Agenda Item No. 7

VILLAGE BOARD AGENDA SUPPLEMENT

Meeting Date:	August 27, 2019
Agenda Item:	Consideration of a Resolution to Approve a Professional Services Agreement with NewGen Strategies & Solutions, LLC to Conduct a Stormwater Utility Feasibility Analysis and Rate Study
Staff Recommendation:	Approve Resolution
Staff Contact:	Nicholas A. Mostardo, Director of Finance

Background: On May 28, 2019, the Village Board adopted the Master Stormwater Management Plan. Subsequently, the Board directed staff to investigate the feasibility of a stormwater utility fee to offset the costs of capital improvements associated with the Plan. On June 6, 2019, an RFP document was released soliciting professional services related to a stormwater utility feasibility analysis and rate study. The Village received four (4) responses and elected to interview two of the responding firms: NewGen Strategies and Solutions, LLC (formerly Municipal and Financial Services Group) and Huff & Huff, Incorporated.

After evaluation, staff is recommending a professional services contract award to NewGen Strategies and Solutions. The firm has extensive experience in conducting stormwater utility feasibility and rate studies, particularly with Illinois clients, including Winnetka, Downers Grove, and Batavia. NewGen Strategies and Solutions is the successor firm to a merger between NewGen and Municipal and Financial Services Group (MSFG). MSFG previously conducted the Village's water and sewer rate study; the stormwater feasibility analysis and rate study will be facilitated by the same group of professionals out of the firm's Annapolis, Maryland office. Eric Callocchia, the principal who previously led the water and sewer rate study, will lead the stormwater feasibility analysis and rate study.

As part of their proposal, NewGen has committed to completing its initial rate and utility structure estimates in time for town hall meetings this fall (Phase I). Phase II of the project, utility implementation, would take place at the beginning of 2020. The total not-to-exceed project budget for Phase I is $66,140 and for Phase II is $33,360, resulting in a total not-to-exceed project budget of $99,500. Sufficient funds are available in the Stormwater Sewer Fund to offset this expense.

The proposed agreement with NewGen complies with the provisions of the *Local Government Professional Services Selection Act* as the Village has a satisfactory relationship for services established with NewGen, by virtue of its merger with MSFG, based upon their previous utility financing work.

Staff recommends adoption of the attached resolution to approve a professional services agreement for a stormwater utility feasibility analysis and rate study with NewGen Strategies and Solutions, LLC and to authorize execution by the Village Administrator.

RESOLUTION 19-R- 151

A RESOLUTION APPROVING
A PROFESSIONAL SERVICES AGREEMENT
BETWEEN THE VILLAGE OF LIBERTYVILLE AND
NEWGEN STRATEGIES AND SOLUTIONS, LLC

WHEREAS, the Village of Libertyville has identified the need to conduct a stormwater utility feasibility analysis and rate study, and

WHEREAS, professional services proposals were solicited from several firms, with NewGen Strategies and Solutions, LLC submitting the most qualified proposal, and,

WHEREAS, a cost proposal from NewGen Strategies and Solutions, LLC, in an amount not-to-exceed $99,500, was deemed to be in the best interest of the Village of Libertyville, and

WHEREAS, funding for these professional services would come from Account # 21-2121-3-728 in the FY 2019-20 budget, and

WHEREAS, the Board of Trustees seeks to enter into a certain professional services contract agreement with NewGen Strategies and Solutions, LLC for a stormwater utility feasibility analysis and rate study.

NOW, THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND THE BOARD OF TRUSTEES OF THE VILLAGE OF LIBERTYVILLE, COUNTY OF LAKE AND STATE OF ILLINOIS, AS FOLLOWS:

Section 1. Recitals. The foregoing recitals attached hereto are hereby incorporated herein as fully set forth and detailed in the Professional Services Agreement contract and its exhibits, and by this reference it is hereby approved.

Section 2. The Village of Libertyville Board of Trustees authorizes the Village Administrator to execute the Professional Services Agreement contract with NewGen Strategies and Solutions, LLC for a stormwater utility feasibility analysis and rate study in an amount not-to-exceed $99,500.

Section 3. This Resolution shall take effect immediately upon its passage and approval as provided by law.

PASSED this 27th day of August, 2019.

AYES: Johnson, Moras, Justice, Adams, Garrity, Carey

NAYS: None

ABSENT: None

APPROVED this 28th day of August, 2019.

Terry L. Weppler, Village President

ATTEST:

by: Kelly A. Amidei, Deputy Clerk
Sally Kowal, Village Clerk

AGREEMENT BETWEEN THE VILLAGE OF LIBERTYVILLE AND NEWGEN STRATEGIES AND SOLUTIONS, LLC FOR PROFESSIONAL SERVICES

THIS AGREEMENT is entered into this 21st day of August, 2019, between the Village of Libertyville, 118 W. Cook Avenue, Libertyville, IL 60048 (hereinafter referred to as the "Village"), and NewGen Strategies and Solutions, LLC, 225 Union Blvd. #305, Lakewood, CO 80228 (hereinafter referred to as the "Consultant").

WHEREAS, the Consultant is a Corporation and desires to enter into this Agreement with the Village; and

WHEREAS, the Consultant represents that it has the full authority to enter into this Agreement and that the party executing this Agreement on behalf of the Consultant has been authorized by the Consultant to execute the Agreement on the Consultant's behalf; and

WHEREAS, the conditions contained in this Agreement, and the attached exhibits, incorporated by reference herein, constitutes the full and complete Agreement between the parties regarding the subject matter of this Agreement. The following described exhibits are attached hereto and incorporated herein:

A. The Scope of Services attached hereto as Exhibit A.

B. The Fee Schedule is attached hereto as Exhibit B.

C. Certificates of insurance and related endorsements, attached hereto as Exhibit C.

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, the parties agree as follows:

SECTION 1: RECITALS

The foregoing recitals are hereby incorporated herein as if fully set forth.

SECTION 2: SERVICES / SCOPE OF WORK

A. The Consultant agrees to perform a stormwater utility feasibility analysis and rate study as set forth in Exhibit A (hereinafter referred to as the "Services").

B. Consultant represents that all employees utilized by Consultant are fully qualified, trained (and where appropriate) licensed to perform the Services.

C. Consultant warrants it has not employed or retained any company or person, other than a bona fide employee working solely for the Consultant, to solicit or secure this contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the Consultant, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warranty the Village shall have the right without liability to declare this Agreement null and void.

D. The Consultant shall cooperate fully with the Village, other Village consultants, other municipalities and other local government officials, public utility companies and others as may be directed by the Village. This shall include attendance at meetings, discussions and hearings as requested by the Village.

SECTION 3: PAYMENT FOR SERVICES

Consultant shall submit invoices for all Services performed on a monthly basis. All invoices shall describe, with particularity, the Services performed. The Village shall have no obligation to make any payments until such time as Village accepts performance as satisfactory. The invoices for Services will show: 1) Employee hours and the applicable hourly rate (Hours x Hourly Rate) for a specific task as outlined in Exhibit A; 2) Percent invoiced versus percent completed through a given billing period; and 3) Direct Costs approved by the Village and billed to the Village at cost.

All payments under this contract shall be made to the Consultant as identified by this Agreement and no payments will be personally made to any individual, company or other entity not identified by this Agreement. Upon the Village's acceptance of the Services as satisfactory, the Village agrees to pay the Consultant pursuant to the provisions of the Local Government Prompt Payment Act (50 ILCS 505/1 et. seq.) the following amount:

The Total Cost of all of the Services to be performed pursuant to this Agreement, including direct payroll, overhead, and direct costs shall not exceed: $99,500.00 in accordance with Exhibit B, unless the upper limit is modified based on an amendment to this agreement.

SECTION 4: TERM AND TERMINATION

A. The Services shall commence upon the execution of this Agreement and proceed continuously and expeditiously until completed.

B. The Village may terminate this Agreement by written notice of default to the Consultant if (a) the Consultant fails to perform the Services within the time specified in Exhibit A, or (b) fails to make progress as required by this Agreement, or (c) fails to provide or maintain in full force and effect, the liability and indemnity coverages or performance bond as is required by this Agreement. Upon termination the Consultant shall cause to be delivered to the Village all drawings, specifications, partial and completed estimates and other data, with the understanding that all such material becomes the property of the Village. If the Village terminates the agreement as a result of the Consultant's nonperformance or other default, then the Village is entitled to receive and the Consultant shall pay to the Village all damages provide by law and the consultant shall not be entitled to any payment whatsoever.

C. If the Village terminates the agreement, the Village may procure services similar to those so terminated, and the Consultant shall be liable to the Village for any excess costs for similar supplies and services, unless the Consultant provides acceptable evidence that failure to perform the contract was due to causes beyond the control and without the fault or negligence of the Consultant.

SECTION 5: INSURANCE

The Consultant shall have in place at all times that this Agreement is in effect, Insurance is to be placed with insurers with a Best's rating of no less than A-, VII and licensed to do business in the State of Illinois. The Consultant shall, at the Consultant's expense, secure and maintain in effect throughout the duration of this Agreement, insurance of the types and limits shown below. The required certificates of insurance and endorsements shall be attached as Exhibit C and shall be furnished to the Village before starting work or within ten (10) days after the execution of this agreement.

A. Insurance Services Office Commercial General Liability
   1. *Minimum Limits and form*:
      - $1,000,000 combined single limit per occurrence for bodily injury and property damage.
      - $1,000,000 per occurrence for personal injury.
      - $2,000,000 general aggregate, minimum; or a project/contract specific aggregate of $1,000,000.
      - Shall be provided on an occurrence policy form.
   2. *Additional Insured and Endorsement*: The Village, its officials, agents, employees and volunteers are to be covered as additional insureds, on a form at least as broad as the endorsement ISO Additional Insured Endorsement CG 2010, CG 2026, or if requested by the Village, CG2037 - Completed Operations, as respects: liability arising out of the Consultant's work, including activities performed by or on behalf of the Consultant; products and completed operations of the Consultant; premises owned, leased or used by the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the Village, its officials, agents, employees and volunteers.
   3. The Consultant's insurance coverage shall be primary as respects the Village, its officials, agents, employees and volunteers. Any insurance or self-insurance maintained by the Village, its officials, agents, employees and volunteers shall be excess of Consultant's insurance and shall not contribute with it.
   4. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Village, its officials, agents, employees and volunteers.
   5. The Consultant's insurance shall contain a Severability of Interests/Cross Liability clause or language stating that contractor's insurance shall apply separately to each insured against who claim is made or suit is brought, except with respect to the limits of the insurer's liability.
   6. If any commercial general liability insurance is being provided under an excess or umbrella liability policy that does not "follow form," then the Consultant shall be required to name the Village, its officials, agents, employees and volunteers as additional insureds. A copy of the actual additional insured endorsement shall be provided to the Village.

B. Insurance Services Office Business Auto Liability Coverage (form number CA 0001, Symbol 01 "Any Auto.")
   1. *Minimum Limits*: The contractor shall maintain limits no less than the following, $1,000,000 combined single limit per accident for bodily injury and property damage.
   2. This insurance must include non-owned, hired, or rented vehicles, as well as owned vehicles.

C. Workers' Compensation and Employers' Liability
   1. *Minimum Limits*: The Consultant shall maintain limits no less than the following, Workers' Compensation coverage with statutory limits and Employers' Liability limits of $500,000 per accident.
   2. *General Provisions*: The insurer shall agree to waive all rights of subrogation against the Village, its officials, agents, employees and volunteers for losses arising from work performed for the Village of Libertyville by the Consultant.

D. Professional Liability Insurance (applicable to architectural, engineering, surveying, and consulting, including consultants who are contracted to draft Village codes, specifications and/or regulations)
   1. *Minimum Limits*: The Consultant shall maintain limits no less than the following, $1,000,000 each claim with respect to negligent acts, errors and omissions in connection with professional services to be provided under the Agreement, with a deductible not-to-exceed $50,000 without prior written approval.
   2. *General Provision*: If the policy is written on a claims-made form, the retroactive date must be equal to or preceding the effective date of the Agreement. In the event the policy is cancelled, non-renewed or switched to an occurrence form, the Consultant shall be required to purchase supplemental insurance extending reporting period coverage for a period of not less than three (3) years.
   3. Professional liability insurance that provides indemnification and defense for injury or damage arising out of acts, errors, or omissions in providing the following professional services, but not limited to the following:
      a. Preparing, approving or failure to prepare or approve maps, drawings, opinions, report, surveys, change orders, designs or specifications;
      b. Providing direction, instruction, supervision, inspection, engineering services or failing to provide them, if that is the primary cause of injury or damage.

Applicable to All Coverages: The policies are to contain, or be endorsed to contain, the following provisions:

A. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, cancelled, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Village.

B. Deductibles and Self-Insured Retentions: Any deductibles or self-insured retentions must be declared to, and approved by the Village. At the option of the Village, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the member, its officials, agents, employees and volunteer; or the Consultant shall procure a bond guaranteeing payment of losses and related investigation, claim administration and defense expenses.

C. The specifications may require higher limits or additional types of insurance coverages than shown above and the Consultant WILL be required to furnish a certificate of insurance, copy of additional insured endorsement or other proof of insurance coverages.

D. The Consultant shall furnish the Village with certificates of insurance naming the Village, its officials, agents, employees and volunteers as additional insureds (Exhibit C), and with original endorsements affecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements may be on forms provided by the Village and are to be received and approved by the Village before any work commences. The Village reserves the right to request fully certified copies of the insurance policies and endorsements.

Subcontractors and Subconsultants: The Consultant shall include all subcontractors or subconsultants as insureds under its policy or shall furnish separate certificates and endorsements for each subcontractor or subconsultant. All coverages for subcontractors or subconsultants shall be subject to all of the requirements stated herein.

Assumption of Liability: The Consultant assumes liability for all injury to or death of any person or persons including employees of the Consultant, any sub-contractor or subconsultant, any supplier or any other person and assumes liability for all damage to property sustained by any person or persons occasioned by or in any way arising out of the Services performed pursuant to this Agreement.

SECTION 6: INDEMNIFICATION

Consultant Indemnification: Consultant agrees to indemnify and hold harmless the Village and any of its officials, agents, employees and volunteers from and against all loss, damage, cost or expense arising out of (and to the extent caused by):

1. Consultant's negligent performance of services including but not limited to omissions of service under this Agreement;

2. Claims, suits or actions of every kind and description when such suits or actions are caused by the fault, willful acts, negligent acts, errors or omissions of the Consultant, its employees or subconsultants; or

3. Injury or damages received or sustained by any party because of the fault, willful acts, negligent acts, errors or omissions of the Consultant, its employees or subcontractors.

Village Indemnification: In the event that the Village is not immune from liability under any applicable law, and only in such event, the Village hereby agrees to indemnify and hold harmless the Consultant and any of its officers or employees from all loss, damage, cost or expense arising out of (and to the extent caused by) injury or damages received or sustained by any party because of the negligent acts, errors or omissions committed solely by the VILLAGE or its employees.

SECTION 7: COMPLIANCE WITH LAWS

The Consultant and any subcontractor retained by the Consultant shall comply with all applicable laws, regulations, and rules promulgated by any Federal, State, County, Municipal and/or other governmental unit or regulatory body now in effect or which may be in effect during the performance of the work. Included within the scope of the laws, regulations, and rules referred to in

this paragraph but in no way to operate as a limitation, are Occupational Safety & Health Act (OSHA), Illinois Department of Labor (IDOL), Department of Transportation, all forms of traffic regulations, public utility, Intrastate and Interstate Commerce Commission regulations, Workers' Compensation Laws, Prevailing Wage Laws (if applicable), the Social Security Act of the Federal Government and any of its titles, the Illinois Department of Human Rights, Human Rights Commission, Illinois Human Rights Act (775 ILCS 5/1-01 *et seq.*) or EEOC statutory provisions and rules and regulations. Also including the following:

Equal Employment Opportunity - During the performance of the Agreement and/or supplying of materials, equipment and supplies, the contractor must be in full compliance with all provisions of the Acts of the General Assembly of the State of Illinois relating to employment, including equal employment opportunity requirements.

Prevailing Wages - If applicable, all laborers, workers, and mechanics shall be paid no less than the current prevailing wages for the construction trades, as established by the Illinois Department of Labor and included in these provisions.

The Consultant, if required by the Village, shall provide evidence of specific regulatory compliance.

SECTION 8: NOTICE

Any notice required to be given by this agreement shall be deemed sufficient if made in writing and sent by certified mail, return receipt requested, by personal service to the person and addresses indicated below, or sent by facsimile or e-mail with an acknowledgement of receipt, to the following:

To the Village:
Village of Libertyville
118 W. Cook Avenue
Libertyville, IL 60048
Attention: Nicholas Mostardo
e-mail: nmostardo@libertyville.com
facsimile: 847-362-9453

To the Consultant:
NewGen Strategies & Solutions, LLC
911-A Commerce Road
Annapolis, MD 21401
Attention: Eric Callocchia
email: ecallocchia@newgenstrategies.net
facsimile: 410-266-5545

Or to such other parties or persons or to such other address or addresses as may be provided by either party to the other party.

SECTION 9: MODIFICATION AND AMENDMENTS

Except as otherwise provided herein, the nature and scope of services specified in this Agreement may only be modified by written amendment to this Agreement approved by both parties. This Agreement may be modified or amended from time to time provided, however, that no such amendment or modifications shall be effective unless reduced to writing and duly authorized and signed by the authorized representatives of the parties.

SECTION 10: STANDARDS

A. The Consultant shall perform all of the provisions of this Agreement to the satisfaction of the Village. The Village shall base its determination of the Consultant's fulfillment of the scope of the work in accordance with accepted standards of other parties in the same field as Consultant. The Consultant shall perform all of the provisions of this Agreement with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.

B. The Consultant shall be responsible for the accuracy of its professional services under this Agreement and shall promptly make revisions or corrections resulting from its errors, omissions, or negligent acts without additional compensation. The Village's acceptance of any of the Consultant's professional services shall not relieve the Consultant of its responsibility to subsequently correct any such errors or omissions.

C. The Consultant shall respond to the Village's notice of any errors and/or omissions within 24 hours. The Consultant shall be required to visit the Services site if directed by the Village.

D. The Consultant shall comply with all federal, state, and local statutes, regulations, rules, ordinances, judicial decisions, and administrative rulings applicable to its performance under this Agreement.

SECTION 11: DRAWINGS AND DOCUMENTS

A. Any drawings, survey data, reports, studies, specifications, estimates, maps, computations, and other documents required to be prepared by the Consultant for the Services shall be the property of the Village. Subject to the disclosure requirements of the Illinois Freedom of Information Act, any drawings and other documents prepared by the Consultant for the Services shall not be used on other project without the prior written approval of the Consultant.

B. The Consultant and its subcontractors or subconsultant shall maintain for a minimum of three (3) years after the completion of this Agreement, or for three (3) years after the termination of this Agreement, whichever comes later, adequate books, records and supporting documents to verify the amounts, recipients and uses of all disbursements of funds passing in conjunction with the Agreement. The Agreement and all books, records and supporting documents related to the Agreement shall be available for review and audit by the Village and the federal funding entity, if applicable, and the Consultant agrees to cooperate fully with any audit conducted by the Village and to provide full access to all materials. Failure to maintain the books, records and supporting documents required by this subsection shall establish a presumption in favor of the Village for recovery of any funds paid by the Village under the Agreement, for which adequate books, records and supporting documentation are not available to support their purported disbursement.

SECTION 12: SUCCESSORS AND ASSIGNS

The Village and the Consultant each bind themselves and their partners, successors, executors, administrators and assigns to the other party of the Agreement and to the partners, successors, executors, administrators and assigns of such other party in respect to all covenants of this Agreement.

Except as above, neither the Village nor the Consultant shall assign, sublet or transfer its interest in this Agreement without the written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body, which may be a party hereto, nor shall it be construed as giving any right or benefits hereunder to anyone other than the Village and the Consultant.

SECTION 13: FORCE MAJEURE

Neither the Village nor the Consultant shall be liable for any delay or failure in performance of any part of this Agreement if due to a cause beyond its control and without its fault or negligence including, without limitation: (1) acts of nature; (2) acts or failure to act on the part of any governmental authority other than the Village or Consultant, including, but not limited to, enactment of laws, rules, regulations, codes or ordinances subsequent to the date of this Agreement; (3) acts or war; (4) acts of civil or military authority; (5) embargoes; (6) work stoppages, strikes, lockouts, or labor disputes; (7) public disorders, civil violence or disobedience; (8) riots, blockages, sabotage, insurrection or rebellion; (9) epidemics; (10) terrorist acts; (11) fires or explosions; (12) nuclear accidents; (13) earthquakes, floods, hurricanes, tornadoes, or other similar calamities; (14) major environmental disturbances; or (15) vandalism.

SECTION 14: CAPTIONS AND HEADINGS

Captions and paragraphs headings are for convenience only and are not a part of this Agreement and shall not be used in construing it.

SECTION 15: GOVERNING LAW

This Agreement shall be governed by the laws of the State of Illinois both as to interpretation and performance. Venue for any action arising out of or due to this Agreement shall be in the Circuit Court for Lake County, Illinois.

SECTION 16: ENTIRE AGREEMENT

This Agreement sets forth all the covenants, conditions and promises between the parties with regard to the subject matter set forth herein. There are no covenants, promises, agreements, conditions or understandings between the parties, either oral or written, other than those contained in this Agreement.

SECTION 17: SEVERABILITY

Except as otherwise provided herein, the invalidity or unenforceability of any particular provision, or part thereof, of this Agreement shall not affect the other provisions, and this Agreement shall continue in all respects as if such invalid or unenforceable provision had not been contained herein.

SECTION 18: AUTHORITY TO EXECUTE

The Consultant's authorized representatives who have executed this Agreement warrant that they have been lawfully authorized by the Consultant's board of directors or its by-laws to execute this Agreement on its behalf. The Village Administrator and Village Clerk warrant that they have been lawfully authorized to execute this Agreement. The Consultant and the Village shall deliver upon request to each other copies of all articles of incorporation, bylaws, resolutions, ordinances or other documents which evidence their legal authority to execute this Agreement on behalf of their respective parties.

IN WITNESS WHEREOF, the parties' authorized representatives have executed this Agreement as of the dates set forth below.

VILLAGE OF LIBERTYVILLE

By: Kelly A. Amidei

Printed Name Kelly A. Amidei

Title Village Administrator

Date August 28, 2019

CONSULTANT: NewGen Strategies and Solutions, LLC

By: [redacted]

Printed Name Edward J. Donahue III

Title Vice President

Date 8/21/19

EXHIBIT A: SCOPE OF SERVICES

EXHIBIT B: FEE SCHEDULE

EXHIBIT C: INSURANCE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 08/20/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: John Davidson	
Trimountain Corporation 8301 East Prentice Avenue Suite 215 Greenwood Village CO 80111	PHONE (A/C, No, Ext): (720) 708-4155	FAX (A/C, No): (720) 708-4387
	E-MAIL ADDRESS: john@trimountaincorp.com	

INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A :	The Travelers Indemnity Company	25658
INSURER B :	Travelers Casualty Insurance Company of America	19046
INSURER C :	Philadelphia Indemnity Insurance Company	18058
INSURER D :		
INSURER E :		
INSURER F :		

INSURED
NewGen Strategies & Solutions, LLC
225 Union Blvd, #305
Lakewood CO 80228

COVERAGES **CERTIFICATE NUMBER:** CL1882601179 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:			680-6J985928	09/01/2018	09/01/2019	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 1,000,000 $ 1,000,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $
A	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS [X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY			680-6J985928	09/01/2018	09/01/2019	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ $ $ $
A	[X] UMBRELLA LIAB [X] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [X] RETENTION $ 5,000			CUP 7J776575	09/01/2018	09/01/2019	EACH OCCURRENCE AGGREGATE $	$ 3,000,000 $ 3,000,000 $
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [N] If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		UB-6J985652	09/01/2018	09/01/2019	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
C	Professional Liability			PHSD1376987	09/01/2018	09/01/2019	Per Claim Limit Aggregate Limit	$3,000,000 $3,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Policies include a blanket additional insured endorsement for certificate holder only when there is a written contract between the named insured and the certificate holder that requires such status, for the general liability, auto, and umbrella policies. The general liability policy is primary and non-contributory, if required by contract.

The general liability, auto liability & worker's compensation policies include a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the named insured and the certificate holder that requires it.

CERTIFICATE HOLDER

Village of Libertyville
118 W. Cook Avenue
Libertyville IL 60048

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

AGENCY CUSTOMER ID: 00013688

LOC #:

ADDITIONAL REMARKS SCHEDULE

Page ____ of ____

AGENCY	NAMED INSURED
Trimountain Corporation	NewGen Strategies & Solutions, LLC
POLICY NUMBER	
CARRIER / NAIC CODE	EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 **FORM TITLE:** Certificate of Liability Insurance

The general liability, auto, and umbrella policies include a notice of cancellation to the certificate holders endorsement, providing for 30 days advance notice if the policy is cancelled by the company other than for nonpayment of premium, for which 10 days notice is given.

NewGen Strategies & Solutions

911-A Commerce Road
Annapolis, MD 21401
Phone: (410) 266-9101

August 16, 2019
via email

Nicholas A. Mostardo
Finance Director
Village of Libertyville
118 West Cook Avenue
Libertyville, IL 60048

Subject: MFSG Merger with NewGen Strategies and Solutions, LLC

Dear Mr. Mostardo,

As of July 1, the Municipal & Financial Services Group, LLC (MFSG) merged with NewGen Strategies and Solutions, LLC (NewGen) and is now operating under the NewGen name. MFSG's proposal to perform a Stormwater Utility Feasibility and Rate Study was submitted to the Village prior to July 1. The merger does not materially impact the content of the proposal. The exact same professionals from both NewGen (then MFSG) and our teaming partner Donohue & Associates would be assigned to the Village's project and would be completing the work out of the same offices. Of course, their qualifications, expertise, and experience remain the same. The scope of work, schedule, and planned deliverables would also remain unchanged.

We look forward to the opportunity to continue our work for the Village.

Sincerely,

NewGen Strategies and Solutions, LLC

Eric Callocchia
Executive Consultant

Village of Libertyville

Proposal to Perform a Stormwater Utility Feasibility and Rate Study

Libertyville
spirit of independence

Municipal & Financial Services Group

In association with

DONOHUE

June 28, 2019

Municipal & Financial Services Group

June 28, 2019

Nicholas A. Mostardo, Director of Finance
Village of Libertyville
118 W Cook Avenue
Libertyville, IL 60048

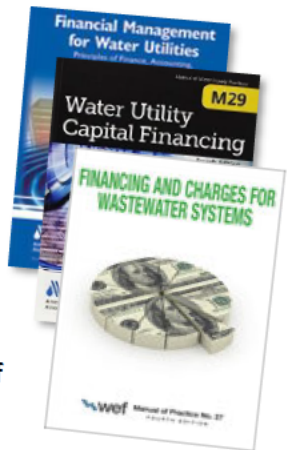
Re: Stormwater Utility Feasibility and Rate Study RFP

Dear Mr. Mostardo,

The Municipal & Financial Services Group (MFSG), in association with Donohue & Associates (Donohue) is pleased to submit our proposal to complete a Stormwater Utility Feasibility and Rate Study as specified in your Request for Proposals published on June 6, 2019. We have read the Village's RFP and its Addendum No. 1 carefully and take no exception to the Village's terms and conditions. While the enclosure to this letter sets forth our project approach, experience, qualifications and schedule there are a few key points to stress:

- **Uniquely Qualified Project Team** – MFSG's project team members have worked closely with the Village while performing its water and sewer rate study in 2015 and the subsequent update to that study in 2019. We understand the key issues and challenges facing the Village and will bring this knowledge and our expertise in addressing the Village's stormwater issues. *These exact MFSG and Donohue project team members successfully completed a nearly identical stormwater feasibility and implementation project for the Village of Winnetka.* We are extremely familiar with the requirements within the state pertaining to stormwater rate and fee setting, including home rule vs. non-home rule issues. In addition to our specific local experience, MFSG brings extensive national experience to the Village's study. MFSG's municipal clients provide environmental services to more than 45% of the nation's population. Large municipal clients have included Boston, Cleveland, Dallas, Denver, Detroit, New York City, Orlando, Pittsburgh, San Diego County Water Authority, San Francisco, Tucson and Washington, DC.

- **Industry Leading Professional Staff** - We will commit to the specific performance of our project team comprised of senior and experienced professionals with strong functional skills in engineering, accounting, economics, financial simulations and environmental regulation. *Our project manager has managed water, sewer, and stormwater rate studies around the country, including ten studies in the suburban Chicago area within the past two years. He is also a contributing author of the new edition of WEF Manual of Practice 27, Financing and Charges for Wastewater Systems.* Our project officer and technical advisor, with more than 40 years of professional experience, served as chairman of AWWA's Finance, Accounting & Management Controls Committee and is an author of numerous water and wastewater manuals of practice and textbooks.



911-A Commerce Road ♦ Annapolis, Maryland 21401
410.266.9101 Office ♦ 410.266.5545 Fax ♦ www.mfsgllc.com

- **Financial Model** - *We will deliver to the Village a valuable tool that will be useful on an on-going basis to review and revise stormwater fees and to assess the financial impact of proposed capital project scenarios.* The model will include a dashboard that will facilitate monitoring the financial health of the stormwater enterprise fund including how the fund stands in relation to target cash balances and reserve levels. We will provide "hands-on" training in how to use and maintain the model. The user-friendly financial model, along with MFSG provided training, will allow Village staff to easily adjust fees, if necessary, over a multi-year planning period as circumstances change.

- **Responsiveness** - MFSG and Donohue provide the responsiveness of a regional firm with the capabilities and experience of a national firm. We take great pride in being fully engaged with our clients so that the study the client envisions is completed. *The project team will be readily available throughout the project with a project member available on-site within a day's notice.* Our project approach includes project status meetings to ensure that the Village is fully informed throughout the study.

- **Demonstrated Performance** - We have included several references in our proposal and strongly encourage the Village to contact them to learn more about our firm and specific team.

Our proposal is a firm and irrevocable offer for a period of 90 days from the date of this letter. We look forward to working with you on this important and interesting study. Please contact me on my direct line at 443.951.4207, or by e-mail eric.callocchia@mfsgllc.com if you would like to discuss our project team and approach.

Very truly yours,

Eric Callocchia
Senior Manager
Municipal & Financial Services Group

TABLE OF CONTENTS

Appendices:

A - Signed Addendum No. 1

B - Signed Compliance Affidavit

C - Resumes of Key Project Personnel

D - Sample Stormwater Feasibility Report (Village of Winnetka, IL)

- Sample Stormwater Fee Ordinance
- Sample Credit Manual

1. FIRM PROFILES AND QUALIFICATIONS

A. MFSG Firm Background

The Municipal & Financial Services Group (MFSG) is a specialized management consulting practice that was established in 1976 and was for many years part of the management consulting department of national or regional CPA firms or engineering firms. For over forty years, MFSG has remained focused on assisting our clients with meeting the financial and management needs of public sector infrastructure (especially in environmentally related areas such as water, wastewater, stormwater and solid waste) and in the efficient delivery of public sector services. As a result, MFSG has gained a national reputation as a leader in the area of municipal cost of service analysis and pricing of water and sewer services. Our firm is a key player in helping to shape the industry with members of our firm authoring and co-authoring many industry standard books regarding utility rate setting, finance, and accounting. MFSG provides financial and management consulting expertise to local governments throughout the United States and brings a wealth of industry knowledge and expertise to all of our client engagements.

MFSG is comprised of nine permanent professional employees MFSG will provide staff for the Village's study from our single office located in Annapolis, Maryland; members of our staff are frequently (typically several times per month) in the Chicago Metro area due to the number of clients we serve in the area.

MFSG's core business is providing financial expertise related to environmental infrastructure. The specialized services we offer to our clients include:

- **Formation of Stormwater Utilities** - To appropriately manage and fund stormwater systems, a growing number of communities around the United States are setting up separate stormwater utilities. We have assisted a number of communities in the examination, adoption and implementation of stormwater utilities. Our approach emphasizes the development of the true cost of providing stormwater services, a detailed evaluation of the most appropriate means to recovering the costs and a transparent demonstration of the impacts to the community.

- **Cost of Service/Rate Studies** – We believe that expenses drive revenues, and that cost of service is tied to operating and capital budgets and must consider properly allocated indirect costs. We have developed rate structures based on both cash and utility bases. All data sources and assumptions are clearly identified, and extensive public participation, under client control, is emphasized. Our approach emphasizes the use of spreadsheet financial models that enable long-term projections reflecting sensitivity analysis for key variables. Each model is custom designed for the specific client and becomes the property of the client.

- **Operational Reviews/Management Audits** – Our preferred approach to a management audit is comprised of three steps: a diagnostic which takes a "top down" look at high dollar functions or costs, plus any known problem areas; a detailed study of potential cost savings or service improvements identified during the diagnostic phase; and implementation assistance. This

technique can be applied to virtually any municipal entity, from schools to public works, from corrections to finance. Many municipal utilities periodically conduct this type of review to eliminate inefficiencies and to identify potential improvements. This type of review can either encompass all operational aspects of an agency or can focus on known/potential trouble spots (e.g., plant operations, chemical or energy usage, information systems/GIS/SCADA, customer service and billing, etc.). Studies of this sort are sometimes required prior to a proposed rate or tax increase.

- **Comparative Analyses / Benchmarking** – Many organizations periodically compare themselves with other similar entities ("best in class") or disaggregate their functions (e.g., purchasing, information technology, customer service, construction management, etc.) to compare specific functions with other organizations that may or may not be in a similar industry or service ("world class"). MFSG has led or participated in numerous exercises of this sort, enabling its clients to develop comparative indicators to support long-range planning and operational reviews.

- **Financial Feasibility Studies** – For debt issues requiring feasibility studies, we perform comprehensive financial feasibility studies including rate and fee requirements and projections of all financial statements and coverage ratios. All analyses are tied to the client's official budgets, CIP, comprehensive plan and other relevant data. For high growth areas, we have developed impact fee-backed revenue bonds and have supported clients in presenting such financing structure to rating agencies.

- **Infrastructure Management/GASB 34** – The key to keeping life-cycle costs low is to maintain infrastructure assets at their desired service levels, thereby assuring their longest possible useful lives. MFSG has worked with numerous clients to develop condition assessments, asset tracking systems, preventive maintenance systems and other information systems to support asset management. Our work is also focused on compliance with GASB 34 and USEPA's CMOM/SSO requirements, which also affect municipal utilities, as well as tying in with other information systems such as GIS applications.

- **System Development Charges/Capacity Fee Studies** – Capacity fees or system development charges are used by utilities to recover the costs of increasing capacity from the users of the new capacity. Our approach to developing system development charges for utilities uses spreadsheet models to ensure that all capital costs incurred in constructing new system capacity—in particular, future debt service payments—are recovered through fees paid only by new customers.

- **Conservation Studies** – Many water utilities are being required to perform conservation studies and implement conservation rates and programs. We have an extensive library of conservation research studies and have tracked the success of the conservation rates we have developed. This data permits us to estimate the result of various conservation rate structures. We also have an extensive library of data on water-using fixtures and can design retrofit programs. In addition, we have studied peaking factor reduction strategies and the related capital cost savings.

In summary, we are well versed in virtually every management and financial aspect of municipal environmental services and will not require the use of any sub-consultants for this project.

MFSG completes typically between 10 to 15 rate studies per year. A sample listing of recent stormwater projects ongoing or completed is included in Exhibit 1 on the following page (with those in Illinois bolded).

