

Winnetka Village Council
STUDY SESSION
Village Hall
510 Green Bay Road
Tuesday, November 13, 2012
7:30 p.m.

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AGENDA

- 1) Call to Order
- 2) Tunnel Feasibility – Willow Road or Ash Street.....2
- 3) Stormwater Funding Mechanisms15
- 4) Adjournment

NOTICE

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Agenda Report

Subject: **Tunnel Feasibility – Willow Road or Ash Street**

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

Date: November 9, 2012

At the September 11, 2012 Study Session, the Village Council received a presentation regarding the feasibility of utilizing a tunnel to convey stormwater from west of Green Bay Road to Lake Michigan. The Tunnel Project consists of a new storm sewer beneath Willow Road that would convey water from a roughly 900-acre drainage area on the west side of the Village eastward, towards Lake Michigan. This project would combine improvements for 5 of CBBEL's 8 study areas into a single project with a cost estimate of \$34.5 million. The proposed improvement benefits the areas North (including Provident Avenue) and South of Willow Road, Cherry Street Outlet and the Underpass Study areas for the 100-year design storm event. This proposed improvement consists of an 8-foot diameter storm sewer underneath Willow Road running from approximately Glendale Avenue to Lake Michigan, a distance of 7,900 feet. Approximately 3,800 feet would be constructed by tunneling, the remainder by open cut methods. The project includes construction of additional storm sewer connected to the tunnel to provide relief to 5 drainage basins affected by frequent and/or severe stormwater flooding, construction of a structure to address water quality, and construction of an outlet structure to control water velocity and prevent erosion.

As engineering and feasibility studies have advanced, some potential project modifications were identified that could reduce the overall cost of the project. These modifications involve relocating most of the large diameter storm sewer, including the tunneled portion, from Willow Road one block north to Ash Street. The proposed storm sewer would still have an outlet to Lake Michigan at Willow Road, since that is where the public access point is located. However, relocating the storm sewer to Ash Street eliminates some of the connecting pipe runs necessary and will reduce the project cost somewhat. Relocating the pipe run to Ash Street would also potentially allow construction to proceed using a different tunneling method known as direct jacking. This method would require additional shafts to be constructed that would not be possible on Willow Road because of the attendant traffic disruption. However, this approach could reduce the overall construction cost. At the conclusion of the Council's discussion, the primary recommendation was to retain the services of Christopher B. Burke Engineering, Ltd. (CBBEL) and Kenny Construction (Kenny) to assist the project team in evaluating routing (i.e., Willow Road or Ash Street), in identifying alternate means and methods, and in identifying potential cost reductions.

Project Construction Methods

Two different tunneling methods have been discussed for the Project to date. The first is conventional tunnel boring method which utilizes a two pass system, and the second is a

direct jacking tunneling method which utilizes a single pass system. In the conventional tunnel boring method, the first “pass” consists of the tunnel boring machine excavating the soil and a slightly larger conduit being installed as a place “holder” that temporarily supports the ground. A second “pass” is then necessary. The second “pass” consists of installation of the smaller final storm sewer, bracing the final sewer pipe within the temporary support conduit, and backfilling the open space between the two conduits or “passes”. In the direct jacking method, the large storm sewer (final conduit) is pushed (jacked) behind the tunnel boring machine as it progresses underground.

Depending on soil conditions, the direct jacking method can be slightly less expensive than the conventional tunnel boring method due primarily to the fact that the direct jacking method requires a single pass to complete. The direct jacking method does require additional shafts along the tunnel alignment because of the limitations on the length the large storm sewer can be pushed (jacked). A direct jacking tunnel drive length may be limited to a little as 600’ and as long as 1500’ between shafts, depending on the existing soil conditions. Each shaft is utilized to push the next string of sewer pipe underground to the next shaft. The following picture shows an 84-inch storm sewer being installed through the direct jacking method in Michigan City in November 2010:



Both tunneling methods will require shafts that consist of an open area of approximately 16 ft. by 28 ft. or 24 ft. in diameter and will range from 15 to 40 feet deep. The following table summarizes the advantages and disadvantages between the two methods:

Tunneling Method	Advantages	Disadvantages
Direct Jacking	<ul style="list-style-type: none"> - Potential for slightly reduced cost - Reduced construction schedule and associated impacts due to the single pass - Shaft locations could be designed to coincide with required future storm connection locations - Increased access points for maintenance and operations 	<ul style="list-style-type: none"> - 2 to 3 additional shafts and associated staging areas required - Additional pedestrian and vehicular traffic disruption - Potential for more utility relocations in vicinity of shafts/staging area - Would need approval by RR for single pass RCP pipe in lieu of steel casing requirements
Conventional Tunneling	<ul style="list-style-type: none"> - Only 2 shafts required, at the east and west ends of the project - Reduced impacts to pedestrian and/or vehicular traffic during construction 	<ul style="list-style-type: none"> - Reduced access points to final storm sewer - Longer construction schedule - Storm sewer connection points and associated structures will be required in the future

