funding of major capital expenses.

Implementation of proposed stormwater rate Fiscal Years 2015 through 2017 is recommended. The proposed rate will cover all necessary operations, maintenance and overhead costs, provide

adequate project financing, maintain a healthy Stormwater Management Program Fund balance, and build additional fund reserves.

The proposed rate structure is based on the amount of impervious surface area (measured in square feet) as a measurement of the demand that each property places on the stormwater management system. Each residential parcel is assigned one ERU. The number of ERUs assigned to all other developed parcels is determined by dividing the total measured impervious area for each parcel by 3,000 square feet (1 ERU).

Re-evaluation of rates every year is recommended to assess the adequacy of rates for keeping pace with inflation, capital improvement expenditures, and actual capital improvement funding expenses. Implementation of rate adjustments at least every three years is recommended so that proper adjustments to changing conditions can be made.

Table of Contents

TABLES

FIGURES

APPENDICES

Section 1

Introduction

General

This report presents the results of the Stormwater Management Program Development and Rate Analysis Study conducted for the Village of Villa Park (Village). The study involves assisting Village staff with laying the groundwork for a stormwater management program dedicated to providing storm drainage and flood control management services. The study also includes establishing a dedicated stormwater user charge to finance the stormwater management program, at least in part.

Establishment of a Stormwater Management Program as a self-supported "Enterprise Fund" allows stormwater management revenues and expenses to be accounted for separately from other village funds. An enterprise fund assesses a charge for services provided. The revenue obtained stays in the enterprise fund to pay for stormwater management activities. The enterprise fund is kept separate from the Village's General Fund and no tax dollars are used to pay Stormwater Management Program expenses.

The first step in developing a Stormwater Management Program involves identification of stormwater management needs and related costs for operations, maintenance, overhead and capital projects. The purpose of the cost-of-service rate analysis is to recommend a reliable and equitable stormwater rate structure that spreads stormwater related costs among all users and provides the revenue that meets the ever increasing demands of stormwater management activities. Most of the current stormwater management related costs are paid using a combination of the Stormwater Buyout Fund, Street Fund, General Fund and Grants.

The recommended stormwater rate structure was developed based on a cost-of-service rate analysis. The rate structure uses the amount of impervious surface area (measured in square feet) as a measurement of the demand that each property places on the stormwater management system. A unit of impervious surface area on an average single family, residential property, or

"equivalent residential unit (ERU)," is the quantity used for assessing stormwater charges. The cost-of-service rate analysis approach divides the total stormwater management expenses (costs) by the stormwater billing quantities (total number of assessed ERUs) to determine a stormwater user charge unit rate. The recommended stormwater rate structure results in varying financial impact on different customer groups.

This report includes the following:

- Section 1 presents a general overview of the rate study report.
- Section 2 presents an overview and analysis of the major philosophical issues built into development of a stormwater management program and the proposed stormwater rate structure.

Sections 3 through 6 include the following discussions corresponding to the rate development tables.

- Section 3 presents the Billing Quantities that provide a measurable amount of service for assessing the stormwater rate.
- Section 4 presents the Revenues and Expenses. Expenses are based on past and projected operating costs and capital financing funding.
- Section 5 presents the Cost-of-Service Analysis and Rate Design. The Cost-of-Service rate analysis was developed to determine the stormwater rates required to cover projected expenses. The Rate Design presents the proposed rates and operating results with proposed rates.
- Section 6 presents Implementing a Stormwater Management Program and Stormwater User Charge. Steps required for further development of the program are identified.

Stormwater Rate Analysis Spreadsheets

Appendix A contains the stormwater rate analysis spreadsheets prepared for this study.

The text in this report follows the rate analysis spreadsheets closely, explaining points of interest and/or assumptions as they occur. The rate analysis spreadsheets document expenses for budget Fiscal Year 2015 and projected Fiscal Year 2016 through 2019. The spreadsheets also document billing quantities, cost-of-service analysis, and rate design for stormwater management for budget Fiscal Year 2015 and projected Fiscal Year 2016 through 2019. The Fiscal Year for the Village of Villa Park is May 1 through April 30.

Stormwater and Floodplain Ordinance

Appendix B contains the countywide stormwater and floodplain ordinance that was adopted by the Village for the purpose of promoting effective, equitable and acceptable stormwater management measures.

Historical and Budget Revenue and Operating Expenditures

Appendix C contains a summary of historical Stormwater Buyout revenue and historical and projected expenditures identified by the Village to be funded by the Stormwater Management Program.

Capital Improvement Program

Appendix D contains a list of projects identified in Villa Park's Capital Improvement Program and the amount of cost to be funded by the Stormwater Management Program for each project.

Frequently Asked Questions

Appendix E contains answers to frequently asked questions, with answers, that Village Board members should expect in regards to a stormwater management program and user charge.

Acknowledgements

Background information for the stormwater management program and rate study was obtained through conversations and correspondence with Vydas Juskelis, Public Works Director, and Dale Hessel, Public Works Department MIS Specialist.

The Village of Villa Park provided an aerial photograph and Geographic Information Systems (GIS) database including parcel lines, annotation (tax data), 1992 planimetric lines, and address points. DuPage County's GIS department developed the surface type data for the entire county. They identified all planimetric elements including buildings, sheds, roads, parking lots, driveways, sidewalks, decks, patios, and pools. The data was gathered manually using on-screen digitizing from aerial imagery by tracing every feature. Updating data and making corrections is an ongoing process as new imagery becomes available.

Each parcel is identified by zoning classification: residential, multi-family, apartment, commercial, industrial, or tax exempt. The GIS database provided gross size and impervious areas for each parcel. The tax assessment database provided owner, legal description, zoning, parcel size, etc.

A number of properties may have been developed since 1992 and do not have delineated areas. Impervious areas for parcels added since 1992 should be delineated and added to the stormwater database when the Village's aerial photography is updated.

Recommendations

Recommendations of this rate study report are discussed below.

- Establishment of a Stormwater Management Program as a self-supported "Enterprise Fund" is recommended to generate revenue specifically for storm drainage and flood control management services activities. The revenue collected directly supports maintenance of existing storm drain systems, development of drainage plans, flood control measures, water quality programs, and funding of major capital expenses.

- Stormwater Rate Schedule

  A fair and equitable method for collecting stormwater user charges is recommended. The recommended rate structure uses the amount of impervious surface area (measured in square feet) as a measurement of the demand that each property places on the stormwater management system. A unit of impervious surface area on an average single family, residential property, or ERU, is the quantity used for assessing stormwater charges. The size of one ERU was determined by averaging the impervious surface areas existing on a representative sample of single-family properties around the City. The value of one ERU is set at 3,000 square feet of impervious area for Villa Park. The monthly unit rate for one ERU was calculated by dividing the total annual projected stormwater management costs by the total annual number of ERUs that will be assessed.

- Annual Stormwater Rate Reviews

  The recommended stormwater rates are based on projected costs and are dependent on actual operation expenditures and construction costs. Re-evaluation of stormwater rates every year and implementation of rate adjustments at least every three years is recommended. Revenues generated by the stormwater rates and costs incurred by the Stormwater Management Program will be known at the time of re-evaluation. Annual re-evaluation of stormwater rates assesses the adequacy of stormwater rates for keeping pace with inflation, increasing operation expenses, capital improvement plan expenditures, and capital improvement plan funding sources. The re-evaluation allows for proper adjustments to changing conditions and results in more fair and equitable rates.

Section 2

Philosophical Issues

General

This section summarizes the major philosophical issues that significantly influence the Stormwater Management Program Development and Rate Study conducted by Stanley Consultants, Inc. The purpose of the study is to lay the groundwork for a stormwater management program and to perform a cost-of-service rate analysis that appropriately charges fair and equitable rates to all customers based on the demand that each property places on the stormwater management system.

Existing Stormwater Revenue

Most of the current stormwater management related costs are paid using a combination of the Stormwater Buyout Fund, Street Fund, General Fund and Grants. The majority of the Stormwater Buyout Fund revenue is from a stormwater detention buyout fee. This fee is a one-time fee paid by developers in lieu of providing on-site stormwater detention. The Stormwater Buyout revenue is driven by new development and is not a reliable source of revenue. Grants are not a guaranteed revenue source and cannot be depended on for covering operational expenses. The current sources of revenue do not provide adequate revenue to meet stormwater management needs and do not recognize the contribution of each property to the stormwater system.

Objective of Stormwater Management Program

As cities grow and more development occurs, natural landscape is replaced by impervious surfaces. An impervious surface is any constructed hardened surface that inhibits the natural infiltration of stormwater into the soil. Constructed surfaces, including pavement and parking lots (asphalt, concrete, brick, compacted gravel, etc.), sidewalks, rooftops, and non-wooden decks and patios, are considered impervious surfaces.

Addition of impervious area on developed properties decreases the amount of groundwater recharge and increases the amount of stormwater runoff, flooding of local streams and rivers, and erosion of stream channels and banks. The major contributing factor in water pollution is the amount of runoff. In general, increased impervious area correlates to contamination of stream ecosystems due to pollutants carried by the runoff from the site.

Stormwater must be managed to protect homes, properties, the environment, streams, and rivers from damage due to flooding, pooling, erosion, and harmful pollutants. The Village faces the following challenges associated with managing stormwater:

- Transport of flow in defined channels so random flooding does not occur.
- Keeping streets drained and cleared so travel is safe.
- Protection of water quality and quantity impacts by preventing harmful pollutants from being washed into local streams and rivers by stormwater runoff as required by USEPA.
- Correction of drainage problems to reduce erosion and loss of property.
- Making necessary repairs of, or replace, aging stormwater infrastructure including stormwater inlets, pipes, culverts, and other structures to safely collect and convey stormwater through all parts of the Village.
- Conducting ongoing inspection and maintenance to mitigate existing and future problems.
- Developing, administering, inspecting, and enforcing a federally mandated stormwater program that is required by USEPA's Phase II of the National Pollutant Discharge Elimination System (NPDES) program.

Establishment of a Stormwater Management Program as a self-supported "Enterprise Fund" allows generation of funding dedicated to stormwater management activities. An enterprise fund accounts for its revenues and expenses separately from other village funds, and assesses a charge for services provided. The revenue obtained from the Stormwater Management Program user charge stays in the enterprise fund to pay for stormwater management activities. The Stormwater Management Program can provide a sustainable source of revenue that supports stability of staff, operations, and allows continuity of a CIP program.

No tax dollars would be used to pay Stormwater Management Program expenses. The dedicated stormwater user charge revenue frees up general funds for other Village needs.

Revenue bonds can be issued by the Enterprise Fund to facilitate construction of stormwater management facilities because revenues generated are used to make principal and interest payments.

Proposed Stormwater Charge

A recommendation of this study is a Stormwater Management Program rate structure that spreads increasing stormwater related costs among all users in an equitable manner. A fair and equitable method for calculating stormwater charges is to assess property owners in proportion to an estimate of the demand that each property places on the stormwater management system. Rain

and snowmelt is conveyed from properties as runoff to the public stormwater drainage system that includes streets, storm sewers, culverts, ditches, creeks, etc.