Exhibit 1. Recent Stormwater Project Experience

Client	ST	Stormwater	Water	Sewer	Capital Charges	Year Completed
Mechanicsburg, Borough of	PA	✓				Ongoing
Monroe, Township of	PA	✓				Ongoing
Hampton, City of	VA	✓		✓		Ongoing
North Middleton, Township of	PA	✓				Ongoing
Westminster, City of	MD	✓	✓	✓	✓	Ongoing
Lombard, Village of	**IL**	✓	✓	✓	✓	**Ongoing**
Charlottesville, City of	VA	✓	✓	✓	✓	2017
Albemarle County Service Authority	VA	✓	✓	✓	✓	2017
Orland Park, Village of	**IL**	✓	✓	✓	✓	**2016**
Westchester, Village of	**IL**	✓	✓	✓	✓	**2016**
Portsmouth, City of	NH	✓	✓	✓	✓	2015
Hampton, City of	VA	✓		✓		2015
Batavia, City of	**IL**	✓	✓	✓		**2015**
Norfolk, City of	VA	✓				2015
Downers Grove, Village of	**IL**	✓	✓			**2014**
Winnetka, Village of	**IL**	✓				**2014**

B. Donohue & Associates Firm Background

Donohue & Associates, Inc. is an award-winning, employee-owned consulting firm that provides stormwater, wastewater, water resources, potable water and transportation engineering services to counties, cities, towns, and state agencies across the Midwest.

We have completed over 2,750 projects for more than 300 Midwestern communities in the past 22 years. Since forming in 1997, the firm has grown from seven to more than 100 employees across 11 Midwest offices. Donohue's extensive experience, expertise and staff capacity, coupled with our well-conceive Project Approach, will benefit the City of Libertyville. In addition, Donohue's focused project management and QA/QC practices will ensure that Donohue's contribution to this Project will be done with the utmost quality.

Donohue & Associates, Inc.'s interest is rooted in that fact that we are an engineering consultant company that:

- Has a sustainability practice with the goal of fostering necessary and dramatic improvements in the performance and resiliency of physical infrastructure across the three dimensions of sustainability: economic, social, and environmental

- Has proven and extensive expertise in stormwater, wastewater, water resources, and potable water services

Donohue has collaborated with MFSG on a similar project for the Village of Winnetka, and our proven Team of professionals has the knowledge, experience, and capability to perform and provide guidance regarding all potential aspects of developing a Stormwater Utility, including:

1. Development of local stormwater programs and projects:

   The vast majority of projects that our Team has developed, performed, designed and been a part of over the last 22 years have been municipal utility (stormwater, wastewater, potable water) projects of various sizes, scales and complexities.

2. Development and analysis of associated municipal finance requirements, options and considerations:

   Major aspects of our Team's work are to serve as the independent municipal advisor to governmental units that wish to fund governmental services through a system of user fees and/or taxes that adequately and appropriately cover the cost of providing those services. Our Team currently has well over 100 engagements in various stages of municipal planning and development; however, our Team is staffed and organized to provide the individual attention your project deserves.

3. Master planning of existing and potential future stormwater drainage concerns:

   Quality system modeling, analyses, and GIS experience is what sets the Donohue Team apart and will benefit the Village in the developing a Stormwater Utility consistent with its Master Plan.

4. Management of Municipal Separate Storm Sewer System (MS4) program:

   Our Team has a project history of assisting our Stormwater Clients with implementing and updating their respective Storm Water Quality Management Plans for their MS4 programs, addressing their minimum control measures (MCMs), and providing a "road map" for the future. Specific components of our Team's previous program management work have included:

   - Developing public educational materials
   - Preparing a Storm Water Pollution Prevention Plan (SWPPP) for municipal facilities
   - Developing procedures for construction site inspections
   - Generating storm water outfall monitoring programs
   - Creating and updating interactive storm water websites

5. Development of Low Impact Design (LID) and Green Infrastructure (GI) Best Management Practices (BMPs):

   Sustainability, LID and GI have become a major focus of municipalities in the past decade due to the improvement and market growth of their technologies. These improvements and growth have resulted in cost-effective life cycle solutions for reducing the amount of stormwater collected by

municipal storm and combined sewer systems. Even though the life cycle of sustainable, LID/GI solutions are now often identified as being cost-effective, the installation of the technologies often require higher initial capital expenditures as compared to more traditional construction. As such, the Donohue Team has had significant experience researching, evaluating and designing several LID/GI BMPs, and that experience and knowledge will be immensely valuable in identifying the BMPs, and any associated incentives, that are best suited to use by Libertyville given the structure of their systems, area precipitation patterns and local geology.

C. Key Project Staff Qualifications

Profiles for each of the staff members assigned to the study are provided in the following section.

Eric Callocchia | Project Manager

Expertise: Economics/ Finance
Experience: 10 Years

Mr. Callocchia is a Senior Manager in the Municipal & Financial Services Group, applying economic, mathematical and financial skills to a broad range of projects for clients. He has experience with both project management and rate modeling and cash flow simulations. He has overseen the completion of over 30 rate studies throughout the United States. He is also a contributing author to the Water Environment Federation's (WEF) most recent edition of the Manual of Practice (MOP) 27 – *Financing and Charges for Wastewater Systems.* He frequently presents at industry conferences, having made presentations regarding national utility issues such as proper cost projection methodologies, rate design equity, and affordability.

His recent work has focused on cost of service studies for the Illinois Villages of Lindenhurst, Fox Lake, Orland Park, Libertyville, Westchester and Lombard, as well as the Cities of Prospect Heights, Naperville, Park Ridge and the Bloomington-Normal Water Reclamation District. Eric has also completed rate studies for Loudoun Water and King George County, Virginia; Washington Suburban Sanitary Commission, Maryland; the Towns of Lovettsville and Middleburg, VA; the Cities of Fullerton and Concord, California; Jurupa CSD, California; Delaware County Regional Authority, Pennsylvania; the Cities of Hampton, Newport News and Falls Church, Virginia; the City of Olathe, Kansas, and the Washington County Service Authority, Virginia. He has also participated in cost of service and management studies for the Town of Barnstable, Massachusetts, the Delaware Solid Waste Authority, the City of Fredericksburg, Virginia and Cleveland Water Control Division. He has been accredited and served as an expert witness regarding utility rate setting matters in the State of Maryland.

Edward J. Donahue III, CMC | Project Officer

Expertise: Utility Finance/ Management
Experience: 49 Years

Mr. Donahue established the Municipal & Financial Services Group more than 40 years ago and has served as its director ever since. His relevant experience includes cost of service, rate and feasibility work for more than 125 clients. His first significant work was almost 40 years ago, when he managed a project to develop a user fee structure in Chicago to finance the Metropolitan Sewerage District (now MWRD) massive upgrade program caused by the Clean Water Act. He is currently providing expert witness assistance to the San Diego County Water Authority in landmark litigation against the Metropolitan Water District of Southern California. Typical client work includes the establishment of a stormwater utility in Auburn, Massachusetts; organizational and operational advice for the Anchorage Water & Wastewater Utility; a financial feasibility study for the City of Annapolis, Maryland; negotiation support for several suburban counties negotiating a long-term water purchase contract with the City of Baltimore; and oversight of rate studies for more than a dozen communities in the Chicago area. He has served as chairman of AWWA's Finance, Accounting and Management Controls Committee; he recently served on a special committee that wrote, edited and produced *Financial Management for Water Utilities*, a textbook sponsored jointly by AWWA and GFOA. He is a contributing author to and editor of AWWA's Manual M29 – *Capital Financing*. He has been accredited and served as an expert witness in accounting, contract, and construction and rate matters.

Michael Maker | Financial Analysis / Modelling

Expertise: Financial Modeling
Experience: 16 Years

Mr. Maker is a Senior Manager in the Municipal & Financial Services Group, with more than fifteen years of professional experience in the financial and management consulting industry. Current client work includes a water and sewer rate study for the Town of Warrenton, Virginia, a water and sewer cost of service and organizational study for Manchester, Connecticut, a water rate study update for the City of Rochester Water Bureau, New York, a wastewater cost of service and rate study for Summit County, Ohio and solid waste rate studies for the Cities of Richmond and Hampton, Virginia. Recent rate study work includes water and/or sewer cost of service/rate studies for Bristol County Water Authority, Rhode Island, Cleveland, Ohio and Albemarle County Service Authority, Virginia. Additional consulting experience includes the development of cost of service cash flow models involving rate design, fee design and customer impact analyses for water, wastewater, stormwater and solid waste utilities across the country. He is an active member of AWWA, WEF and GFOA and a current member of AWWA's Finance, Accounting & Management Controls Committee and Workforce Strategies Committee.

Steve Sticklen, P.E. | Engineering/GIS

Expertise: Water Resources/Conveyance Modeling
Experience: 25 Years

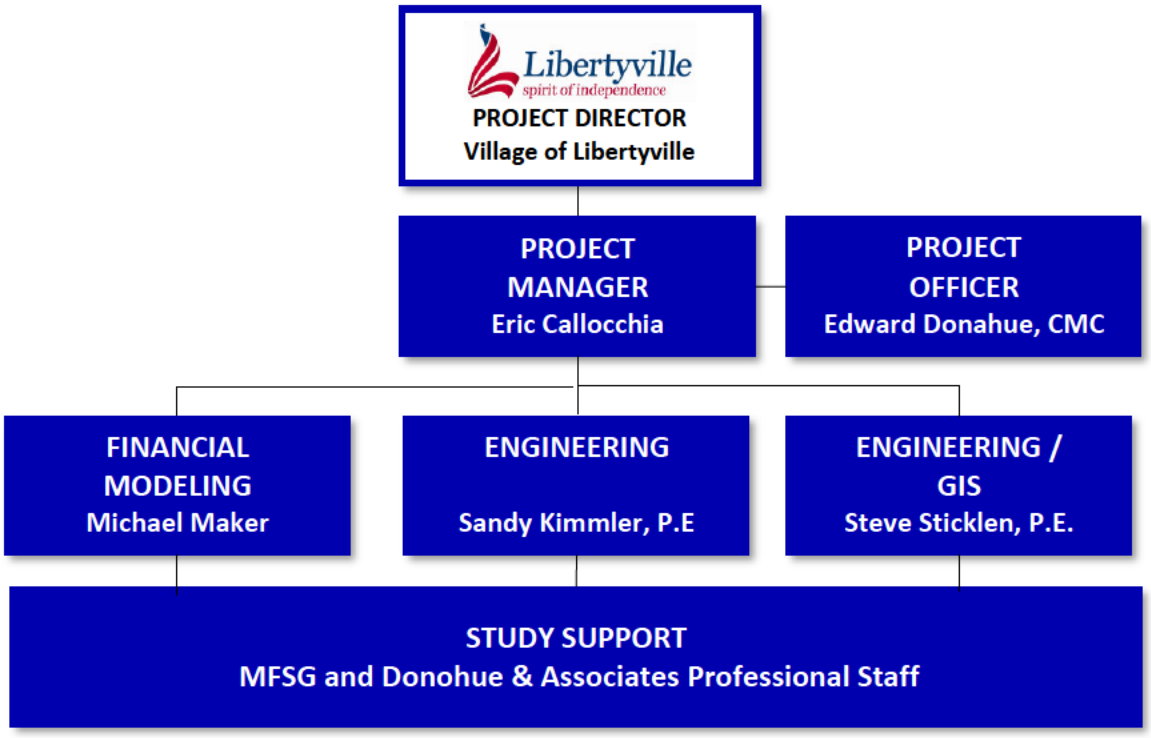
Mr. Sticklen serves as a Senior Engineer with Donohue and Associates and has over 25 years of experience. He specializes in water resources and conveyance modeling. He brings a wealth of experience in GIS, hydraulics, hydrology and H&H modeling to solve stormwater management challenges. He has used GIS software to develop databases of imperviousness in the development of stormwater utilities. In the absence of planimetric data, he developed an algorithm to calculate parcel imperviousness from infrared aerial photography. He has extensive experience utilizing modeling packages including SWMM, XP-SWMM, MOUSE, MikeUrban, InfoSWMM, and HEC-RAS to solve large and small stormwater management problems including: stormwater management, flood control / mitigation, sanitary and storm sewer master plans, capital improvement plans, CSO long term control plans (LTCP), sanitary sewer overflows (SSO), rainfall-dependent-infiltration (RDI) and antecedent moisture modeling (AMM) in sanitary sewers, 2-dimensional surface flow modeling, Flow monitoring and inflow & infiltration (I/I) studies, GIS and utility geodatabase development, GPS surveys and MS4 stormwater permitting. Mr. Sticklen will provide support with analysis of the Village's GIS database and evaluation of the impervious area within the Village.

Sandy Kimmler, P.E. | Engineering

Expertise: Water Resources
Experience: 30 Years

Ms. Kimmler's diverse technical and project management experience includes planning, design, and construction management for collection system studies, I/I reduction programs, site work and piping design for water and wastewater treatment facilities, and design of sanitary and storm sewers, force mains, and pump stations. She has assisted in the development of stormwater utilities by performing geospatial analyses and calculating impervious areas for various land use classifications. Assisted in drafting stormwater utility ordinances. Her duties include evaluating design concepts and alternatives; preparing planning reports; coordination with agencies, utility owners, and the public; and preparation of construction plans, specifications, permits, cost estimates, and bidding documents for a variety of municipal, commercial, private, and industrial clients. She has varied water resource experience including stormwater facility and collection system design, stormwater management plans, hydrologic/hydraulic analysis, floodplain analysis, and bridge/culvert hydraulic analysis.

Exhibit 2. Project Organization



D. Related Experience of Project Personnel

MFSG has an established client base in suburban Chicago. The projects listed here are relevant to the Village's RFP and required many of the same analyses that the Village desires. We encourage the Village to contact each of the references listed in this section to confirm MFSG's expertise, capability and the outstanding service provided to each client.

E. Similar Projects

MFSG has an established client base in suburban Chicago. The projects listed here are relevant to the

Village of Winnetka, IL

Stormwater Utility Feasibility Study

Client Contact:
Steve Saunders, Director of Public Works,
847-716-3534, ssaunders@winnetka.org

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

The Village experienced significant rain events in 2008, 2010 and 2011 which resulted in extensive flooding and property damage within the Village. To address the flooding issues the Village developed a stormwater management plan that would provide greater flood protection. While the Village had historically funded the maintenance and capital improvements on a "pay-go" basis using funds from the General Fund, the magnitude of the capital projects (approximately $50 million) required the issuance of debt. The magnitude of the capital projects spread over a fairly small population will result in significant impacts on the community. As a result, in mid-2012 the Village engaged MFSG and Donohue & Associates, as part of a competitive procurement, to complete a stormwater utility feasibility study. The study included the following key tasks.

MFSG Tasks:

- Identification and evaluation of the various funding sources that the Village could use to fund the level of service.
- The full development a stormwater fee based on impervious area. Several fee structures were considered include a uniform stormwater fee and a location based fee by drainage area.
- The necessary implementation requirements should the Village establish a stormwater utility including billing methodology, stormwater fee ordinance, credit manual and appeal process.

Donohue Tasks:

- Assisted in the evaluation of the current level of stormwater service and the potential future level of service;
- Developed an Impervious Area Database including GIS analysis of average impervious per residential ERU and analysis of lot sizes, land use, and percent impervious of non-residential parcels

The Village adopted the proposed Stormwater Utility Ordinance developed by MFSG and Donohue & Associates effective July 1, 2014.

City of Batavia, IL

Stormwater Utility Feasibility Study

The City of Batavia provides stormwater management throughout the City. The stormwater system helps to ensure the proper handling of stormwater runoff which reduces damage to property, increases environmental protection and allows for safe travel in and around the City. The City has invested significant capital to develop the stormwater system that consists of four watersheds, 11.7 miles of creeks/rivers, 118 outfalls, approximately 146 miles of storm sewers, 10,000 drainage structures, 150 restrictors, 170 detention facilities and 5.2 miles of roadway culverts/ditches.

Client Contact:
Andrea Podraza, Assistant Civil Engineer,
630-454-2750, apodraza@cityofbatavia.net

The City has historically funded its stormwater system from the General Fund. While this approach has worked for many communities, it is becoming increasingly difficult for local governments to secure sufficient funds on an ongoing basis. Due to these issues, a growing number of communities around the country have recognized the benefits of having a dedicated funding stream for stormwater operations and improvements. The primary purpose of the stormwater utility feasibility study was to determine if the establishment of a utility was a feasibility option for the City.

The City engaged the Municipal and Financial Services Group to complete the tasks identified below:

- Identify and document the current and future expenditures associated with providing stormwater service within the City. This includes maintenance of the system, regulatory compliance and the necessary capital investments in the stormwater system to improve and maintain the system.
- Based on the levels of service, develop funding options that include the use of a stormwater fee. The stormwater program levels of service (current and future) serve as the basis for the current and future levels of expenditures for the City's stormwater program. The stormwater fee analysis includes the completion of an impervious area sample analysis, fee structure review and development and demonstration of property owner impacts.
- Identify and evaluate the key issues related to the administration of a stormwater utility including billing methodology, parcel owner appeals process, stormwater billing database management and the potential for stormwater credits.
- Identify and develop items necessary for implementation of a stormwater utility including a draft stormwater utility ordinance, a credit manual and an implementation schedule.

City of Westminster, MD

Stormwater Feasibility and Rate Study

Client Contact:
Tammy Palmer, Director of Finance,
410-848-3274, tpalmer@westgov.com

The City of Westminster serves as the County Seat and is located in the center of Carroll County. Westminster is conveniently located near Maryland's largest cities, two state capitals, Annapolis and Harrisburg, and the nation's Capital. The City of Westminster is approximately 35 miles northwest of Baltimore, 32 miles east of Frederick, 56 miles north of Washington DC, 57 miles northwest of Annapolis, and 60 miles south of Harrisburg.

The City has historically faced challenges when funding stormwater operating and capital costs. The City in the past has not accounted in a detailed fashion the actual costs of stormwater management, with most of the costs absorbed by the City's streets and roads maintenance accounted for in the General Fund.

The City engaged MFSG in 2019 to complete a feasibility study with several tasks:

- Identify and isolate the true cost of stormwater maintenance.
- Develop and recommend a ten-year stormwater CIP given the City's asset listing and future stormwater needs.
- Recommend policies regarding stormwater fees and credits.
- Engage in a public information campaign to educate the City's citizens on the need for additional resources for stormwater management.
- Assist in the implementation of a Stormwater Utility that properly accounts for the City's stormwater costs.

MFSG is currently drafting the final implementation report for the City, with a target implementation date of January 1, 2020.

City of Hampton, VA

Stormwater Feasibility and Rate Study

Client Contact:
Jason Mitchell, Interim Director of Public Works, 757-726-2950, jmitchell@hampton.gov

The City of Hampton, located on the southeastern end of the Virginia Peninsula, is one of the seven major cities that compose the Hampton Roads metropolitan area. As a subconsultant to the engineering firm Kimley-Horn, MFSG performed the following tasks as part of the stormwater rate study for the City of Hampton:

- Define and identify the City of Hampton's stormwater-related costs
- Review / document anticipated capital costs for stormwater.
- Research available databases that could be used for allocation and billing of costs
- Develop revenue requirements / costs of service for stormwater management programs, including O&M and annualized capital costs on a detailed basis for the next five fiscal years
- Identify criteria and methodologies for identifying and quantifying on-site and site-specific stormwater management activities and programs that qualify for credits against the stormwater management fees to be charged to the general population within the service area of the stormwater utility
- Identify geographic areas / parcels for inclusion or exclusion from the service area of the stormwater utility
- Develop preliminary unit costs (per household/ERU, per impervious acre, per square foot, etc.) for budgetary purposes for the City
- Calculate the bill impacts for each customer class based on the rates developed
- Prepare a draft final report and submit to the City

MFSG is currently updating the study for the City.

City of Norfolk, VA

Stormwater Financial Analysis and Fee Development

Client Contact:
June Whitehurst, Environmental Programs Manager
757-823-4000, june.whitehurst@norfolk.gov

Karl Mertig, Senior Environmental Project Manager, Kimley-Horn and Associates, Inc., 757-355-6671, karl.mertig@kimley-horn.com

The City of Norfolk is located at the core of the Hampton Roads metropolitan area in the southeastern corner of Virginia on the Chesapeake Bay. With almost 250,000 residents, it is the second most populous city in Virginia. As a subconsultant to the engineering firm Kimley-Horn, MFSG performed the following tasks as part of the stormwater financial analysis study:

- Define and identify the City of Norfolk's stormwater-related costs
- Develop revenue requirements/costs of service for the stormwater management program
- Review databases used for allocation and billing of costs and billing mechanisms employed to issue stormwater utility bills
- Develop stormwater rates per equivalent unit, square foot of impervious acre, etc. for residential and non-residential customer classes
- Review criteria and methodologies for identifying and quantifying on-site and site-specific stormwater management activities and programs that qualify for credits against the stormwater management fees to be charged
- Calculate the bill impacts for each customer class based on the rates developed
- Prepare a draft final report and submit to the City

F. Hourly Rates by Project Personnel

The following table defines the hourly rates by professional classification for MFSG and Donohue & Associates.

Exhibit 3. Hourly Rate by Project Personnel

Classification	Project Team Members Included	Hourly Rate
Principal/Officer	Donahue	$325
Senior Manager	Maker, Callocchia	$210
Manager	Various	$160
Associate	Various	$135
Engineer VI	Sticklen	$190
Engineer IV	Safford/Kimmler	$160
Engineer III	Donohue Staff	$145

G. Completed Compliance Affidavit

Attached to this proposal as Appendix B is a completed and signed Compliance Affidavit.

2. STUDY UNDERSTANDING AND APPROACH

This section of our proposal will outline our understanding of both the general legal and regulatory framework of municipal utility rate setting in the state of Illinois, as well as our understanding of the specific needs of the Village.

A. General Background and Understanding

History of the Village of Libertyville

The Village of Libertyville is located in south central Lake County, approximately 37 miles from Chicago and seven miles west of Lake Michigan. The Village is an established residential community and has traditionally served as a major market and service center for central Lake County. The population of the Village, approximately 22,000 (Census Bureau, 2006 Estimate), has more than doubled since 1960, as the Village has shared in the economic growth of the Chicago metropolitan area. An ongoing effort to restore and preserve historic Libertyville contributes to the traditional hometown atmosphere in the Village.

In Libertyville, there are six Village Trustees and the Mayor, all elected at large, who serve staggered four-year terms. The Mayor and members of the Village Board appoint a professional Village Administrator to manage the day-to-day operations of the Village.

The mission of the Village of Libertyville municipal organization is to provide quality services, programs and facilities in the most cost effective and efficient manner to all citizens of the community, to preserve Village history and tradition, to preserve resources for future generations, and to facilitate a partnership with all members of the community to make Libertyville a better place to live and work.

Village of Libertyville Master Stormwater Management Plan[1]

Due to localized surface flooding in numerous locations during moderate to heavy rain fall events, the Village initiated the development of a village-wide Master Stormwater Management Plan to identify and develop proposed flood reduction projects to the drainage problems throughout the Village. The study was completed by Christopher P. Burke Engineering, Ltd. (CBBEL) in February 2019. The methodology for analyzing the storm sewer system for the Master Plan included a comprehensive survey of the storm sewer system, resident meetings, hydrologic and hydraulic modeling of the existing drainage system, identification of system limitations, and development of proposed drainage improvements. The proposed drainage improvements in the Master Plan were recommended to be incorporated into the Village's current infrastructure projects, green infrastructure, and long term capital improvement projects. During the commencement of the study for the Master Plan, the Village experienced a large storm event in July 2017 which recorded over 7 inches of precipitation in 12 hours prompting Village-wide flooding.

[1] Parts adapted from the Village's Master Stormwater Management Plan Executive Summary

Exhibit 4. Heavy flooding in Libertyville, July 2017

CBBEL identified 10 Flood Study Areas (FSA); detailed analyses were performed for each FSA. CBBEL developed and calibrated hydrologic and hydraulic models for each FSA using the detailed accounts and pictures from residents. The modeling was verified based on the high water marks observed during the July 2017 storm event. The existing drainage systems in some of the FSAs have approximately a 2-year level of service before street flooding begins with other areas having less than 10-year level of flood protection before structures begin to flood. CBBEL developed proposed drainage improvements to provide a minimum 10-year level of service in the storm sewer and strive to protect all structures (provide a level of flood protection) up to the 100-year design storm event. Long term capital improvement projects include increasing storm sewer sizes, adding relief storm sewers, and incorporating stormwater storage. A conceptual engineer's estimate of probable cost for each of the proposed drainage improvement alternatives was prepared. These long term capital improvements projects range in cost from $44 to $75 Million. The recommended proposed improvements are summarized in Exhibit 5.

Exhibit 5. Projects Identified in Libertyville's 2019 Master Stormwater Management Plan

Flood Study Area	Engineer's Estimate of Cost (2018 Dollars)	Proposed Level of Flood Protection
Burdick and Ames*	$7,600,000	50-Year
Rockland Road	$7,300,000	100-Year
Winchester/Interlaken/Stonegate	$12,100,000	100-Year
Copeland Manor	$6,500,000	100-Year
Ellis Avenue	$5,200,000	100-Year
Appley Avenue	$800,000	100-Year
Liberty Bell Lane and 4th Avenue	$4,400,000	100-Year
Harding and Willow	$15,000	100-Year
Carriage Hill	$915,000	100-Year
Lange and Cook	$706,000	100-Year
Total Estimated Cost (2018 Dollars)	**$45,500,000**	

* It is recommended during final engineering design that this project be optimized to provide the most cost effective level of protection between the 50-year and 100-year frequency events that benefits the greatest number of structures.

The Village adopted the Master Stormwater Management Plan on May 28, 2019.

Purpose of the RFP and Study Objectives

The Village of Libertyville is requesting qualifications and proposals from qualified engineering or business consulting firms for the completion of a feasibility and rate study for the establishment of a Stormwater Utility. Historically, the Village has funded stormwater improvements on a pay-as-you-go basis from General Fund corporate funds. Going forward, the Village – a non-home rule community – desires to evaluate other more stable and sustainable revenue streams for funding stormwater infrastructure improvements and maintenance.

It is the intent of this contract to provide professional services for a feasibility study for developing and implementing a stormwater utility for the Village of Libertyville. The Village of Libertyville has historically funded annual O&M of its existing stormwater infrastructure from General Fund monies totaling no more than $250,000 a year. In 2019, the Village will be completing two capital stormwater projects totaling $2,500,000 using non-referendum limited tax debt. One of these two projects is incorporated into the Master Stormwater Management Plan.

The Village expects that the cost of the improvements identified in the Master Stormwater Management Plan will exceed the Village's ability to fund simply using pay-as-you-go financing, and has identified a Stormwater Utility as a possible funding mechanism for future improvements.

Preliminarily, the Village Board has discussed the idea of a Stormwater Utility and has directed staff to complete a feasibility and rate study to further evaluate and develop an implementation strategy for a Stormwater Utility for the Village.

B. MFSG's General Approach to Utility Rate Studies

This section of our proposal sets forth our general approach to utility rate studies and the specific project workplan that we propose for this study.

When undertaking a cost of service or rate study for a municipal utility, it is important that participants in the study have a shared vision of the objectives and characteristics that must be reflected in the study. Our approach to reviewing and evaluating municipal utility rates is governed by the view that the ideal rate structure must satisfy seven criteria: equity, efficiency, revenue adequacy, sustainability, administrative practicality, and legal and regulatory compliance:

- ***Equity*** requires that rates and charges result in no undue discrimination among customers or customer classes. Although equity is normally related to the cost of service, it should be realized that customer acceptance will center on preconceived notions of equity and fairness.

- ***Efficiency*** refers to the ability of the rate schedule to encourage wise use of the resources devoted to the services that the utility provides. In some areas, this means the adoption of "conservation" rates. Whether or not this proves appropriate, efficiency considerations require that:

    - Rates should reflect the incremental cost of providing the next unit of service. If capacity is a limiting factor, for example, rates should reflect capacity costs.

  - Rates should be similar for customers or customer classes served under similar conditions.
  - Customers should be able to understand the rate schedules so that they can make rational decisions regarding their purchase of additional service.

- ***Revenue Adequacy*** is the most fundamental of all considerations, as it recognizes that rates are basically cost driven. In evaluating any rate structure, it is necessary that the rates produce revenues sufficient to operate the system and those rates produce sufficient revenues if there are changes in demand for service.

- ***Affordability*** means that the recommended rates must result in bills that are realistically within the ability of customers to pay – not based on some arbitrary bureaucratic measure, but relative to other customer expenses.

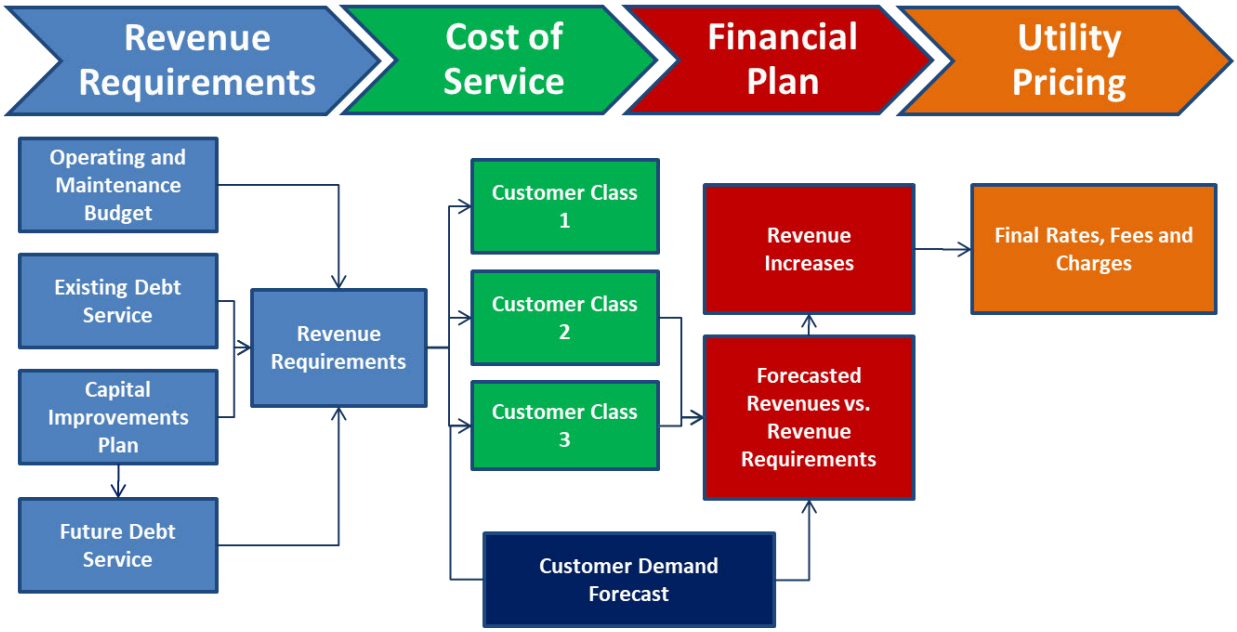
- ***Sustainability*** means that the objective of the rate methodology is to keep rates low over time, not to merely keep them low for the short-term by omitting or deferring needed expenses such as maintenance and funding of necessary cash reserves.

- ***Administrative Simplicity*** recognizes that limits must be placed on the number of customer classes, complexity of the rate schedule and frequency of billing.

- ***Legal and Regulatory Compliance*** is a prime consideration, because rate structures must incorporate applicable local, state and federal statutes. Where questionable areas exist, they should either be buttressed by documentation or modified.

The application of the criteria should recognize that a rate schedule is a form of public policy statement, setting forth those values that the utility considers important. Rate structures must be tailored to community perceptions, realities and values. While each utility's budgeting, financial reporting and flow of funds is unique, a generalized schematic illustrating our approach to a cost of service / rate study is shown below in Exhibit 6.

Exhibit 6. Schematic Diagram of a Cost of Service / Rate Study



Our standard approach to completing a utility rate study is predicated on a four-step process which includes:

- **Revenue Requirements** - Development of the full cost of providing each service (water and sewer separately) including those costs that may not be identified such as the need for repair and replacement (deferred maintenance).
- **Cost of Service** - Allocation of revenue requirements to customer classes or types of customers based on the cost of providing service.
- **Financial Plan** - Development of a financial plan to fund system revenue requirements taking into account customer and usage demand forecasts.
- **Utility Pricing** - Review of the current and alternative rate designs based on revenue needs and rate design pricing objectives with specific rate projections.

Each study performed by MFSG has a unique work plan that is tailored to the specific client assignment, but the functional elements described above are common to all MFSG rate studies.

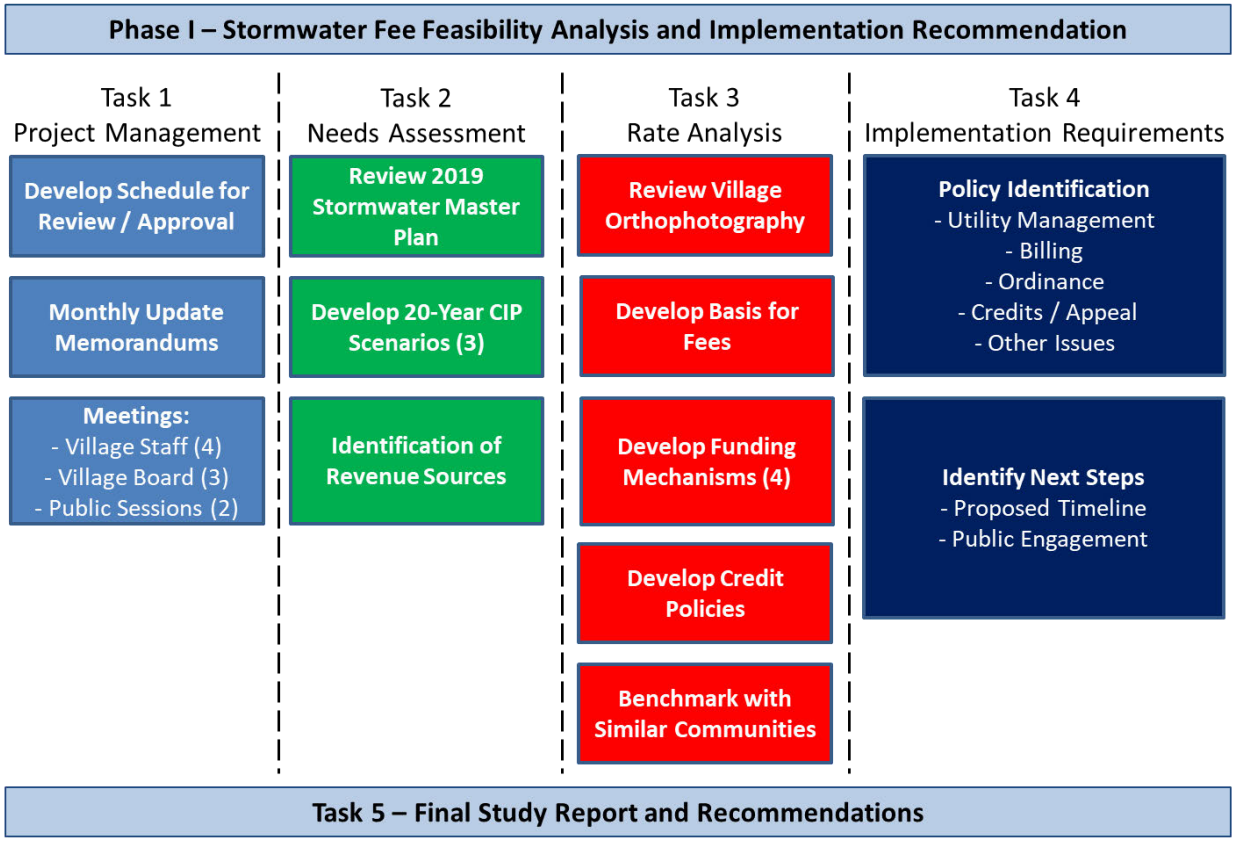
C. Specific Libertyville Stormwater Project Workplan

The Village's RFP for the feasibility study sets forth a specific scope for services to be completed as part of the study. The scope of work provided by the Village is logical and will provide for a comprehensive feasibility study. Exhibit 7 shows the Village's RFP requirements for Phase I. MFSG's workplan will produce a draft report (supported by an Excel-based financial model) within fourteen weeks of notice to proceed.