The area needed for each shaft is significant. Besides the substantial excavation area, a contractor needs a large crane, a generator trailer, grout pump units in trailers, space for a dump truck, space to store anywhere between 6 to 10 pipes per day, plus room to operate. This operation requires dump trucks entering and leaving the shaft site throughout the day, as well as pipe being delivered likely each day. The picture on the following page gives an idea of the area needed for a similar size shaft and the additional equipment:



Alternate Route on Ash Street

Relocating the construction of the Project to Ash Street slightly reduces a portion of the estimated cost due to the tunneling method used. Kenny estimated the tunneling portion of the Project to be \$9.20 million along Ash Street utilizing the direct jacking method compared to \$9.54 million utilizing the conventional tunnel boring method along Willow Road. This is a cost savings of 3.6% of the tunneling portion of the Project if construction is moved to Ash Street utilizing the direct jacking method.

Public safety is a major concern for construction of the Project. The field investigation indicated that the large open shafts and truck construction traffic along Ash Street is a major safety concern due to the pedestrian traffic along Ash Street, especially during the school year. Construction of the Project on Ash Street would eliminate significant street parking and be problematic for residential access to properties. From a workable area perspective, it would be preferred to use the intersections for shaft locations. Kenny Construction has indicated that five drop shafts – located on Ash Street at the intersections with Birch Street, Linden Street, Green Bay Road, Cedar Street and Walnut Street – will be required to utilize the direct jacking method. The additional shafts required along the Ash Street route reduce the cost savings of the direct jacking method because only two shafts are required along the Willow Road route.

Construction of the Project will consist of pavement restoration regardless of the route chosen. The Village has secured Federal Aid funding for a project that would reconstruct Willow Road from Hibbard Road to Provident Avenue. Currently, the Willow Road tunnel project cost estimate includes pavement restoration, however coordination with this Federal-Aid project could off-set a portion of the pavement restoration costs associated with the Project. Overall, construction of the Project along Willow Road is the preferred method with respect to safety, constructability and cost. The table on the following page summarizes the findings between the two routes:

Route	Advantages	Disadvantages
Ash Street	<ul style="list-style-type: none"> - No significant overhead Utility lines - Willow Road remains open to through traffic from Hibbard to Green Bay Road - No businesses disrupted 	<ul style="list-style-type: none"> - Residential traffic - Pedestrian traffic - Increased number of shaft locations - Tighter intersections and narrower roadway widths
Willow Road	<ul style="list-style-type: none"> - Share of road restoration cost with IDOT - Less pedestrian traffic - Keeps trucks off residential side roads 	<ul style="list-style-type: none"> - Rerouting of Willow Road traffic - Possible business disruption - Utility lines

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Cost Considerations

There are cost advantages associated with portions of each route. For example, the direct jacking on the Ash Street route reduces tunneling costs, while the Willow Road route allows for the possible offloading of pavement replacement costs to the already identified Willow Road Pavement Rehabilitation project. The following table is a side-by-side cost comparison of the two options:

Item	Willow Route Cost Estimate	Ash Route Cost Estimate	Comments
Seeding/Erosion Control Blanket	\$15,000	\$45,000	
Topsoil Furnish and Place	\$20,000	\$60,000	Restoration for additional drop shafts
Remove Storm Sewer & Structure	\$230,000	\$230,000	
Storm Sewer, RCP (24" to 96")	\$6,635,000	\$6,915,000	Additional 96" sewer from Ash to Willow on east end.
Storm Sewer, RCP 96", Tunneled	\$9,540,870	\$9,200,000	
Box Culvert 5'X8'	\$1,125,000	\$1,125,000	
Storm Structures, 5' Dia., 7' Dia., 10' Dia.	\$965,000	\$965,000	
Junction Chamber	\$100,000	\$100,000	
Riprap with Filter Fabric	\$5,000	\$5,000	
Class D Pavement Patches, 12"	\$2,649,975	\$2,737,975	
Trench Backfill, Special	\$2,981,250	\$3,157,250	
Energy Dissipater	\$140,000	\$140,000	
Water Quality Structure	\$94,000	\$94,000	
Traffic Control	\$1,000,000	\$900,000	
Construction Layout	\$500,000	\$550,000	
Utility Relocations	\$200,000	\$250,000	Conceptual Estimate
Subtotal Construction	\$26,201,095	\$26,474,225	
Contingency	\$4,763,176	\$4,834,845	20% contingency (15% on tunneling item based on additional detail)
Construction Total	\$30,964,271	\$31,309,070	
Design Engineering (4.5%)	\$1,393,392	\$1,408,908	Percentage of construction costs
Construction Observation (4.5%)	\$1,393,392	\$1,408,908	Percentage of construction costs
Permitting (1.0%)	\$309,643	\$313,091	Percentage of construction costs
Feasibility Studies	\$37,750	\$37,750	Completed
Material Testing	\$35,000	\$35,000	Estimate
Project Management (1.5%)	\$464,464	\$469,636	Estimate
Total Estimated Project Cost	\$34,597,912	\$34,982,363	