Impervious area can be measured and has a direct and accepted relationship to the estimated amount of water that leaves a property as stormwater runoff. The recommended rate structure uses the amount of impervious surface area (measured in square feet) as a measurement of the demand that each property places on the stormwater management system. A unit of impervious surface area on an average single-family, residential property, or "equivalent residential unit (ERU)," is the quantity used for assessing stormwater charges. The size of one ERU was determined by averaging the impervious surface areas of existing single-family properties in the Village. The value of one ERU is set at 3,000 square feet of impervious area for the Village of Villa Park.

A correlation generally exists between residential parcel size and amount of impervious surface area. Although pervious surface areas contribute to runoff from a property they are not factored into the recommended stormwater rate structure. Residential parcels of similar sizes generally have similar amounts of stormwater runoff and pollutant loading. A single-tiered rate structure for single-family residential properties simplifies the set-up of the billing system. Therefore, single-family residential properties are allocated one ERU and charged the equivalent of one ERU unit rate per month.

Stormwater charges for all other developed properties are based on the measured amount of impervious area on their property. Developed property is defined as property that has been altered from its natural state by the addition of impervious area. All other developed properties include apartments, multi-family residences, commercial businesses, industries, and institutional properties belonging to the City, schools, churches, and other non-profit organizations. A combination of aerial photography, Geographic Information Systems (GIS) database, and planimetric lines, provided by the Village, was used to identify impervious surfaces, including pavement, sidewalks, rooftops, and non-wooden decks and patios. The number of ERUs allocated to each property was determined by dividing the total impervious area by 3,000 square feet (1 ERU) and rounding up to the nearest tenth.

The monthly unit rate for one ERU was calculated by dividing the total annual stormwater management expenses by the total number of ERUs that will be assessed on an annual basis. The total charge for each property is determined by multiplying the number of assessed ERUs for that property by the ERU unit rate. Public roadways and highways are considered part of the stormwater conveyance system and are not assessed stormwater fees.

A property owner can challenge the estimated impervious area by hiring a survey crew, at their own expense, to measure the impervious surfaces on their parcel. The Village should require field measurements of impervious areas for all new development.

The property owner is responsible for distributing the cost to individual renters or sub-businesses for properties with multiple renters or businesses. Each individual owner is responsible for their portion of the cost for properties with multiple owners, i.e. condominiums.

Conclusions

Stormwater management issues were evaluated when assessing the need for a Stormwater Management Program and a stormwater user charge that will provide an adequate source of revenue. The guiding principle considered for the stormwater rate was to determine a fair and equitable rate for all customers. The major contributing factor in water pollution and erosion is the amount of rain and snowmelt runoff from developed properties. A direct and proportional relationship between impervious area and runoff presents a rational relationship between the stormwater charge and the demand that each property places on the stormwater management system. The recommended rate structure uses the amount of impervious surface area as the billing quantity for assessing the stormwater rate charge.

Section 3

Billing Quantities

General

Appendix A contains the Billing Quantities spreadsheet that was prepared for this study. Billing quantities provide a measurable amount of service provided by stormwater management activities to use in assessing stormwater rates.

The billing quantity that is recommended to assess the stormwater user charge is the total number of Equivalent Residential Units (ERUs).

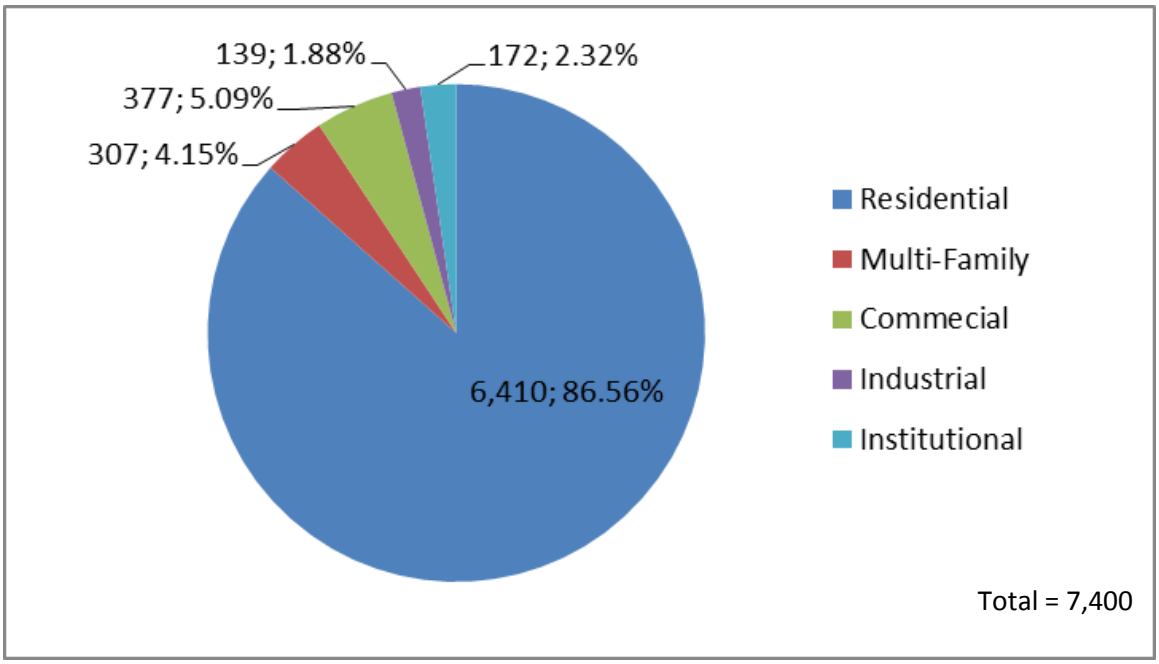
Number of Parcels

Table A1 in Appendix A presents the total number of parcels and number of ERUs by customer class. These quantities were collected from tax and GIS database information obtained from the Villa Park GIS department.

Customer classes include:

- Residential
- Multi-Family
- Commercial
- Industrial
- Institutional (includes properties belonging to the City, schools, churches, and other non-profit organizations)

Figure 3-1 illustrates the number of parcels by customer class.

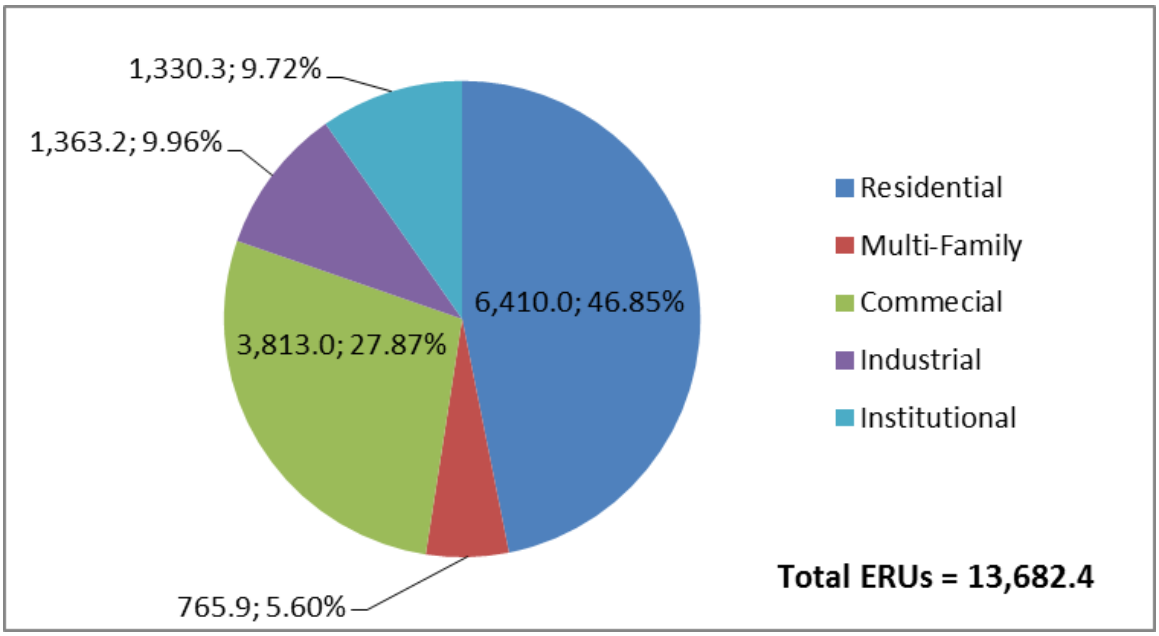


Parcels by Customer Class
Figure 3-1

Number of ERUs

Table A1 in Appendix A presents the total number of billable ERUs. ERU is the quantity used for assessing the stormwater charge and for projecting revenue from proposed rates. The total number of ERUs is based on assigning one ERU to all residential customers. The total number of ERUs for all other customers is based on actual measured impervious area.

Figure 3-2 illustrates the number of ERUs by customer class.



Equivalent Residential Units by Customer Class
Figure 3-2

Section 4

Revenues and Expenses

General

Appendix A contains the Revenue and Expense spreadsheets prepared for this study.

Other Revenues

Table B1 in Appendix A presents budgeted and projected revenues from existing sources.

The sources of revenues are summarized into two major categories, including Other Revenue and Grant Revenue.

Other revenues include Drainage Revenue, Stormwater Detention Buyout, and Stormwater Review Fees.

Grants totaling $244,000 were received from the State, DuPage County, and Federal government in Fiscal Year 2014. No grant revenue is projected to continue in the future.

Operating Expenses

Table 3 in Appendix A presents Operating Expenses for stormwater management activities.

Operating expenses are those expenses that occur while providing stormwater management service. Working with Village staff, operating expenses for the Stormwater Management Program were identified. These expenses include operations expenses previously funded by the Stormwater Buyout Fund, stormwater related expenses previously funded from the Street Fund, some Village administrative staff support, and three proposed full-time field staff. The stormwater management operating expenses are summarized into three major accounts including Stormwater Buyout Fund, Storm Sewer Expenses, and Salaries & Benefits.

Appendix C contains a breakdown summary of historical and budget operating expenses to be funded by the Stormwater Management Program, based on input from Village staff.

Table 4-1 presents the projected operating expenses for Fiscal Years 2015 through 2019.

The Stormwater Buyout Fund includes expenses historically funded from that fund. The expenses include the following categories.

- Operations expenses include legal notices, engineering services, other contractual services, dues, publications, and other supplies. An annual 2 percent increase is used for projecting this expense in future years.
- Operations CIP Projects include engineering services and other contractual services projected at $50,000 each per year.

Storm Sewer Expenses include stormwater related expenses that were historically paid from the street fund but are projected to be transferred to the Stormwater Management Program. These expenses include the follow categories.

- Rental of Equipment.
- Engineering includes the cost of storm atlas corrections.
- Contractual Services.
- Other Contractual Services includes ditch reshaping and culvert replacements.
- Commodities include small tools, asphalt, stone, concrete, cast iron items, pipes, and culverts.
- Capital Outlay has no projected expense.
- Non-Capital outlay includes the cost of replacing traffic computers at $10,000 per year.
- Salaries and Benefits include the following categories.
    - Supervisory and Administrative Support represents a portion of the City Administrator, Director of Public Works, and Public Administrative Assistant's time.
    - Salaries and Benefits include three proposed full-time positions.