Phase I - Stormwater Fee Feasibility Analysis and Implementation Recommendation

The desired outcome of Phase I of the feasibility study is a detailed plan for the implementation of any recommendations developed during the course of the study. In order to develop a solid implementation plan, MFSG will develop recommendations regarding the Village's specific funding needs, rate structure plan, and important policy and implementation issues. The general outline of Phase I is presented in Exhibit 7.

Exhibit 7. Phase I Study Tasks



Phase I, Task 1 – Project Management

MFSG will manage all aspects of the study. This will include coordination of all activities necessary for completion of the study, development of an implementation plan and detailed schedule, project status monitoring/reporting and coordination with Village staff. While we will not require a significant amount of Village staff time, our overall approach to the project is to keep the Village fully informed and engaged during the study to solicit input and provide transparency. This includes the preparation of monthly updates to the project plan and schedule to include project milestones, and if directed, actual vs. scheduled completion dates and actual vs. scheduled costs.

Immediately upon receipt of notice to proceed, MFSG will submit to the Village a detailed data request, identifying the data that is needed to perform the scope of work specified in the Village's RFP. As the Village furnishes this data, it will be loaded into an online storage site, indexed and stored to enable access by project personnel and others authorized by the Village. This will assure that all interested parties have

access to all data, and that all have the most current data available. We will review all the requested data to ensure that we have a solid understanding of the Village water and sewer systems.

A project kickoff meeting will be held, to which all key Village and consultant personnel will be invited to attend and participate. The purpose of this relatively short (1-2 hours in duration) meeting is to review, update and validate the proposed work plan, introduce key personnel to one another, identify any roadblocks to timely completion, agree to key dates, provide Village personnel with contact information for consultant personnel and establish the formal and informal reporting relationships that are necessary for a smooth project. Administrative requirements (invoice formats and timing, documentation, insurance certificates, etc.) will be established.

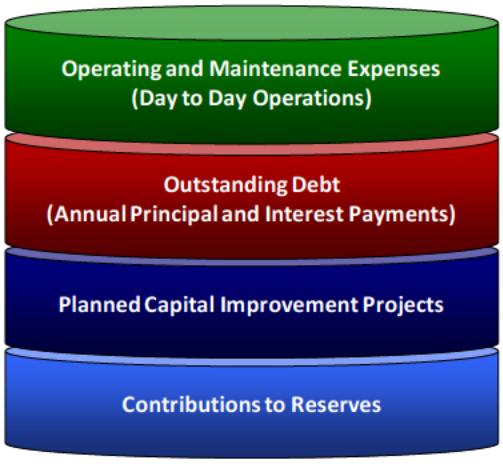
As part of the kickoff meeting, we will want to review all of the current financial and rate policies currently in place as they will serve as key guideposts for the study. We will also want to discuss any potential policy issues that may need to be addressed during the study. Based on our experience in working with municipal governments it is vitally important to identify and evaluate the key policy issues early in the study to ensure that consensus is developed regarding the principals that will govern the study. The primary goal of Task 2 is to set a strong foundation for the study ensuring all parties understand desired outcomes.

Phase1, Task 1 Deliverables:

- Kickoff Meeting Materials
- Kickoff Meeting Documentation
- Updated scope of work and project schedule (if necessary)
- Monthly project status memorandums including project milestones, and if directed, actual vs. scheduled completion dates and actual vs. scheduled costs.

Phase I, Task 2 – Assessment of Existing Conditions and Preparation of a Needs Assessment

One of the primary tasks for the study is the identification of the cost of providing water and sewer services. Our approach includes a detailed review of each of the costs incurred by the Village (both identified and unidentified) to ensure a true cost of service is developed. The unidentified costs are often those associated with repair and replacement of buried assets. The cost analysis can be broken down into four main categories of costs: operating and maintenance costs, capital improvements, existing debt service, and any contributions to reserves. The following section of our proposal describes our approach to reviewing and identifying each of these costs. The total amount of cash required on an annual basis for all purposes and from all sources constitutes the revenue requirement.



Review O&M Costs – Using the Village's current operating budget as a starting point, we will review the adequacy of budgeted stormwater operating and maintenance costs. Included in the review of O&M costs will be a review of the current allocation of administrative overhead and other charges to the functions to evaluate if they are appropriate, recommending changes if deemed necessary. O&M expenses will be

forecasted based on estimated annual inflation rates at the budgetary account line item level. The forecast of operating expenditures will be based on:

- Review of historical operating expenditure increases by individual budget account line item,
- Any additional information that would increase the accuracy of the estimates (i.e., staffing increases/decreases, etc.),
- Identifying contractual commitments for future wage and benefit increases, and
- Identifying and assessing the impact of the current capital improvement program on operating expenditures.

Review Master Stormwater Management Plan – We will review the Village's *Master Stormwater Management Plan* to determine existing stormwater management issues, activities, and service levels; to verify (from the Plan) future capital costs to develop the Village's stormwater management CIP for a 20-year horizon.

Develop Three-Year CIP and Evaluate Potential Financing Sources – The types, mix and levels of various funding sources to pay for the capital and operating costs of the stormwater utility be examined, and the impacts of various approaches will be quantified. While it is presumed that all operating and maintenance costs will be funded via annual fees, there are various approaches to funding capital expenses. They can be paid from operating revenues ("pay-as-you-go" funding, the most conservative financial approach), from grants, from long-term debt (e.g., bonds, long-term leases, IEPA loans, etc.) and existing cash reserves. Typically, a utility might use a mix of these financing sources. Based on current Village policy and our industry expertise we will develop at least three distinct approaches to funding the recommended projects contained within the Village's *Master Stormwater Management Plan*.

Develop Projected Debt Service – Those projects or categories of projects contained in each CIP and which are anticipated to be debt-funded will be identified, and projections of debt service will be developed. The Village's practices on types of debt (general obligation bonds, revenue bonds, use of IEPA loans, frequency of borrowing, etc.) will be determined, as will typical debt structure (e.g., payment term, level principal payments vs. level debt service) and assumed interest rate.

Review the Adequacy/Appropriateness of Reserves – The wise use and management of financial reserves provides many advantages to a utility: rate stabilization and "smooth" rate increases, as well as enhanced credit ratings and resulting interest savings. We will develop reserve policies for the Village's new Stormwater Fund in light of current Village policy and our industry expertise. The analysis will include development of recommended target balances for the Village's new Stormwater Fund.

Develop Revenue Requirement – The sum of the O&M costs, annualized capital costs (debt service plus cash purchases of capital assets) and any contributions to reserves constitutes the revenue requirement – the amount of money that must be raised from all sources over a given year. This amount becomes significant when sensitivity analyses are performed to evaluate miscellaneous revenues (below), since any shortfall in miscellaneous revenues must be offset by either drawing down reserves or increasing user rates. Prior to developing "final" revenue requirements, we perform a variety of sensitivity analyses to identify key variables (inflation rates, interest rates [borrowing and investments], loss or addition of wholesale customers, etc.) to assess the impact of swings in key variables. This allows the Village to assess changing economic conditions (e.g., growth rates, interest rates [on borrowing and investing], inflation

rates [by budgetary line item], etc.) and the inclusion/exclusion of various customer classes (e.g., tax-exempt properties) or treatment of customer classes in rate alternatives.

Task 2 will provide a comprehensive twenty-year forecast of system revenue requirements for the Village's stormwater system with the ability to change assumptions (capital financing, economic assumptions, etc.) and immediately see the impact on revenue requirements.

Phase I, Task 2 Deliverable:

- At least three (3) twenty-year forecasts of stormwater management revenue needs, including operating, debt, capital and reserve expenses.

Phase I, Task 3 – Stormwater Rate Policy and Revenue Analysis

Phase I, Task 3 consists of two components which include the development of customer forecast for the Village's stormwater service area and a detailed analysis of funding mechanisms to ensure that the Village collects the necessary revenue to fund the stormwater management plan.

Stormwater System Customer Analysis

MFSG will develop a preliminary customer assessment utilizing a digital map of the Village, the County tax database file, a Village map showing land use types and/or zoning, digital orthophotography, and the digital planimetric features (building, driveway, and parking lot outlines) for a sample area of the Village that provides typical land uses and average impervious areas expected to be found throughout the Village. MFSG will calculate the average impervious area of a typical single-family residential parcel to calculate preliminary user charge rates.

User Rate Analysis and Rate Alternatives

MFSG will evaluate at least four stormwater CIP funding mechanisms, with at least two mechanisms proposing an equal charge to all single family residential parcels within the Village. For each method to be considered, the following items will be considered:

1. The estimated customer base, in terms of the units defined by the rate method;
2. The estimated rate per residential unit;
3. The estimated rates for selected non-residential properties;
4. The legality (including non-home rule implications), equitability, ease of explanation and ease of implementation of each proposed rate method;
5. Credit mechanisms for
    a. Properties with on-site facilities that reduce stormwater quantity, or
    b. Properties that abut the Des Plaines River and Bull Creek where all their resulting runoff drains into these water courses and not a Village storm sewer should also be addressed for each rate method.
6. Comparable communities that have adopted the proposed mechanism.

Each revenue collection method will generate the necessary revenue to fund the stormwater management plans developed in Phase I, Task 2.

Legal Considerations

MFSG will research, along with the Village's legal counsel, the legality of a potential stormwater utility in the Village. Although Libertyville is a non-home rule community, there are several examples of non-home rule communities that administer stormwater utilities.

> *"Home rule units of local government, with their relatively broad powers to institute fees and taxes, should have no legal difficulty in establishing stormwater fees. The majority of municipalities in Illinois that have established stormwater fees have done so under their home rule powers. While non-home rule units are more restricted in the fees they may establish, all municipalities have the power to own and operate utilities under the Illinois Municipal Code. The non-home rule Village of Morton, City of East Moline, and Village of Richton Park have each established stormwater fees."*
>
> – Chicago Metropolitan Agency for Planning, *The Value of Stormwater Utilities for Local Governments in the Chicago Region*, January 2013

Rate Policy Guidelines

There are also several policy decisions that must be made when developing a stormwater utility fee. Two major questions are:

1. Which parcels will be charged the fee, and;
2. What surfaces should be considered impervious?

In general, stormwater best practices dictate that the fee is "tax status blind", that is, that stormwater fees are based on land use and impervious area only without consideration of taxable status. This is similar to the application of water and sewer utility fees. However, there are communities that offer discounts and/or rebates to certain parcels based on taxable status. The City of Baltimore gives churches and synagogues a break on the City stormwater fee, but not for their parking lots or other buildings. Other Baltimore non-profits are assessed on the same square footage basis as homeowners.

The types of surfaces that are considered impervious are widely agreed upon, however some communities make a policy decision to exempt surfaces that are considered impervious. A classic example is swimming pools – some communities consider swimming pools 50% impervious when calculating stormwater fees. Below is a sample policy table for impervious surfaces.

Exhibit 8. Sample Policy on Types of Impervious Surfaces

Type of Surface	Impervious	Pervious	Notes
Basketball Courts	✓		
Deck		✓	Between boards/Underlying pervious materials
Driveaway, Asphalt	✓		
Driveway, Gravel	✓		Vehicular travel causes compaction
Driveway, Blue Stone	✓		Vehicular travel causes compaction
Driveway, Concrete	✓		Vehicular travel causes compaction
Driveway, Dirt	✓		Vehicular travel causes compaction
Patios, Brick on Sand	✓		
Patios, Pavers	-	-	Site-specific based on design
Patios, Slate	✓		
Roof, Green	-	-	Site-specific based on design
Roof, Standard	✓		
Sidewalks, Brick on Sand	✓		
Sidewalks, Concrete	✓		
Sidewalks, Pavers	-	-	Site-specific based on design
Sidewalks, Slate	✓		
Sidewalks, Wood		✓	Between boards/Underlying pervious materials
Swimming Pools	✓		Some offer 50% credit
Tennis Courts	✓		
Walkways, Gravel		✓	
Walkways, Wood Chip		✓	
Walkways, Sand		✓	

Credit and Incentive Policies

Stormwater utility best practices dictate that a utility should incorporate policies on both credits and incentives for stormwater mitigation efforts made by Village residents and businesses. There are varying levels of credit programs, and MFSG will work with Village staff and elected officials to develop a credit and incentive program for the Village. Exhibit 9 shows a selection of the various credit and incentive programs for Illinois stormwater utilities, of which two (highlighted) were developed by MFSG.

Exhibit 9. Credit and Incentive Program Samples

Credits	Eligibility	Types Available	Range	Maximum	Term	Monitoring Requirements	Application Requirement
City of Champaign, IL	Single-Family, Duplex	Private Detention Basin Maintenance	0 - 15%	50% of Total Stormwater Fees	Reapplication Every 5 Years	Annual Maintenance	Yes - No Fee
	Other Properties	Private Detention Basin Maint., Runoff Rate Red., Runoff Volume Red., Runoff Water Quality/NPDES Permit	0 - 15% Each				
		Direct Discharge	0 - 50%				
		Education	$5/Student			None	
Village of Downers Grove, IL	All Properties	Site Funoff Rate Reduction	0 - 20%	20% of Total Stormwater Fees	Reapplication Every 5 Years	Annual documentation (April 1st - April 30th)	Yes - $300
		Volume Reduction	0 - 20%	20% of Total Stormwater Fees			
		Water Quality	0 - 10%	10% of Total Stormwater Fees			
		Direct Discharge	0 - 50%	50% of Total Stormwater Fees			
		Education	0 - 100%	100% of Total Stormwater Fees			
		Partnership	0 - 100%	100% of Total Stormwater Fees			
City of Rock Island, IL	All Properties	Direct Discharge	0 - 100%	100% of Total Stormwater Fees	Reapplication only if property is redeveloped or regraded	None	Yes - $20
		Quality Credits	0 - 10%	10% of Total Stormwater Fees	Reapplication Every Year		
		NPDES Credit	$200	$200			
		Quantity Reduction Credits	0 - 40%	40% of Total Stormwater Fees	For as long as they meet the requirements	Inspection Reports filed Annually	Yes - $100
Village of Winnetka, IL	All Properties	Detention & Cleaning	0 - 50%	50% of Total Stormwater Fees	For as long as they meet the requirements	Annual documentation (April 1st - April 30th)	Yes
		Direct Discharge	0 - 100%	100% of Total Stormwater Fees	For as long as they meet the requirements	Annual documentation (April 1st - April 30th)	
Village of Highland Park, IL	All Properties	Direct Discharge	0 - 50%	50% of Total Stormwater Fees	For as long as they meet the requirements	None	Yes
		Detention & Cleaning	0 - 25%	25% of Total Stormwater Fees	For as long as they meet the requirements	Evidence of Credit maintained on a regular basis	
City of Moline, IL	All Properties	Water Retention	0 - 100%	% retained on Site by BMP	For as long as they meet the requirements	Nonw	Yes

Incentives	Eligibility	Types Available	Range	Maximum	Term	Monitoring Requirements	Application Requirement
City of Champaign, IL	All Properties	Rain Garden, Rufoff Rate Reduction, Runoff Volume Reduction, Runoff Water Quality	25% of construction Costs per incentive	$1,000	1 Reimbursement	None	Yes - No Fee
		Rain Barrel	$25 per Barrel	None		None	
Village of Downers Grove, IL	All Properties	Rain Barrel	$25 per Barrel	$25	1 Reimbursement	None	Yes - No Fee
		Rain Garden	$250 per Garden	$250		Must be > 100 s.f.	
		Permeable Pavement	$0 - $300 per Property	$300		Must be > 100 s.f.	
		Other Facilities (cisterns, etc.)	$0 - $300 per Property	$300		None	
City of Rock Island, IL	NONE						
Village of Highland Park, IL	NONE						
City of Moline, IL	NONE						

These issues, as well as others, will be the focus of Phase I – Task 3, in order to lay a solid foundation for the potential stormwater utility.

MFSG Financial Model

In the development of the Village's stormwater fee, MFSG will create a cash flow model. MFSG's model will utilize Microsoft's Excel software. The model will produce a series of interactive schedules, each of which will address a principal topic (O&M costs, debt service, customer base, etc.), as well as specialized schedules to support borrowing (e.g., projected coverage ratios). Built into the model is a series of summary-level graphics that can be used as stand-alone charts (e.g., average bill by year, total outstanding debt by year, cash balance by year, projected rates by year, cash balance targets, etc.). The graphics are "fed" by the data contained in the model and are produced with no additional effort on the part of the user.

The model developed during the study will be licensed to the Village at no charge at the conclusion of the study. MFSG does not charge any form of licensing fee or royalty for continued use of the model. We make every effort to ensure that the model is a useful tool for the Village. The model will not be a black box but rather a tool that can easily be used, understood and updated. Sample MFSG model dashboard outputs are shown in the following two exhibits.

Exhibit 10. Typical Dashboard Features – Dynamic Output Charts

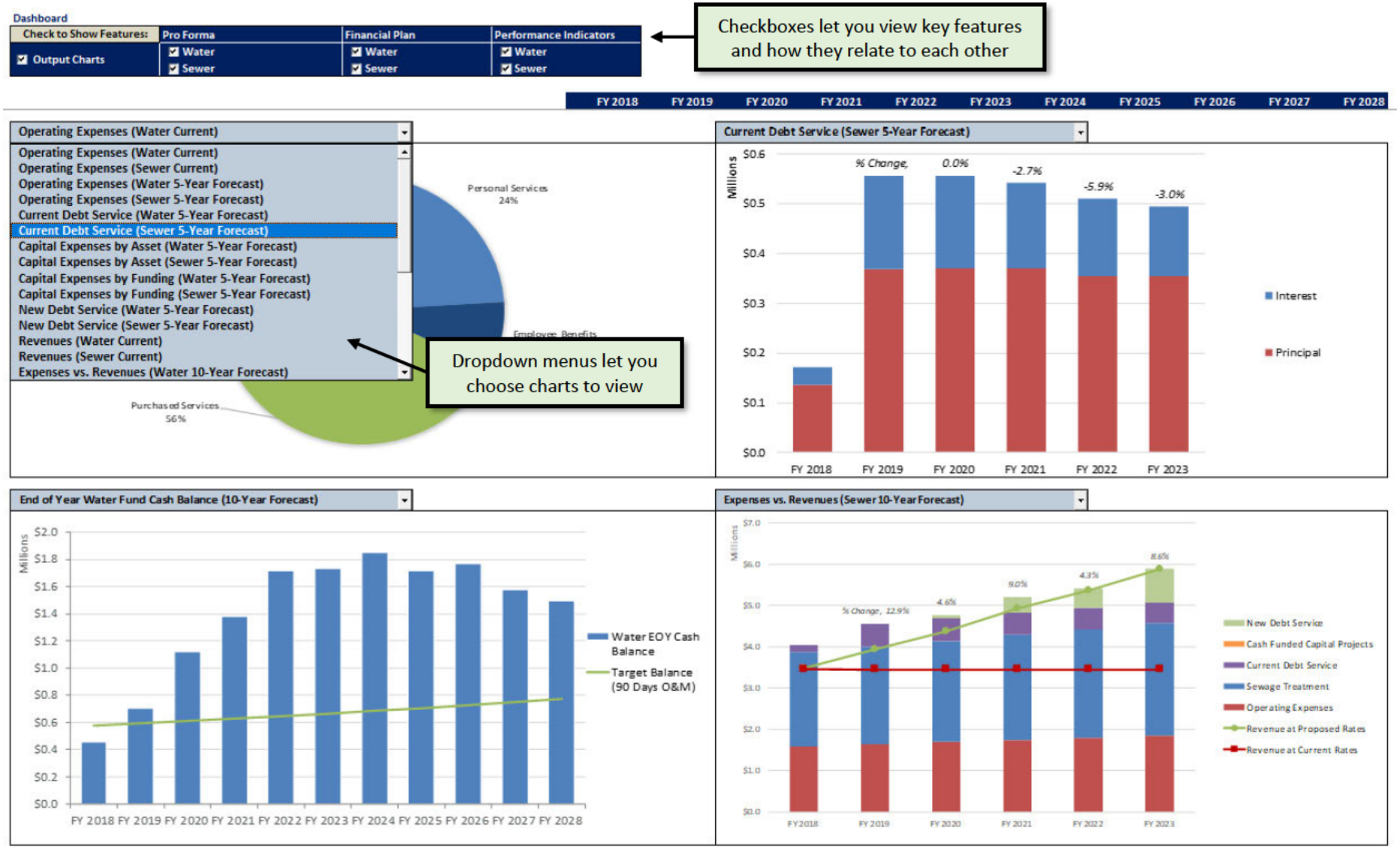


Exhibit 11. Example of Dashboard Features – Water Financials and Performance Indicators

Dashboard

Check to Show Features:	Pro Forma	Financial Plan	Performance Indicators
Output Charts	Water	Water	Water
	Sewer	Sewer	Sewer

Rate Design Plan
Alternative Rate Design 2

			FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Water Financial Plan													
Water Required Rate Revenue Increase				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Water Proposed Rate Revenue Increase	ernative Rate Desig			3.5%	3.5%	3.5%	3.5%	3.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Sample Quarterly Water Bill	Meter Size (inches):	5/8	$ 132.62	$ 145.60	$ 155.70	$ 168.55	$ 174.65	$ 182.70	$ 188.45	$ 199.00	$ 207.25	$ 217.70	$ 226.60
Dollar Increase	Quarterly Usage (gallons):	12,000		$ 12.98	$ 10.10	$ 12.85	$ 6.10	$ 8.05	$ 5.75	$ 10.55	$ 8.25	$ 10.45	$ 8.90
Percent Increase				9.8%	6.9%	8.3%	3.6%	4.6%	3.1%	5.6%	4.1%	5.0%	4.1%
Water and Sewer Fund Pro Forma (in millions)													
Service Charge Revenue			0.63	0.84	1.09	1.45	1.50	1.65	1.67	1.83	1.85	2.00	2.05
Usage Revenue (Alternative Rate Design 2)			6.68	7.20	7.67	8.20	8.76	9.36	9.74	10.18	10.66	11.13	11.65
Miscellaneous Other Revenues			0.50	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Total Revenues			**$7.82**	**$8.53**	**$9.25**	**$10.14**	**$10.75**	**$11.49**	**$11.90**	**$12.50**	**$13.00**	**$13.63**	**$14.19**
Operating Expenses			3.93	4.04	4.16	4.29	4.42	4.55	4.69	4.83	4.97	5.12	5.28
Wholesale Water Purchase			3.92	4.02	4.13	4.24	4.35	4.47	4.59	4.71	4.84	4.97	5.11
Current Debt Service			0.34	0.84	0.83	0.81	0.76	0.73	0.71	0.69	0.66	0.59	0.57
Cash Funded Capital Projects			-	-	-	-	-	-	-	-	-	-	-
New Debt Service			-	-	0.09	0.81	0.94	1.72	1.63	2.46	2.33	3.17	3.23
Total Costs			**$8.19**	**$8.90**	**$9.22**	**$10.15**	**$10.47**	**$11.47**	**$11.62**	**$12.69**	**$12.80**	**$13.85**	**$14.19**
Surplus / (Shortfall)			**$(0.37)**	**$(0.37)**	**$0.03**	**$(0.01)**	**$0.28**	**$0.02**	**$0.28**	**$(0.20)**	**$0.19**	**$(0.23)**	**$0.00**
Ending Operating Cash Balance			**$2.37**	**$1.99**	**$2.02**	**$2.02**	**$2.30**	**$2.31**	**$2.59**	**$2.40**	**$2.59**	**$2.36**	**$2.37**
Target Cash on Hand			**$0.97**	**$1.00**	**$1.03**	**$1.06**	**$1.09**	**$1.12**	**$1.16**	**$1.19**	**$1.23**	**$1.26**	**$1.30**
Target Balance Met? (Yes/No)			**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**

Change inputs and instantly see the impact on financial results and sample bills

Water Performance Indicators *2017 AWWA Benchmarks:*	Top	Bottom											
Days Cash on Hand: *Cash/O&M*365*	400	114	42	63	99	119	144	143	149	135	136	119	110
Debt Service Coverage Ratio: *(Revenue-O&M)/Debt Service*	272.0%	113.0%	350.5%	340.5%	330.5%	320.5%	310.5%	300.5%	290.5%	280.5%	270.5%	260.5%	250.5%
Line Renewal Rate: *Line Spending/Total Line Replacement*	6.1%	1.4%	3.2%	4.2%	5.2%	6.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%
O&M Cost per Account: *O&M/Accounts*	$ 331	$ 719	$ 249	$ 257	$ 264	$ 272	$ 280	$ 289	$ 297	$ 306	$ 316	$ 325	$ 335
O&M Cost per Million Gallons of Usage: *O&M/MG of Usage*	$ 2,317	$ 5,938	$ 3,288	$ 3,387	$ 3,488	$ 3,593	$ 3,701	$ 3,812	$ 3,926	$ 4,044	$ 4,165	$ 4,290	$ 4,419
Operating Ratio: *O&M/Revenue*	52.0%	93.0%	91.8%	88.5%	85.3%	81.6%	80.6%	79.1%	78.4%	76.2%	74.9%	73.2%	72.0%

Compare key performance indicators to industry benchmarks

Phase I, Task 3 Deliverables:

- Microsoft Excel financial model licensed to the Village at no cost.
- Twenty-year forecast of stormwater customer base.
- Twenty-year cash flow and reserve balance projections under each CIP funding scenario.
- At least four rate structure alternatives calculated and projected based on the financial plan.

Phase I, Task 4 – Implementation Requirements

We will document all work performed in the stormwater feasibility study in a concise narrative report. The report will include an executive summary that will be written in easy to understand terms so that it is "public-friendly." All data sources relied upon in the study will be identified and documented, and all assumptions clearly set forth. The report will be delivered to the Village in draft form within fourteen weeks of notice to proceed, and a revised report will be delivered to the Village after receipt of comments on the draft report.

We will attend at least one public meeting with the Village Board to discuss the study's findings and recommendations.

A sample Stormwater Utility Ordinance and Credit Manual (Winnetka, IL) are included in the sample report provided in the appendix of this proposal.

Phase I, Task 4 Deliverables:

- A policy paper for each policy issue considered during the course of the study, including credit policies, fee appeal policies, billing policies, etc.
- Draft Stormwater Fee Ordinance for review by the Village Attorney, including a credit/appeal process.
- A description of the remaining steps and timeframe to implement the Phase I recommendation.

Phase I, Task 5 – Final Report and Recommendations

MFSG will compile a final feasibility report including all technical memoranda, summaries and detailed supporting data, which will include an assessment of utility feasibility which addresses legal, financial and administrative aspects of the utility's feasibility.

MFSG will attend and conduct a presentation to the Village Board summarizing the results and recommendations of the feasibility study.

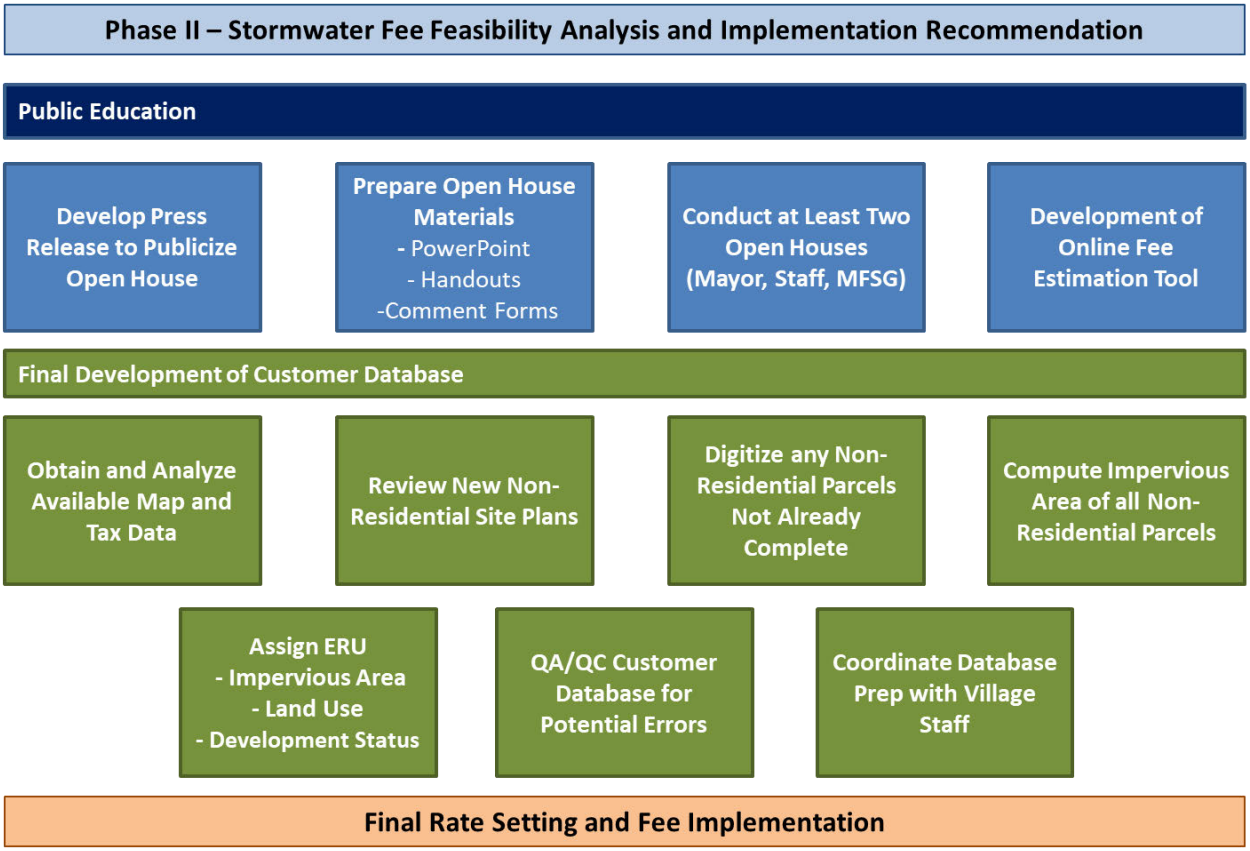
Phase I, Task 5 Deliverables:

- Draft / Final Stormwater Feasibility Report
- Final study results PowerPoint presentation to the Village Board

Phase II - Stormwater Fee Feasibility Analysis and Implementation Recommendation

Given the recommendations developed in Phase I, MFSG will coordinate with the Village to execute Phase II of the study, which focuses on public engagement and finalization of the Stormwater Utility Ordinance, including final rates and fees. The general process of Phase II is presented in Exhibit 12

Exhibit 12. Phase II Study Tasks



Phase II, Task 1 – Public Education

One of the most important tasks of any stormwater utility establishment is public engagement and education. MFSG has coordinated public outreach programs with multiple municipalities during the course of various rate and fee studies. There are various tools available to communicate and engage with the public.

MFSG will develop, with the input of Village staff, public friendly engagement tools for use at two (2) open house public events in order to inform and engage the public. MFSG will also coordinate on a day-to-day basis with any public information staff of the Village in response to any social media or print media disinformation that may arise during the course of the public education phase.

MFSG will develop an online tool for citizens and business owners to research the financial impact of the new stormwater fee on their property ownership costs. The online tool will facilitate the ability to look up a parcel number and see the proposed fee under various funding scenarios.

Phase II, Task 1 Deliverables:

- Public friendly educational materials for use at informational Open House events.
- Attendance and presentation at two public Open House events.
- Web based tool for customers to understand the impact of the proposed fees.

Phase II, Task 2 – Final Development of the Customer Database

MFSG and Donohue will gather existing records including, but not limited to: land use/zoning, digital orthophotography, planimetric data, parcel boundaries, tax database, site plans, etc. Geospatial data will be assembled in ESRI's ArcGIS software for analysis.

Donohue will prepare a Customer Database of all parcels within the Village. A geospatial analysis calculating the impervious area for each record will be performed. The final database will contain land use classification, development status, impervious area, and number of ERUs for each parcel.

MFSG will perform a quality control review of the resulting database. All outlying results will be given secondary review. Up to 10% of remaining records will be spot-checked for accuracy. Minor errors will be corrected; systemic errors will be noted, and a correction strategy developed.

Finally, MFSG will work with Village utility billing personnel to ensure that the database is compatible with the Village's billing software prior to delivery.

Phase II, Task 2 Deliverables:

- Quality assured customer database including ERU assignments for all Village parcels.

Phase II, Task 3 – Rate Setting

Given the results of Phase II, Task 2, MFSG will finalize the stormwater fees that will fully fund the Village's *Master Stormwater Management Plan* over the 20-year timeframe.

Phase II, Task 3 Deliverables:

- Final stormwater utility rates that fund the Village's *Master Stormwater Management Plan*

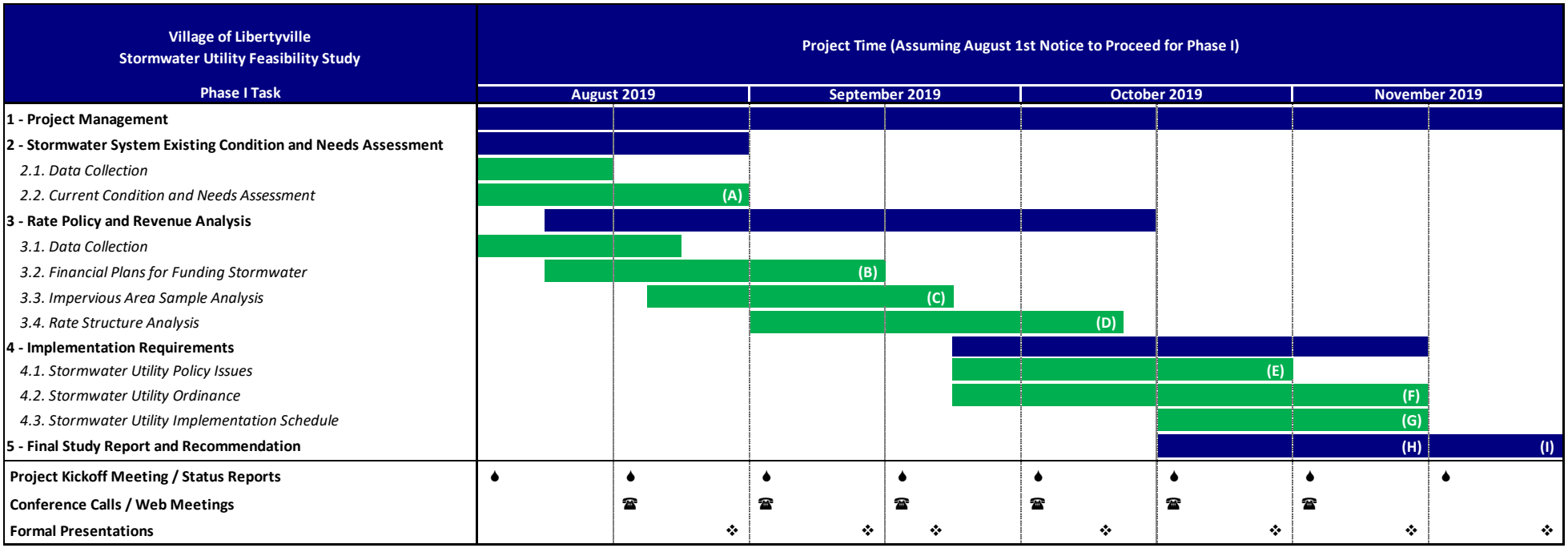
3. PROJECT SCHEDULE

The technical approach set forth in this proposal will result in delivery of a draft Phase I report fourteen weeks after delivery of the data necessary to complete the study, with a revised report submitted after comments are received on the draft report.

Phase II will take place over several months before the final adoption of the Stormwater Utility Ordinance, which will allow for sufficient time to engage the public and inform the residents and businesses of the Village of the changes being made.

The proposed project schedules for each phase are presented as Exhibit 13 and Exhibit 14.

Exhibit 13. Phase I Schedule



Deliverables:

(A) CIP Scenarios / 20 Year Forecast	Late August 2019	(E) Policy Issue Technical Memorandums	Late October 2019
(B) Funding Options for Stormwater	Mid-September 2019	(F) Draft Stormwater Utility Ordinance	Mid-November 2019
(C) Imprevious Area Sample ERUs	Late September 2019	(G) Stormwater Implementation Plan / Timeline	Mid-November 2019
(D) Evaluation of Funding Options / Rate Structures	Early October 2019	(H) Draft Phase I Report	Mid-November 2019
		(I) Final Phase I Report	Late November 2019

Exhibit 14. Phase II Schedule

Village of Libertyville Stormwater Utility Feasibility Study Phase II	Project Time (Assuming January 1st Notice to Proceed for Phase II)			
	January 2020	February 2020	March 2020	April 2020
1 - Public Education				
1.1. Development of Public Outreach Program / Materials	(A)			
1.2. Excute Public Outreach Program		(B)	(C)	
2 - Finalize Customer Database			(D)	
3 - Final Rate Setting				(E)
Status Calls / Web Meetings	☎	☎	☎	☎
Formal Presentations		❖	❖	❖

Deliverables:

(A) Public Presentation Materials	Late January 2020
(B) & (C) Public Open House Presentations	February and March 2020
(D) Final Customer Database	March 2020
(D) Adoption of Stormwater Utility Ordinance, Effective July 1, 2020	April 2020

APPENDIX A: ADDENDUM NO. 1

Libertyville
spirit of independence

Finance Department
(847) 362-2430

JUNE 24, 2019

ADDENDUM NO. 1
STORMWATER UTILITY FEASIBILITY AND RATE STUDY
VILLAGE OF LIBERTYVILLE

The RFP for the above referenced project has been amended and/or clarified as follows:

Q: The Village budget states that the staff will recommend plans for a stormwater utility by September 30, 2019. Do you still plan for the Feasibility Study to be completed by that time?

A: The Village's budget document was prepared several months in advance of the RFP document. Consequently, statements made in sources outside the official RFP document should be relied on as estimates only. For informational purposes, the Village adopted its Stormwater Master Plan approximately one month behind schedule (May, 2019 versus April, 2019).

Q: What is the planning horizon for completing the construction of the projects recommended in the recently completed Management Plan?

A: As per Phase I, Task 2 of the RFP, the Consultant will be responsible for formulating project priority and planning horizons in conjunction with feedback provided by Village staff.

Q: Have the Trustees and the public expressed support to pay the fees for the financing of the $45.5 million in capital improvements or will they have to be convinced that the fees will be worthwhile?

A: The Village Trustees are aware of the different funding mechanisms available to fund a stormwater master plan, but have not formally expressed support for any particular mechanism in the form of a resolution.

Q: There appears to be no priority given to the recommended projects identified in the Management Plan, is that correct?

A: As per Phase I, Task 2 of the RFP, the Consultant will be responsible for formulating project priority and planning horizons in conjunction with feedback provided by Village staff.

Q: It appears that Phase 1 is to educate the Trustees so that public education and outreach should be reserved for Phase 2?

A: Phase I outlines several tasks for the Consultant. While there are a few Trustee education components, a large portion of Phase I will require the Consultant to engage in financial analyses and capital planning (see Task 3). Phase II of the proposed scope of work would include a majority of the public outreach activities.

Acknowledge receipt of this Addendum No. 1, by signing this form and returning it with your sealed proposal.

If you have any questions regarding this Addendum No. 1, please contact me at 847-362-2430.

Nicholas Mostardo
Finance Director

The signature below confirms receipt of Addendum No. 1 dated June 24, 2019.

Signature: _____ Company: _____

Dated: _____

APPENDIX B: COMPLIANCE AFFIDAVIT

ATTACHMENT 1
COMPLIANCE AFFIDAVIT

As a condition of entering into a contract with the Village of Libertyville, and under oath and penalty of perjury and possible termination of contract rights and debarment, the undersigned deposes and states that he has the authority to make any certifications required by this Affidavit on behalf of the bidder, and that all information contained in this Affidavit is true and correct in both substance and fact.

Section 1: BID RIGGING AND ROTATING

1. This bid is not made in the interest of, or on behalf of an undisclosed person, partnership, company, association, organization or corporation;

2. The bidder has not in any manner directly or indirectly sought by communication, consultation or agreement with anyone to fix the bid price of any bidder, or to fix any overhead profit or cost element of their bid price or that of any other bidder, or to secure any advantage against the Village of Libertyville or anyone interested in the proper contract;

3. This bid is genuine and not collusive or sham;

4. The prices, breakdowns of prices and all the contents quoted in this bid have not knowingly been disclosed by the bidder directly or indirectly to any other bidder or any competitor prior to the bid opening;

5. All statements contained in this bid are true;

6. No attempt has been or will be made by the bidder to induce any other person or firm to submit a false or sham bid;

7. No attempt has been or will be made by the bidder to induce any other person or firm to submit or not submit a bid for the purpose of restricting competition;

8. The undersigned on behalf of the entity making this proposal or bid certifies the bidder has never been convicted for a violation of State laws prohibiting bid rigging or rotating.

Section 2: TAX COMPLIANCE

1. The undersigned on behalf of the entity making this proposal or bid certifies that neither the undersigned nor the entity is barred from contracting with the Village of Libertyville because of any delinquency in the payment of any tax administered by the State of Illinois, Department of Revenue, unless the undersigned or the entity is contesting, in accordance with the procedures established by the appropriate revenue act, liability of the tax or the amount of tax;

2. The undersigned or the entity making this proposal or bid understands that making a false statement regarding delinquency of taxes is a Class A Misdemeanor and in addition voids the contract and allows the municipality to recover all amounts paid to the entity under the contract in civil action.

Section 3: EQUAL EMPLOYMENT OPPORTUNITY

This EQUAL OPPORTUNITY CLAUSE is required by the Illinois Human Rights Act, 775 ILCS 5/101 et seq.

In the event of the contractor's non-compliance with any provision of the Equal Employment Opportunity Clause, the Illinois Human Rights Act, or the Rules and Regulations for Public Contracts of the Department of Human Rights, the contractor may be declared non-responsive and therefore ineligible for future contractor subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies involved as provided by statute or regulations.

During the performance of this contract, the contractor agrees:

1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry; and further that it will examine all job classifications to determine if minority persons or woman are underutilized and will take appropriate action to rectify any such underutilization;

2. That, if it hires additional employees in order to perform this contract, or any portion hereof, it will determine the availability (in accordance with the Department's Rules and Regulations for Public Contract's) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized;

3. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service.

4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other such agreement or understanding, a notice advising such labor organization or representative of the contractor's obligation under the Illinois Human Rights Act and the Department's Rules and Regulations for Public Contract.

If any such labor organization or representative fails or refuses to cooperate with the contractor in its efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Department and contracting agency will recruit employees from other sources when needed to fulfill its obligation hereunder.

5. That it will submit reports as required by the Department's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Department or contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations for Public Contracts.

6. That it will permit access to all relevant books, records, accounts, and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Departments Rules and Regulations for Public Contracts.

7. That it will include verbatim or by reference the provisions of this Equal Opportunity Clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so such provisions will be binding upon such subcontractor. In the same manner as the other provisions of this contract, the contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the Department in the event any subcontractor fails or refuses to comply therewith. In addition, the contractor will not utilize any subcontractor declared by the Illinois Human Rights Department to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

Section 4: ILLINOIS DRUG FREE WORK PLACE ACT

The undersigned will publish a statement:

1. Notifying employees that the unlawful manufacture, distribution, dispensation, possession, or a use of a controlled substance is prohibited in the work place;

2. Specifying the actions that will be taken against employees for violating this provision;

3. Notifying the employees that, as a condition of their employment to do work under the contract with the Village of Libertyville, the employee will:

    A. Abide by the terms of the statement;

    B. Notify the undersigned of any criminal drug statute conviction for a violation occurring in the work place not later than five (5) days after such a conviction.

4. Establishing a drug free awareness program to inform employees about:

    A. The dangers of drug abuse in the work place;

B. The policy of maintaining a drug-free work place;

C. Any available drug counseling, rehabilitation or employee assistance programs;

D. The penalties that may be imposed upon an employee for drug violations.

5. The undersigned shall provide a copy of the required statement to each employee engaged in the performance of the contract with the Village of Libertyville, and shall post the statement in a prominent place in the work place.

6. The undersigned will notify the Village of Libertyville within ten (10) days of receiving notice of an employee's conviction.

7. Make a good faith effort to maintain a drug free work place through the implementation of these policies.

8. The undersigned further affirms that within thirty (30) days after receiving notice of a conviction of a violation of the criminal drug statute occurring in the work place he shall:

A. Take appropriate action against such employee up to and including termination; or

B. Require the employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.

Section 5: SEXUAL HARASSMENT POLICY

The undersigned on behalf of the entity making this proposal or bid certifies that a written sexual harassment policy is in place pursuant to Public Act 87-1257, effective July 1, 1993, 775 ILCS 5/2-105 (A).

This Act has been amended to provide that every party to a public contract must have written sexual harassment policies that include, at a minimum, the following information:

1. The illegality of sexual harassment;

2. The definition of sexual harassment under State law;

3. A description of sexual harassment, utilizing examples;

4. The vendor's internal complaint process, including penalties;

5. The legal recourse, investigative and complaint process available through the

Department of Human Rights, and the Human Rights Commission;

6. Directions on how to contact the Department and Commission;

7. Protection against retaliation as provided by 6-101 of the Act.

Section 6: VENDOR INFORMATION

1. Is the bidder a publicly traded company? (yes or no) _____
If the answer is yes, state the number of outstanding shares in each class of stock. Provide the name of the market or exchange on which the company's stock is traded.

_____

_____

_____

_____

2. Is the bidder 50% or more owned by a publicly traded company? (yes or no) _____

If the answer to the above question is yes, name the publicly traded company or companies owning 50% or more of your stock, state the number of outstanding shares in each class of stock and provide the name of the market or exchange on which the stock of such company or companies is traded.

_____

_____

_____

_____

IT IS EXPRESSLY UNDERSTOOD THAT THE FOREGOING STATEMENTS AND REPRESENTATIONS AND PROMISES ARE MADE AS A CONDITION TO THE RIGHT OF THE BIDDER TO RECEIVE PAYMENT UNDER ANY AWARD MADE UNDER THE TERMS AND PROVISIONS OF THIS BID.

SIGNATURE:_____

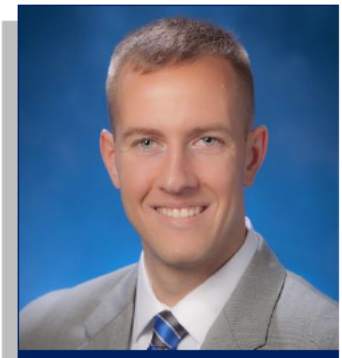
NAME:_____ TITLE: _____
(print or type)

Subscribed and sworn to me this _____day of_____, 2012, A.D.

By:
(Notary Public)

-Seal-

APPENDIX C: RESUMES OF KEY PROJECT PERSONNEL



EDUCATION
BA, 2010,
Economics/Mathematics,
The Johns Hopkins
University

EXPERIENCE
9 Years

MEMBERSHIPS
American Water Works
Association
Water Environment
Federation
Government Finance
Officers Association

PUBLICATIONS
WEF Manual 27, Financing and Charges for Wastewater Systems,
Contributing Author

Eric M. Callocchia

Senior Manager, Municipal and Financial Services Group

Municipal & Financial Services Group

Professional Profile

Mr. Callocchia is a Senior Manager in the Municipal & Financial Services Group. His primary focus is the management of cost of service rate studies for owners of water, sewer, stormwater and solid waste utilities. His expertise includes rate design, dynamic cash flow modeling and benchmarking evaluations. He is a contributing author to the Water Environment Federation's Manual of Practice 27, Financing and Charges for Wastewater Systems.

Technical Expertise

- Financial Modeling
- Cost of Service Analyses
- Rates and Fees Design
- Econometrics
- Sensitivity Analysis
- Public Finance

Presentations

"Setting Water and Sewer Rates"; New York State GFOA 38th Annual Conference (2017)

"A World without Crystal Balls: Attempting to Forecast Operating Expenses"; 2016 Tri-Association Conference

"Enhanced General Fund Reimbursement by Enterprise Funds"; 2014 Brown Edwards Conference

Selected Consulting Experience:

Financial/Management Experience

Water and Sewer Rate Study: Village of Lombard, IL – The Village of Lombard is located 22 miles west of downtown Chicago. The Village engaged MFSG to complete a water and sewer study after a decade long moratorium on increases in the Village's capital rates. Mr. Callocchia developed a water and sewer model that allowed the Village to instantly run various capital and operating scenarios in order to ensure the long term financial viability of the Village's water and sewer funds. Mr. Callocchia also developed several alternative rate structures for the Village's consideration, with a focus on low usage customer impact. The Village, at the start of the study, was anticipating a decrease in tax revenue being generated for the utility fund, and as a result needed additional revenue sources to be considered. Mr. Callocchia's financial model allowed the Village to identify and increase both fixed and variable sources of revenue.

Water and Sewer Rate Study: City of Naperville, IL – Naperville's water utility has approximately 42,900 accounts serving a population of about 149,000 and operates and maintains 15 reservoirs and storage tanks with an average daily water demand of 14.1 million gallons. The City's wastewater utility serves approximately 42,200 accounts and a satellite community (Warrenville) of 12,000 with flows of approximately 1.5 MGD. The City of Naperville owns and operates a regional wastewater treatment plant having a rated design capacity of 26.25 MGD with average daily flow of 18.17 MGD (2015) serving a combined population of 162,000. The City was contemplating a $50 million phosphorus removal upgrade to its Springbrook Water Reclamation Facility. Mr. Callocchia let a project team that calculated the appropriate surcharge that would generate the revenue needed to not only fund 50% of the phosphorus project with cash, but the ability to pay the debt service on the remaining 50% of the project cost. Mr. Callocchia's recommendations were unanimously adopted by the City Council and implemented over a five-year timeframe.

Treatment Facility Operational Evaluation: Village of Fox Lake, IL – The Village of Fox Lake, IL owns and operates the Northwest Regional Water Reclamation Facility (NWRWRF) which serves both the Village and a group of outside collection systems. Mr. Callocchia managed a financial and operational review that resulted in several staffing and policy recommendations that would align the facility with industry standard practices and alleviate the burden of I&I management within the collection systems not owned by the Village but were impacting the NWRWRF's operations.

Sewer Rate Study: City of Prospect Heights, IL – The City of Prospect Heights acquired the previously privately-owned collection system serving its citizens without any historical operating, maintenance or asset data. Mr. Callocchia served as the project manager to establish the City's Sewer Fund, using industry standard methodologies to calculate both the operational and financial needs of the system and a rate structure that would appropriately collect revenues from the City's customer base. Mr. Callocchia's analysis resulted in the adoption of an over 200% rate increase and the establishment of proper Sewer Fund reserves, which allowed the City to finance over $3 million in sewer re-lining projects.

Water, Sewer and Stormwater Rate Study: Village of Orland Park, IL – The Village of Orland Park is located in the Chicago suburbs, about 25 miles southwest of downtown Chicago. The Village engaged MFSG to complete a water, sewer and stormwater rate study. Mr. Callocchia served as the Project Manager for the duration of the study, developing a single model for all three Village services. MFSG's focus was on developing water rate tiers that reflected the actual usage patterns of the Village's customers, especially considering that the Village was experiencing declining usage. MFSG also focused on alternative methods of collecting stormwater revenues (ad valorem taxes, impervious area fees). MFSG's recommendations were approved unanimously by the Village Board at the conclusion of the study.

Water and Sewer Rate Study: Village of Libertyville, IL – Libertyville, IL is located about 40 miles north of downtown Chicago, and about 6 miles from Lake Michigan. The Village provides both water and sewer service, and engaged MFSG to complete a water and sewer rate study in late 2015. Mr. Callocchia served as the Project Manager and provided both analytical and policy level support to the Village. As a result of the study, the Village adopted a tiered rate structure for its water service, allocating costs appropriately to low and high-end users. The Village's Board unanimously adopted MFSG's recommendations.

Sewer Rate Study: Delaware County Regional Water Quality Control Authority (DELCROA), PA – The Delaware County Regional Water Quality Control Authority (DELCORA) owns and operates sewer collection and treatment systems in South East Pennsylvania, just outside Philadelphia. Part of DELCORA's service area (known as the Eastern District) sends flow to the City of Philadelphia for treatment. The Western District sends flow to DELCORA's Western Regional Treatment Plant (WRTP). DELCORA's WRTP, built in 1974, was originally designed to treat 44 million gallons per day (MGD) and is currently rated for 50 MGD. The plant receives flow from industrial clients, and the Authority owns and maintains 126 miles of gravity lines and three miles of force mains, including the local collection systems of the City of Chester and surrounding suburban communities. The City of Chester's collection system combines storm water and sanitary sewer systems with 27 combined sewer overflow chambers. Mr. Callocchia developed a detailed cost of service model that allocated specific costs to specific customers based on DELCORA's legal agreements and policy statements. Mr. Callocchia also assisted in the development of a phased in rate plan that incorporated the impacts of the rate model's allocations. DELCORA's Board of Directors adopted the rate schedule based on Mr. Callocchia's analysis.

Stormwater Fee Affordability Analysis: Frederick County, MD – Frederick County, MD was anticipating the issuance of a Municipal Separate Storm Sewer System (MS4) Permit from the Maryland Department of the Environment (MDE) that would place a certain cost burden on the County's 48,000 stormwater fee payers. The County engaged Mr. Callocchia as part of MFSG's project team to determine the Maximum Extent Practicable (MEP) level that the county could reasonably fund given current levels of funding, median household income, and the County's procurement limitations. Mr. Callocchia developed a financial model that allowed for a sensitivity analysis to determine the increase in funding that would be possible given several factors. The County used Mr. Callocchia's analysis to appeal the permit requirements.

Water and Sewer Rate Study: Village of Westchester, IL – Westchester, IL is a small community located about 15 miles west of downtown Chicago. The Village had been experiencing several years of declining revenues when it engaged MFSG to complete a water and sewer rate study. Mr. Callocchia developed a dynamic rate model that allowed the Village to project both revenues and expenses, given the decline in water sales they were experiencing. The Village unanimously adopted the rates recommended by MFSG as the conclusion of the study.

Water Revenue Bond Feasibility Study: City of Annapolis, MD – The City of Annapolis is the capital city of the State of Maryland. The City historically made use of general obligation bonds to fund water and sewer capital programs. In 2015, the City engaged its financial advisor in order to issue revenue bonds. MFSG served as the feasibility consultant on the project, and Mr. Callocchia developed a water and sewer rate model that projected various debt scenarios, including bond coverage calculations and cash on hand target projections. The City was able to generate ratings of AA-, Aa3, and AA- from the three major rating agencies and issue the revenue bonds in the amount of $30,755,000 on schedule thanks to the feasibility report generated by Mr. Callocchia as a part of MFSG's team.

Sewer Rate Study: City of Concord, CA – The City of Concord is located approximately 30 miles east of San Francisco. The City covers 30.55 square miles, and with an estimated 2015 population of 124,711 residents, it is the largest city in Contra Costa County. The service area as of 2015 included 45,069 households with an average of 2.68 persons per household and 11,008 businesses. In addition, the City provides collection system maintenance services to the neighboring City of Clayton's collection system lines and a few lines in the unincorporated areas of Contra Costa County that discharge to the Clayton system. Concord's wastewater collection system conveys wastewater to the Central Contra Costa Sanitary District's (CCCSD) wastewater treatment plant. Sanitary sewer charges are assessed annually by the City and placed on property tax bills. The City tasked MFSG with reviewing the overall health of its sewer enterprise fund, as well as determining the necessity to allocate costs differently between its customers. Mr. Callocchia provided expertise in the building of the City's sewer rate model, as well as policy direction based on industry standards regarding reserve levels and line replacement funding.

Water and Sewer Rate Study: Jurupa Community Services District (JCSD), CA – Jurupa Valley is located 45 miles east of Los Angeles, CA. The District's water system provides potable and non-potable water service to about 28,200 residential, commercial, irrigation and industrial accounts. The District purchases about 35% of their water supply from the Chino Basin Desalter ("CDA") and 3% of their water from the Rubidoux Community Services District ("RCSD"). The remaining 62% of the water supply comes from local ground water sources. The water system contains approximately 16 wells, 7 booster stations, 17 reservoirs and nearly 58 million gallons of storage capacity. Mr. Callocchia, as part of MFSG's project team, developed separate water and sewer financial models that incorporated sensitivity analysis, rate alternatives, and CIP projections. As a result of Mr. Callocchia's analysis, the District adopted a five-year rate plan based on MFSG's recommendations.

Water and Sewer Rate Study: Washington Suburban Sanitary Commission (WSSC), MD – Established in 1918, WSSC is among the largest water and wastewater utilities in the nation, with a network of nearly 5,600 miles of fresh water pipeline and more than 5,400 miles of sewer pipeline. WSSC's service area spans nearly 1,000 square miles in Prince George's and Montgomery counties serving 1.8 million residents through approximately 460,000 customer accounts. Mr. Callocchia worked as the head analyst on a water and sewer rate study for WSSC, building them a custom rate model that incorporated both operating and capital expense and revenue projections. Mr. Callocchia provided WSSC with professional guidance regarding alternative rate structures that would ensure that customers are charged appropriately for their water and sewer use.

Water and Sewer Rate Studies: Loudoun County, VA – Loudoun Water provides water and sewer service to nearly 60,000 customer accounts located in northern Virginia. Loudoun Water contracted MFSG to provide a detailed long term financial plan for their systems. Mr. Callocchia developed a financial model that emphasized scenario analysis, namely the adjustment of capital financing. Loudoun Water was in the process of building a new 10 MGD water treatment plant, and Mr. Callocchia's model provided for adjustment in the financing of this major capital project. Additionally, the model provided Loudoun Water with a valuable tool showing how cash reserves and debt coverage were affected under different scenarios. Loudoun Water approved a three-year rate plan based on the analyses performed by Mr. Callocchia. The plan provided for the funding of each system's CIP, all capital reserves and the maintenance of all bond covenants. In addition to their Central System, Loudoun Water operates several "Community Systems" in northern Virginia and provides both water and sewer service to these communities. These small systems are faced with efficiency and economies of scale difficulties. Also, several large capital projects presented a large financial burden to the relatively small number of customers. Mr. Callocchia developed a financial model that allowed Loudoun Water staff to project the effects of several different capital spending scenarios on Community System rates. Mr. Callocchia also assisted in the development of key policy decisions that would allow Loudoun Water to continue to maintain full cost of service recovery within the Community Systems as they grow in future years. Loudoun Water approved a rate structure change and a three-year rate plan based on Mr. Callocchia's analysis.

Water and Sewer Rate Study: Town of Lovettsville, VA – The Town of Lovettsville is in northern Loudoun County, Virginia, just two miles south of the Potomac River. The Town's water supply comes from a series of wells located throughout the community. The Town has recently completed an expansion that added an additional 125,000 gallons per day of treatment capacity to serve their nearly 700 customers. The Town contracted with MFSG for a comprehensive water and sewer rate study to determine both the current and future costs associated with operating the systems and how those costs must be recovered from the users of each system. Mr. Callocchia managed the project and built the Town a customized model. Included in the model were projections of future capital costs related to the maintenance of the water and sewer systems. Mr. Callocchia's recommendation of a five-year rate plan was unanimously approved by the Town Council.

Water and Sewer Rate Study: King George County Service Authority, VA – King George County is located in north-eastern Virginia, bounded by the Potomac River on the north and the Rappahannock River on the south. The County's service authority provides water and sewer service to a significant majority of the County's 23,000 residents. Mr. Callocchia worked with the Authority and created a water and sewer rate model that addressed their needs. The Authority considered an adjustment in the billing structure to a three-tiered conservation water rate structure. MFSG's model allowed the Authority to make critical capital financing decisions and rate adjustments to fully finance the water and sewer systems' replacement needs while maintaining a healthy cash balance. Mr. Callocchia provided both modeling expertise and policy guidance to the Authority.

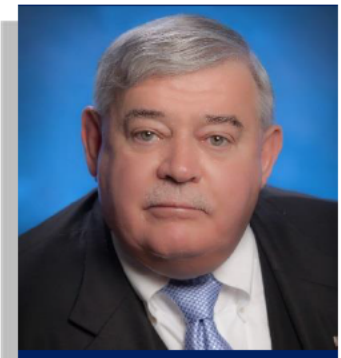
Water and Sewer Rate Study: Town of Middleburg, VA – The Town of Middleburg is located in Loudoun County, Virginia and has a population of under 1,000 residents. As a result, the water and sewer systems do not experience the economies of scale from which larger systems benefit. Mr. Callocchia was the lead analyst on MFSG's project team tasked with developing a financial model that would address the Town's capital and operating financing issues. Mr. Callocchia worked with the Town and developed a model focused on infrastructure replacement and capital financing. The Town was expecting major pipe replacement and plant upgrade expenses and the cost per customer was a concern. Mr. Callocchia assisted the Town in implementing a phased-in rate plan that addressed these issues and maintained the financial health of both the water and sewer funds.

Water Pollution Control Rate Study: Town of Barnstable, MA – Mr. Callocchia was an analyst for a rate study to develop sewer rates and fees for the Town. The Town has been utilizing cash reserves to hold off rate increases for some time. Like many utilities nationwide, the Town is faced with increased operating and capital expenses that are required in order to operate and maintain the sewer facilities. Currently, the Town is on pace to spend all cash reserves (over $5.6 million) within 5 years. The Town does not expect its customer base to grow unless capital improvement projects are initiated and the sewer system is expanded. The Town requested that MFSG provide a solid financial plan that keeps rates and fees stable, recovers all costs of providing sewer service and appropriately allocates costs to customers.

Litigation Support

Water Rate Litigation: San Diego County Water Authority, CA – The San Diego County Water Authority (SDCWA) and The Metropolitan Water District of California (MWD) were engaged in litigation regarding the water rates charged to SDCWA by MWD. Mr. Callocchia developed a report on MWD's rate setting methodology and how it relates to AWWA M1 principles and industry standard practices in order to assist SDCWA in its efforts to show the illegality of MWD's rates based on their non-conformity to both AWWA standards and California Law (Proposition 26). Mr. Callocchia's work involved both cost-of-service analysis and knowledgeable explanation of industry standards to the Superior Courts of California.

Utility Billing Dispute: Silgan Plastics, Inc – Silgan Plastics is the leading manufacturer of metal containers in North America and Europe, and the largest manufacturer of metal food containers in North America with a volume of approximately half the market share in the United States of. They are also a leading worldwide manufacturer of metal, composite and plastic closures for food and beverage products. Mr. Callocchia led a team to evaluate the utility rates charges to a selection of Silgan's manufacturing plants and assist Silgan in settling rate disputes with local utility providers. Mr. Callocchia's detailed evaluations and expert analysis resulting in a settlement agreement for more than $500,000 above the amount previously offered to Silgan before Mr. Callocchia's involvement.



EDUCATION

MBA, 1971, Finance, (Government-Business Relations), George Washington University

BS, 1968, Accounting, Johns Hopkins University

PROFESSIONAL REGISTRATION

Certified Management Consultant (U.S., Canada)

MEMBERSHIPS

American Water Works Association (Past Chairman, Finance, Accounting and Management Controls Committee; Chairman, GASB 34 Task Force; Contributing editor, update and expansion, M29 – *Capital Financing*; Contributing author, *Financial Management for Water Utilities*

Community Associations Institute

Government Finance Officers Association

Institute of Management Consultants (Past President, D.C. Chapter)

U.S. Naval Surface Warfare Center, Base Realignment and Closure Committee, Restoration Advisory Board

Pension Oversight Commission, Anne Arundel County, Maryland (member; former Chairman)

Water Environment Federation

EXPERIENCE

49 Years

Edward J. Donahue III, CMC

President, Municipal & Financial Services Group

Municipal & Financial Services Group

Professional Profile

Mr. Donahue serves as president of the Municipal & Financial Services Group, a specialized consulting practice that focuses on financial, management and economic issues facing public sector and infrastructure clients, especially those involved in large capital-intense activities. Mr. Donahue has almost fifty years of experience, including forty years of management consulting. Prior to establishing MFSG, he directed a national consulting practice for a Big Four accounting firm. His career includes work as Financial Manager of R&D Operations for Westinghouse Electric Corporation and as a senior systems accountant at the U.S. Environmental Protection Agency.

Technical Expertise

- Financial Planning & Analysis
- Litigation Support
- Strategic Planning
- Regulatory Analysis
- Management Audits & Operational Reviews

Selected Consulting Experience

Financial Planning and Analysis - development of financial alternatives, capital improvement plans and financial feasibility studies for operating and capital costs, such as:

- Cost of service/rate studies for over 150 utilities (water, sewer, electric, solid waste, stormwater)
- Impact fees/capacity fees/system development charges
- Development of long-term business plans
- Negotiation of inter-jurisdictional agreements
- Evaluation of contracts and proposals; acquisition and disposal of assets; change orders
- Financial feasibility studies/debt affordability studies
- Bond-related studies (coverage tests, arithmetic verifications, arbitrage compliance, parity tests, etc.)
- Tax revenue and expenditure analyses (tax and annexation disputes)
- Tax differential / tax setoff studies

Management and Organization - evaluation of performance, efficiency and effectiveness of organizations; establishment of new organizations or consolidation of existing organizations or departments, including development of organizational structures and staffing needs, recruitment of key personnel, job descriptions, compensation programs, capital and operating budgets, revenue analysis, etc. Governance studies for boards of directors, commissions and authorities.

Asset Management - development of asset management processes and systems for infrastructure, including: optimization of operating and capital budgets; definition of service levels; condition assessments; identification and specification of software packages; life cycle costing analyses; development of planned and preventive maintenance programs.

Management Reporting - Development of management reporting systems, including development of information needs, frequency and timing of reports, format of reports. Development of specifications for financial reporting systems for large municipal and federal agencies. Development of testing protocols to validate performance of management reporting with pre-established criteria.

Strategic Planning - development of strategic and long-range plans for non-profit and for-profit organizations.

Tax-Exempt Financing - Use of creative approaches to finance economic development and industrial facilities with tax-exempt debt, and the use of special taxing districts (tax increment financing districts [TIF], special community benefit districts [SCBDs], etc.) to facilitate desirable development, including:

- Automotive coatings facilities
- Electric, steam and chilled water systems
- Paper manufacturing facilities
- Senior living communities

Regulatory Analysis - evaluation of financial and economic impact of various environmental laws and regulations, at industry, company and plant levels.

Litigation Support - financial analysis and expert witness service in a wide variety of litigation and regulatory hearings. Typical areas of review include:

- Documentation/re-creation of historical costs
- Forecasts/projections of costs/revenues
- Sensitivity analysis to identify critical issues for negotiations
- Development of/response to interrogatories
- Forensic accounting
- Financial models
- Cost allocations/rate schedules
- Construction claims/commercial disputes
- Civil bankruptcies (Chapters VII, IX and XI)
- Criminal bankruptcy
- Patent/trademark infringement (lost profits, reasonable royalties)

Hazardous Waste - identification and evaluation of financial risks, and development of recommended assurance and insurance levels and mechanisms for a large fully-permitted landfill accepting industrial and medical wastes; determination of risk management mix for hazardous waste operations.