The annual non-capital outlay for replacing traffic computers is expected to remain the same in future years. An annual 2 percent increase is used for projecting all other categories of storm sewer expenses in future years.

Table 4-1 Projected Stormwater Operating Expenses

	Fiscal Year Ending April 30				
	2015	**2016**	**2017**	**2018**	**2019**
Stormwater Buyout Fund					
Operations					
Legal Notices	$1,500	$1,530	$1,561	$1,592	$1,624
Engineering Services	$50,000	$51,000	$52,020	$53,060	$54,122
Other Contractual Services	$10,000	$10,200	$10,404	$10,612	$10,824
Dues & Publications	$1,000	$1,020	$1,040	$1,061	$1,082
Other Supplies	$1,000	$1,020	$1,040	$1,061	$1,082
Operations CIP Projects					
Engineering Services	$50,000	$50,000	$50,000	$50,000	$50,000
Other Contractual Services	$50,000	$50,000	$50,000	$50,000	$50,000
Subtotal – Stormwater Buyout Fund	$163,500	$164,770	$166,065	$167,387	$168,734
Storm Sewer Expenses					
Rental of Equipment	$10,000	$10,200	$10,404	$10,612	$10,824
Engineering	$10,000	$10,200	$10,404	$10,612	$10,824
Other Contractual Services	$20,000	$20,400	$20,808	$21,224	$21,649
Commodities	$32,500	$33,150	$33,813	$34,489	$35,179
Capital Outlay	$0	$0	$0	$0	$0
Non-Capital Outlay	$10,000	$10,000	$10,000	$10,000	$10,000
Salaries & Benefits					
Supervisory & Administrative Support	$80,000	$81,600	$83,232	$84,897	$86,595
Salaries & Benefits	$258,234	$263,399	$268,667	$274,040	$297,521
Subtotal – Storm Sewer Expenses	$440,734	$449,349	$458,136	$467,098	$476,240
Total Operating Expenses	**$604,234**	**$614,119**	**$624,201**	**$634,485**	**$644,975**

Source: Stanley Consultants, Inc.

Capital Financing

Table B3 in Appendix A presents the projected capital financing expenses for stormwater management activities. Capital financing expenses consist of Debt Service and Other Disbursements.

Debt Services are agreements into which an Enterprise Fund enters to finance large capital improvements. Annual principal and interest payments are paid from annual stormwater charge revenue.

Other Disbursements include the Drainage Assistance Program and Engineering. These costs are paid from annual stormwater charge revenue.

Table 4-2 presents the capital improvements and estimated stormwater portion of costs for projects identified in the Village's Capital Improvement Program (CIP). The projects construct storm sewers associated with roadway reconstructions, separate combined sewers, maintain the system, mitigate flooding, and address major drainage issues. A total of $7.9 million of projects are projected to be completed over multiple years.

Table 4-2 Stormwater Capital Improvement Projects

Description	Estimated Engineering Cost	Estimated Construction Cost	Total Estimated Project Costs
Astor Court Improvement Project	$43,090	$215,449	$258,538
Maple Street Improvement Project	$78,711	$393,555	$472,266
Michigan Avenue Improvement Project	$66,645	$333,225	$399,870
Monterey Avenue Sewer Separation Project	$68,000	$289,500	$357,500
Myrtle Avenue Improvement Project	$46,906	$234,527	$281,433
Pine Street Improvement Project	$61,167	$305,836	$367,003
Summit Avenue Improvement Project	$30,261	$151,302	$181,562
Van Buren Street Improvement Project	$57,546	$287,727	$345,272
Yale Avenue Improvement Project	$69,871	$349,352	$419,223
Flood Control Study & Mitigation	$250,000	$2,500,000	$2,750,000
Rear Yard Drainage Projects		$160,000	$160,000
Jackson Pond Expansion		$850,000	$850,000
Lufkin Pond Expansion		$450,000	$450,000
Flood Damaged Property Buyout		$650,000	$650,000
Total	**$902,195**	**$7,040,471**	**$7,942,665**

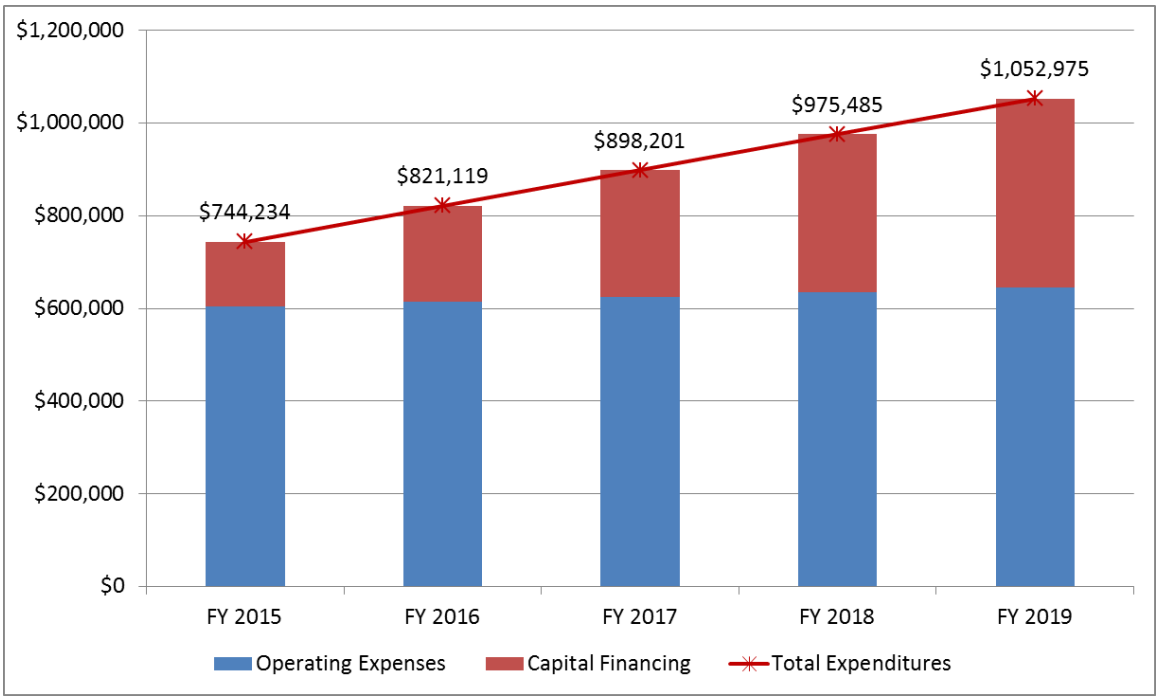
Source: Village of Villa Park

Table 4-3 presents the annual capital financing expenses that will be paid with stormwater charge revenue in Fiscal Years 2015 through 2019. Debt Service is based on financing $1.0 million of construction cost each year beginning in Fiscal Year 2016. Annual principal and interest payments are based on a 20 year payback period and 3 percent interest rate.

Table 4-3 Stormwater Capital Financing

	Fiscal Year Ending April 30				
	2015	**2016**	**2017**	**2018**	**2019**
Debt Service					
2016 Revenue Bond ($1.0 M)	$0	$67,000	$67,000	$67,000	$67,000
2017 Revenue Bond ($1.0 M)	$0	$0	$67,000	$67,000	$67,000
2018 Revenue Bond ($1.0 M)	$0	$0	$0	$67,000	$67,000
2019 Revenue Bond ($1.0 M)	$0	$0	$0	$0	$67,000
Subtotal Debt Service	$0	$67,000	$134,000	$201,000	$268,000
Other Disbursements					
Drainage Assistance Program	$40,000	$40,000	$40,000	$40,000	$40,000
Engineering	$100,000	$100,000	$100,000	$100,000	$100,000
Subtotal Other Disbursements	$140,000	$140,000	$140,000	$140,000	$140,000
Total Capital Financing	**$140,000**	**$207,000**	**$274,000**	**$341,000**	**$408,000**

Figure 4-1 illustrates the total operating and capital financing expenses projected for Fiscal Years 2015 through 2019 that will be funded by the Stormwater Management Program. Expenses are projected to increase as new principal and interest payments are added each year.



Projected Operating and Capital Financing Expenses
Figure 4-1

Section 5

Rate Design

General

Appendix A contains the Cost-of-Service and Rate Design spreadsheets prepared for this Study. The spreadsheets project impacts of implementing proposed rates starting May 2014.

Cost-of-Service

Table C1 in Appendix A presents the cost-of-service analysis. The cost-of-service rate analysis approach divides total stormwater management expenses (costs) for providing stormwater service by the billing quantity (total number of assessed ERUs) to determine the unit rate ($ per ERU per month).

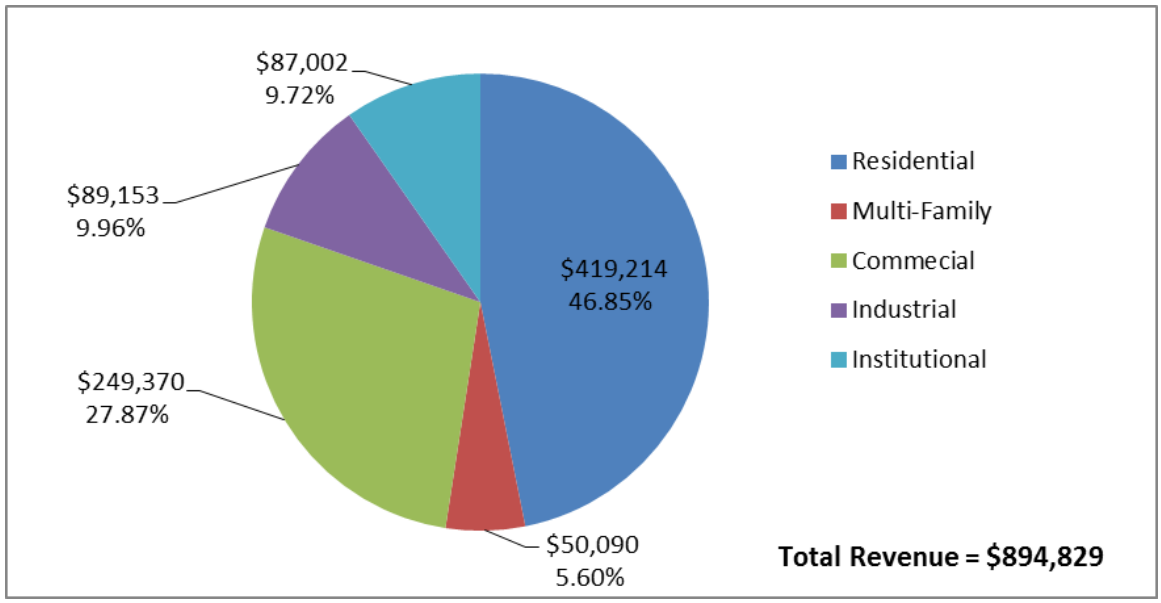
Proposed Rates

Table D1 in Appendix A presents the proposed stormwater rates. The table shows cost-of-service rate projected for Fiscal Year 2017 to be implemented in Fiscal Year 2015. This approach allows unspent revenue to build a fund reserve. These stormwater rates are multiplied by the billing quantities identified in Table A1 to project annual stormwater revenue from proposed stormwater rates.