Selected Cost of Service/Rate Study Work

- Albemarle County Service Authority, VA (water, sewer)
- Anchorage Water & Wastewater Utility, AK (water, sewer)
- City of Annapolis, MD (water, sewer)
- Anne Arundel County, MD (water, sewer, solid waste)
- Town of Barnstable, MA (water, sewer, solid waste)
- City of Beaverton, OR (water)
- Boston Water and Sewer Commission (water, sewer, stormwater)
- Town of Branford, CT (sewer)
- Bristol County Water Authority, RI (water)
- City of Cambridge, MD (water, sewer)
- City of Camden, NJ (water, sewer)
- City of Canandaigua, NY (sewer)
- Cape Fear Public Utility Authority, NC (water, sewer)
- Carroll County, MD (water, sewer)
- Cecil County, MD (sewer)
- Town of Cheshire, CT (water, sewer)
- City of Chesapeake, VA (water, sewer)
- Town of Cheshire, CT (sewer)
- Chesterfield County, VA (effluent reuse)
- Town of Chincoteague, VA (water)
- City of Claremont, NH (water, sewer)
- Clermont County, OH (water, sewer)
- City of Cleveland, OH (water, sewer)
- City of Colonial Beach, VA (water, sewer)
- City of Concord, CA (sewer)
- Dallas Water Utility, TX (water)
- Town of Dartmouth, MA (water)
- DC Water (water, sewer, stormwater)
- Delaware County Regional Authority, PA (sewer)
- Denver Water Board, CO (water)
- City of Dunkirk, NY (water, sewer)
- Town of Durham, NH (water)
- Town of Duxbury, MA (water and sewer)
- City of Effingham, IL (water)
- Town of Elkton, MD (water, sewer)
- El Dorado Irrigation District, Placerville, CA (water, sewer)
- Town of Durham, NH (water)
- Town of Elkton, MD (water, sewer)
- City of Fairbanks, AK (water, sewer)
- Fair Oaks Water District, CA (water)
- City of Falls Church, VA (water)
- Fauquier County W&SA, VA (water, sewer)
- City of Findlay, OH (sewer)
- Frederick County, MD (water, sewer, solid waste)
- Frederick – Winchester Service Authority, VA (sewer)
- Village of Fredonia, NY (water, sewer)
- City of Frostburg, MD (water)
- City of Fullerton, CA (water)
- Garrett County, MD (water, sewer)
- Village of Glenview, IL (water, sewer, stormwater)

- Town of Georgetown, DE (sewer)
- City of Hagerstown, MD (water, sewer)
- City of Hampton, VA (wastewater, solid waste)
- County of Hanover, VA (water and sewer)
- Hazleton City Authority, PA (water)
- City of Hilliard, OH (solid waste)
- Howard County, MD (water, sewer, solid waste, reused water)
- James City Service Authority, VA (water, sewer)
- Jurupa Community Services District, CA (water, sewer)
- Kennebunk, Kennebunkport & Wells Water District, ME (water)
- Kent County (DE) Sanitary District (sewer)
- Kent County, MD (water / sewer)
- Town of Leesburg, VA (water, sewer)
- City of Lexington, VA (water, sewer)
- Village of Libertyville, IL (water, sewer)
- Village of Lombard, IL (water, sewer)
- Loudoun Water, VA (water, sewer)
- Town of Lovettsville, VA (water, sewer)
- Lower Cape Fear W&SA, NC (raw water)
- City of Manassas Park, VA (stormwater)
- Town of Manchester, CT (water, sewer)
- Massachusetts Water Resources Authority (water/ sewer)
- Metropolitan District Commission, Boston, MA (sewer)
- City of Mexico, MO (water / sewer)
- City of Middletown, CT (sewer)
- Town of Milton, DE (water, sewer)
- Mohawk Valley Water Authority, NY (water)
- Montgomery County, OH (sewer and solid waste)
- Village of Morton Grove, IL (water, sewer)
- New Hanover County, NC (water, sewer)
- City of New Haven, CT (sewer)
- City of New London, CT (water)
- City of Newport News, VA (sewer, solid waste, stormwater)
- City of New York, (water, sewer, stormwater)
- City of Nome, AK (water and sewer)
- Borough of North East, PA (water, sewer)
- North Slope Borough, AK [Prudhoe Bay] (water, sewer, solid waste)
- Town of Ocean City, MD (water, sewer)
- City of Olathe, KS (water / sewer)
- Village of Orland Park, IL (water, sewer, stormwater)
- City of Oxnard, CA (sewer)
- Pittsburgh Water & Sewer Authority, PA (water, sewer)
- Prince William Service Authority, VA (water, sewer)
- Town of Purcellville, VA (water, sewer)
- Queen Anne's County, MD (water, sewer)
- City of Raymore, MO (water, sewer)
- City of Richmond, VA (solid waste)
- City of Rochester, NY (water)
- City of Rockville, MD (water, sewer, solid waste)
- Sacramento Regional County (CA) Sanitation District (sewer, stormwater)
- City and County of San Francisco, CA (solid waste, stormwater, water and wastewater)
- South Norwalk, CT (electric)
- County of Stafford, VA (water and sewer)
- Stratford, CT - sewer
- Suffolk County Water Authority, NY (water)
- Summit County, OH (sewer)
- Sussex County, DE (water, sewer)
- City of Tucson, AZ (sewer / effluent reuse)
- Union Bridge, MD (sewer)
- Union Sanitary District, Fremont, CA (sewer)
- Urbana-Champaign Sanitary District, IL (sewer)
- Town of Warrenton, VA (water, sewer)
- Washington County Service Authority, VA (water, sewer)
- Washington Suburban Sanitary Commission, MD (water, sewer)
- Village of Westchester, IL (water, sewer)
- City of Wilmington, NC (water, sewer)

Selected Experience - Litigation Support / Expert Witness Testimony

- City of Farmers Branch v. Dallas Water Utility
  City Attorney (Dallas)
  Suburban Water Rates

- Confidential (County Attorney, Charles County, MD)
  Forensic Accounting Study Related to Defalcation and Embezzlement by County Administrator

- City of Palo Alto, et al v. City of San Francisco
  Howard, Rice (for San Francisco)
  Water Rates, Water Rights, Availability

- Hotel Owners Association v. City of San Francisco
  William Barrett (Deputy City Attorney)
  Stormwater Costs

- Apartment Owners Assoc. v. City of Beaverton, OR
  City Attorney (for Beaverton)
  Multi-Family Water Rates

- F.R. Briscoe v. Clark County, NV
  Lempres & Wulfsberg (for URS Engineers)
  Construction Claim, Wastewater Treatment Plant

- Landbank Equity Corp.
  Laurence Levey, Trustee
  Chapter VII Civil Bankruptcy

- Tri-City Tires
  Deborah Fisk (Assistant U.S. Attorney)
  Chapter XI Civil Bankruptcy

- City of Brookfield, et al v. Milwaukee MSD
  Mulcahy & Wherry (for Brookfield)
  Capital Cost Allocation, Sewer Rates

- Confidential
  Lempres & Wulfsberg
  Propriety of Costs Claimed by Consultant

- Confidential
  Hogan and Hartson (for Plaintiff)
  Trademark Infringement (Lost Profits)

- Renishaw PLC v. Carl Zeiss
  Oliff & Berridge (for Renishaw)
  Patent Infringement (Lost Profits, Reasonable Royalties)

- Interstate Plaza Partnership v. Home Fed Bank
  McCarthy & Burke (for Home Fed)
  Breach of Contract, Construction Claim

- Bancroft-Clover Sanitary District, et al v. Denver Water Board
  Saunders, Snyder, Ross & Dickson (for Denver)
  Water Rates, System Development Charges

- Town of Ashland v. County of Hanover, VA
  McGuire, Woods, Battle & Boothe (for Hanover)
  Annexation Dispute Before Virginia Commission on Local Governments

- Dewberry & Davis v. Maryland General Services Administration
  Silverstein & Mullens (for Dewberry)
  Construction Claim, Correctional Facility

- City of Los Angeles v. City of El Segundo et al.
  City Attorney (for Los Angeles)
  Capital and Operating Costs of Regional Sewer System

- Clement Tingley, et al., v. Board of Supervisors of Hanover County
  Hirschler, Fleischer, Weinberg, Cox & Allen (for Hanover)
  Connection Fees for Water and Wastewater Systems

- Thomas Wolf, et al. v. Fauquier County Water & Sanitation Authority
  O'Connell & Mayhugh (for Wolf)
  Capacity Fees, Property Rights

- Washington County v. City of Hagerstown, MD
  Urner, Nairn & Boyer, LLC (for Hagerstown)
  (Before Maryland Public Service Commission, Case #8324)
  Outside-City Water and Sewer Rates

- SCA v. Charles County, MD
  Venable, Baetjer and Howard (for SCA)
  Capacity Fees

- Bankruptcy Proceeding 03-03428-DOT
  (On behalf of the City of Richmond, VA)
  Utility Bill Arrearages as Preference Payments

- Matter of Bramble Hill Water System
  Gohn, Hankey & Stichel, LLP (for Bramble Hill)
  (Before Maryland Public Service Commission, Case #8984)
  Water System Valuation and Customer Tariffs

- Matter of City of Frostburg
  Law Offices of Michael Cohen (for the City of Frostburg, MD)
  (Before Maryland Public Service Commission, Case #9040)
  Inside-City vs. Outside-City Rate Differentials

- Application for Rate Increase, Aqua Virginia, Inc.
  Buck, Toscano & Tereskerz, Ltd. (for Lake Monticello Owners' Association)
  (Before Virginia State Corporation Commission, Case #PUE 2005-00080)
  Water System Valuation and Customer Tariffs

- Smartdesks, Inc. vs. CBT Supply, Inc. MJG-05-3456
  Conwell, LLC (for Smartdesks, Inc.)
  (Intellectual property – lost profits, reasonable royalties)

- David H. Katz, et al. v. Township of Westfall, PA (Civil Action No. 3:CV-03-0277)
  Dewey & LeBoeuf (for Katz)
  Land Use / Zoning

- Bankruptcy Proceeding 5-09-02736 (Westfall Township, PA, Debtor)
  Dewy & LeBoeuf (on behalf of David H. Katz, et al.)
  Chapter 9 – Municipal Bankruptcy

- Fisher v. Little Orleans Campground of America
  (Circuit Court of Allegany County, MD, Case #01-C-11-036411)
  Poole & Kane, P.A. (for LOCPA)
  Contract Pricing Dispute

- Malone Investments, LLC v. Somerset County Sanitary District, Inc.
  (Circuit Court of Somerset County, MD, Case #19-C-11-014871)
  Adkins, Potts & Smethurst, LLP (for Malone)
  Cost Allocation Dispute – Sewer Interceptor

- City of Westlake vs. City of Cleveland.
  (Court of Common Please, Cuyahoga County, OH, Case #CV-12-782910)
  Tucker Ellis LLC (for Cleveland)
  Stranded Costs, Cost to Cure – Water Utility

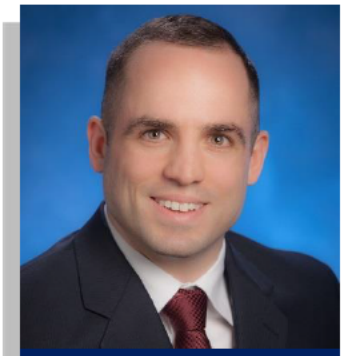
- Conyngham Borough vs. Conyngham Borough Authority
  (Court of Common Please, Luzerne County, PA, Case #2014-03755)
  Falvello Law Firm, P.C. (for Conyngham Borough Authority)
  Dissolution of Authority

- San Diego County Water Authority vs. Metropolitan Water District of Southern California
  (Superior Court of San Francisco, Case No. CPF-10-510830 / Case No. CPF-12-512466)
  Keker & VanNest) for San Diego County Water Authority
  Cost of Reserve Capacity / Cost of Wheeling Water

- Matter of Boltuck v. Washington Suburban Sanitary Commission
  (Maryland Public Service Commission Case #9391)
  Washington Suburban Sanitary Commission, Office of the General Counsel
  Reasonableness of Inclining Bock Rates

- Matter of Fishers Island Utility Company
  (New York Public Service Commission – Docket 17-01620)
  Rate Increase for small water company with extreme seasonal usage swings

- Application for Acquisition of Scranton Sewer Authority by Pennsylvania American Water company
  (Pennsylvania PUC – Docket A-2016-2537209)
  Morgan, Lewis & Bockius (for PAWC)
  Acquisition /Certificate of Public Convenience / Base Rate Case



EDUCATION

MBA, 2012, Finance, Loyola University (Beta Gamma Sigma Honor Society)

BA, 2003, Economics, University of Rochester, Minor: Electrical Engineering

MEMBERSHIPS

American Water Works Association (AWWA); active member of the Workforce Strategies Committee and Finance, Accounting & Management Controls Committee

Water Environment Federation (WEF)

Government Finance Officers Association (GFOA)

EXPERIENCE

16 Years

Michael R. Maker

Senior Manager, Municipal and Financial Services Group

Municipal & Financial Services Group

Professional Profile

Mr. Maker is a Senior Manager in the Municipal & Financial Services Group, applying management, financial and technical experience. He has served as either Project Manager or Lead Analyst for over 100 management and financial studies. Day-to-day responsibilities include management of client projects, development of analytical financial models and compilation of comprehensive reports and presentations.

Technical Expertise

- Rate and Fee Design
- Financial Modeling
- Cost of Service Analyses
- Operational Audits
- Management Studies
- Efficiency and Effectiveness Studies
- Demand/Usage Projections
- Benchmarking/Comparative Analyses
- Research and Data Analyses
- Process/Workflow Mapping

Selected Consulting Experience

Financial/Management

Rate Analysis and Design Services Study: Suffolk County Water Authority, NY – Developed a financial plan and provided water rate design analysis, resulting in the following recommendations: consolidation of several rate schedules; development of a two-tier inclining rate design and an infrastructure charge; review and update of fire protection charges, wholesale rates and tapping fees; creation of a manual meter read fee.

Water and Sewer Utility Rate Review Study: Albemarle County Service Authority, VA – Performed a cost of service/rate study and developed a financial model to project water and sewer fees over a five-year period. The study included projecting operating and capital expenses, with the largest coming from the Rivanna Water and Sewer Authority (RWSA) for water and sewer treatment service. As part of the study, system development fees were developed to offset the cost of providing water and sewer infrastructure solely within the ACSA system to serve new customers and capacity fees were developed to offset ACSA's share of annual debt service on capacity in RWSA's facilities.

Water Rate Study & Water Audit: City of Rochester, NY Water Bureau – Performed a rate study and audit of the water system, resulting in a financial plan and implementation of the following rates and fees: meter-based fixed charges; 5-tier declining block consumption charges; fire service charges and other miscellaneous fees and charges.

Stormwater Financial Analysis: Norfolk, VA – Performed a financial analysis of the City's stormwater system. The study included the following: development of a stormwater financial model; identification of the City's stormwater-related costs; review of databases used for allocation and billing of costs and billing mechanisms employed to issue stormwater utility bills; calculation of stormwater rates per equivalent unit, square foot of impervious acre, etc. for residential and non-residential customer classes; review of criteria and methodologies for quantifying on-site and site-specific stormwater management activities that qualify for credits; calculation of bill impacts for each customer class based on the rates developed.

Organizational Effectiveness and Efficiency Study: Danville, VA – Provided recommendations for the most effective delivery of services for over 30 City departments/divisions including the following enterprise utility funds: water, wastewater, gas, electric and telecommunications services. The project team interviewed over 160 employees and other stakeholders, benchmarked Danville with other City governments within Virginia and provided over 200 recommendations with focus on increasing productivity, efficiency and cost savings.

Water and Wastewater Management Analysis: Maryland Environmental Service (MES) – Provided a comprehensive management study that evaluated the Water and Wastewater Group on six attributes: product quality, customer satisfaction, employee and leadership development, operational optimization, financial viability and operational resiliency.

Stormwater Study: Hampton, VA – Along with Kimley-Horn engineers, performed a stormwater utility rate study. Created a financial model to project stormwater fees over a ten-year planning period for the City. The study included identification of stormwater-related operating and capital costs, development of preliminary unit costs (per ERU and square foot of impervious area), calculation of bill impacts for each customer class based on developed rates and a comparison of bills with other utilities in the Hampton Roads metropolitan area.

Refuse Cost of Service Analysis: Annapolis, MD – Performed an analysis that calculated the true costs to the City to provide refuse services across several departments/divisions. After evaluation of MFSG's report and internal discussion within the City, the City Council voted to outsource refuse collection services and lower annual residential bills by $46.

Stormwater Utility Establishment: Auburn, MA – Along with CEI Engineers, performed a stormwater cost of service and rate study. Created a financial model to calculate and project stormwater fees over a ten-year planning period for the Town. Model development included review and documentation of direct and indirect operating and capital costs provided by CEI, calculation of projected debt service and financial reserves, analysis of real property GIS customer database, rate and fee design, creation of sample customer bills and a comparison of bills with surrounding utilities.

Commercial District Tax Base Analysis: Annapolis, MD – Analyzed and updated commercial data within six key commercial districts of the City. Examined and updated data included parcel, square footage, acreage, land and improvement assessment figures as well as other geographic and demographic data.

Economic Impact Analysis: Annapolis, MD – Analyzed the economic/fiscal impact of four development opportunity areas designated by the City. The project involved a comparison of the incremental cost of providing municipal services to planned development communities with the incremental revenues to be realized by the City from those developments.

Organizational Management and Efficiency Study: James City Service Authority, VA – Performed an organizational analysis of the Service Authority's customer service, billing, operations and management functions. The study included document/data analysis, interviews with a third of the 89 full-time positions and process and procedure evaluation.

Newport, RI Water Division Review: Rhode Island Public Utilities Commission – Studied the organization and management of the Newport Water Division, as requested by the Rhode Island Public Utilities Commission (RI PUC). The study involved an assessment of the policies, procedures and organizational structure of the Division as well as a benchmarking analysis of PUC regulated water utilities. Recommendations were made for all sections of the Division including Management, Finance, Water Quality Treatment, Collection & Distribution and Meter.

Organizational Effectiveness and Efficiency Study: James City County, VA – Performed an organizational analysis of over 35 County departments/divisions. The study process included review/analysis of a wide variety of County documents, interviews with over 160 employees (of 700) and other stakeholders, evaluation of programs and services offered as well as a benchmarking of other county governments within Virginia. The project team recommended over 150 recommendations with focus on increasing productivity, efficiency and cost savings.

Development Impact Fee Study: Rockville, MD – Created of an impact fee model for the recovery of costs of the growth-related portions of City services such as public safety, general government, recreation and parks, transportation and streets, refuse, stormwater, water and wastewater. The study also explored the development of linkage fees for affordable housing and impact fees for schools and fire and emergency medical services as pass-through fees to Montgomery County.

Solid Waste Collection Market Model: New Jersey Department of Environmental Protection – Analyzed the market for solid waste collection in New Jersey and developed an economic model allowing assessment of the economic competition in each of the 21 counties of New Jersey, including training in use of the model and preparation of a supplemental manual. The study evaluated the effective competitiveness of the solid waste marketplace within each county of the State of New Jersey and the overall solid waste industry for the entire state. The study analyzed competition within the New Jersey solid waste industry by calculating the four-firm ratio and Herfindahl-Hirschman Index (HHI) of market completion using customer size and estimated revenues of active firms for residential, commercial, industrial and on-call services.

Refuse Collection Practices and Policies Study: Fredericksburg, VA – Provided a comprehensive route analysis involving a hands-on assessment of the City's refuse collection operations and procedures. The analysis included a review and assessment of the City's refuse collection, refuse disposal and recycling collection departments' budgets and revenue requirements. The study analyzed the impact of system efficiency and effectiveness of changes in service delivery parameters through an evaluation of four service level changes and their associated cost savings. The study recommended several executable and cost-efficient improvements to the practices and policies of the City's refuse collection services.

Tax Assessment Study: Ocean City Chamber of Commerce, Ocean City, MD – Performed research analysis for the Ocean City Chamber of Commerce pertaining to average property tax assessments, annual property tax bills and various other municipal financial data for municipalities of similar capacity to Ocean City. Collected data was analyzed and financial results tabulated.

Cost of Service/Rate Studies

Completion of cost of service and rate studies for water, wastewater, stormwater and solid waste utilities. Responsibilities include development of cost of service cash flow model, rate design, fee design and customer impact analysis. Worked on cost of service and rate studies for the following clients (organized alphabetically by state, then utility):

- Branford, CT
- Cheshire, CT
- Manchester, CT
- Montville, CT
- Stratford, CT
- Watertown, CT
- Milton, DE
- Glenview, IL
- Morton Grove, IL
- Orland Park, IL
- Anne Arundel County, MD
- Calvert County, MD
- Cecil County, MD
- Elkton, MD
- Frederick, MD
- Frederick County, MD
- Frostburg, MD
- Garrett County, MD
- Hagerstown, MD
- Harford County, MD
- Kent County, MD
- Rockville, MD
- Washington Sub. San. Comm., MD
- Westminster, MD
- Auburn, MA
- Barnstable, MA
- Claremont, NH
- Exeter, NH
- Camden, NJ
- Evesham Municipal Utilities Auth., NJ
- Beacon, NY
- Fishers Island NY
- Fishkill (Town), NY
- Fishkill (Village), NY
- Mohawk Valley Water Authority, NY
- Rochester, NY
- Suffolk County Water Authority, NY
- Tivoli, NY
- Cape Fear Public Utilities Auth., NC
- Canton, OH
- Clermont County, OH
- Cleveland, OH
- Dublin, OH
- Summit County, OH
- Tallmadge, OH
- Pittsburgh Water/Sewer Auth., PA
- Bristol County Water Authority, RI
- North Kingstown, RI
- Albemarle County, VA
- Chincoteague, VA
- Fauquier County, VA
- Franklin, VA
- Hampton, VA
- Herndon, VA
- James City Service Authority, VA
- Leesburg, VA
- Lexington, VA
- Lovettsville, VA
- Newport News, VA
- Norfolk, VA
- Portsmouth, VA
- Purcellville, VA
- Richmond, VA
- Southampton County, VA
- Stafford County, VA
- Warrenton, VA

Presentations

"Setting Water Rates: State of the Industry"; Long Island Water Conference (2019)

"EPA's Definition of Affordability"; 2017 Tri-Association Conference (CSAWWA, CWEA, WWOA)

"Setting Water and Sewer Rates"; New York State GFOA 38th Annual Conference (2017)

"Defining Affordability"; 2016 AWWA Annual Conference & Exposition (ACE)

"A World without Crystal Balls: Attempting to Forecast Operating Expenses"; 2015 Water Asset Management Conference

"Stormwater Utility Financial Analysis: A case Study of the City of Hampton"; Virginia Lakes and Watersheds Association 2013 Virginia Water Conference

"LEED Certified Water Efficient Buildings and Water and Sewer Capacity Fees"; 2012 CSAWWA Tri-Association Conference

"Stormwater Utilities in Virginia"; 2013 Brown Edwards Conference

"Creating Sustainable Infrastructure"; Maryland GFOA 2009 Spring Conference

STEPHEN E. STICKLEN, PE

DONOHUE

PROFESSIONAL ENGINEER
Illinois: 62052829

YEARS OF EXPERIENCE
25

EDUCATION
Bachelor of Science
Civil Engineering
University of Illinois – Urbana
1993

PROFESSIONAL ASSOCIATIONS
Chi Epsilon, Civil Engineering Honorary Society

American Society of Civil Engineers

AWARDS
2013 ACEC Wisconsin Engineering Excellence Best of State, Lead Modeling Engineer: Innovative I/I Analysis Leads to Sustainability Program, Heart of the Valley MSD, Kaukauna, Wisconsin

PAPERS
Section Author "International Standard Units for Water and Wastewater Processes," WEF Manual of Practice No. 6, 2011

PRESENTATIONS
"A Tale of Three Cities in 2D," WEFTEC, New Orleans, Louisiana, October 2012

"Streets or Basements – Where Do You Prefer Your Stormwater?", WEF Stormwater Symposium, Baltimore, Maryland, July 2012; WEF Collection Systems Conference, St. Louis, Missouri, June 2012

"Leveraging Technology to Improve Inspection / Rehab Efficiency," Wisconsin Wastewater Operators Association Conference, October 2011

"Impervious Area Analysis Using Infra-Red Aerial Photography," WEFTEC Annual Conference, San Diego, California, October 2007

"Computer Hydrologic & Hydraulic Modeling of RDII", Central States, 2006; Illinois Water Environment Association, 2005

PROJECT EXPERIENCE

Specializing in water resources and conveyance modeling, Mr. Sticklen brings a wealth of experience in hydraulics, hydrology, H&H modeling, and Geographic Information Systems (GIS). His projects often involve using GIS and modeling software such as SWMM, MOUSE, and/or HEC-RAS to solve stormwater management problems, provide flood control, mitigate combined sewer overflows (CSO) and sanitary sewer overflows (SSO), and resolve various other water resources challenges.

Storm Sewer User Fee Study, Wayne County, Michigan. Responsible for utilizing the County's GIS parcel data to determine the effective percent impervious values of each of the communities served by SWDD. These percent impervious values area used by SWDD for billing purposes, and must be updated periodically to reflect development and changes in land use.

Stormwater Utility Development, West Lafayette, IN. Assisted in the development of a stormwater utility for West Lafayette, Indiana. Lacking in planimetric data, developed an algorithm that identified impervious areas from infrared aerial photography. Intersected these results with parcel boundaries to develop a database of parcel imperviousness.

Stormwater Management Plan, Waukesha, Wisconsin. Project Engineer: Provided XPSWMM 2D and GIS expertise in the development of dynamic models capable of dynamically simulating subsurface flows in 1D and surface flows in 2D. These models are being used to develop alternatives to reduced stormwater flooding.

West-Side Pump Consolidation Project, Waukesha, Wisconsin. Principal Modeler: In 2011, Donohue completed a Master Plan of Waukesha's sanitary sewer system. This study evaluated system condition and hydraulic capacity under existing and future flows. Much of Waukesha's western service area lies beyond a topographic "ridge". As development has progressed, pump stations were constructed to convey sanitary sewage over this ridge. However, there are four western pump stations, Summit, Fiddlers, Creek, Madison, and Coneview, in relatively close proximity to one-another. Their close proximity makes it conceivable that it could be cost-effective to eliminate one or more of these pump stations.

This study looked at the feasibility of replacing the Summit, Fiddlers' Creek, and Coneview pump stations with gravity sewers to the location of the Madison pump station. This station would have to be upgraded and a force main constructed to pump the consolidated flow to the existing 16-inch Coneview force main and subsequently to the gravity sewer system, thereby eliminating three pump stations. The study also evaluated a second option of replacing the Summit and Fiddler's Creek pump stations with gravity sewers to the location of the Madison pump station, but keeping the Coneview pump station.

Donohue utilized the existing MIKEURBAN model developed for the Master Plan to evaluate system hydraulics and alternatives. For the two selected alternatives, a conceptual alignment, pump station layout, and initial estimates of probable construction costs were prepared.

Interceptor System Master Plan, NEW Water, Green Bay Wisconsin. Project Manager: NEW Water, the brand name for the Green Bay Metropolitan Sewerage District, provides wastewater conveyance and treatment services to approximately 500,000 people over a 285 square mile service area that includes all of Brown County and portions of Shawano, Kewanee, and Outagamie Counties. Each customer within the service area has its own local sewers that discharge into NEW Water's interceptor sewer system, which comprises approximately 78 miles of gravity sewer, 25 miles of force main, 13 lift stations and three siphon river crossings. Donohue is performing a 2-phase system-wide assessment of NEW Water's current and future needs. Phase 1 was completed in 2014 and culminates in a

DONOHUE

Master Plan that evaluates infrastructure condition and models current and future sanitary sewer flows. Phase 2 will include developing and calibrating a hydraulic model to help guide NEW Water and stakeholders through a complex decision-making process in the preparation of a risk-based 20-year Capital Improvement Plan. This plan will serve as a basis for capacity allocations and as a roadmap for the future system improvements.

Goose Island Pump Station, Hammond, Indiana. Principal Modeler/Engineer: Performed flow monitoring, modeling, and preliminary hydraulic analyses for the sizing and operation of a sanitary pump station for Hammond, Indiana for an area experiencing chronic basement backups due to inadequate collection system capacity. Steve modified a MIKEURBAN model he had previously created for the City to simulate the hydraulics of an existing pump station and parallel force mains in detail. He then developed a series of alternatives of the new lift station, which was manifolded to an existing force main. With the detailed model, Steve was able to assess the performance of specific pump impellers, and the interaction of two stations discharging to a common force main.

Faxon Creek Flood Study, Superior, Wisconsin. Project Manager: In June 2012, approximately 8 inches of rain fell on the City of Superior resulting in widespread surface and basement flooding ensued, particularly within the 3,500-acre Faxon Creek watershed. Steve developed and calibrated a 1D/2D model of the watershed and creek with which he evaluated a series of conveyance and storage alternatives including crossing improvements, detention ponds, green infrastructure, etc. He developed a series of cost-performance curves with which to select the most cost-effective series of improvements. He facilitated discussions with WDNR and managed the design of the rehabilitation of a 100-year-old 2,000-foot long 10-foot diameter brick outlet sewer.

Long-Term-Control-Plan Update, Butler, Indiana. Project Engineer: Steve developed a MIKEURBAN model of the Butler's combined sewer system. This included an RDI component capable of simulating the system's complex long-term wet weather response. Steve used this model to run a series of long-term simulations to develop flow frequency curves. These are currently being used to develop CSO mitigation alternatives including partial sewer separation, flow equalization, and storage/treatment.

Sanitary Sewer Master Plan, Waukesha, Wisconsin. Project Manager: This project included a study to develop an updated master plan. The project included collection system modeling using Mike Urban, flow monitoring, I/I study, force main condition assessment, pump station evaluations, smoke testing, future flow approximation, WWTP flow statistical evaluation, CMOM program planning, and developing alternatives for I/I reduction and/or increased conveyance so as to provide reliable wastewater collection and treatment. Steve was the principal modeler in the development of a MIKEUBAN model of the Waukesha sanitary sewer system.

Sanitary Sewer Master Plan, Green Bay, Wisconsin. Project Manager: Steve is leading a project to develop a Master Plan and Capital Improvement Plan for NEW Water, formerly the Green Bay Metropolitan Sewerage District. This multi-phase project includes evaluating flow data from over 50 temporary and permanent metering stations, I/I analyses, collection system model development, condition assessment, climate change impact analysis, regulatory review, facilitating stakeholder groups, alternative analyses, risk assessments, master planning, and capital improvement planning.

Wastewater Collection System Optimization, Superior, Wisconsin. Principal Modeler: This project determined how to optimize the operation of Superior's collection system and treatment plant. Superior's collection system contains both combined and separated areas with CSO storage/treatment facilities, pump stations, etc. Modeling involves simulating rainfall-dependent-inflow-and-infiltration in separated areas and full CSO facility hydraulics in combined areas.

DONOHUE

Long Term Control Plan Update, Hammond, Indiana. Senior Engineer: Steve is leading the technical work to upgrade Hammond's LTCP. This project involves overhauling the collection system and river models, the SRCER, alternative analyses, financial planning, and Use Attainability Analysis (UAA).

Sewer System Analysis, Whitefish Bay, Wisconsin. Project Manager: The Village of Whitefish Bay (WFB) has experienced frequent backups of its storm and sanitary sewer systems. In July 2010, two major floods prompted the Village to act. Steve led a project to overhaul and merge the Village's storm and sanitary models, and added 2D simulation of surface flows and flooding. Steve used this model to develop stormwater drainage improvements to provide the 10-500 year levels of protection. Steve also performed flow monitoring and I/I analyses to quantify the severity of I/I and began developing a program to reduce private property inflow and infiltration into the sanitary sewer system.

Stormwater Modeling, Lincolnwood, Illinois. Project Manager: Using XPSWMM, developed 1D/2D hydraulic model capable of simulating surface and subsurface flows in a fully dynamic manner. Used the model to simulate the use of inlet restrictions to prevent overloading of the combined sewer while ponding water in the streets. The 2D model was used to simulate the use of stormwater containment "berms" and the depth and extent of surface ponding. When surface storage proved insufficient, Steve developed additional stormwater conveyance and storage improvements to provide the 10-year level of protection.

Inflow and Infiltration Management Program, Heart of the Valley Sanitary District, Kaukauna, Wisconsin. Principal Hydraulic Modeler: This project identified the optimal combination of I/I reduction and/or increased conveyance for each of HOV's customer communities. Project involves developing a GIS utility geodatabase from HOV's record drawings, importing these into a hydraulic model, and performing 50-year long-term-simulations of HOV flows.

Flood Study, Hammond, Indiana. Project Manager/Principal Modeler: This study identified causes of and ways to mitigate recurrent basement flooding in Hammond. Project also includes a GPS survey of all catch basins and manholes and an update of the City's GIS sewer utility geodatabase.

Expert Witness, Meils, Thompson, Dietz, & Berish. Project Manager: Provided expert witness expertise, affidavit, and deposition in defending the Hammond Sanitary District (HSD) from a lawsuit resulting from a large rainfall event that caused widespread basement flooding. Steve utilized sewer modeling, knowledge of Hammond's collection system, and hydrology and hydraulics in general to help demonstrate that the backups were not the result of HSD negligence.

Expert Witness, Meils, Thompson, Dietz, & Berish. Project Manager: Provided expertise and analyses in the operation of Hammond Sanitary District's (HSD's) collection system during a large storm that resulted in a major pump station losing power and flooding of an adjacent property. Steve evaluated the hydrology of the area and performed an assessment of hydraulic and structural limitations and failures that may have contributed to the flooding.

Regional Optimization Plan, Pima County, Arizona. Developed 20-year collection system capital improvement plan as part of Pima County's plan. Work involved hydraulic model development, flow data analyses, statistical analysis of system wet weather response, and preliminary design of plant "interconnect".

DONOHUE

Impervious Area Analysis, West Lafayette, Indiana. Using aerial infra-red imagery and GIS software, estimated the amount of impervious surface for each parcel of land in the City. Delivered GIS map of data results to be used as basis for stormwater billing.

MOUSE Model Development, Atlantic County Utilities Authority, New Jersey. Developed MOUSE hydraulic model of the Atlantic County Utilities Authority's collection system, which serves Atlantic City, NJ and surrounding areas. Model included detailed hydraulic analyses of 27 manifolded pump stations. Performed pump performance testing to assess reductions in pump capacities.

FEMA Flood Study, Shockoe Creek, Richmond, Virginia. Developed integrated SWMM model of highly complex Shockoe Creek system and Richmond's Interior Drainage System. Used model to develop floodplain boundaries for 10-500 year design storms.

Street and Sewer Coordination, Hammond, Indiana. Responsible for tracking the street reconstruction program in Hammond. Review projects, assist in coordination between design firms, evaluate what impact modifications to the collection system will have and make recommendations accordingly, see how street reconstruction projects can help implement the Long Term Control Plan to reduce CSOs. Developed an application for the City Engineer which integrated an Access database with ArcGIS to enable querying and viewing of project information in a mapping environment.

Capital Improvement Plan, Rivanna Water & Sewer Authority, Charlottesville, Virginia. Evaluated collection system flow data in order to characterize and quantify inflow and infiltration (I/I). Developed hydrologic and hydraulic models of the collection system. Identified deficient portions of the collection system.

Sewer GIS Geodatabase Development, Washington, D.C. Managed the conversion of the city's 549 paper "counter maps" into a single, continuous GIS geodatabase. This database is serving as the data repository of collection system condition information, and is an essential tool in performing system analyses. Developed technique for integrating manhole inspections and CCTV video and logs with GIS database. This $11.5M project will evaluate and rehab the stormwater and wastewater collection systems for DCWASA.

Pike Creek Interceptor Study, New Castle County, Delaware. Principal modeler on a project to develop a SWMM model of the Pike Creek interceptor. Used the model to characterize inflow and infiltration (I/I) and assess 20-year capacity.

CSO Basin Design, Hammond, Indiana. Assisted in the design of a 25MG CSO storage basin. Performed hydraulic analyses of existing pump stations and force mains intended to deliver water to the basin. Developed basin footprint alternatives.

Capital Improvement Plan, North Las Vegas, Nevada. Developed hydraulic model of CNLV's wastewater collection system. Evaluated planning and land use data to develop 20-year flow projections. Developed capital improvement plan to provide sewer service for 20-year planning period.

Flowline Condition Assessment, Tulsa, Oklahoma. Converted City's paper records into a GIS geodatabase to serve as a data repository for pipeline condition data. Procured contractor to perform acoustic pipeline leak detection. Assisted in development of an ongoing condition assessment and asset management program.

Wet Weather Study, Owasso, Oklahoma. Analyzed flow data collected by sub-contractor in order to quantify inflow and infiltration (I/I).

DONOHUE

Sanitary Sewer Modeling, Roanoke, Virginia. Assisting in the development of a sanitary sewer model for the city of Roanoke, VA. The model is being developed in MikeUrban, enabling the development a MOUSE model in a GIS-like interface.

CSO Basin Preliminary Design, Hammond, Indiana. Converted the SWMM sewer model that had been developed for the 1995 Long Term Control Plan (LTCP) to MOUSE, updated it to reflect current conditions, and recalibrated it. Used 5-year long-term-simulations to develop alternatives for CSO basin size and treatment plant capacity that meet the requirements of a consent decree. Assisted in negotiations with EPA to approve the preliminary design and the LTCP.

CSO Interceptor Preliminary Design, Hammond, Indiana. Used MOUSE to develop alternatives for the preliminary design of a new interceptor designed to capture flows from three CSO outfalls.

Willoughby Development Impact Study, Norfolk, Virginia. Used collection system model to evaluate impacts of planned developments on Willoughby Point portion of the Norfolk collection system. Recommended system improvements to accommodate additional flow.

Interior Drainage Study, Hammond, Indiana. Used HEC-HMS to analyze small section of Hammond where the runoff and floodplain had been impacted by development. The resultant report demonstrated the while the FEMA flood maps that indicated many of the homes in the study area were in the flood plain, this was in fact no longer the case.