Revenues from Proposed Rates

Table D2 in Appendix A presents the projected stormwater revenue. The projected revenue is calculated by multiplying the projected billing quantities (number of ERUs) by the proposed stormwater rates presented in Table D1. The table presents the projected revenue by customer class.

Figure 5-1 presents the contribution of annual revenue by various customer classes with implementation of proposed Fiscal Year 2015 stormwater rates.

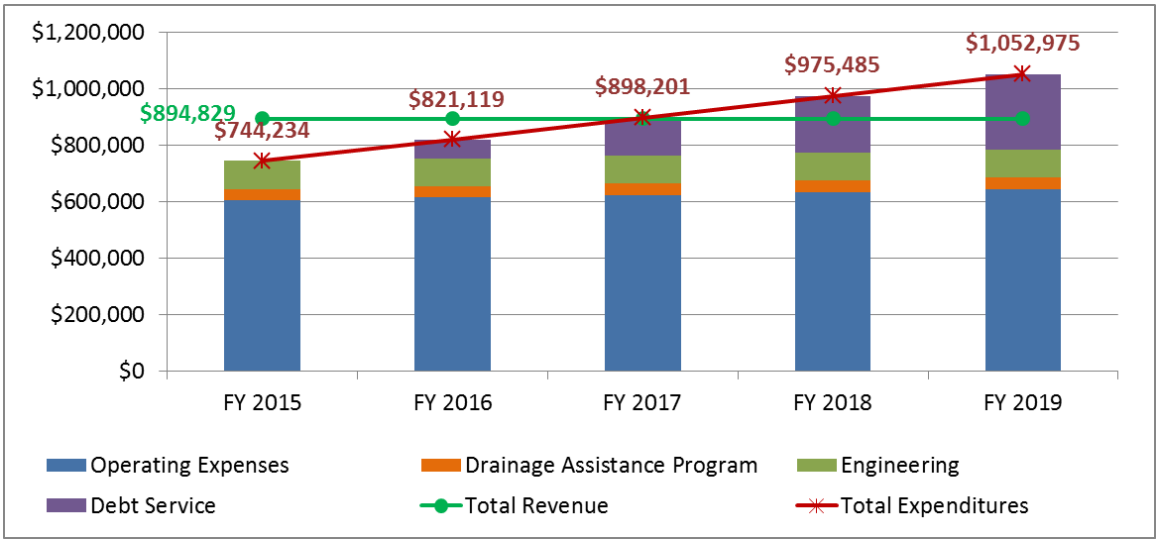


FY2015 Revenue by Customer Class
Figure 5-1

Operating Results with Proposed Rates

Table D3 in Appendix A presents the operating results with proposed stormwater rates. This table summarizes the billing quantities, revenue, operating expenses, and capital financing previously discussed.

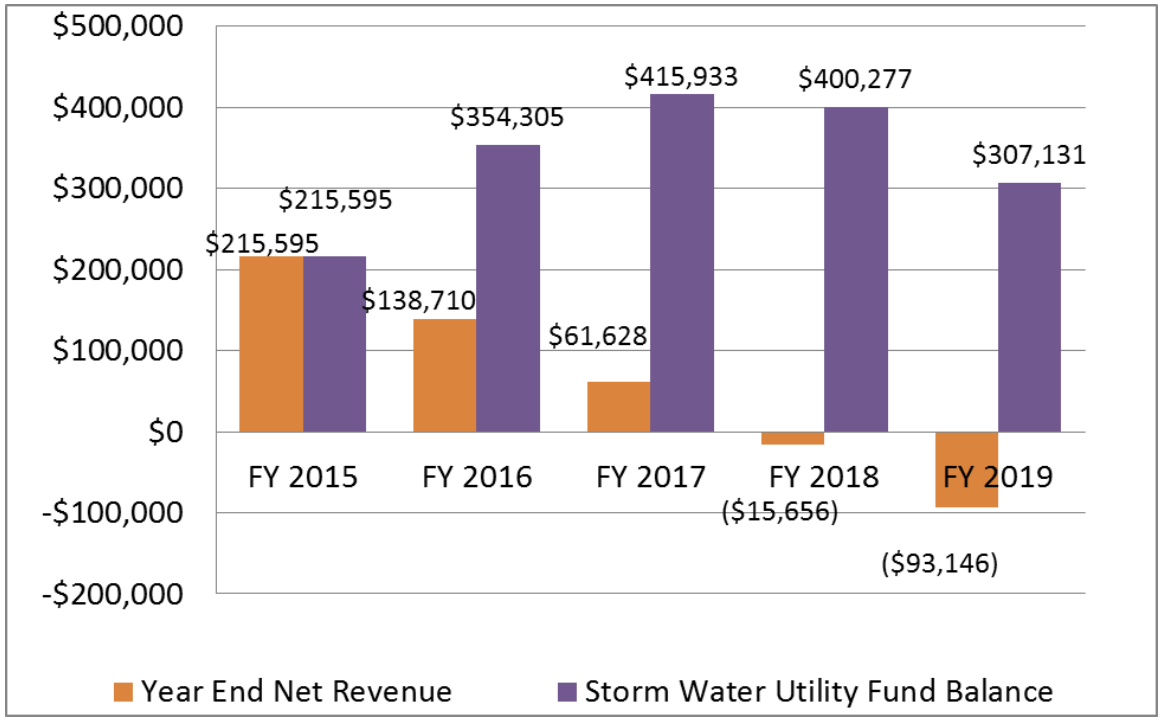
Figure 5-2 illustrates projected expenses and revenues for Fiscal Years 2015 through 2019 with proposed rates. The figure illustrates adequate revenue with increasing expenses through Fiscal Year 2017. Expenses will exceed revenues in Fiscal Year 2018 and 2019 if rates remain the same. Stormwater rates will have to be re-evaluated and adjusted at that time.



Operating Results with Proposed Rates
Figure 5-2

Table D3, Line 3.7.1 indicates positive net revenue for each Fiscal Year 2014 through 2016.

Figure 5-3 illustrates projected net or deficit revenue and fund balance in Fiscal Years 2015 through 2019 with proposed rates. The Stormwater Management Program fund balance is projected to build a healthy reserve with a fund balance of about $415,933 projected in Fiscal Year 2017. A healthy fund balance provides adequate cash reserve to cover variations in cash flow and unexpected maintenance or replacement costs that may arise. The fund can also be allowed to grow with unspent money earmarked for capital improvement projects. The figure also illustrates deficit spending and draw on the fund balance beginning in Fiscal Year 2018 if rates are not increased again at that time.



Projected Net Revenue and Fund Balance with Projected Rates
Figure 5-3

Section 6

Implementing a Stormwater Management Program and Stormwater Rates

Implementation of a Stormwater Management Program as a self-supported "Enterprise Fund" requires logistical, legal, and public outreach effort. The following steps provide guidance for further development of the program.

- Develop stormwater ordinance
  - Prepare in coordination with the Village attorney and representatives of the stormwater management team.
  - Address rate method, basis, and appeals process.
  - Approval by Village Board.
- Rate Setting
  - Approval of stormwater methodology and rate by Village Board.
- Inform the public through Community Outreach and Public Involvement
  - Develop public information material.
  - Conduct open meetings.
  - Hold individual meetings with large contributors.
- Management
  - Establish institutional arrangement to address how the program will be organized.
  - Establish policies and procedures.
  - Establish administration and staff positions and job descriptions.

- Establish office and work facilities for staff and equipment.
- Establish relationships and procedures with Public Works and Village Engineering for design and construction of improvements.

- Implement billing procedures
  - Establish relationship and procedures with Village Finance.
  - Establish database consisting of impervious area, number of ERUs, and monthly charge for each parcel.
  - Establish master account and billing data
  - Develop billing system.
  - Develop baseline for inquiry and complaint responses.

Appendix A

Stormwater Rate Analysis Spreadsheets

Table A1
Billing Quantities - Number of ERUs
Stormwater Rate Study
Village of Villa Park, Illinois
Fiscal Year 2015 Recommendations

		Fiscal Year Ending April 30							
	Description	Budget 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	% of Total ERUs	# Parcels	% of Total Parcels
1.1	Number of ERUs								
1.1.1	Residential [1]	6,410.0	6,410.0	6,410.0	6,410.0	6,410.0	46.85%	6,410	86.56%
1.1.2	Multi-Family [2]	765.9	765.9	765.9	765.9	765.9	5.60%	307	4.15%
1.1.3	Commercial [2]	3,813.0	3,813.0	3,813.0	3,813.0	3,813.0	27.87%	377	5.09%
1.1.4	Industrial [2]	1,363.2	1,363.2	1,363.2	1,363.2	1,363.2	9.96%	139	1.88%
1.1.5	Institutional [2]	1,330.3	1,330.3	1,330.3	1,330.3	1,330.3	9.72%	172	2.32%
1.2	Total ERUs	13,682.4	13,682.4	13,682.4	13,682.4	13,682.4	100.00%	7,405	100.00%

Notes (1) 1 ERU/parcel.
(2) 1 ERU per 3,000 sq ft of measured impervious area.
(3)
(4)
(5)

Table B1
Other Revenue
Stormwater Rate Study
Village of Villa Park, Illinois
Fiscal Year 2015 Recommendations

		Fiscal Year Ending April 30				
	Description	Budget 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019
1.1	Other Revenue					
1.1.1	Interest on Investments	$0	$0	$0	$0	$0
1.1.2	Drainage Revenue [1]	$20,000	$20,000	$20,000	$20,000	$20,000
1.1.3	Stormwater Detention Buyout [2]	$20,000	$25,000	$25,000	$25,000	$25,000
1.1.4	Stormwater Quality Fees [3]	$5,000	$0	$0	$0	$0
1.1.5	Stormwater Review Fees	$20,000	$20,000	$20,000	$20,000	$20,000
1.1.6	Future	$0	$0	$0	$0	$0
1.1.7	Future	$0	$0	$0	$0	$0
1.1.8	Future	$0	$0	$0	$0	$0
1.1.9	Total Other Revenues	$65,000	$65,000	$65,000	$65,000	$65,000
1.2	Grant Revenue					
1.2.1	State Grant	$0	$0	$0	$0	$0
1.2.2	Grant from DuPage County	$0	$0	$0	$0	$0
1.2.3	Federal Grant	$0	$0	$0	$0	$0
1.2.4	Total Grant Revenues	$0	$0	$0	$0	$0

Notes
(1) 50/50 program - addresses drainage problems on private properties.
(2) Driven by new development.
(3) Included with Stormwater Detention Buyout starting FY2015.
(4)
(5)

Table B2
Operating Expenses
Stormwater Rate Study
Village of Villa Park, Illinois
Fiscal Year 2015 Recommendations

		Fiscal Year Ending April 30					
	Description	Budget 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Percent Escalation
2.1	Stormwater Buyout Fund						
2.1.1	Operations						
2.1.1.1	Legal Notices	$1,500	$1,530	$1,561	$1,592	$1,624	2%
2.1.1.2	Engineering Services	$50,000	$51,000	$52,020	$53,060	$54,122	2%
2.1.1.3	Other Contractural Services	$10,000	$10,200	$10,404	$10,612	$10,824	2%
2.1.1.4	Dues & Publications	$1,000	$1,020	$1,040	$1,061	$1,082	2%
2.1.1.5	Other Supplies	$1,000	$1,020	$1,040	$1,061	$1,082	2%
2.1.2	Operations CIP Projects						
2.1.2.1	Engineering Services	$50,000	$50,000	$50,000	$50,000	$50,000	0%
2.1.2.2	Other Contractural Services	$50,000	$50,000	$50,000	$50,000	$50,000	0%
2.1.3	Subtotal Stormwater Buyout Fund	$163,500	$164,770	$166,065	$167,387	$168,734	
2.2	Storm Sewer Expenses [1]						
2.2.1	Rental of Equipment	$10,000	$10,200	$10,404	$10,612	$10,824	2%
2.2.2	Engineering (storm atlas corrections)	$10,000	$10,200	$10,404	$10,612	$10,824	2%
2.2.3	Contractual Services	$20,000	$20,400	$20,808	$21,224	$21,649	2%
2.2.4	Other Contractual Services - Ditching [2]	$20,000	$20,400	$20,808	$21,224	$21,649	2%
2.2.5	Commodities [3]	$32,500	$33,150	$33,813	$34,489	$35,179	2%
2.2.6	Capital Outlay	$0	$0	$0	$0	$0	
2.2.7	Non-Capital Outlay [4]	$10,000	$10,000	$10,000	$10,000	$10,000	
2.2.8	Salaries & Benefits						
2.2.8.1	Supervisory & Adminstrative Support	$80,000	$81,600	$83,232	$84,897	$86,595	2%
2.2.8.2	Salaries & Benefits [5]	$258,234	$263,399	$268,667	$274,040	$279,521	2%
2.2.9	Subtotal Storm Sewer Expenses	$440,734	$449,349	$458,136	$467,098	$476,240	
2.3	Total Operating Expenses	$604,234	$614,119	$624,201	$634,485	$644,975	

Notes
(1) Stormwater related expenses historically paid from street fund to be transferred to the stormwater management program.
(2) Includes ditch reshaping and culvert replacements.
(3) Includes small tools, asphalt, stone, concrete, cast iron items, pipes & culverts.
(4) Replace traffic computer.
(5) Three proposed full-time salaries & benefits.

Table B3
Capital Financing
Stormwater Rate Study
Village of Villa Park, Illinois
Fiscal Year 2015 Recommendations

		Fiscal Year Ending April 30					
	Description	Budget 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	CIP Cost
3.1	Debt Service [1]						
3.1.1	2015 Revenue Bond	$0	$67,000	$67,000	$67,000	$67,000	$1,000,000
3.1.2	2016 Revenue Bond	$0	$0	$67,000	$67,000	$67,000	$1,000,000
3.1.3	2017 Revenue Bond	$0	$0	$0	$67,000	$67,000	$1,000,000
3.1.4	2018 Revenue Bond	$0	$0	$0	$0	$67,000	$1,000,000
3.1.5	Future	$0	$0	$0	$0	$0	
3.1.6	Total Debt Service	$0	$67,000	$134,000	$201,000	$268,000	
3.2	Other Disbursements						
3.2.1	Drainage Assistance Program	$40,000	$40,000	$40,000	$40,000	$40,000	
3.2.2	Engineering [2]	$100,000	$100,000	$100,000	$100,000	$100,000	
3.2.3	Future	$0	$0	$0	$0	$0	
3.2.4	Future	$0	$0	$0	$0	$0	
3.2.5	Total Other Disbursements	$140,000	$140,000	$140,000	$140,000	$140,000	
3.3	Total Capital Financing	$140,000	$207,000	$274,000	$341,000	$408,000	

Notes
(1) Projected $1 million construction cost per year for 10 years. Revenue bonds based on 3% interest & 20 year payback.
(2) Projected $100,000 Engineering costs per year for 10 years financed by Stormwater Charge Revenue.
(3)
(4)
(5)

Table C1
Cost-of-Service
Stormwater Rate Study
Village of Villa Park, Illinois
Fiscal Year 2015 Recommendations

		Fiscal Year Ending April 30				
	Description	Budget 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019
1.1	Expenses/Revenues					
1.1.1	Operating Expenses	$604,234	$614,119	$624,201	$634,485	$644,975
1.1.2	Debt Service	$0	$67,000	$134,000	$201,000	$268,000
1.1.3	Other Disbursements	$140,000	$140,000	$140,000	$140,000	$140,000
1.1.4	Total	$744,234	$821,119	$898,201	$975,485	$1,052,975
1.2	Billing Quantity	13,682.4 (ERUs)	13,682.4 (ERUs)	13,682.4 (ERUs)	13,682.4 (ERUs)	13,682.4 (ERUs)
1.3	Stormwater Unit Rate	$4.54 per ERU /month	$5.01 per ERU /month	$5.48 per ERU /month	$5.95 per ERU /month	$6.42 per ERU /month

Notes (1)
(2)
(3)
(4)
(5)

Table D1
Proposed Rates
Stormwater Rate Study
Village of Villa Park, Illinois
Fiscal Year 2015 Recommendations

	Description		Fiscal Year Ending April 30 Budget 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019
1.1	Unit Rate						
1.1.1	ERU Stormwater Unit Rate [(1)]	per ERU	$5.45	$5.45	$5.45	$5.45	$5.45

1.1.4 (1) Stormwater charge = Unit Rate times number of ERUs for measured properties.
(2)
(3)
(4)
(5)

Table D2
Revenues From Proposed Rates
Stormwater Rate Study
Village of Villa Park, Illinois
Fiscal Year 2015 Recommendations

	Description	Fiscal Year Ending April 30 Budget 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	
2.1	Stormwater Charges Revenue						
2.1.1	Residential	$419,214	$419,214	$419,214	$419,214	$419,214	46.85%
2.1.2	Multi-Family	$50,090	$50,090	$50,090	$50,090	$50,090	5.60%
2.1.3	Commercial	$249,370	$249,370	$249,370	$249,370	$249,370	27.87%
2.1.4	Industrial	$89,153	$89,153	$89,153	$89,153	$89,153	9.96%
2.1.5	Institutional	$87,002	$87,002	$87,002	$87,002	$87,002	9.72%
2.2	Total Stormwater Charges Revenue	$894,829	$894,829	$894,829	$894,829	$894,829	100.00%

Notes (1) Revenue based on May 1, 2014 implementation of rates.
(2)
(3)
(4)
(5)

Table D3
Operating Results With Proposed Rates
Stormwater Rate Study
Village of Villa Park, Illinois
Fiscal Year 2015 Recommendations

		Fiscal Year Ending April 30				
	Description	Budget 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019
3.1	Beginning Fund Balance	$0	$215,595	$354,305	$415,933	$400,277
3.2	Billing Quantities					
3.2.1	ERUs	13,682.4	13,682.4	13,682.4	13,682.4	13,682.4
3.3	Revenues					
3.3.1	Stormwater Revenue	$894,829	$894,829	$894,829	$894,829	$894,829
3.3.2	Other Revenues	$65,000	$65,000	$65,000	$65,000	$65,000
3.3.3	Total Revenues	$959,829	$959,829	$959,829	$959,829	$959,829
3.4	Operating Expenses	$604,234	$614,119	$624,201	$634,485	$644,975
3.5	Capital Financing					
3.5.1	Debt Service	$0	$67,000	$134,000	$201,000	$268,000
3.5.2	Other Disbursements	$140,000	$140,000	$140,000	$140,000	$140,000
3.5.3	Total Capital Financing	$140,000	$207,000	$274,000	$341,000	$408,000
3.6	Total Expenditures	$744,234	$821,119	$898,201	$975,485	$1,052,975
3.7	Cash Balance (Deficit)					
3.7.1	Net Revenue [(1)]	$215,595	$138,710	$61,628	($15,656)	($93,146)
3.8	Ending Fund Balance	$215,595	$354,305	$415,933	$400,277	$307,131

Notes (1) Revenues - Expenses
(2)
(3)
(4)
(5)

Appendix B

DuPage County Countywide Stormwater and Floodplain Ordinance

APPENDIX D - COUNTYWIDE STORMWATER AND FLOODPLAIN ORDINANCE [1]

Section 1. - Countywide stormwater and floodplain ordinance adopted.

There is hereby adopted by the village, for the purpose of promoting effective, equitable and acceptable stormwater management measures, that certain ordinance known as the countywide stormwater and floodplain ordinance, latest revision dates of July 1, 2004, as now existing or hereafter amended, of which not less than one (1) copy has been and is now filed in the office of the village clerk, and the whole thereof as if set out in full herein.

(Ord. No. 3199, § 1, 8-11-03; Ord. No. 3268, § 2, 10-25-04)

Section 2. - Amendment of countywide ordinance.

A. Subsection 15-111.2a, b and c of article 9 of the countywide ordinance, as amended, shall be read as follows for the purposes of this ordinance.

(a) The parcels being developed total one (1) acre or greater for single or two (2) family residential subdivision land uses its entirety.

(b) The parcels are being developed for multiple family or non-residential subdivision land uses.

(c) Delete.

(d) The area being developed totals one acre or greater for road developments in rights-of-way under the ownership or control of a unit of government.

B. Subsection 15-113 shall be amended by adding subparagraph 13 which shall read in its entirety as follows:

Any development that is not part of a major subdivision with a stormwater detention/retention facility per section 15-114, shall include 1% minimum slope swales along the entire length of the rear and

side property lines, if physically possible. If there is less than a continuous 1% minimum slope from the new impervious area to a storm sewer or defined watercourse, then perforated drain tiles, storm drains; or dry wells, or other best management practices (BMP's) approved by the village shall be required to convey or store the 100-yr runoff. Such drainage improvements shall be as directed by the director of public works based on technical feasibility, impact on other properties, available easements and cost. Whenever possible, such direction shall be based on site inspections rather than a topographic survey. Perforated drain tiles and/or storm drains shall drain from flat or low areas into a separated storm sewer or defined watercourse. The preferred location for storm drain inlets shall be a rear corner of the lot. The perforated drainpipes shall be in washed gravel trench wrapped with non-woven geofabric material. Dry wells shall be located and sized to contain volume equal to the new impervious area times .58 foot of runoff. Dry wells shall not be located in utility easements or public right-of-ways. Geotechnical boring may be required to determine the soil condition and/or the rate of percolation.

(Ord. No. 3199, § 2, 8-11-03)

Section 3. - Scope.

(a) This ordinance supplements the following ordinances to the extent of any inconsistencies only:

(1) Subdivision ordinance.

(2) Zoning ordinance.

(3) Building ordinance.

(b) The provisions of this ordinance further regulate and restrict:

(1) The subdivision, layout, and improvement of land, including drainage, underground utilities and service facilities.

(2) The excavating, filling and grading of lots and other parcels and areas of special flood hazard areas, the storing of certain materials thereon, stream and other floodwater runoff channels and detention ponds and basins.

(3) The location, construction and elevation of buildings and other structures and parts and appurtenances thereof.