Wastewater Master Plan, Owasso, Oklahoma. Assisted in the preparation of a 20-year master plan for the collection system and treatment plant for the City of Owasso. Prepared a MOUSE collection system model integrated with GIS to identify existing and potential collection system deficiencies. Integrated model with GIS-based land use data to estimate future flows, and develop a 20-year collection system expansion plan.

Johnson Stormwater Master Plan, Hammond, Indiana. Project Manager: Developed an overall separation plan for a 140-acre area served by combined sewers. Used the MOUSE collection system model to simulate rainfall, runoff, and required pipe sizes. Designed two separation strategies to divert flows from existing combined sewers into a new stormwater collection system, while avoiding conflicts with existing utilities. Prepared report and complete with plan and profile sheets to be used by local design firms to implement during street reconstruction.

Combined Sewer Area Reduction Study, Alexandria, Virginia. Responsible for the conversion of the City's paper section maps into a single, continuous GIS geodatabase. This database was used as the repository of collection system condition information. Used this geodatabase to develop a sewer separation strategy. Geodatabase was live-linked to cost estimation spreadsheets, thereby greatly streamlining the final separation plan development.

Sewer System Evaluation Study, Collier County, Florida. Utilizing the County's sewer utility geodatabase to perform analyses to assist in quantifying I/I. Coordinated with sub-contractor performing SSES work to develop a field GIS solution to SSES data collection. Used GIS to quickly map smoke testing, manhole inspection, and sewer televising data.

Peoria Sanitary Sewer Modeling, Peoria, Illinois. Used MOUSE to develop hydrologic and hydraulic models of the Kickapoo interceptor and watershed. Performed a long-term-simulation using 50-years of rainfall and evaporation data to estimate the possible frequency and severity of interceptor overloading. Unique to the project was the simulation of the hydrologic cycle including rain induced inflow and infiltration (RDII) to accurately predict the wet weather response of the system to rainfall.

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Floodplain / Floodway Analyses (2002). Used GIS tools such as HEC-GeoHMS and HEC-GeoRAS to facilitate the development of HEC-HMS hydrologic models and HEC-RAS open channel hydraulic models. Used these models to evaluate the impacts of development and stream channelization.

Washington Dulles International Airport Stormwater Management, Washington D.C. Steve was the project engineer for a water resources team providing stormwater management on the Dulles International Airport tunnel network and maintenance facility project for an automated people mover system and other tunnels. Steve's team was responsible for developing a stormwater management plan for the additional runoff created from these new facilities, as well as for two new runways as part of this fast-track project. The project specifically includes hydrologic and hydraulic analyses and preliminary drainage design. Other tasks included developing a SWMM model of the existing stormwater drainage and detention facilities, performing the preliminary sizing of future drainage and detention facilities, and using the model to verify and refine the preliminary design. The model was also used to assess the impacts of airport expansion on high water levels at an existing dam, and to modify the dam's outlet structure, and add additional storage in order to minimize these impacts.

Stormwater Management Plan, Kenosha, Wisconsin. Principal Modeler/GIS Developer: Project includes the development of a GIS geodatabase system for the City of Kenosha storm sewers. The project specifically consists of a GPS survey of all storm sewer inlets and manholes, supplemental field survey of storm sewer system elevations, and computer mapping. The scope of work also includes development of a long-range stormwater program including the development of a hydraulic model of the City's stormwater collection system.

SWMM Modeling, Evansville Water and Sewer Utility, Indiana. Principal Modeler: Project involved development of a SWMM computer model of the Evansville collection system. Prepared model in format compatible with city GIS. Currently using the model to develop CSO abatement alternatives including in-system storage, remote storage, increased conveyance, increase treatment, etc. Also performing continuous (long-term) simulations to ascertain the impacts of system modifications on annual average CSO volumes.

SWMM Modeling, Sanitary District of East Chicago, Indiana. Principal Modeler: Project involved development and calibration of a SWMM computer model of the East Chicago collection system. Utilized system data collected for the GIS utility coverage in the development of the model. Also performed system flow monitoring for model calibration.

Storm Sewer Design, Chicago Department of Sewers, Illinois. Developed detailed plans for storm sewer construction. Work involved sewer alignment, plan and profile sheets, catch basin relocation, and creation of cost estimates.

SWMM Modeling, Muncie, Indiana. Principal Modeler: Project involved the development of a SWMM computer model of the Muncie collection system. Prepared model in format compatible with city GIS. Used model to develop CSO abatement alternatives which are currently being implemented by the District.

GIS Development, East Chicago, Indiana. Aided in GIS software selection. Performed manhole inspections and developed GIS compatible database of collected data which was converted into a utility coverage.

GIS Development, Sanitary District of Hammond, Indiana. Aided in GIS software selection and developed techniques for electronic data collection for input into the GIS database. Converted utility data into GIS coverages.

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Drainage Guidance Manual, Hammond, Indiana. Developed drainage criteria and design standards for the city. Standards related to pipe sizing, stormwater release rates and retention requirements, and detailed drawings of standardized drainage structures.

Peer Review, O'Hare International Airport, Chicago, Illinois. Performed review and QC of design plans for O'Hare drainage upgrade designed to capture stormwater contaminated with deicing solutions.

SWMM Modeling, Hammond, Indiana. Performed miscellaneous modeling projects including a pump station basis of design and several system hydraulic analyses intended to identify and develop solutions for system deficiencies.

Wastewater Treatment Plant Upgrade, Hammond, Indiana. Developed feasible alternatives and performed preliminary design to upgrade existing activated sludge treatment plant to meet stringent ammonia discharge limits.

SWMM Modeling, Fond du Lac, Wisconsin. Principal Modeler: Project involved the development, calibration, and utilization of a SWMM computer model of the Fond du Lac collection system. This model is currently in the developmental stage.

Pilot Testing, LTV Steel, East Chicago, Indiana. Set up a pilot-scale dissolved air floatation unit for analyzing the ability of a DAF to remove oil and grease from a waste stream. This setup involved fabricating the pre-treatment processes of coagulation and flocculation. Operation of the unit involved varying input parameters such as flow rate, chemical dosages, recycle rate, etc., and collecting samples.

SWMM Modeling, Marion, Indiana. Principal modeler in development, calibration, and utilization of a SWMM computer model of the Marion collection system. Performed extensive flow monitoring program to collect flow and rainfall data to be used in model calibration. This model included eight drainage basins, over 360 conduits, nine weirs, and eight CSO outfalls. Used the calibrated model to develop feasible alternatives to collection system limitations resulting in basement and surface flooding.

CSO Abatement Cost Effectiveness Study, Hammond, Indiana. Performed a cost-effectiveness study to determine the best combination of CSO alternatives. Developed and weighed costs of sewer separation, pump station upgrades, increased transport capacities, and remote treatment or storage.

River Modeling, Hammond, Indiana. Compiled and performed Quality Control (QC) of CSO and river sampling data and river stage data collected by subconsultant. Performed QC of UNET river model developed and calibrated by subconsultant.

SWMM Modeling, Hammond, Indiana. Principal Modeler: Project involved the development, calibration and utilization of a SWMM computer model of the Hammond collection system. This model included a surface runoff component (RUNOFF) of 15 drainage basins, and a collection system skeletal component (EXTRAN) of over 800 conduits, 80 weirs, 15 pump stations, and 20 CSO outfalls. Used the calibrated model to develop feasible CSO abatement alternatives.

Infiltration and Inflow Analysis, Hammond, Indiana. Performed a comprehensive I/I study from the installation of flow meters and data uploading, to data analysis, Sanitary Sewer Evaluation Survey (SSES), cost effectiveness study, and report production.

SANDRA J. KIMMLER, PE

DONOHUE

PROFESSIONAL ENGINEER
Wisconsin: 33334

YEARS OF EXPERIENCE
30

EDUCATION
Bachelor of Science
Civil Engineering
University of Wisconsin - Milwaukee
1995

ADDITIONAL TRAINING
Using HEC-RAS to Compute Water Surface Profiles – University of Wisconsin-Madison

Meeting TMDL, LID, and MS4 Stormwater Requirements: Using WinSLAMM to Assess Quality and Volume Controls – University of Wisconsin-Madison

Fundamentals of Professional Practice – ASFE, Professional Firms Practicing in the Geosciences

PROFESSIONAL ASSOCIATIONS
American Public Works Association

Water Environment Federation

AWARDS
2016 ACEC Missouri Engineering Excellence Grand Award, Civil Engineer: Jefferson City-Cole Junction Pump Station and Force Main

2013 ACEC Wisconsin Engineering Excellence Best of State, Lead Civil Engineer: Innovative I/I Analysis Leads to Sustainability Program, Heart of the Valley MSD, Kaukauna, Wisconsin

2012 ACEC Minnesota Engineering Excellence Honor Award, Civil Engineer: New Wastewater Treatment Facility, Willmar, Minnesota

2009 ACEC Wisconsin Engineering Excellence State Finalist, Site Designer/Stormwater Engineer: New Reservoirs – Gateway to Sheboygan, Wisconsin

PRESENTATIONS
"Stevens Point Recycles, Reuses and Reaps the Benefits of Abandoned Infrastructure," Wisconsin Wastewater Operators Association, October 2010; Central States WEA, Madison, Wisconsin, May 2010

PROJECT EXPERIENCE

Ms. Kimmler's diverse technical and project management experience includes planning, design, and construction management for collection system studies, I/I reduction programs, site work and piping design for water and wastewater treatment facilities, and design of sanitary and storm sewers, force mains, and pump stations. Her duties include evaluating design concepts and alternatives; preparing planning reports; coordination with agencies, utility owners, and the public; and preparation of construction plans, specifications, permits, cost estimates, and bidding documents for a variety of municipal, commercial, private, and industrial clients. She has varied water resource experience including stormwater facility and collection system design, stormwater management plans, hydrologic/hydraulic analysis, floodplain analysis, and bridge/culvert hydraulic analysis.

WATER RESOURCES AND STORMWATER

E. Moreland Blvd. Flood Mitigation, Waukesha, Wisconsin. Project Manager, Permit Coordinator, and Technical Lead: Donohue performed alternatives analysis for a new storm sewer in Moreland Blvd. to alleviate flooding from the 6-inch rainfall in the Area 6 drainage basin. The alternatives were based on hydrologic and hydraulic analysis of the watershed basin using XPSWMM-2D. The chosen alternative was a 66-inch diameter storm sewer extending from Les Paul Parkway (STH 164) to a new outfall at the Fox River. The project was designed and bid in two phases to accommodate funding needs and road construction by WisDOT. Extensive coordination was needed to secure a WisDOT permit to work in right-of-way because E. Moreland Blvd. is a major east/west arterial in the City of Waukesha. A new outfall to the Fox River with an energy dissipation structure was designed to accommodate the massive, high velocity flows from large storm events, requiring communication and coordination with the WDNR and Army Corps. of Engineers to obtain the required permits. The project included extensive coordination with utility owners.

Stormwater Management Improvements, Basin 7, Waukesha, Wisconsin. Project Manager: This project included updating the Basin 7 XPSWMM 2D master plan model to reflect recently constructed storm sewers and performing a detailed evaluation of the recommended alternatives for reducing flooding in Area 7, focusing on those areas connected to the Grandview Blvd / Summit Avenue intersection. The feasibility of constructing the alternatives considering limitation such as depth to bedrock, elevation of downstream sewer, recent road improvement projects, and utility conflicts was considered, resulting in several alternatives being deemed unfeasible. The impact of implementing some, but not all of the recommended alternatives, was evaluated.

Area 1 and 2 Flood Mitigation Alternatives Analysis, Waukesha, Wisconsin. Project Manager: The Citywide Stormwater Management Plan (SWMP) provided the results of modeling of areas of stormwater concern in the City of Waukesha and recommends system improvements for mitigating flooding in Areas 1 and 2 to an acceptable level of protection. The City of Waukesha subsequently retained Donohue to study the feasibility of each alternative, considering wetland impacts, environmental limitations, existing utilities, easement acquisition, depth to bedrock, existing pavement condition, and constructability concerns. Field verification of several storm sewers, culverts, and ditches was performed and the XP SWMM model was updated with the more detailed information. The updated model results were used to verify the need for the proposed alternatives. The updated model was used to select improvements for implementation. Donohue coordinated with WDNR to ensure that all permitting requirements would be met if the proposed storm sewer, culvert, and ditch reconstruction projects were carried forward to construction. Donohue also participated in public information meetings to inform residents about the proposed projects and listen to their concerns and experiences involving localized flooding. A priority order was assigned to the flood mitigation improvement alternatives that were deemed to be feasible and necessary. To help prioritize improvements, separate model runs were completed for individual improvements and for combinations of improvements to help establish the most

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beneficial construction order. The results showed that while half of the alternatives were necessary to alleviate the flooding, several alternatives were not needed, or provided minimal relief. Cost estimates for each alternative were prepared.

Northview Road Storm Sewer Design, Waukesha, Wisconsin. Project Manager: The Stormwater Master Plan recommended additional storm sewers at the intersection of Northview Road and Tall Grass Circle to reduce localized flooding at this intersection. In conjunction with a project to reconstruct Northview Road, Donohue designed new storm sewers to eliminate localized flooding at this intersection and mitigate flooding through the yards of residences along the north side of Northview Road. A new, larger culvert for the Pebble Creek crossing of Northview Road was designed. HEC-RAS modeling was used to demonstrate that the new culvert did not raise the up-stream flood level elevation. XP-SWMM 2D was used to identify areas of flooding and provide peak flow information for design of the storm sewer. The Post-Construction performance stormwater management standards in Wisconsin Administrative Code, Department of Natural Resources Chapter NR151: Runoff Management, were applicable to this project., requiring that best management practices (BMPs) be designed, installed, and maintained to reduce the total suspended solids load by at least 40%, when compared to conditions with no runoff management controls.

Faxon Creek Box Culvert and Hill Avenue Design and Construction, Superior, Wisconsin. Project Manager and Lead Designer. This project was initiated as a result of the Faxon Creek Master Plan and was part of a progressive plan to address capacity restrictions along the Faxon Creek and involved replacing the Hill Avenue viaduct and culvert structure. In addition to being a retaining wall for Hill Avenue, the viaduct also houses a 15-inch diameter gravity sewer interceptor. The project included HEC-RAS and XPSWMM modeling of the stream and watershed, permitting with the WDNR and Army Corps of Engineers, demolition of the viaduct and culvert, replacing the existing sanitary and storm sewers, construction of a new 10-foot x 12-foot culvert with headwalls and wing walls, and reconstructing several blocks of Hill Avenue to improve the vertical alignment and drainage. A bypass pumping plan for the sanitary sewer interceptor and stream diversion plan for Faxon Creek were prepared.

Faxon Creek Watershed Master Plan, Superior, Wisconsin. Stormwater Engineer: In June 2012, approximately 8 inches of rain fell on the City of Superior resulting in widespread surface and basement flooding ensued, particularly within the 3,500-acre Faxon Creek watershed. Donohue developed and calibrated a 1D/2D model of the watershed and creek. Ms. Kimmler prepared conceptual designs and evaluated a series of conveyance and storage alternatives including culvert crossing improvements and detention ponds. She evaluated improvements for potential TSS reduction opportunities and prepared cost estimates for each alternative.

Bioswales and Stormwater Detention Basin, Egg Harbor Road, Sturgeon Bay, Wisconsin. Project Manager and Stormwater Engineer: As part of improvements to Egg Harbor Road, sidewalks were added and the existing roadside drainage ditches are being eliminated. Donohue is providing conceptual design and modeling of bioswales in the terrace of Egg Harbor Road to remove TSS from stormwater and provide a means to maintain the infiltration currently accomplished by the roadside ditches. As part of the Egg Harbor Road project, Donohue is also designing a regional detention pond to handle stormwater runoff from Egg Harbor Road, the adjacent commercial and residential areas, and a large off-site area. The design of the basin must account for shallow bedrock, routing flow into and out of the pond in a relatively flat area, and balancing the need for peak flow reduction with potential commercial development opportunities for use of the City-owned parcels. WinSLAMM is being used to model TSS generation and removal. Pond hydraulics and regional hydrology are being modeled using HydroCAD and TR55, respectively.

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Wisconsin Department of Transportation, USH 41 Stormwater Management Planning, Brown County, Wisconsin. Project Manager and Stormwater Engineer: Stormwater management planning and stormwater pond design for the WisDOT USH41 Brown County freeway expansion project. Tasks included preparing a stormwater management plan encompassing more than 14 miles of roadway reconstruction, TSS generation and reduction analysis using WinSLAMM modeling, preparing design standards for other pond designers on the corridor project to comply with FAA requirements, and limit WisDOT liability in air traffic zones. The project included design of two wet-bottom detention ponds to fit into the USH 41/WI 29 interchange, the associated storm sewers, and the outlet to Duck Creek. Donohue was also responsible for developing corridor-wide pond maintenance documents and coordination with local municipalities, agencies, and multiple roadway designers.

Wetland Delineation and Stormwater Management Planning, Distribution Center – Sargento Foods, Inc., Plymouth, Wisconsin. Project Manager/Lead Civil Engineer: As part of this major facility expansion, Ms. Kimmler worked with Sargento, the Wisconsin DNR, and the Army Corps of Engineers to permit a new facility access road through existing wetlands. The project included wetland delineation and permitting, stormwater management planning and design, roadway design, and site design. To complement Sargento's sustainability initiative, Donohue developed a stormwater management plan to reduce peak flows and improve water quality from site run-off using biofilters in the trailer parking area and infiltration basins scattered throughout the campus. The purpose of the biofilters is to capture runoff from the surrounding parking lot pavement and remove suspended solids and associated pollutants from the runoff. The biofilters included grass filter strips on the perimeter, runoff ponding area, mulch and filter bed (engineered soil) to filter and absorb pollutants, under drains, and overflow discharge points. Runoff passing through the biofilter is conveyed to one of two infiltration basins. Stormwater runoff from the building roof is conveyed directly to a third infiltration basin. As a result of the aggressive commitment to treat runoff and facilitate infiltration, the project produced no peak flow increase and accomplished 98% reduction in Total Suspended Solids.

Stormwater Analysis for Walworth Metropolitan Sewerage District (WalCoMet), Delevan, Wisconsin. Lead Civil Engineer: A Wastewater Facilities Plan was completed by Donohue. As part of the plan, a stormwater analysis was performed using XPSWMM software to determine if the project would increase stormwater runoff on the proposed plant site as well as for the demolition of an existing abandoned treatment plant. The model was then used to size two bio retention ponds that were proposed to serve as best management practices (BMPs) for both water quality and peak flow reduction purposes.

Stormwater Management Planning, New Wastewater Treatment Plant Site, Willmar, Minnesota. Project Manager/Lead Civil Engineer: Donohue was retained by the City of Willmar to provide planning, design, and program management services for a new 7.5-mgd wastewater treatment facility and associated collection system improvements. The new plant was built 5.5 miles to the west of the existing plant. The City of Willmar imposed stringent design requirements for both water quality and peak flow reduction at this site because the runoff discharges to nearby wetlands and Hawk Creek. Hawk Creek has a long history of flooding and adjacent property owners were especially sensitive to potential changes caused by the new treatment plant. Hydrologic and hydraulic analyses were performed to determine the volume and peak flow of existing and proposed runoff from the site to the nearby Hawk Creek tributary. XPSWMM software was used to model the runoff and design two stormwater detention basins. As a result of stormwater management efforts, peak flows to Hawk Creek are less now than before the new wastewater treatment plant was constructed and all stormwater runoff is treated before discharging to wetlands.

Stormwater Best Practices, Erie Avenue Reservoirs and Booster Pump Stations, Sheboygan, Wisconsin. Lead Civil Engineer: The Sheboygan Water Utility retained Donohue to plan and design water storage reservoirs and a booster pumping station. Two

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reservoirs, each with 3M gallons of storage capacity were included in the project. The reservoirs are approximately 95 feet in diameter and 55 feet tall. The facilities had to fit onto a tight 2.2-acre site. The project goal was to minimize the impact of development on the environment and downstream watershed and use natural plantings and processes where feasible. The site does not have stormwater retention ponds or maintenance-intensive grass; rather, natural vegetation – native prairie mix on shallow sections and wet detention mix on deeper sections – are used to collect and infiltrate stormwater runoff and protect a nearby trout stream. All areas not used for structures, paving, or ditches became part of the naturally-vegetated shallow infiltration/detention basins. As a result of the detention and infiltration areas, the site has the capacity to infiltrate a 10-year storm event, and peak runoff from a 100-year storm event is reduced by more than 80%. This project received an ACEC Wisconsin Engineering Excellence State Finalist award.

Bear Creek Stabilization, Columbia, Missouri. Quality Control Engineer: Donohue designed creek bank stabilization measures at five eroded areas along an approximate two-mile stretch of Bear Creek. Bank erosion threatened various infrastructure and park trails at these sites. The design incorporated bio-stabilization measures at sites located in a park to preserve the surroundings while providing stabilization. A combination of toe of slope protection and turf reinforcement were employed.

Lakeshore Pallet Company, Stormwater and Erosion Control Planning, Sheboygan County, Wisconsin. Design Engineer: Project involved stormwater management plan and erosion control plan for expansion of Lakeshore Pallet's facility. The project site is located adjacent to Weeden Creek, a navigable stream, and is required to comply with provisions of the Sheboygan County Shoreland-Floodplain Ordinance. The area disturbed by construction was located adjacent to the low wooded areas of the site and was restored with a vegetated buffer strip to trap sediment and decrease the velocity of stormwater runoff before it enters stream and adjacent wetlands. Because of the buffer strip and other measures taken to increase the site's impervious surfaces, the volume of runoff from the site did not increase with the addition of two new buildings, and the water quality was improved over the existing conditions.

Stormwater Management Ponds, Apple Hill Farm Development, Appleton, Wisconsin. Project Manager/Lead Design Engineer: Project included nine stormwater management ponds in the 820-acre multi-phase Apple Hill Development. The ponds were designed to manage peak flow of stormwater from the development and also to provide water quality in conformance with Wisconsin NR151 and NR216 requirements. The project included grading for the ponds, cast-in-place concrete outfall structures, storm sewer piping into the ponds, pond restoration landscaping with native grasses and emergent zone plants, and erosion control. One pond was part of a wetland restoration project. All of the ponds were designed with a clay liner, safety shelves, and access drives for maintenance vehicles to reach the inlet and outlet structures. In order to minimize space requirements and provide aesthetically pleasing ponds, a series of concrete retaining walls were designed to accommodate the steep slopes at four of the pond locations. Maintenance plans were prepared.

K2B Stormwater Management Pond, Appleton, Wisconsin. Design Engineer: Design and construction phase services for a five-acre detention pond at the east side of the City. Prepared detailed plans and specifications, compiled the construction cost opinion, and provided bid phase assistance, construction management, and construction quality control. The project included grading, cast-in-place concrete outfall structures, storm sewer piping into the ponds, pond restoration landscaping with native grasses and emergent zone plants, and erosion control. A unique feature of the project was a 500-foot-long swale with a low-flow channel to convey stormwater between the pond outfall and CTH AP. Two 34-inch by 53-inch HERCP pipes then conveyed the flow under CTH AP, discharging into a relocated and restored navigable stream.

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Infiltration/Detention Basin, Horizon Development Group, Inc., Monona, Wisconsin. Project Manager/Design Engineer: Project included the design of an infiltration/detention basin and three bioretention filters in the five-acre Frostwood Commons development. The goal of the design was to infiltrate the entire site's runoff volume from the 10-year, 24-hour storm in order to reduce downstream flooding problems. Three stormwater filters were provided to remove sediment, oil, and grease from the stormwater prior to entering the infiltration basin. The basin was designed to provide adequate separation from the underlying bedrock, and to avoid groundwater mounding in the vicinity of the adjacent buildings. The 8,000-square-foot basin infiltrates 0.94 acre-feet of runoff at the peak basin inflow rate of 11.3 cfs. The project included preparation of a stormwater management plan and city stormwater permit, construction plans and technical specifications, and hydrologic-hydraulic modeling to configure the facilities. In order to meet Wisconsin Department of Natural Resources NR151 infiltration guidelines and maximize the flood control potential of the facilities, innovative filter and infiltration basin configurations were developed using engineered soils, local treatment of parking lot and driveway runoff, and underground infiltration chambers. The final design met the challenging infiltration goals of the City, and the developer's space requirements for buildings and parking, all within the project's budget constraints.

Woodland Ridge Stormwater Management System, Greenfield, Wisconsin. Project Manager/Design Engineer: Project involved three quality and flood control ponds for a new senior housing campus. Two of the ponds, with 4.5 acre-feet of storage, were integrated as part of the landscaping and entrance feature to the campus. A third pond with 8.8 acre-feet of storage provided additional peak flow control.

Wetland Assessment, Watertown Memorial Hospital, Watertown, Wisconsin. Project Manager: Managed the wetland identification, classification, and functional analysis of an undeveloped 13-acre parcel located adjacent to a high-density residential development area. The completed report provided a delineated wetland boundary. Project management tasks included communication with the Wisconsin Department of Natural Resources and the Army Corps of Engineers to obtain concurrence of the wetland delineation and developing land use recommendations.

Drainage Analysis, CN Railroad, Escanaba, Michigan. Technical Lead: Analyzed stormwater runoff volume from a 200-acre parcel adjacent to Lake Michigan. The information was used to design treatment options for the runoff before it entered Lake Michigan. The project included compiling information on drainage basins and existing stormwater structures, defining flow networks within each basin, and calculating flow volumes of all existing piping, culverts, swales, and outfalls to Lake Michigan. The projected flow volumes were compared to the capacity of the system and recommendations for improvements given.

Drainage Analysis, Daimler-Chrysler, Mound Road Plant, Michigan. Technical Lead: Analyzed stormwater runoff volume and capacity of existing storm sewer at an abandoned plant using TR-55 and Hydro-CAD Modeling. The information was used to design an oil-water separator to treat the stormwater runoff prior to discharging to the municipal storm sewer.

Floodplain Analysis, Green Lawn Cemetery and Mausoleum, Sheboygan County, Wisconsin. Project Manager/Technical Lead: Project included floodplain analysis using HEC-RAS to define the 100-year flood limits of the Sheboygan River adjacent to the project site. A model was developed using existing HEC-II models of the river downstream of the project site and river geometry obtained from a field survey. Prepared the Sheboygan County and Wisconsin Department of Natural Resources permit applications.

DONOHUE

Floodplain Analysis, Sunset Hills Golf Course, Sheboygan County, Wisconsin. Project Manager/Technical Lead: Project involved floodplain analysis using HEC-RAS to determine the impact of the proposed golf course and constructed ponds along the Sheboygan River. HEC-RAS modeling was used to define the pre-development floodplain and determine the effects of the proposed improvements. A grading plan was prepared that succeeded in balancing the cut and fill areas, resulting in no net increase of the river surface during a 100-year storm compared with pre-development conditions. Prepared permit applications for Sheboygan County, the Wisconsin Department of Natural Resources, and the Army Corps of Engineers.

Stormwater Pollution Prevention Plans for Industrial Facilities, Multiple Clients, Wisconsin. Project Manager/Lead Engineer: Development of Stormwater Pollution Prevention Plans according to Wisconsin's NR216 and the National Pollution Discharge Elimination System (NPDES) requirements. Develop stormwater sampling guidelines. Analyze all sources of stormwater runoff and non-contact cooling water discharged from the property. Identify any potential sources of contamination. Develop best management practices for improving the quality of stormwater runoff. Industries include: Condon Oil Company (five bulk petroleum terminals), Sargento Foods Inc. (four facilities), Two Rivers Wastewater Treatment Plant, OmniQuip/JLG (three manufacturing facilities), Medusa Cement (four cement storage facilities), Ellingers Agatized Wood, Inc, Woodlore Manufacturing, Johnson Bus Co. (five bus terminals with maintenance garage and fueling operations), Fox River Fiber, and Valley Transit Co.

Water Treatment

Water Reservoirs and Pump Station, Sheboygan, Wisconsin. Civil Engineer: Site work and water transmission lines to this water pumping and storage facility, including construction of two 3-million-gallon concrete storage tanks, site piping, grading, driveways, stormwater management facilities, and water transmission lines into and out of the site and between the pump station and the water storage tanks.

Pump Station and Electrical System Improvements, Three Rivers Filtration Plant, Fort Wayne, Indiana. Quality Control Engineer: Design of improvements for electrical reliability and finished water storage usage. The project includes the addition of a new high service pump station allows for more effective use of the existing finished water storage facilities by increasing the pump drawdown of the reservoir. The existing facilities include a 14-million-gallon north reservoir and a 6-million-gallon south reservoir. The existing high service pumps in the East Pump Room limit the useable storage volume to about one-third of the total capacity of the reservoirs. The new high service pump station allows the City to use more of its existing finished water storage volume.

Water Treatment Facility, South Sangamon Water Commission, Illinois. Quality Control Engineer: Design of new 3.1-mgd water treatment facility for surface water treatment, iron removal, and softening. Process included aeration/detention, low service pumping, membrane filtration, ion exchange softening, finished water storage, and high service pumping. Chemical storage and feed systems included sodium hypochlorite, aqua ammonia, polyphosphate, hydrofluosilicic acid, citric acid, caustic, and sodium bisulfite. Process waste neutralization facilities utilize sodium bisulfite for dechlorination and pH adjustment with caustic. Red water lagoons and pumping facilities for process waste were also included in the project.

Surface Water Treatment Plant, South Milwaukee, Wisconsin. Quality Control Engineer: Design of new facilities for converting the conventional surface water treatment plant to membrane filtration. Processes included low lift pumping, pre-filtration, membrane filtration, and chemical feed systems for hydrofluosilicic acid, caustic, citric acid, phosphoric acid, sodium hypochlorite, powdered activated carbon, potassium permanganate, and polyphosphate.

APPENDIX D: SAMPLE STORMWATER

FEASIBILITY STUDY REPORT

VILLAGE OF WINNETKA, IL

SAMPLE STORMWATER UTILITY ORDINANCE

SAMPLE CREDIT MANUAL

Village of Winnetka

Stormwater Utility Feasibility Study
Final Report

Prepared by

Municipal & Financial Services Group

April 5, 2013

Municipal & Financial Services Group

April 5, 2013

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

Dear Mr. Saunders:

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

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

Very truly yours,

David Hyder
Project Manager
The Municipal & Financial Services Group

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TABLE OF CONTENTS

APPENDICIES

A. BASIS FOR THE STUDY

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

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

In addition to routine maintenance of the stormwater system, the Village has made improvements to the system over the last two decades totaling over $3.5 million. However, significant rain events occurring over the last few years and subsequent drainage studies have revealed the need for significant capital investments in the stormwater system. The Village has historically funded capital improvements within the stormwater system on a "pay-as-you-go" basis using funds from the General Fund. However, given the magnitude of the necessary capital investments identified for the stormwater system, this historical "pay-as-you-go" approach will not be feasible. The Village has engaged, the Municipal & Financial Services Group (MFSG) to evaluate possible approaches of funding the stormwater system including the feasibility of implementing a stormwater utility and associated stormwater fee. The remainder of this report documents our analysis of the stormwater utility feasibility study.

Scope of Work

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

Level of Service - Identify and document the current and future expenditures associated with providing stormwater service within the Village. This includes the daily operations and maintenance of the system, the necessary repair and replacement of existing stormwater infrastructure and the need for stormwater system improvements.

Financial Plan for Funding Stormwater - The defined levels of service (current and future) serve as the basis for the current and future levels of expenditures for the

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

Impervious Area Analysis - Complete an analysis of the impervious are within the Village to determine the actual impervious area for all parcels in the Village.

Fee Structure Analysis - Examine and develop various stormwater fee structures to be considered. For each fee structure alternative, develop and present; the stormwater rate for residential and non-residential parcels, the potential residential and non-residential financial impacts for various types of properties including a comparison of the amount paid by parcel under the stormwater rate versus the current property tax-based method.

Administration - Identify and evaluate the key issues related to the administration of a stormwater utility including billing methodology, parcel owner appeals process, stormwater billing database management and the potential for stormwater credits.

Implementation - Identify and develop items necessary for implementation of a stormwater utility including a draft stormwater utility ordinance, a credit and incentive manual and an implementation schedule.

Study Process

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

B. KEY POLICY CONSIDERATIONS

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

picture policy considerations. The following section of the report examines a number of these key considerations.

Stormwater as a Utility

The most basic question surrounding the formation of a stormwater utility is why should it be considered as a separate utility. The simple answer is that the community is accustomed to managing its infrastructure through utilities including the drinking water system and the wastewater system. In its most basic form a utility is comprised of the delivery of a measurable service and the management of the assets required to deliver the service. The stormwater system meets both of these characteristics in that the system provides the service of managing stormwater impacts from each property owner via an extensive system of assets that must be maintained by the Village to ensure that the system continues to operate properly and meet regulatory requirements. As a result the stormwater system is a logical candidate to be accounted for and managed like the Village drinking water and wastewater systems, as a separate utility.

Benefits of Stormwater as a Utility

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

Improved Equity - A stormwater utility provides improved equity among property owners within the Village. The formation of a stormwater utility and implementation of a stormwater fee allows for allocation of costs of operating and maintaining the stormwater system to property owners based on their stormwater impact. Under the current approach property owners fund the stormwater system based on the value of their property which has very little correlation with their stormwater impact. Additionally, tax-exempt properties currently do not assist in funding the stormwater operations but do generate stormwater and impact the system. As the costs for maintaining the stormwater system increase, the idea of the equitable allocation of costs will become more and more important as the inequities become more evident.

Fiscal Accountability - The formation of a stormwater utility and collection of a stormwater fee provides increased fiscal accountability. The fees collected would be accounted for in an enterprise fund and would be exclusively used for stormwater needs. Additionally, the level of the fees would be driven by a defined level of service addressing maintenance needs, regulatory requirements and capital investment needs. The fees would be adjusted appropriately based on increases or decreases in related stormwater expenditures.

Dependable Revenue Stream - The formation of a stormwater utility and collection of a stormwater fee provides a dependable revenue stream. Historically, the revenues

available to fund the Village's stormwater operations have been volatile. This is very common among localities that use tax funds for stormwater operations. It is often the case that stormwater funding is made available based on a specific crisis or immediate need but withdrawn when more pressing needs for funds are identified. A stormwater fee would address this issue and allow the Village to better manage the stormwater system. Specially, a dependable revenue stream would allow the Village to proactively manage the system which would result in lower life-cycle costs.

Increased Public Awareness - The formation of a stormwater utility assists to bring increased public awareness of stormwater issues. Due to the fact that the current revenues for stormwater are unseen and included in taxes the public is often not aware of the service they are receiving as well as the cost the Village incurs while providing stormwater service. Increased public awareness allows for public education and may result in property owners taking action to manage stormwater on their property. Additionally, public outreach and education is one of the key requirements within the Village's NPDES MS4 Permit.

Stormwater Utility Concerns

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

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

More Government - Another concern that is often expressed is the idea that additional layers of government are being created with the establishment of a stormwater utility. This concern is really a misunderstanding of what exactly a stormwater utility is and how it would function. In general the stormwater utility is simply a way of accounting for and funding a program that already exists within the Village government. No new layers of management outside of what would be required to manage a properly functioning stormwater system are created with the new funding source. In fact due to the increased accountability and a dedicated revenue stream, the Village will have the opportunity to more clearly evaluate the performance of the stormwater program and identify areas for increased efficiency. Lastly, the data set that would be used by the Village to impose the stormwater fees is relatively static. Changes to impervious area generally occur with

redevelopment and therefore once the system is set up, managing the program requires limited resources.