(c) Before starting any of the work regulated by this ordinance, an applicant shall comply with the requirements set forth in the aforementioned ordinances with respect to submission and approval of preliminary and final subdivision plats, improvement plans, building and zoning permits, inspections, appeals, and similar matters along with those set forth in the ordinance and as required by state statute and regulations of any department of the State of Illinois.

(d) The applicant shall also obtain any and all other local, state and federal permits that may be required for this type of development activity. The storm water permit will only be issued on the condition that the other required permits have been obtained.

Section 4. - Detention variance fee program.

As authorized by section 15-115 of the county ordinance, the village hereby adopts a detention variance fee program. Under this program, the developer may be provided with an alternative to physically providing the detention storage of excess stormwater runoff for the development or improvement. The owner or other person proposing development in certain situations shall have the option of paying to the village cash funds in lieu of complying with the provisions that require physical detention storage of storm water. The cash funds shall be in an amount that is substantially equal to the estimated cost to the village for providing an alternate means of storm water detention storage that is

substantially equivalent to the increased amount of storm water runoff that will result from the proposed development, as determined by the village engineer. Calculations of such increased amount of storm water runoff shall be made on the basis of (and expressed in terms of) a cubic foot of volume, or a fraction thereof. All funds paid to the village under this section shall be segregated, held, and disbursed only to pay the costs of storm water improvements as the village deems appropriate.

(A) The "exemption: payment option" will not apply if the area of the proposed development is within a special flood hazard area without written approval of the director (as defined by the countywide ordinance).

(B) The "exemption: payment option" will only be permitted if the developer and his engineer can substantiate hardship in complying with the detention storage provisions of article 9 of the countywide ordinance, ("article 9"). The president and board of trustees shall only recognize a hardship if, upon evidence presented to them, they conclude the following:

(1) The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the provisions of article 9 otherwise applicable.

(2) Failure to grant the "exemption: payment option: would constitute a hardship to the owner which has not resulted from actions of the owner.

(3) The requested "exemption: payment option" has a beneficial purpose and is otherwise lawful.

(4) The requested "exemption: payment option" will have no materially adverse effect upon efficiency of water flow capacity or water detention storage capacity of any floodway or floodplain, as determined by the village engineer.

(5) The requested "exemption: payment option" will not materially increase the probability of potential flood damage either to the subject property or to other properties, as determined by the village engineer.

(6) The requested "exemption: payment option" will not alter the essential character of the vicinity.

(C) The payment rate due from an owner-developer for the "exemption: payment option" shall be calculated at the rate of three dollars ($3.00) per cubic foot of exemption detention storage. The exemption detention storage volume shall be equal to one hundred (100) percent of the detention storage volume required per article 9. This three dollars ($3.00) per cubic foot of exemption detention storage volume has been calculated by the village engineer to be sufficient to compensate the village for total expenses in providing detention storage in another location. This amount shall be considered current at the time of passage of this ordinance.

From time to time, as frequently as the village board may deem it necessary or desirable, the village board shall determine and establish the cost to the village of providing one (1) cubic foot of storm water exemption detention storage, such cost to include, without limitation, the cost of necessary land acquisition, engineering expenses, legal fees, and other related expenditures. The amount so determined and established shall serve as the basis for the calculation of the cash funds to be paid as provided in this section until such time as a different amount is determined and established by the village board.

(D) The owner-developer shall be exempt from the stormwater detention storage requirement according to article 9 provided that:

(1) The owner-developer has procured the written approval of the village engineer for lots less than or equal to one acre in size or the village engineer and the president and board of trustees for lots greater than one (1) acre in size, acknowledging that all of the requirements of this section have been complied with.

(2) The owner-developer has made cash payment to the village for the amount of detention storage volume exempted and the payment made at the established dollar rate per cubic foot volume.

(3) For lots greater than one (1) acre in size, such exemption shall be made by a certificate signed by the village president with the approval of the board of trustees.

Section 4.1. - Water quality best management practices (BMP) fee-in-lieu program.

As authorized by section 15-116 of the county ordinance, the village hereby adopts a water quality best management practice fee-in-lieu program. Under this program, the developer may be provided with an alternative to physically providing water quality best management practices for development or improvement. The owner of other person proposing development in certain situations shall have the option of paying the village cash funds in lieu of complying with the provisions that require water quality best management practices. The cash funds shall be in an amount that is substantially equal to the estimated cost of physically providing the stormwater quality best management practices as defined in "Schedule B best management practices in fee-in-lieu schedule" of the DuPage County Countywide Stormwater and Floodplain Ordinance. Calculation of such fees shall be made on the basis of the area of development as defined in article 2, definitions, of the DuPage County Countywide Stormwater and Floodplain Ordinance. All funds paid to the village under this section shall be segregated, held, and disbursed in a manner consistent with section 15-116 of the DuPage County Countywide Stormwater and Floodplain Ordinance.

(A) The "best management practice fee-in-lieu option" will not apply if the proposed development does not meet the criteria for the water quality best management practices fee-in-lieu program as defined in section 15-116.1 and 15-116.2 of the DuPage County Countywide Stormwater and Floodplain Ordinance.

(Ord. No. 3511, § 2, 9-8-08)

Section 5. - Other development requirements.

The president and the board of trustees shall take into account flood hazards, to the extent that they are known, in all official actions related to land management, use and development.

(A) New subdivisions and planned unit developments (PUDs) shall meet the requirements of this ordinance.

(B) Plats or plans for new subdivisions and planned unit developments (PUDs) shall display the following flood data:

(1) The boundary of the special flood hazard area;

(2) The boundary of the floodway, if shown on available special flood hazard area maps;

(3) Easements of lands dedicated to the village for access for channel maintenance purposes; and

(4) The base flood elevation for each building site.

(C) The building and zoning department shall take the following into consideration when preparing or revising the comprehensive plan, community development program, housing assistance plan, and other land use or development programs:

(1) Preserving special flood hazard area land for open space uses such as farming or recreation;

(2) Acquiring and removing frequently flooded buildings;

(3) Prohibiting hospitals, water treatment plants, natural gas storage and other critical or especially hazardous facilities from locating in the special flood hazard area;

(4) Identifying the elevations of the base flood and past floods at entrance to public buildings, on street signs, or other prominent locations; and

(5) Other flood hazard mitigation or floodplain management activities that could help accomplish the purposes of this ordinance.

Section 6. - Subdivisions; required information.

A stormwater permit application shall accompany preliminary plats and plans.

Section 7. - Utility standards.

All new construction and substantial improvements to utilities shall provide that:

(A) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of storm or ground waters into the systems.

(B) All new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of storm or ground waters into the systems and discharges from the systems into storm or ground waters.

(C) All new and replacement on-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

(D) Sanitary manholes constructed within floodplain areas must have rim elevations at or above the base flood elevation or must be provided with watertight, lock-type covers.

Section 8. - Stormwater review fee schedule.

A plan review, inspection, and permit fee for stormwater management permits issued by the Village of Villa Park shall be paid to the village upon permit application. The fees are as set forth in the following schedule:

STORMWATER SUBMITTAL (OUTSIDE SPECIAL MANAGEMENT AREAS)

Less than 5,000 sq. ft. disturbed	No fee (no permit required)

Residential	
Single parcel <10,000 sq. ft.	$355.00
Single/multiple parcels >10,000 sq. ft. and <3 acres (including subdivisions)	540.00

Single/multiple parcels >3 acres and <10 acres (including subdivisions or PUDs)	1,215.00
Single/multiple parcels >10 acres and <50 acres (including subdivisions or PUDs)	2,105.00
Single/multiple parcels >50 acres (including subdivisions or PUDs)	2,105.00 + 10.00/acre above 50 acres
Commercial	
Single/multiple parcels >5,000 sq. ft. and <1 acre (including subdivisions or PUDs)	540.00
Single/multiple parcels >1 acre and <5 acres (including subdivisions or PUDs)	1,215.00
Single/multiple parcels >5 acres and <10 acres (including subdivisions or PUDs)	2,105.00
Single/multiple parcels >50 acres (including subdivisions or PUDs)	2,105.00 + 10.00/acre above 50 acres
Resubmittals	100.00 each
Riparian mitigation (if required)	360.00 + stormwater fee
Special Management Areas (SMA)	
Floodplains, floodways or wetlands	County fee only
Other Administrative Fees	
Variations (if hearing required)	300.00 + hearing costs
Appeals (if hearing required)	300.00 + hearing costs

All fees shall be paid at the time the application is submitted, or the application will not be accepted. In addition to the stormwater management permit fees set forth above, applicants for stormwater management permits shall also provide an appropriate letter of credit in an amount equal to one hundred ten (110) percent of the engineer's estimated costs of construction of the stormwater facilities, together with an additional amount equal to one hundred ten (110) percent of the estimated costs of soil and erosion control. The form of the letter of credit shall be acceptable to the village attorney, and no construction shall commence until such time as a letter of credit has been approved by the village attorney and accepted by the Village of Villa Park. In the event that a particular parcel is both within and without a special management area, a fee shall be paid to the Village of Villa Park on account of areas outside the special management area, and the appropriate fee shall also be paid to the department, as provided by the county ordinance.

Section 9. - Disclaimer of liability.

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on available information derived from engineering and scientific methods of study. Larger floods may occur or flood heights may be increased by man-made or natural causes. This ordinance does not imply that development either inside or outside of the special flood hazard area will be free from flooding or damage. This ordinance does not create liability on the part of the village or any officer or employee thereof for any flood damage that results from reliance on this ordinance or any administrative decision made lawfully thereunder.

Section 10. - Abrogation and greater restrictions.

This ordinance is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions.

Section 11. - Exempt village projects and developments.

As previously approved by Ordinance Nos. 2929 and 2930 of the village, the official list of exempt projects and developments is set forth in Exhibits 1 and 2 of this ordinance and are available for inspection in the office of the village clerk.

(Ord. No. 3000, §§ 1—11, 8-23-99)

Section 12. - Floodway and floodplain maps designations adopted.

The DuPage County, Illinois floodway and floodplain designations, attached hereto as Exhibit D-1 and made a part hereof, are hereby adopted and are available for inspection in the office of the village clerk.