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

Stormwater Utility Structure Key Policy Issues

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

Level of Service

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

Stormwater Funding

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

Measure of Stormwater Contribution - Rate Base

Should the Village decide to recover some or all of the stormwater expenditures using a stormwater fee, the rate base for the fee needs to be determined. During the second workshop, MFSG outlined the use of impervious area and the resulting equivalent runoff unit (ERU) approach as an appropriate rate base for the stormwater fee. The Village Council agreed

with this approach with the guidance the calculation of the ERU not be rounded to the whole ERU but rather that ERU's be calculated to the fraction of an ERU. Alternative approaches, which include pervious area, were presented and discussed at the third workshop. Based on the complexity and significant disadvantages of these approaches they are not further considered in this report.

Stormwater Fee Structure

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

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

C. LEVEL OF SERVICE

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

Table 1 - Stormwater Operating and Maintenance Expenses

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

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

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

Table 2 - Current Planned Capital Projects

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

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

D. STORMWATER LEVEL OF SERVICE FUNDING

The expenditures associated with the level of service define how much the Village plans to invest in the stormwater system over the next several years. This section of the report outlines the various options for how these expenditures may be funded by the Village. At the third stormwater workshop, MFSG presented stormwater fees that incorporated a number of assumptions regarding how the stormwater expenditures are funded. The assumptions that were used produced what we are referring to as the baseline stormwater fees. The stormwater fees are shown in Table 3.

Table 3 - Baseline Stormwater Fee per ERU

	FY14	FY15	FY16	FY17	FY18
Annual Stormwater Fee per ERU	$17.23	$90.62	$183.16	$183.16	$183.16

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

- The Village would issue debt to fund the stormwater capital projects occurring in 2014 - 2016 shown in Table 2, using bonds with 30 year maturity.

- Capital projects occurring in 2013, shown in Table 2, would be funded with reserves from the General Fund and these reserves would not be repaid.

- The Village would provide additional funds from the General Fund to pay a portion of the debt service on the bonds.

- Operating and maintenance expenditures, shown in Table 1, would continue to be funded from the General Fund.

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

Bond Maturity

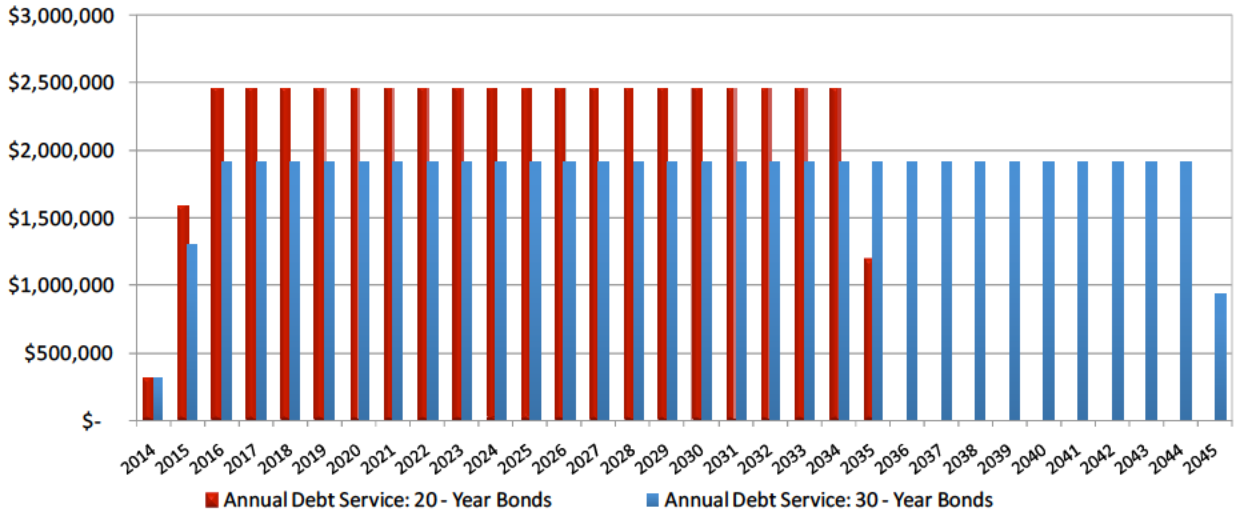
Due to the magnitude of the current planned capital projects, the Village will need to issue debt to fund the projects. The assumptions regarding the issuance of bonds are presented in Table 4. The table shows that we have conservatively assumed a slightly higher interest rate on the 2015 bond issue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

Table 4 - Stormwater Bond Assumptions

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

The calculation of the stormwater fees in Table 3 assume that the Village issues bonds with 30 year maturity. If the Village were to issue bonds with shorter maturities of 20 years, the annual debt service payments would be higher resulting in necessary increases in the fees. The annual debt service using 30 year bonds and 20 year bonds is shown in Figure 1.

Figure 1 - Annual Debt Service Comparison



The incremental impact on the stormwater fees using 20 year bonds instead of 30 year bonds is shown in Table 5.

Table 5 - Incremental Impact of Using 20 Year Bonds

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

Table 5 demonstrates that using the shorter bond maturity would result in an additional cost of approximately $82 per ERU once all of the debt is issued.

Repayment of General Fund Reserves

The Village is funding capital projects occurring in the current Fiscal Year (2013) with reserves from the General Fund. The total amount of reserves that will be used is estimated to be slightly over $7.3 million. Since these projects will be used to fund stormwater projects, it is logical to consider refunding the reserves (which were generated from property taxes) from a stormwater fee. To demonstrate the impact of refunding the reserves, we have assumed that the reserves would be refunded from the stormwater fees on a "pay-as-you-go" basis over a 20 year period. This results in an annual reimbursement of approximately $395,000. The incremental impact on the stormwater fees of refunding the reserves results in an increase in the stormwater fee per ERU of almost $60 and is shown in Table 6.

Table 6 - Incremental Impact of Refunding General Fund Reserves

	FY14	FY15	FY16	FY17	FY18
Incremental Impact per ERU	$59.55	$59.55	$59.55	$59.55	$59.55

Removal of Additional Funds from General Fund

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

- $200,000 in reduced General Fund contributions to the street rehabilitation program which will be offset by directing Motor Fuel Tax funds to street repairs. These funds will be available in FY 2014.

- $500,000 in existing debt service payments within the General Fund that will be retired in FY 2014. These funds will be available for stormwater expenditures in FY 2015.

If these funds are not provided from the General Fund, the stormwater fees will need to be increased to cover the annual debt service payments. The incremental impact on the stormwater fees of removing these funds is shown in Table 7.

Table 7 - Incremental Impact of Removal of General Fund Funding

	FY14	FY15	FY16	FY17	FY18
Incremental Impact per ERU	$30.13	$105.44	$105.44	$105.44	$105.44

Table 7 demonstrates that the removal of funds from the General Fund would result in an increase of over $105 per ERU by Fiscal Year 2015.

Operating and Maintenance Expenses

The annual operating and maintenance expenses shown in Table 1 are currently funded within the General Fund. Funding these expenditures through the stormwater fee would result in an incremental increase of almost $64 per ERU in Fiscal Year 2014 and shown in Table 8.

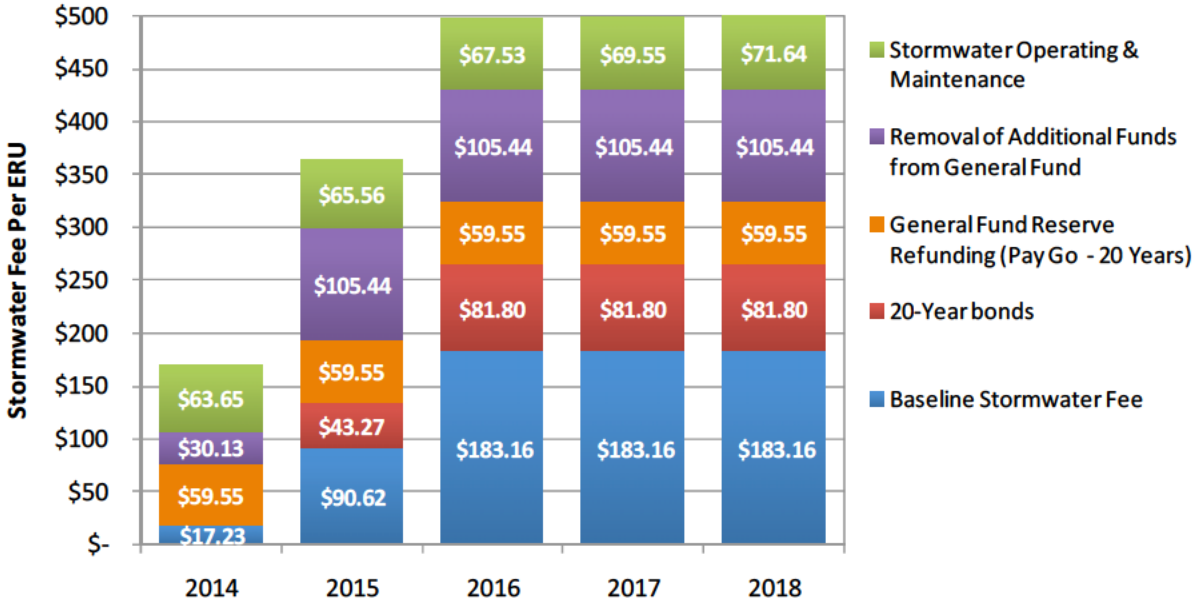
Table 8 - Incremental Impact of Funding Operating and Maintenance Expenses

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

Summary of Incremental Impacts

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

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



The incremental impacts are also presented in Table 9 to demonstrate the range of the stormwater fees based on the various funding assumptions.

Table 9 - Summary of Stormwater Fee Funding Assumptions

Annual Fee per ERU	FY14	FY15	FY16	FY17	FY18
Baseline Stormwater Fee per ERU	**$17.23**	**$90.62**	**$183.16**	**$183.16**	**$183.16**
Impact of 20-Year Bonds	$0.00	$43.27	$81.80	$81.80	$81.80
Impact of Reserves Refunding	$59.55	$59.55	$59.55	$59.55	$59.55
Impact of Removal of GF Funding	$30.13	$105.44	$105.44	$105.44	$105.44
Impact of Funding Operating	$63.65	$65.56	$67.53	$69.55	$71.64
Maximum Stormwater Fee per ERU	**$170.56**	**$364.44**	**$497.48**	**$499.50**	**$501.59**

Figure 2 and Table 9 demonstrate the full range of stormwater fees per ERU depending on the various funding assumptions. By Fiscal Year 2016, the fees range from a baseline of about $183 per ERU to a maximum of around $500 per ERU. It should be noted that with the exception of the maturity on the bonds (20 years vs. 30 years), the funding assumptions all deal with how much funding is provided from the General Fund (i.e. property taxes) and how much is provided by a stormwater fee. The maximum stormwater fees shown in Table 9 represent fees that fully support all aspects of the stormwater system. Conversely, the minimum stormwater fees represent fees that fund only the portion of stormwater expenses that can't be funded by the General Fund without raising additional revenues (i.e. increasing property taxes).

E. PARCEL OWNER IMPACTS

This section of the report demonstrates the impact on actual parcels within the Village under each of the various approaches to funding stormwater expenditures shown in Table 9. The following tables present the impact on three single family residential parcels, two commercial parcels and two tax-exempt parcels. The tables present the minimum and maximum stormwater bills for each parcel and the incremental impacts associated with each of the funding assumptions discussed in the previous section of the report.

Table 10 - Single Family Residential Parcel #1

Impervious Area	**ERUs**				
3,000 sq ft	0.9				
Bill Comparison	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**
Baseline Stormwater Bill	**$16**	**$82**	**$165**	**$165**	**$165**
Impact of 20-Year Bonds	$0	$39	$74	$74	$74
Impact of Reserves Refunding	$54	$54	$54	$54	$54
Impact of Removal of GF Funding	$27	$95	$95	$95	$95
Impact of Funding Operating	$57	$59	$61	$63	$64
Maximum Stormwater Bill	**$96**	**$269**	**$387**	**$387**	**$387**

Table 11 - Single Family Residential Parcel #2

Impervious Area	**ERUs**				
5,330 sq ft	1.6				
Bill Comparison	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**
Baseline Stormwater Bill	**$28**	**$145**	**$293**	**$293**	**$293**
Impact of 20-Year Bonds	$0	$69	$131	$131	$131
Impact of Reserves Refunding	$95	$95	$95	$95	$95
Impact of Removal of GF Funding	$48	$169	$169	$169	$169
Impact of Funding Operating	$102	$105	$108	$111	$115
Maximum Stormwater Bill	**$171**	**$478**	**$688**	**$688**	**$688**

Table 12 - Single Family Residential Parcel #3

Impervious Area	**ERUs**				
8,600 sq ft	2.5				
Bill Comparison	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**
Baseline Stormwater Bill	**$43**	**$227**	**$458**	**$458**	**$458**
Impact of 20-Year Bonds	$0	$108	$205	$205	$205
Impact of Reserves Refunding	$149	$149	$149	$149	$149
Impact of Removal of GF Funding	$75	$264	$264	$264	$264
Impact of Funding Operating	$159	$164	$169	$174	$179
Maximum Stormwater Bill	**$267**	**$747**	**$1,075**	**$1,075**	**$1,075**

Table 13 - Commercial Parcel #1

Impervious Area	ERUs				
6,800 sq ft	2.0				
Bill Comparison	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**
Baseline Stormwater Bill	**$34**	**$181**	**$366**	**$366**	**$366**
Impact of 20-Year Bonds	$0	$87	$164	$164	$164
Impact of Reserves Refunding	$119	$119	$119	$119	$119
Impact of Removal of GF Funding	$60	$211	$211	$211	$211
Impact of Funding Operating	$127	$131	$135	$139	$143
Maximum Stormwater Bill	**$214**	**$598**	**$860**	**$860**	**$860**

Table 14 - Commercial Parcel #2

Impervious Area	ERUs				
2,900 sq ft	0.9				
Bill Comparison	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**
Baseline Stormwater Bill	**$16**	**$82**	**$165**	**$165**	**$165**
Impact of 20-Year Bonds	$0	$39	$74	$74	$74
Impact of Reserves Refunding	$54	$54	$54	$54	$54
Impact of Removal of GF Funding	$27	$95	$95	$95	$95
Impact of Funding Operating	$57	$59	$61	$63	$64
Maximum Stormwater Bill	**$96**	**$269**	**$387**	**$387**	**$387**

Table 15 - Tax-Exempt Parcel #1

Impervious Area	ERUs				
200,000 sq ft	58.8				
Bill Comparison	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**
Baseline Stormwater Bill	**$1,013**	**$5,328**	**$10,770**	**$10,770**	**$10,770**
Impact of 20-Year Bonds	$0	$2,544	$4,810	$4,810	$4,810
Impact of Reserves Refunding	$3,502	$3,502	$3,502	$3,502	$3,502
Impact of Removal of GF Funding	$1,771	$6,200	$6,200	$6,200	$6,200
Impact of Funding Operating	$3,743	$3,855	$3,971	$4,090	$4,212
Maximum Stormwater Bill	**$6,286**	**$17,574**	**$25,281**	**$25,281**	**$25,281**

Table 16 - Tax-Exempt Parcel #2

Impervious Area	ERU				
40,600 sq ft	11.9				
Bill Comparison	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**
Baseline Stormwater Bill	**$205**	**$1,078**	**$2,180**	**$2,180**	**$2,180**
Impact of 20-Year Bonds	$0	$515	$973	$973	$973
Impact of Reserves Refunding	$709	$709	$709	$709	$709
Impact of Removal of GF Funding	$358	$1,255	$1,255	$1,255	$1,255
Impact of Funding Operating	$757	$780	$804	$828	$853
Maximum Stormwater Bill	**$1,272**	**$3,557**	**$5,116**	**$5,116**	**$5,116**

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

To provide a broader perspective of the impact on the parcels within the Village the stormwater fees were applied to all of the parcels using the impervious area database developed as part of the study. The following figures demonstrate the distribution of annual stormwater bills for parcel owners by land use type for the baseline stormwater fees by Fiscal Year 2016, as shown in Table 9.

Figure 3 - Annual Stormwater Bill Distribution - Residential Parcels

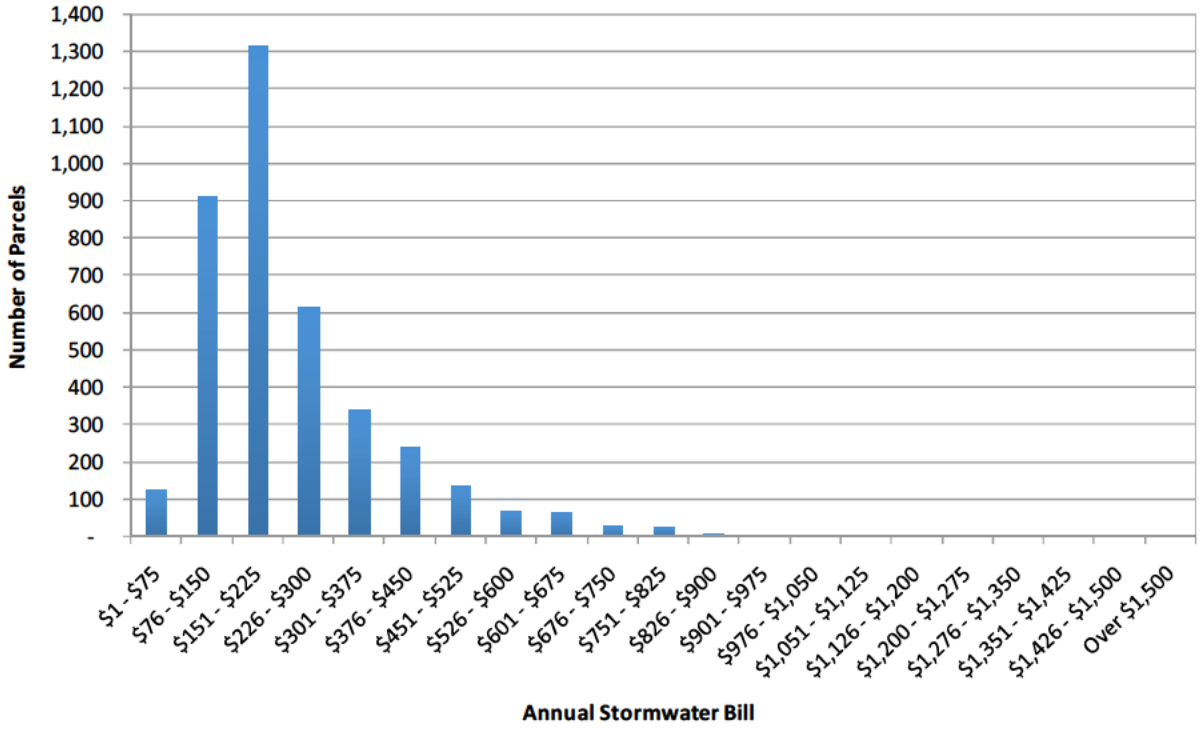


Figure 4 - Annual Stormwater Bill Distribution - Multi-Family Parcels

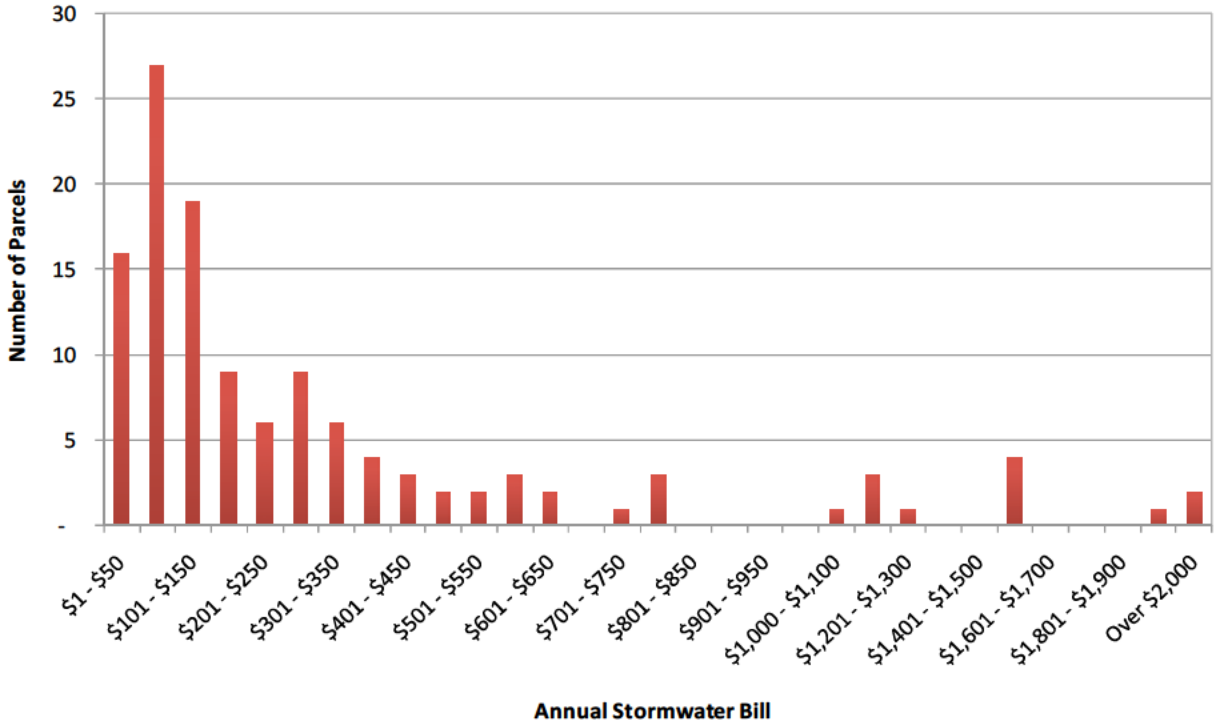


Figure 5 - Annual Stormwater Bill Distribution - Commercial Parcels

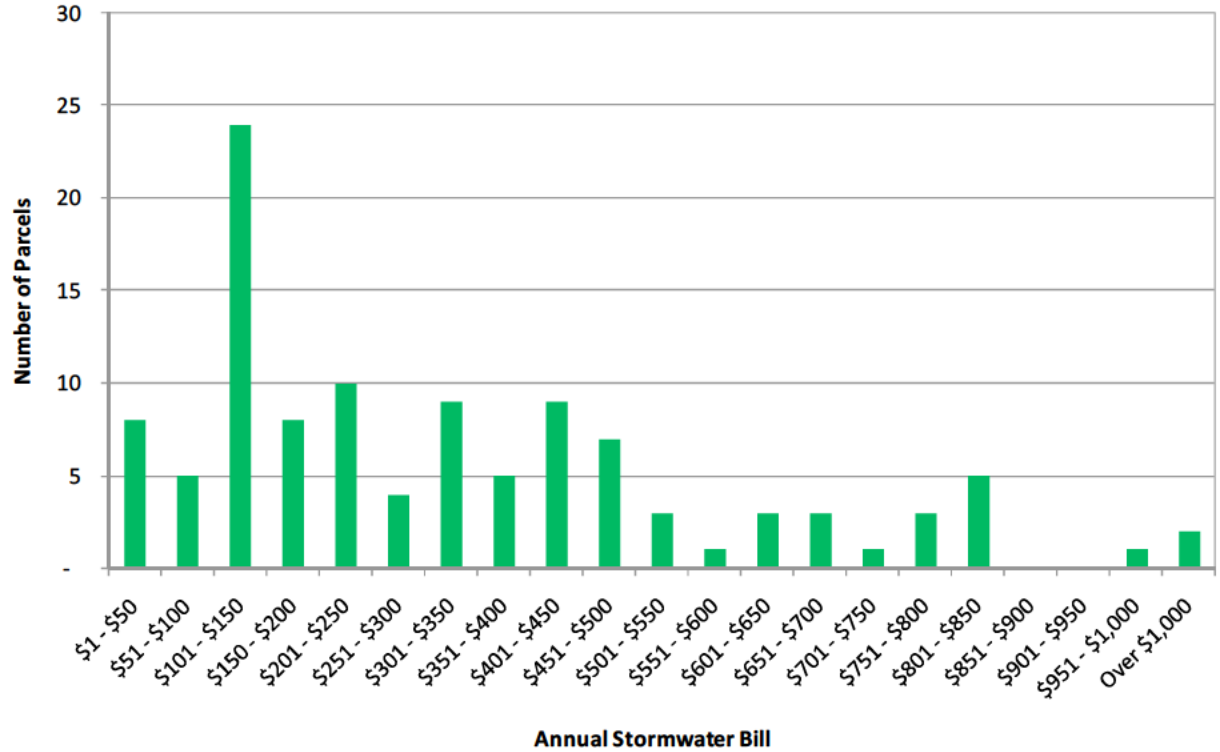


Figure 6 - Annual Stormwater Bill Distribution - Industrial Parcels

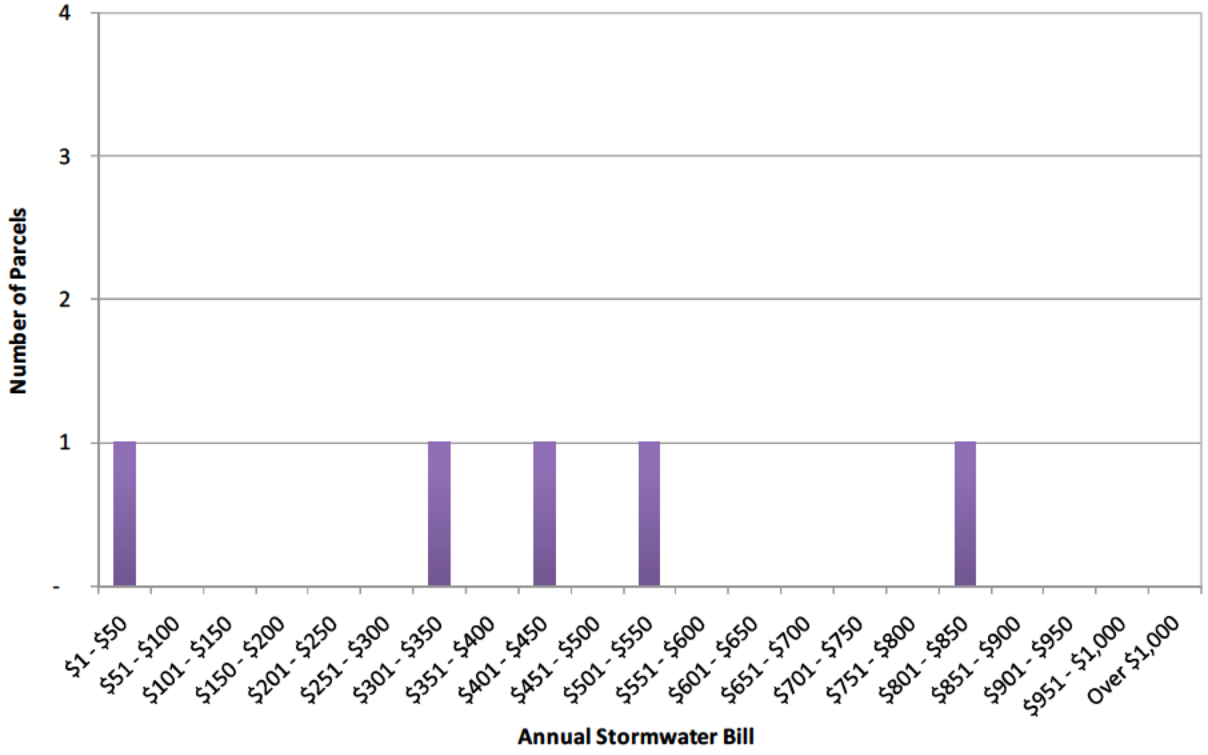
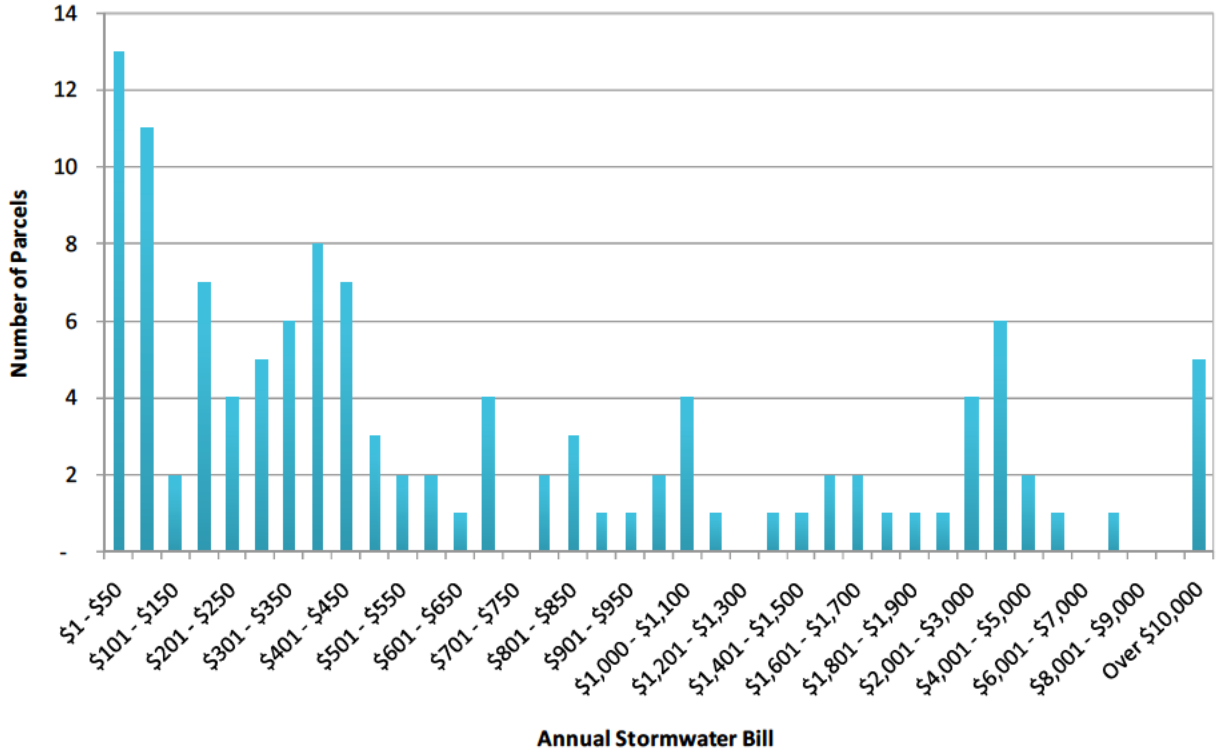


Figure 7 - Annual Stormwater Bill Distribution - Tax-Exempt Parcels



Figures 3 through 7 demonstrate the wide range of stormwater bills that parcel owners would experience based on the amount of impervious area located on their parcel. Since the calculation of the ERU is based on the normalized average residential property, the highest number of parcel owners would see an annual stormwater bill of $183, as demonstrated in Figure 3. It is important to note that the stormwater bills shown in the figures are based on the baseline fee. If the funding assumptions were modified above the baseline fee the bills would be proportionately higher for all parcel owners.

F. CONCLUSIONS AND RECOMMENDATIONS

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

Stormwater Utility Feasibility

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

A dedicated revenue source for stormwater expenditures allowing for proactive management of the system resulting in lower costs over time.

Increased equity for all parcel owners as costs will be allocated based on stormwater contribution rather than property value and those that do not contribute to stormwater funding now will pay their fair share.

Fiscal accountability due to the fact that stormwater fee revenues can only be used for stormwater expenditures and would be adjusted based on needs.

Increased public awareness of stormwater issues and the significant investments that are required to manage stormwater in the Village.

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

Stormwater Fee Structure

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

Use measured impervious area as the rate base for the stormwater fee. The impervious area for each parcel in the Village is readily available and has been determined to be the single most important factor influencing the rate of peak runoff and the total runoff quantity.

Impose the stormwater fee based on units of impervious using the ERU approach. Based on our analysis of the impervious area within the Village, the normalized average residential parcel has approximately 3,400 square feet of impervious area. The average impervious should be used as the basis for one ERU.

Impose the stormwater fee based on the number of ERUs on each parcel, allowing for fractions of ERUs.

Use a uniform fee structure with all parcels, regardless of location within the Village, paying the same stormwater fee per ERU.

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

Stormwater Funding

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

Use 30-year bonds to fund the current planned capital projects, including the Tunnel project (shown in Table 2). The life of the capital projects funded with the bonds will exceed 30 years and the longer maturity will reduce the annual debt service payments, lowering the annual stormwater funding needs.

Use General Fund reserves available to fund capital projects in 2013 and not refund these reserves from a stormwater fee.

Utilize available General Fund revenues to assist in funding a portion of the level of service including the ongoing operating and maintenance expenses, the short-term capital needs and a portion of future debt service.

Fund the ongoing stormwater operating and maintenance expenses from stormwater fees.

Based on our funding recommendations the stormwater fee would consist of the baseline fee shown in Table 9 plus the incremental amount associated with funding operating and maintenance expenses also shown in Table 9. Given the significant discussion among the Village Council related to the funding assumptions, our reasoning for the recommendations

related to the funding assumptions are provided. If the Village implements a stormwater utility we believe that all costs associated with stormwater should be accounted for within the stormwater utility, both operating and capital costs. The Village uses this approach for its water and sewer utilities (all expenditures, operating and capital, are accounted for in the water and sewer enterprise funds). The Village should use the same approach for the stormwater utility. However we believe that given the magnitude of the expenditures facing the Village, the continued use of General Fund funding, is appropriate. It is common for communities continue to provide some funding from the General Fund when a stormwater utility is first established with the plan to transition to full funding from the stormwater fees over time. We recommend that the Village utilize a similar approach that over time will eliminate funding from the General Fund as the debt associated with the stormwater projects is retired.

Stormwater Fee

Based on the recommended fee structure and funding approach, the recommended stormwater fees are presented in Table 17. The fees are subject to change based on changes in the magnitude of the capital projects and if the Village offers stormwater fee credits.

Table 17 - Recommended Stormwater Fees

	FY14	FY15	FY16	FY17	FY18
Annual Stormwater Fee per ERU	**$80.88**	**$156.18**	**$250.69**	**$252.71**	**$254.80**
Bi-Monthly Stormwater Fee per ERU*	**$13.48**	**$26.03**	**$41.78**	**$42.12**	**$42.47**

**Consistent with current utility billing cycle*

To demonstrate the impact on parcel owners within the Village the distribution of stormwater bills by land use type are presented in the following figures based on the recommended fees shown in Table 17.