(Ord. No. 3268, § 3, 10-25-04)

FOOTNOTE(S):

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Editor's note— Ord. No. 1961A, §§ 1—25, enacted Feb. 2, 1981, included herein as App. D, has been treated as superseding former App. D, floodplain zoning, which derived from Ord. No. 1381, §§ 1—17, enacted March 12, 1973. Subsequently, Ord. No. 3000, adopted Aug. 23, 1999, repealed App. D in its entirety and enacted the Stormwater and Floodplain Ordinance to read as herein set out. (Back)

Cross reference— Administration, Ch. 2; buildings and building regulations, Ch. 7; civil defense and emergencies, Ch. 8; planning and development, Ch. 18; soil erosion and sedimentation, Ch. 19.5; water, sewers and sewage disposal, Ch. 25; official plan and subdivision regulations, App. B; basic zoning ordinance, App. C. (Back)

Appendix C

Historical and Budget Revenue and Operating Expenditures

VILLA PARK STORM WATER BUYOUT REVENUE		ACTUAL FY2010	ACTUAL FY2011	YEAR END FY2012	PROJECTED FY2013	BUDGET FY2014	PROJECTED FY2015 thru FY2018
MISCELLANEOUS REVENUE (Historical Storm Water Buyout Revenue)							
68.45105	Interest on Investments	$56	$264	$120	$157	$125	$0
68.45106	Private Funding	$0	$0	$0	$0	$0	$0
68.45108	Resident Fees	($10,613)	$0	$0	$2,740	$0	$0
68.45128	Miscellaneous Revenue	$15,761	$4,225	$508	$1,170	$0	$0
68.45156	Trans from Water Supply	$0	$0	$0	$0	$0	$0
68.47000	Drainage Revenue	($250)	$504	$8,060	$5,275	$20,000	$20,000
68.48016	Reimbursement from Lombard	$0	$0	$0	$0	$0	$0
68.48019	Storm Water Detention Buyout (1)	$40,920	$0	$127,953	$45,636	$40,000	$40,000
68.48020	Storm Water Quality Fees	$0	$0	$0	$0	$5,000	$0
68.48021	Storm Water Review Fees (2)	$35,235	$7,149	$35,911	$20,000	$20,000	$20,000
SUBTOTAL OTHER REVENUES		$81,109	$12,142	$172,552	$74,978	$85,125	$80,000
GRANT REVENUE							
68.45117	State Grant	$0	$0	$0	$0	$55,950	$0
68.45121	Grant from DuPage County	$0	$52,830	$0	$25,000	$3,361	$0
68.45131	Federal Grant	$0	$6,907	$0	$645,820	$185,000	$0
68.48007	Economic Stimulus	$193,093	$0	$0	$0	$0	$0
SUBTOTAL GRANT REVENUES		$193,093	$59,737	$0	$670,820	$244,311	$0
SUBTOTAL REVENUE		**$274,202**	**$71,879**	**$172,552**	**$745,798**	**$329,436**	**$80,000**
STORM WATER BUYOUT FUND BALANCE		**$45,779**	**$22,748**	**$82,714**			

NOTES:

(1) STORM WATER DETENTION BUYOUT

Revenue from fee developers paid in lieu of providing onsite storm water detention; one time fee paid as part of permit process.

(2) STORM WATER REVIEW FEES

For permit and construction of storm water detention.

Sources:

FY2010	Villa Park Annual Operating Budget FY 2011-12, page 78
FY2011	Villa Park Annual Operating Budget FY 2012-13, page 82
FY2012	Villa Park Monthly Treasurer's Report (Unaudited) April 30, 2012, page 89
FY2013	Excel file, "StormWaterExpenses.xlsx" from Vydas Juskelis
FY2014	Excel file, "StormWaterExpenses.xlsx" from Vydas Juskelis
FY2015-2018	Excel file, "StormWaterExpenses.xlsx" from Vydas Juskelis
Fund Balance	Annual Operating Budgets, under Budget Summaries (Unaudited Fund Balance Available)

VILLA PARK STORM WATER EXPENSES		ACTUAL FY2010	ACTUAL FY2011	YEAR END FY2012	PROJECTED FY2013	BUDGET FY2014	PROJECTED FY2015 thru FY2018	CATEGORY
OPERATIONS EXPENSES (Historical Storm Water Buyout Operating Expenses)								
68.502.02.201	LEGAL NOTICES	$979	$1,353	$33	$500	$500	$1,500	CONTRACTUAL SERVICES
68.502.02.292	ENGINEERING SERVICES	$39,885	$26,016	$23,552	$20,000	$20,000	$50,000	CONTRACTUAL SERVICES
68.502.02.299	OTHER CONTRACTUAL SERVICES	$2,739	$314	$809	$5,000	$5,500	$10,000	CONTRACTUAL SERVICES
68.502.02.303	DUES & PUBLICATIONS	$0	$1,000	$1,000	$1,000	$1,000	$1,000	CONTRACTUAL SERVICES
68.502.02.399	OTHER SUPPLIES	$0	$0	$144	$500	$500	$1,000	CONTRACTUAL SERVICES
SUBTOTAL OPERATION CONTRACTUAL SERVICES		$43,603	$28,683	$25,538	$27,000	$27,500	$63,500	
68.502.10.292	ENGINEERING SERVICES	$50,986	$2,154	$0	$35,000	$133,500	$50,000	CIP PROJECTS
68.502.10.299	OTHER CONTRACTUAL SERVICES	$234,193	($798)	$19,218	$718,299	$250,900	$50,000	CIP PROJECTS
SUBTOTAL OPERATION CIP PROJECTS		$285,179	$1,356	$19,218	$753,299	$384,400	$100,000	
SUB-TOTAL OPERATIONS EXPENSES		$328,782.00	$30,039.00	$44,756.09	$780,299.00	$411,900.00	$163,500.00	

Sources:

FY2010	Villa Park Annual Operating Budget FY 2011-12, page 265
FY2011	Villa Park Annual Operating Budget FY 2012-13, page 269
FY2012	Villa Park Monthly Treasurer's Report (Unaudited) April 30, 2012, page 89
FY2013	Excel file, "StormWaterExpenses.xlsx" from Vydas Juskelis
FY2014	Excel file, "StormWaterExpenses.xlsx" from Vydas Juskelis
FY2015-2018	Excel file, "StormWaterExpenses.xlsx" from Vydas Juskelis

STREET FUND - STORM SEWER EXPENSES [1]								
10.525.26.281	RENTAL OF EQUIPMENT	$0	$0	$0	$0	$0	$10,000	CONTRACTUAL SERVICES
10.525.26.292	ENGINEERING (storm atlas corrections)	$0	$0	$0	$0	$0	$10,000	CONTRACTUAL SERVICES
10.525.26.299	OTHER CONTRACTUAL SERVICES	$0	$0	$0	$0	$0	$20,000	CONTRACTUAL SERVICES
SUBTOTAL STREET FUND CONTRACTUAL SERVICES		$0	$0	$0	$0	$0	$40,000	
10.525.26.322	SMALL TOOLS	$0	$0	$0	$150	$150	$500	COMMODITIES
10.525.26.342	ASPHALT MIX	$803	$845	$1,653	$990	$1,000	$5,000	COMMODITIES
10.525.26.343	STONE	$0	$119	$0	$575	$1,000	$5,000	COMMODITIES
10.525.26.344	CONCRETE-REDI MIX	$386	$432	$0	$250	$300	$1,000	COMMODITIES
	CONCRETE ITEMS & MTLS							
10.525.26.346	(Blocks, bricks, adj rings)	$1,020	$3,485	$145	$1,500	$3,000	$5,000	COMMODITIES
	CAST IRON ITEMS							
10.525.26.347	(Lids, grates, frames)	$158	$1,178	$830	$800	$1,500	$5,000	COMMODITIES
10.525.26.348	PIPES & CULVERTS	$522	$934	$62	$1,100	$2,000	$10,000	COMMODITIES
	OTHER SUPPLIES							
10.525.26.399	(small tools, lumber, hose)	$0	$68	$0	$500	$700	$1,000	COMMODITIES
SUBTOTAL STREET FUND COMMODITIES		$2,889	$7,061	$2,690	$5,865	$9,650	$32,500	
10.525.26.401	CAPITAL OUTLAY	$0	$0	$0	$0	$0		CAPITAL OUTLAY
	NON-CAPITAL OUTLAY							
10.525.26.402	(replace traffic computer)	$0	$0	$0	$0	$0	$10,000	CAPITAL OUTLAY
SUBTOTAL STREET FUND CAPITAL OUTLAY		$0	$0	$0	$0	$0	$10,000	
SUB-TOTAL STREET FUND EXPENSES		$2,889.00	$7,061.00	$2,690.00	$5,865.00	$9,650.00	$82,500.00	
SALARIES								
	WAGES, HOURLY [3]	-	$81,996	$81,996	$81,996	$81,996	$81,996	
	SALARIES: FULL-TIME [2]	$0	$0	$0	$0	$0	$165,000	SALARIES AND WAGES
	IMRF CONTRIBUTIONS [2]	$0	$0	$0	$0	$0	$20,610	SALARIES AND WAGES
	SOCIAL SECUR CONTRIBUTIONS [2]	$0	$0	$0	$0	$0	$10,230	SALARIES AND WAGES
	MEDICARE CONTRIBUTIONS [2]	$0	$0	$0	$0	$0	$2,394	SALARIES AND WAGES
	HEALTH BENEFITS [2]	$0	$0	$0	$0	$0	$60,000	SALARIES AND WAGES
SUBTOTAL SALARIES		$0	$81,996	$81,996	$81,996	$81,996	$340,230	
TOTAL EXPENSES		**$331,671.00**	**$119,095.83**	**$129,441.92**	**$868,159.83**	**$503,545.83**	**$586,229.83**	

Sources:

FY2010-FY2018	Excel file, "StormWaterExpenses.xlsx" from Vydas Juskelis

(1) Storm water related expenses historically paid from street fund to be transferred to stormwater management program.
(2) Three Proposed full-time salaries & benefits
(3) Storm Water Labor Costs From Acitivity Cost with Pay Class Detail

Appendix D

Villa Park Capital Improvement Program

VILLA PARK CAPITAL IMPROVEMENT PROGRAM

		TOTAL COST [1]	% FROM STORMWATER [2]	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Future Years
Astor Court Improvement Project	Engineering	$86,179	50%						$43,090
Reconstruction of Astor Court from Summit Ave to Myrtle Ave includes storm sewer construction, lead water services & sanitary sewer replacement.	Construction	$430,897	50%						$215,449
	Total	$517,076							$258,538
Drainage Assistance Program	Construction	$40,000	50%	$20,000	$10,000	$10,000	$10,000	$10,000	
Alleviate drainage issues throughout village. Share cost 50% w property owners.	Total	$40,000		$20,000	$10,000	$10,000	$10,000	$10,000	
Small Drainage Projects	Construction (SW Buyout)	$15,000	100%	$15,000					
Alleviate drainage issues throughout village.	HNGP Grant	$90,000							
Share cost 50% w property owners.	Private Funds	$15,000							
	Total	$120,000		$15,000					
Maple Street Improvement Project	Engineering	$157,422	50%						$78,711
Replace deteriorating pavement & install storm sewers.	Construction	$787,109	50%						$393,555
	Total	$944,531							$472,266
Michigan Avenue Improvement Project - Jackson to Madison	Engineering	$133,290	50%						$66,645
Replace deteriorating pavement & install storm sewers.	Construction	$666,450	50%						$333,225
	Total	$799,740							$399,870
Monterey Avenue Sewer Separation Project	Engineering	$136,000	50%						$68,000
Install new, separate storm sewer to separate existing combined sewer.	Construction	$579,000	50%						$289,500
	Total	$715,000							$357,500
Myrtle Avenue Improvement Project - Highland to Park	Engineering	$93,811	50%						$46,906
Replace deteriorating pavement & install storm sewers.	Construction	$469,054	50%						$234,527
	Total	$562,865							$281,433
Pine Street Improvement Project	Engineering	$122,334	50%						$61,167
Replace deteriorating pavement & install storm sewers.	Construction	$611,671	50%						$305,836
	Total	$734,005							$367,003
Summit Avenue Improvement Project	Engineering	$60,521	50%						$30,261
Replace deteriorating pavement & install storm sewers.	Construction	$302,603	50%						$151,302
	Total	$363,124							$181,562
Van Buren Street Improvement Project	Engineering	$115,091	50%						$57,546
Replace deteriorating pavement & install storm sewers.	Construction	$575,453	50%						$287,727
	Total	$690,544							$345,272
Yale Avenue Improvement Project	Engineering	$139,741	50%						$69,871
Replace deteriorating pavement & install storm sewers.	Construction	$698,704	50%						$349,352
	Total	$838,445							$419,223
Flood Control Study	Engineering	$250,000	100%						$250,000
	Total	$250,000							$250,000
Flood Mitigation Projects	Construction	$2,500,000	100%						$2,500,000
	Total	$2,500,000							$2,500,000
POTENTIAL FLOOD CONTROL PROJECTS									
Jackson Pond Expansion[3]	Design, Permitting, & Construction	$850,000	100%						$850,000
Expand existing Jackson Pond to increase flood storage volume by approx. 3 to 6 ac-ft	Total	$850,000							$850,000
Lufkin Pond Expansion	Design, Permitting, & Construction	$450,000	100%						$450,000
Expand existing Lufkin pond to provide an additional 3 ac-ft of detention/flood storage	Total	$450,000							$450,000
Rear Yard Drainage Projects	Construction	$160,000	100%						$160,000
Installation of storm sewers and detention ponds in back yard areas in three location in the Village	Total	$160,000							$160,000
Flood Damaged Property Buyout	Purchasing & Construction	$650,000	100%						$650,000
Buy out and demolish 2 properties that have multiple repetitive loses due to flooding on Monterey Avenue adjacent to Rotary Park	Total	$650,000							$650,000
Total Capital Improvement Program Projects				**$35,000**	**$10,000**	**$10,000**	**$10,000**	**$10,000**	**$7,942,665**
								Engineering	$902,195
								Construction	$7,040,471
									$7,942,665