Figure 8 - Annual Stormwater Bill Distribution - Residential Parcels

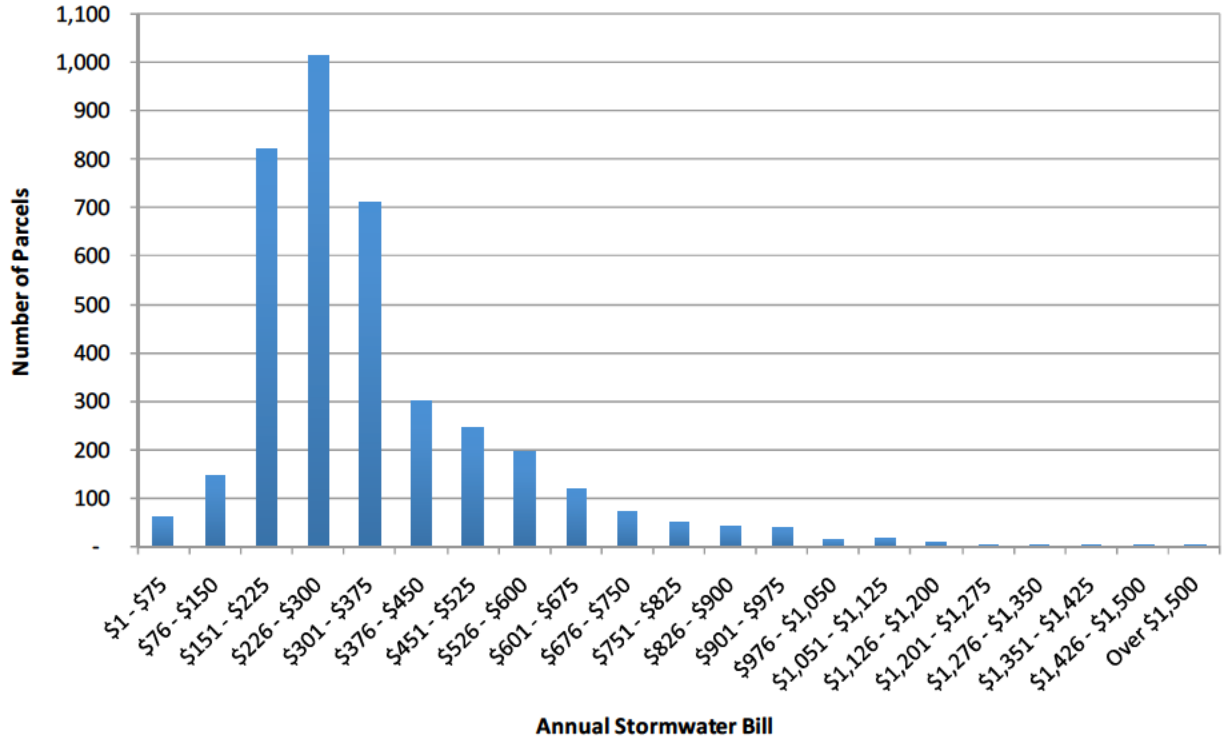


Figure 9 - Annual Stormwater Bill Distribution - Multi-Family Parcels

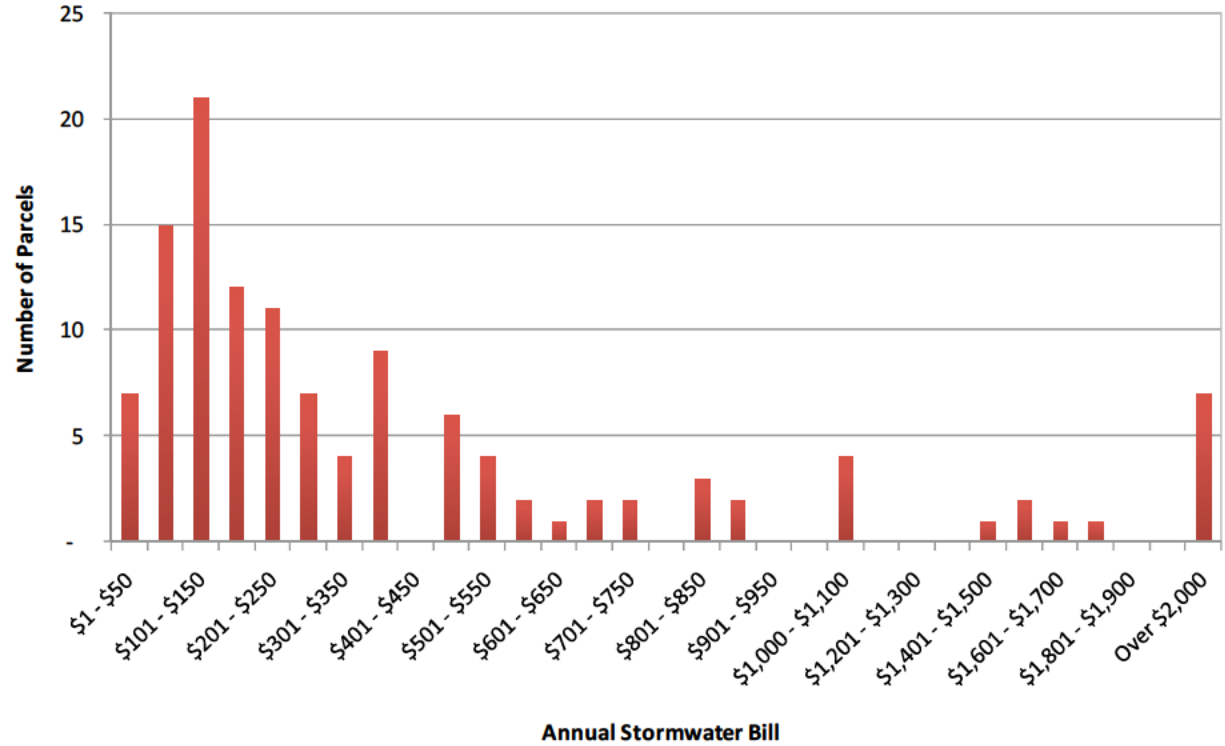


Figure 10 - Annual Stormwater Bill Distribution - Commercial Parcels

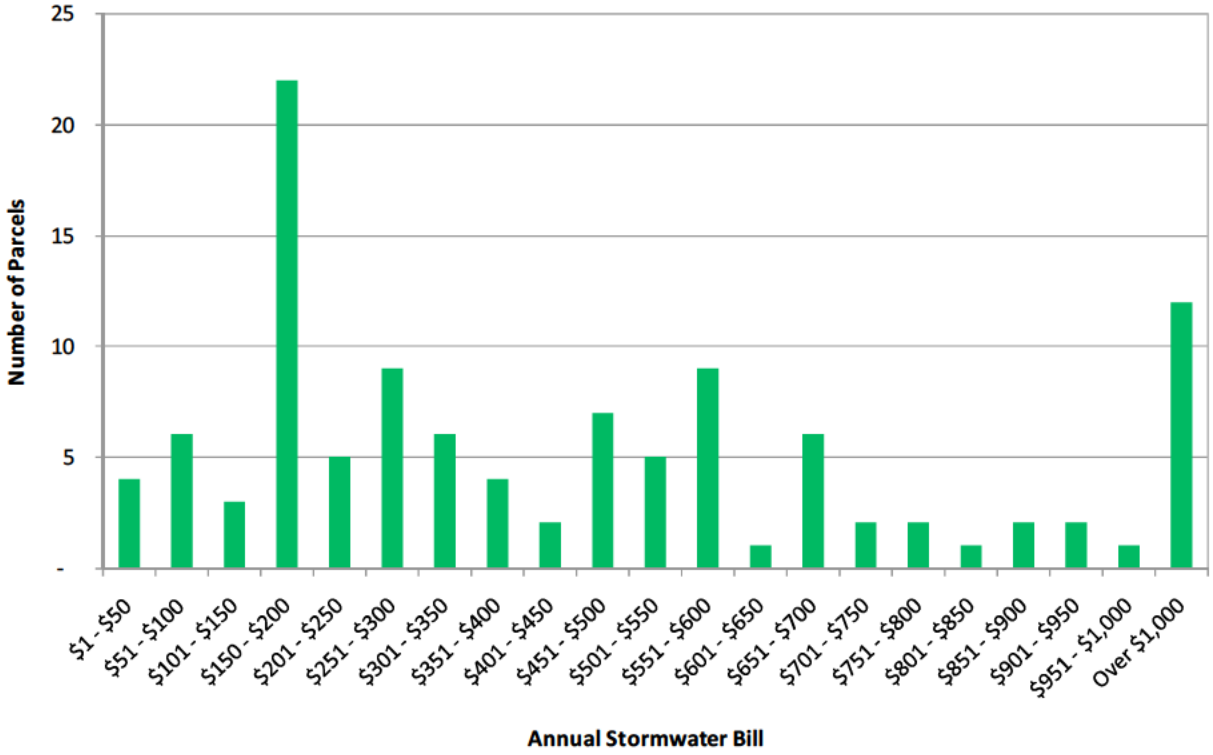


Figure 11 - Annual Stormwater Bill Distribution - Industrial Parcels

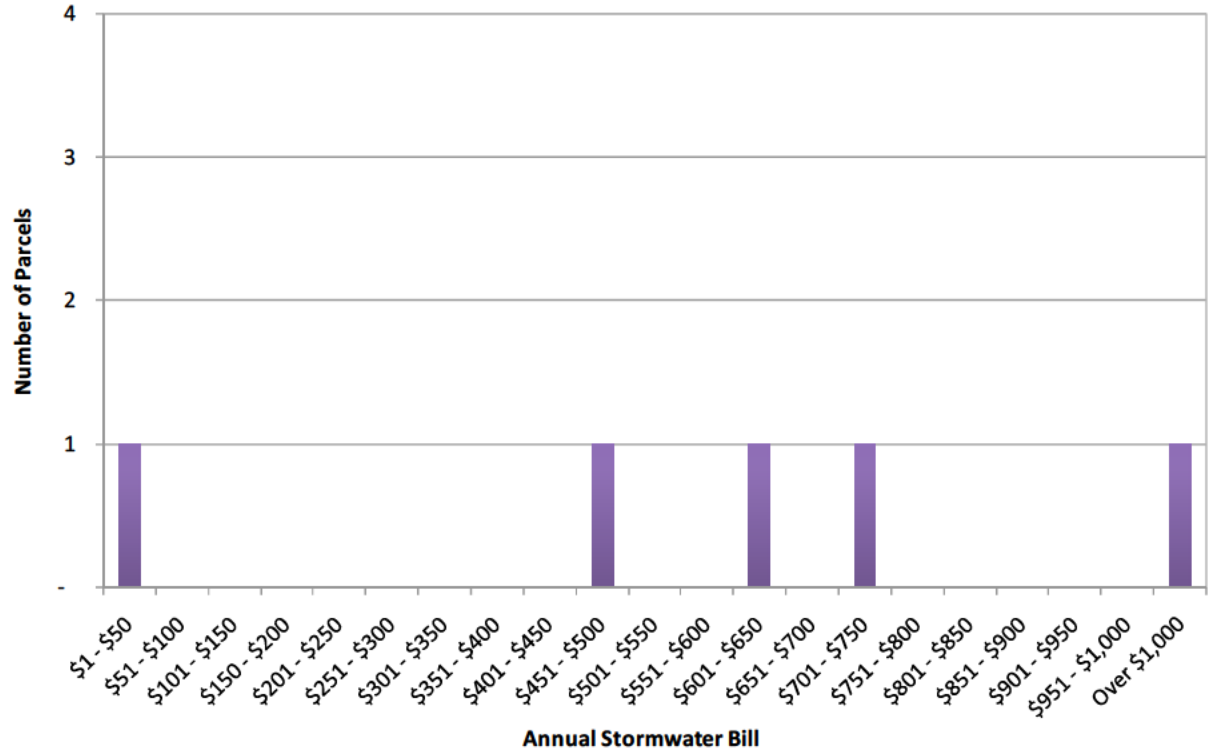
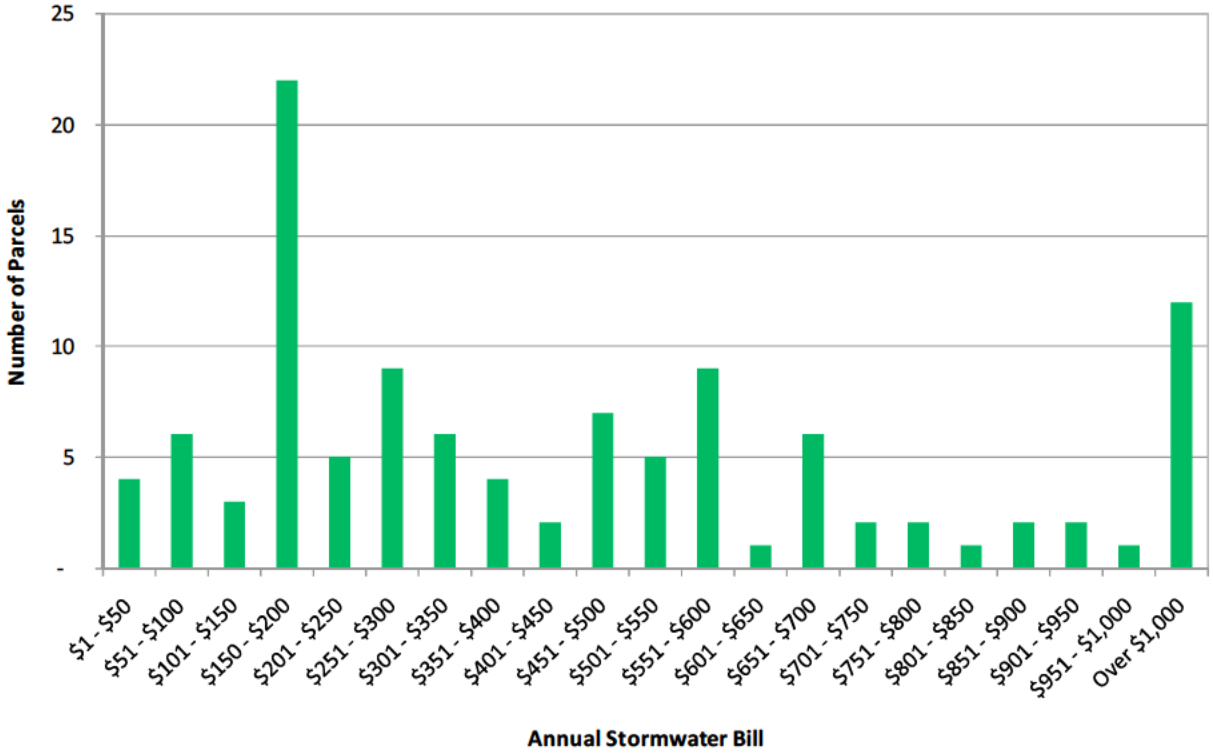


Figure 12 - Annual Stormwater Bill Distribution - Tax-Exempt Parcels



Administration

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

- Implement a stormwater fee credit program for non-residential properties to provide a reduction in the stormwater fee for those properties that provide on-site stormwater management that exceeds the current Village requirements.

- Implement a stormwater incentive program for all property owners which would provide reimbursement for the purchase and installation of stormwater management controls. A draft credit and incentive manual is provided in the appendices of this report to serve as a template for the Village should a credit and incentive program be put in place.

Bill the stormwater fee on the water bill and develop an appeals process to handle property owner appeals.

G. IMPLEMENTATION

If the Village decides to proceed with the implementation of a stormwater utility and stormwater fee a series of tasks will need to be completed to ensure that a properly functioning utility is put in place. A broad overview of the implementation tasks are presented in this section of the report. It is important to note that a typical stormwater implementation will take between six to twelve months depending on resources available to complete each of the tasks. We have assumed an implementation schedule requiring approximately nine months. Each of the tasks are discussed below with a specific implementation schedule shown in Figure 13. As shown in the figure the tasks will need to occur concurrently in order for implementation to be completed within a reasonable amount of time.

Task 1: Stormwater Database Billing File

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

Task 2: Legal Establishment of the Stormwater Utility

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

Task 3: Finalize Stormwater Fee

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

Task 4: Stormwater Utility Policies and Procedures

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

Task 5: Public Outreach and Education

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

Develop a webpage on the Village website that serves as a central location for all stormwater information. All documents created related to the stormwater utility and videos of all presentations should be made available on the webpage.

Identify a central point of contact within the Village for all activities related to the stormwater utility.

Conduct a series of public meetings intended to educate the public on the results of the feasibility study and what the stormwater utility may look like. The Village may want to

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

Conduct one-on-one meetings within the Village with key stakeholders. These meetings may occur with the parcel owners that would receive the highest stormwater bills, environmental groups, media outlets, chamber of commerce and other interested parties.

Conduct a series of open public forums near the end of the implementation process primarily designed to allow the public to ask questions and gain further understanding of the stormwater utility.

Task 6: Village Staff Training

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

Figure 13 - Implementation Plan Schedule

Village of Winnetka Stormwater Utility Implementation Plan	Implementation Timeline (Weeks from Commencement of Implementation)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Task 1: Development of Billing File																																				
1.1: Detailed Review of Draft Impervious Area File																																				
1.2: Identify Discrepancies																																				
1.3: Data Clean Update and Assignment of Impervious Area																																				
1.4: Assign Impervious Area and Stormwater Fee to Billing Accounts																																				
1.5: Finalize Billing File / Test Billing File																																				
Task 2: Establishment of Stormwater Utility																																				
2.1: Ordinance Review - Village Staff and Legal Counsel																																				
2.2: Ordinance Update																																				
2.3: Village Council Ordinance Review																																				
2.4: Ordinance Adoption																																				
Task 3: Finalized Stormwater Fee																																				
3.1: Finalize Stormwater Funding Level																																				
3.2: Estimate Impact of Credit and Incentives Program																																				
3.3: Develop Final Stormwater Fee																																				
Task 4: Policy and Procedures																																				
4.1: Review Credit and Incentive Program																																				
4.2: Finalize Credit and Incentive Program																																				
4.3: Select Billing Methodology																																				
4.4: Finalize Property Owner Appeals Process																																				
4.4: Establish Procedure for Billing Database Management																																				
Task 5: Public Outreach and Education																																				
5.1: Centralized Webpage for All Stormwater Documents																																				
5.2: Identify Key Village Spokesperson for Stormwater Utility																																				
5.3: Outreach Meetings (Residential, Commercial, Tax-Exempt)																																				
5.4: One-On-One Meetings with Key Stakeholders																																				
5.5: Open Public Forums																																				
Task 6: Staff Training																																				
6.1: Train Village Billing / Customer Service Staff																																				
6.2: Credit and Incentive Training																																				

APPENDICIES

I. Stormwater Feasibility Workshop Materials

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

II. Draft Stormwater Utility Ordinance

III. Draft Credit and Incentive Manual

Village of Winnetka Stormwater Utility Ordinance

Section xx.1. Purpose.

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

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

(a) The Village hereby establishes a stormwater utility fee to provide an adequate and stable funding source for the management, operation, maintenance, enhancement and rehabilitation of the Village's stormwater infrastructure.

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

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

Section xx.3. Scope of responsibility of stormwater utility

(a) The Stormwater Utility shall be responsible for the operation, maintenance, management and improvement of the stormwater system owned by the Village including all activities required by the NPDES Stormwater Permit.

(b) The management and supervision of the stormwater utility shall under the Director of Public Works.

(c) The boundaries and jurisdiction of the stormwater management utility shall extend to the corporate limits of the Village.

Section xx.4. Definitions.

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

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

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

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

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

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

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

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

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

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

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

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

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

Section xx.5. Stormwater utility fee structure.

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

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

(b) All parcels in the Village shall be based on the measured number of ERUs on the parcel rounded to the 10^{th} of an ERU.

Section xx.6. Impervious area database.

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

Section xx.7. Exemptions from stormwater utility fee.

(a) The Village Council finds that all real property in the Village contributes to runoff and either uses or benefits from the maintenance of the stormwater system. Therefore, except as otherwise provided in this Section, all real property in the Village, including property that is tax exempt from property tax shall be charged the stormwater utility fee.

(b) Specific properties that shall be exempt from the stormwater fee include roadways, sidewalks and railways inside the public right-of-ways.

(c) The Village Council recognizes that in certain instances, property owners within the Village may form unique partnerships with the Village in an effort to assist with the management of stormwater. These partnerships may include, but are not limited to, the donation of land for use in the stormwater system, significant capital contributions for the stormwater system or other such activities. In these instances the Council may deem a certain property or groups of properties exempt from the stormwater utility fee in recognition of the partnership.

Section xx.8. Stormwater utility fee credits.

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

Section xx.9. Stormwater utility fee amounts.

(a) The stormwater utility fee amount for all parcels shall be based on number of ERUs assessed for each parcel times the established rate per ERU as published in the Village Utility Fee Schedule.

(b) The stormwater utility fee for any parcel will remain constant from billing period to billing period unless the following changes occur:

(i) A physical modification to the parcel that changes its level of impervious area;

(ii) A credit for on-site stormwater management is either awarded or revoked;

(iii) The stormwater utility fee is changed by the Village Council; or

(iv) An adjust is made to the bill as described in Section xx.10.

Section xx.10. Billing and collection procedures.

(a) Billings for stormwater utility fees shall be rendered by the Finance Department on a monthly, bi-monthly, quarterly or annual basis at the discretion of the Finance Department.

(b) All bills for the stormwater utility fee may be billed on a common statement and collected along with the Village water rents. If the stormwater utility fee is included on a common statement, and the party responsible for the payment of the stormwater utility fee makes a payment insufficient to pay the total amount required by the common statement, the payment shall be applied first to the stormwater utility fee, then to any water rents.

(c) The owner of any parcel, building or premises and the occupant thereof and the customer of the water service of said system shall be jointly and severally liable to pay for such stormwater utility fee for said premises.

(d) For those properties not receiving a water bill, the Village will send a separate stormwater utility fee bill to the owner of the property.

(e) Payment must be received by the Village by close of business on the due date printed on the bill or a late charge of XX percent (XX%) shall be due after such due date, which due date shall not be earlier than the fifteenth day of the month in which the bill is rendered.

(f) If the charges for services on the common statement are not paid for XX days after the rendition of the bill for services, such services shall be discontinued without further notice and shall not be reinstated until all claims are settled.

(g) Whenever a bill for service remains unpaid for XX days after it has been rendered, the Village Treasurer shall file with the County Recorder of Deeds a statement of lien claim.

This statement shall contain the legal description of the premises served, the amount of the unpaid bill and a notice that the Village claims a lien for this amount as well as for all charges subsequent to the period covered by the bill. If the user whose bill is unpaid is not the owner of the premises and the Village Treasurer has notice of this, notice shall be mailed to the owner of the premises if his/her address be known to the Treasurer, whenever such bill remains unpaid for the period XX days after it has been rendered. The failure of the Village Treasurer to record such lien or to mail such notice or the failure of the owner to receive such notice shall not affect the right to foreclose the lien for unpaid bills as mentioned in the foregoing section.

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

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

(a) A property owner may request correction of the stormwater utility fee by submitting the request in writing to the Village Manager or his designee within XX days after the date the bill is mailed or issued to the parcel owner. The owner of the parcel is solely responsible for initiating any review of the amounts of the stormwater utility fee. Grounds for correction of the stormwater utility fee include:

(i) Incorrect classification of the property for purposes of determining the fee;

(ii) Errors in the square footage of the impervious surface area of the property;

(iii) Mathematical errors in calculating the fee to be applied to the property; and

(iv) Errors in the identification of the property owner of a property subject to the fee.

(b) The Village Manager shall make a determination within XX days after receipt of the property owner's completed written request for correction of the fee. The Village Manager's decision on a request for correction of the fee shall be final.

(c) A property owner must comply with all rules and procedures adopted by the Village when submitting a request for correction of the fee and must provide all information

necessary for the Village Manager to make a determination on a request for correction of the Fee. Failure to comply with the provisions of this subsection shall be grounds for denial of the request.

(d) If an adjustment is approved by the Village, the adjustment will be incorporated into the stormwater utility fee calculation for the specified parcel and will apply to the next regularly generated bill.

Section xx.13. Accounts.

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

(i) Billing data to show total number of billing units per fiscal year.

(ii) Debt service for the next succeeding fiscal year.

(iii) Number of stormwater utility rate payers.

STORMWATER CREDIT AND INCENTIVE MANUAL

Village of Winnetka, Illinois

1. Introduction

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

2. Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Village – Village of Winnetka

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

3. Stormwater Fee Credits

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

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

3.1 Eligibility

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

3.2 Right-of-Entry

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

3.3 Credit Renewal

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

3.4 Stormwater Credit Application

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

3.5 Stormwater Fee Credit Implementation

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

3.6 Qualifying Stormwater Facilities / Activities

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

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

3.7.1 Rate Reduction Credit

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

3.7.2 Volume Reduction Credit

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

device in the same manner as the rate reduction credit. The applicant will be required to submit site plans demonstrating the portion of the property draining to the stormwater facility. Volume reduction facilities and activities also improve the quality of stormwater runoff and as a result an applicant qualifying for a water reduction credit in most instances will also qualify for a water quality credit.

3.7.3 Water Quality Credit

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

3.7.4 Direct Discharge Credit

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

3.7.5 Education Credit

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

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

The initial application for the Education Credit will require an application fee. The applicant is required to provide an update of lesson plan(s) and number of students taught each year to receive the credit. As the Education Credit is a non-technical application, it is not required to have a professional engineer complete the application form.

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

3.7.6 Partnership Credit

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

3.8 Stormwater Facility Maintenance and Inspection

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

- Debris and Litter Removal – This activity must be performed after storm events totaling approximately two inches over a 24-hour period or as needed in order to prevent the structure from clogging and failing and to prevent a public nuisance.

- Erosion and Structural Repair – Side slopes, emergency spillways, and embankments all may periodically suffer from slumping and erosion. Regrading, revegetating, compacting and/or installing or replenishing rip-rap may be required to correct erosion problems that develop.

- Mowing – Side slopes, embankments, emergency spillways and other grassed areas of stormwater facilities should be periodically mowed to prohibit woody growth. More frequent mowing may be required in residential areas by adjacent homeowners. Native grasses, which are water-tolerant, pest-tolerant, and slow growing, are recommended.

- No Blockages – Remove sediment or any blockage from pipes, channels, spillways, inlets and outlets as needed to keep the facility in proper working condition.

- Nuisance Control – Standing water or soggy conditions within a "dry" stormwater facility can create nuisance conditions for nearby residents. Common nuisance conditions may include odors, mosquitoes, litter and weeds. Regular maintenance to remove debris and ensure control structure functionally is required to control these potential problems. In addition, well maintained and established wetland plants in wet detention ponds or bird nesting boxes around the pond can provide a habitat for birds and predacious insects and fish that can actively serve as a natural check on nuisance insects such as mosquitoes. Cyclical alteration of the water level in the pond or installation of aeration/agitation features will also disrupt most unwanted larval growth.

- Outlet Control – Maintain outlet control devised to ensure proper functioning in the control of stormwater velocities at the outlet of the stormwater facility. Revegetating and/or replenishing or reinstalling rip-rap may be required to correct erosion problems at the outlet of stormwater facility pipes.

- Removal of Log Jams and Debris – All streams and ditches within the stormwater system should be inspected periodically for blockages. If identified, the blockages and debris should be removed as quickly as practicable.

- Sediment Removal – This activity is to be performed as needed or as required by the Village to ensure proper working order of the facility and its related stormwater facility features (channels, pipes, etc.).

- Structural Repairs and Replacement – Eventually, stormwater control structures will deteriorate and must be replaced. Structural damage to outlet structures (i.e. cracks, leaks or failure) must be repaired as soon as possible.

3.9 Bi-Annual Documentation

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

- Bi-Annual inspection report from an independent engineer that conforms to Village requirements.

- Recently dated photographs showing the condition (including any known damage or disrepair) of a Stormwater Facility. For stormwater ponds, these photos should include views of the outlet structure, all side slopes, vegetated littoral zones, a view from the downstream channel looking upstream at the dam and emergency spillway, a view from the dam showing the condition of the

downstream channel, and a view of areas designed to catch sediment (if possible).

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

3.10 Facility Inspections

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

3.11 Enforcement

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

4. Incentives

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

4.1 Eligibility

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

4.2 Stormwater Facility Incentives

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

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

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

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

STORMWATER UTILITY FEASIBILITY AND RATE STUDY COST PROPOSAL

This section includes cost and administrative information relevant to our proposal for the Village of Libertyville.

A. Administrative and General

This proposal was prepared in the Annapolis, Maryland office of MFSG, a Maryland limited liability company, under the direction of Edward J. Donahue, President of the Municipal & Financial Services Group and Eric Callocchia, a Senior Manager. Mr. Edward Donahue, the firm's President, is empowered to represent, negotiate for and bind and commit the firm:

Management and Financial Services Group, LLC
d/b/a Municipal & Financial Services Group
911-A Commerce Road
Annapolis, MD 21401
410.266.9101 voice / 410.266.5545 facsimile
edward.donahue@mfsgllc.com
Taxpayer ID #52-2215040

MFSG is a registered small business in the State of Maryland. MFSG is registered and in good standing to do business in the State of Illinois. MFSG's registration number with the Illinois Secretary of State is 02027763.

A. Period of Proposal

This proposal is valid for 90 days from the date of its submission and may be extended by mutual written agreement.

B. Basis of Cost Proposal

We develop our cost proposals by estimating the number of hours of effort that will be required by key individual/classification of employee and multiplying this number by the standard hourly rate that has been established for each administrative classification of employee.

C. Not-to-Exceed Project Budget

Phase I Not-to-Exceed Project Budget

Our Phase I cost is predicated on delivering a preliminary report and a revised final report supported by a financial model, seven on-site meetings (three meetings with Village staff, three meetings with the Village Board). Periodic online meetings with Village staff throughout the study will also be performed on an as-needed basis without the need for out-of-pocket expenses. All administrative costs, such as printing, binding, copying, etc. are included in the above-stated costs.

Exhibit 1. Phase I Not-to-Exceed Project Budget

Phase I Not-to-Exceed Project Budget Village of Libertyville Stormwater Utility Feasibility Study	Hours by Staff Member										
	Donahue	Callocchia	Maker	Sticklen	Kimmler	Donohue Staff	MFSG Staff	Total	Professional Fees	Out-of-Pocket Expenses	Total
1 - Project Management	-	20	8	-	8	8	-	**44**	$ 8,740	$ 800	$ 9,540
2 - Stormwater Condition and Needs Assessment	-	4	-	8	-	-	-	**12**	$ 2,420	$ 800	$ 3,220
3 - Rate Policy and Revenue Analysis	12	12	12	16	22	22	12	**108**	$ 20,670	$ 1,500	$ 22,170
4 - Implementation Requirements	18	20	18	4	2	2	12	**76**	$ 17,390	$ 800	$ 18,190
5 - Final Study Report and Recommendation	-	20	24	-	-	-	12	**56**	$ 11,520	$ 1,500	$ 13,020
Total	**30**	**76**	**62**	**28**	**32**	**32**	**36**	**296**	**$ 60,740**	**$ 5,400**	**$ 66,140**
Hourly Rates	*$ 325*	*$ 225*	*$ 225*	*$ 190*	*$ 160*	*$ 145*	*$ 135*				

Phase II Not-to-Exceed Project Budget

Our Phase II cost is predicated on three on-site meetings (two public Open House meetings, one final meeting with the Village Board). All administrative costs, such as printing, binding, copying, etc. are included in the above-stated costs.

Exhibit 2. Phase II Not-to-Exceed Project Budget

Phase II Not-to-Exceed Project Budget Village of Libertyville Stormwater Utility Feasibility Study	Hours by Staff Member										
	Donahue	Callocchia	Maker	Sticklen	Kimmler	Donohue Staff	MFSG Staff	Total	Professional Fees	Out-of-Pocket Expenses	Total
1 - Public Education	2	24	8				24	**58**	$ 11,090	$ 1,500	$ 12,590
2 - Finalize Customer Database				16	28	28		**72**	$ 11,580	$ -	$ 11,580
3 - Final Rate Setting	2	12	8				24	**46**	$ 8,390	$ 800	$ 9,190
Total	**4**	**36**	**16**	**16**	**28**	**28**	**48**	**176**	**$ 31,060**	**$ 2,300**	**$ 33,360**
Hourly Rates	*$ 325*	*$ 225*	*$ 225*	*$ 190*	*$ 160*	*$ 145*	*$ 135*				

Additional / Out-of-Scope Work

If additional or out-of-scope work is requested by the Village, the hourly billing rates identified below shall apply. We do not charge any premium or markup for expert witness work or for testimony in hearings or trials.

Classification	Project Team Members Included	Hourly Rate
Principal/Officer	Donahue	$325
Senior Manager	Maker, Callocchia	$225
Manager	Various	$160
Associate	Various	$135
Engineer VI	Sticklen	$190
Engineer IV	Safford/Kimmler	$160
Engineer III	Madrid	$145

D. Insurance

MFSG carries the types and amounts of insurance coverage required by the Village and will provide an insurance certificate and indemnification affidavit prior to contract execution.

E. Affirmative Action / Equal Employment Opportunity

MFSG has always maintained a policy of recruiting, hiring, training and promoting based solely on an individual's qualifications without regard to race, color, religion, sex, age, national origin, sexual orientation, marital status or handicap. We provide equal employment opportunity to all persons. Discrimination does not exist in any personnel action such as recruiting or advertising for employment, hiring, scheduling, promotion, compensation, performance evaluation, benefits, selection for professional education, transfer or termination.

F. Independence / Conflict of Interest

We are not aware of any real or perceived conflict of interest that would prevent MFSG from providing objective advice and technical assistance to the Village of Libertyville. No owner, employee or agent of MFSG has any business or personal relationship with any appointed official or employee of Village of Libertyville.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 08/20/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Trimountain Corporation
8301 East Prentice Avenue
Suite 215
Greenwood Village CO 80111

CONTACT NAME: John Davidson
PHONE (A/C, No, Ext): (720) 708-4155 **FAX (A/C, No):** (720) 708-4387
E-MAIL ADDRESS: john@trimountaincorp.com

INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A	The Travelers Indemnity Company	25658
INSURER B	Travelers Casualty Insurance Company of America	19046
INSURER C	Philadelphia Indemnity Insurance Company	18058
INSURER D		
INSURER E		
INSURER F		

INSURED
NewGen Strategies & Solutions, LLC
225 Union Blvd, #305
Lakewood CO 80228

COVERAGES **CERTIFICATE NUMBER:** CL1882601179 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLA MS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPL ES PER: [X] POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:			680-6J985928	09/01/2018	09/01/2019	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV NJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 1,000,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS [X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY			680-6J985928	09/01/2018	09/01/2019	COMBINED SINGLE LIMIT (Ea accident) BODILY NJURY (Per person) BODILY NJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	[X] UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLA MS-MADE DED [X] RETENTION $ 5,000			CUP 7J776575	09/01/2018	09/01/2019	EACH OCCURRENCE AGGREGATE	$ 3,000,000 $ 3,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPR ETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N: N If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		UB-6J985652	09/01/2018	09/01/2019	[X] PER STATUTE [ ] OTH-ER E L. EACH ACC DENT E L. DISEASE - EA EMPLOYEE E L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
C	Professional Liability			PHSD1376987	09/01/2018	09/01/2019	Per Claim Limit Aggregate Limit	$3,000,000 $3,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Policies include a blanket additional insured endorsement for certificate holder only when there is a written contract between the named insured and the certificate holder that requires such status, for the general liability, auto, and umbrella policies. The general liability policy is primary and non-contributory, if required by contract.

The general liability, auto liability & worker's compensation policies include a blanket waiver of subrogation endorsement that provides this feature only when there is a written contract between the named insured and the certificate holder that requires it.

CERTIFICATE HOLDER
Village of Libertyville
118 W. Cook Avenue
Libertyville IL 60048

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

AGENCY CUSTOMER ID: 00013688

LOC #:

ADDITIONAL REMARKS SCHEDULE

Page ____ of ____

AGENCY	NAMED INSURED
Trimountain Corporation	NewGen Strategies & Solutions, LLC
POLICY NUMBER	
CARRIER / NAIC CODE	EFFECTIVE DATE

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 **FORM TITLE:** Certificate of Liability Insurance

The general liability, auto, and umbrella policies include a notice of cancellation to the certificate holders endorsement, providing for 30 days advance notice if the policy is cancelled by the company other than for nonpayment of premium, for which 10 days notice is given.