(1) Does not include Water Supply or Wastewater Costs

(2) Percentage to be funded from Storm Water Management Program provided by Vydas Juskelis.

(3) Jackson Pond Expansion estimated at $450,000 to $850,000 depending on scope of project.

Appendix E

Frequently Asked Questions Regarding the Stormwater Management Program

Frequently Asked Questions Regarding Villa Park Stormwater Management Program

1. What is stormwater?
   - Stormwater is runoff that results from precipitation. Sediment, nutrients, bacteria, metals, pesticides, and other pollutants are picked up as this water flows over construction sites, farm fields, lawns, driveways, parking lots, and streets. Unlike sanitary sewers that go to a treatment plant, most stormwater discharges directly to local water bodies. Increasing amounts of impervious surfaces in urban areas, such as roof tops, driveways, parking lots, and streets, decrease the ability of the water to soak into the ground. Increasing potential for flooding is a risk from greater volumes of stormwater entering the Village's storm sewer and drainage system at a faster rate as runoff.

2. Why does stormwater have to be managed?
   - Stormwater is managed to protect homes, properties, the environment, streams, and rivers from damage due to flooding, pooling, erosion, and harmful pollutants. Stormwater runoff must be channeled through a system of pipes, culverts, ditches, swales, catch basins, and storm drains before being safely discharged into local streams and rivers. Even if your property has never flooded, stormwater that flows off your property must be managed so that it does not contribute to flooding in areas downstream.

3. How will the Stormwater Management Program be funded?
   - The Stormwater Management Program will be a self-supported "Enterprise Fund" that is set up to generate funding specifically for stormwater management. The Stormwater Management Program accounts for its revenues and expenses separately. Businesses and residents within the Village of Villa Park pay a stormwater user fee based on the demand that their property places on the stormwater management system. The revenue collected directly supports maintenance of existing storm drain systems, development of drainage plans, flood control measures, water quality programs, and funding of major capital expenses.

4. Why is the Stormwater Management Program user fee needed?
   - Federal and State funding is available for water and wastewater systems but not for stormwater systems.
   - The stormwater fee provides revenue to maintain and improve the Village's stormwater system by repairing, upgrading and performing preventive maintenance on stormwater structures and to fund stormwater related capital projects.
   - The Village faces compliance requirements with mandated and unfunded Federal and State regulations regarding the amount and quality of stormwater. The United States Environmental Protection Agency's (USEPA) Phase II of the National Pollutant Discharge Elimination System (NPDES) program requires communities to develop, implement, and enforce a stormwater management program. The intent of the program is to reduce discharge of pollutants from the storm sewer system, protect all tributaries, and improve water quality. Personnel responsibilities include administering and inspecting elements related to reporting and enforcement of a Stormwater and Erosion Control Ordinance to ensure the Village's compliance with these regulations.
   - The Village of Villa Park chooses to implement a stormwater fee rather than raise property taxes or cut services in order to meet these federally-mandated regulations for discharging stormwater and to pay for associated stormwater infrastructure costs. Stormwater that leaves your property as runoff ultimately drains into a Village maintained drainage facility. A fee is assessed because this runoff contributes to the need for operation and maintenance costs of the stormwater management system to prevent and correct stormwater runoff problems.
   - The stormwater management program also provides other services:
     - Public education and outreach.
     - Construction inspection.

- Preventing harmful pollutants from being washed by stormwater runoff into local streams and rivers as required by USEPA.
- Keeping public streets drained and cleared to make travel safe, minimize flood hazards, and reduce the amount of debris into the stormwater system.
- Making necessary repairs of or replace aging stormwater infrastructure including stormwater inlets, pipes, culverts, and other structures to safely collect and convey stormwater through all parts of the Village.
- Making repairs to ravines, open stream channel systems, and other public drainage ways to reduce erosion and loss of property.
- Conducting ongoing inspection and maintenance to mitigate existing and future problems.
- Storm drain cleaning and repair.
- Street sweeping.

5. Why are the capital improvements required?
   - The Village of Villa Park currently utilizes a combined sewer system in some areas. These sewers carry both sewage and stormwater flows. During a severe rain event, the combined sewer system may be overwhelmed and discharge untreated sewage. In order to reduce the risk of combined sewer overflows, the Village must reconstruct portions of the sewer system to separate sewage and storm flows. The Village has identified nine sewer separation projects with a total cost of $3 million.
   - Local flooding is also a significant issue during severe rain events. The Village has identified seven projects with a total cost of $4.9 million to reduce flooding and the resulting property damage.

6. How is the new Stormwater Management Program user charge calculated?
   - Villa Park's public stormwater drainage system conveys rain and snowmelt runoff from developed properties. Impervious area on developed properties increases the amount of runoff, which requires increased sizes of pipes, structures, and basins. The major contributing factor in water pollution and erosion is the amount of runoff.

     A fair and equitable basis for calculating stormwater charges is the amount of a property's impervious area which can be measured and has a direct and accepted relationship to the estimated amount of water that leaves a property as stormwater runoff. A property's impervious area is the most significant factor affecting both stormwater quality and quantity because stormwater cannot be absorbed by these surfaces and must be managed through some sort of stormwater system.

     The recommended rate structure uses the amount of impervious surface area (measured in square feet) as a measurement of the demand that each property places on the stormwater management system. A unit of impervious surface area on an average single-family, residential property, or "equivalent residential unit (ERU)," is the quantity used for assessing stormwater charges. The size of one ERU was determined by averaging the impervious surface areas existing on single-family properties in the Village. The value of one ERU is set at 3,000 square feet of impervious area for the Village of Villa Park.

     All single-family residential properties are assigned one ERU. The proposed rate structure for the other developed properties is based on actual measured impervious area. Other customers include apartments, multi-family residences, and commercial, industrial, and institutional customers. The number of ERUs allocated to each property is determined by dividing the total impervious area by 3,000 square feet (1 ERU) and rounding up to the

nearest tenth. The monthly unit rate for one ERU was calculated by dividing the total annual stormwater management expenses by the total number of ERUs that will be assessed on an annual basis.

7. How much will my rates be?
   - The proposed monthly stormwater rate for a residential customer is a monthly charge of $5.45 in Fiscal Year 2015.
   - The rate for other properties depends on the amount of measured impervious area. The monthly stormwater rates in Fiscal Year 2015 are $5.45 for every Equivalent Residential Unit (ERU), or 3,000 ft^2 of impervious area.

8. Who pays the Stormwater Management Program user charge? Why are churches, schools, and other non-profit organizations charged a stormwater charge?
   - The stormwater management program charge is a user-fee, much like the fee that you pay for your water or wastewater service. All property owners that receive drainage services and are within the drainage service area must share in the cost of the stormwater management program. This includes residential homeowners, non-profit entities such as churches, schools and institutions, and commercial properties. Runoff from your property may contribute to the level of nutrients in stormwater runoff even if your property does not drain into the public drainage system.

     Public roadways and highways are considered part of the stormwater conveyance system and do not pay stormwater fees.

9. How does a "fee" differ from a "tax"?
   - Revenue collected is all dollars paid, but there are some differences between a fee and a tax.
     User equity – Fees are more proportional and give users more control. With fees, larger users pay more, and smaller users pay less.
     Dedicated funding – Fee income is segregated, and a stormwater fee can only be used for stormwater related costs. Tax dollars are available for almost any use, and competition for tax dollars usually results in infrastructure being under-funded.
     Tax exempt property – Some properties in Villa Park are granted tax exempt status, such as property owned by the Village, School District, and churches. Many of the tax exempt properties have large amounts of impervious area. This places more property tax burden on residents and local businesses, while a fee is charged to all users with developed property.

10. None of my water goes into the storm drains. Why do I have to pay a Stormwater Management Program Fee?
    - Eventually all basins drain to Salt Creek, even if it is only the rainwater caught in your or your neighbor's backyard or ravine. Your property is also likely to generate runoff in a "severe" rain storm, even if the ground absorbs it during "normal" events.
    - Everyone benefits from adequate, properly-functioning drainage and flood control systems in the Village which decrease the likelihood of flooding, erosion, and unlimited pollutants from surface and stormwater runoff.
    - All property owners receive indirect benefits from a properly maintained and operated stormwater management system for the entire village which is on public property. Stormwater management activities with broad benefits include keeping the public streets drained and cleared so random flooding does not occur and travel is safe, making necessary stormwater infrastructure upgrades, reducing erosion and other pollutants that enter streams and rivers, and collecting and conveying stormwater safely through all parts of the village.

- A portion of the revenue also provides for compliance with federal, state, and local regulations for water quality improvements.
- Everyone benefits from regulation and monitoring of properties above and around them.
- Efforts to monitor and protect the streams provide benefits to everyone.

11. How will properties with multiple renters be handled under the new Stormwater Management Program rate structure?
    - The property owner will be charged a stormwater fee based on the measured amount of impervious area for properties with multiple renters or businesses. The property owner may choose to pass the fee on to renters in the form of higher payments but ultimate responsibility for payment remains with the owner.

12. What can non-residential customers do if they think their bill may be calculated incorrectly?
    - If a property owner believes that the area of impervious surface has been calculated incorrectly or has changed since the aerial photography was produced, the owner can arrange for a survey company to measure the impervious surfaces at the expense of the property owner. This information should be given to the Village to review and determine if there is an inaccuracy in the billing and, if so, to adjust the bill accordingly.