The total cost of the project increases slightly with the Ash Street route because of the additional 96-inch storm sewer needed at the east end of Ash Street to connect to the Willow Road outlet, as well as the additional costs associated with pavement and trench restoration.

After evaluating all of the factors discussed above, it was the consensus of staff, CBBEL, and Kenny that construction along Willow Road is the preferred alternative, for the following reasons:

- The Willow Road route will be less disruptive to public safety because there would be fewer drop shafts, and pedestrian crossing points would be more controlled.

- The Willow Road route will cause less disruptive construction traffic in the residential neighborhood.
- The Willow Road route, using the tunnel boring method, requires fewer shafts for the tunneling portion of the Project, thereby not restricting access as many residences.
- The Ash Street route poses additional utility conflicts due to the increased number of drop shafts.
- The Ash Street route would require additional coordination with the Union Pacific Railroad, where steel casings are required to cross under the railroad.
- Pavement restoration could be coordinated with the Federal-Aid project and could result in additional savings on the Willow Road route.

The estimated cost for the project remains at \$34,597,912 for the Willow Road route.

Winnetka Avenue Underpass Connection

Among other considerations for the Tunnel Project are the necessary connections of other study areas. The main route of the tunnel is from west to east under Willow Road. To provide relief to the six areas of flooding the tunnel storm sewer addresses, there are connections north and south of Willow Road. The Sunset/DeWindt/White Oak area south of Willow Road is connected to the tunnel project from a storm sewer proposed under Birch Street. The Ash/Cherry/Oak Street area west of Glendale Avenue is connected by a proposed storm sewer under Glendale Avenue. That connection then continues north to Pine Street to collect water from another flooding problem area. Similarly, there is a large storm sewer proposed under Provident Avenue to collect the runoff from the Blackthorn/Westmoor drainage area. All of these locations address areas that had reported multiple-house flooding during the September 2008 and July 2011 flood events. On the east end of the Project, there are 2 connections proposed at Sheridan Road and Willow Road. One connection from the north extends north under Sheridan Road to collect water from areas along and west of Sheridan Road on Ash, Cherry, and Oak Streets.

One final connection from the south extends southwest to the Winnetka Road underpass, just west of New Trier High School to reduce flooding at that location. The Village Council has previously expressed questions about the need for the connection from the tunnel to the underpass. High water marks and visual observations indicated the flooding was up to 6 or 7 feet deep at the underpass in July, 2011. While the road was not passable for a period of time, there were no homes that reported flooding in the immediate area of the underpass. There are also some additional benefits to the areas north and east of New Trier High School from the tunnel extension to the underpass. There were a few homes in the area around New Trier High School that reported overland flooding (2 on Elder Lane near Woodland, 3 on Sunset Road near Woodland, 2 on Fuller Lane). Constructing the underpass connection to the Tunnel would reduce the water level in the street during a flood like the July 2011 event – and smaller events. For example, the hydraulic model shows the reduction of the water level in the street for the following locations surrounding New Trier High School:

Location	Reduction in Water Level for the July 2011 Event
Fuller Lane	0.7 feet
Sunset Road Corridor	0.4 feet
Elder Ln and Fairview Ave	0.3 feet
Elder Ln and Woodland Ave	1.4 feet

The table above shows a significant water-level reduction at the intersection of Elder Lane and Woodland Avenue and less reduction in the other areas.

A decision to forego constructing this connection could yield a cost savings of up to \$4.4 million, however constructing this connection at the 100-year level would provide flood risk reduction to areas around New Trier High School, in addition to significant flood risk reduction at the Winnetka Avenue Underpass.

Next Steps

At this time, the Tunnel Project has been advanced as far as it can be with the current level of engineering detail. The next step in advancing the Tunnel Project would be to solicit proposals from qualified engineering firms to prepare detailed plans and specifications needed to apply for permits from regulatory agencies including the Illinois EPA, the US Army Corps of Engineers, and the Illinois Department of Natural Resources.

Given the expected magnitude of the proposed contract (\$1.4 million based on cost estimates), staff recommends that the proposed engineering services contract be awarded through a Request for Proposals (RFP) process, using the following steps:

- November 13, 2012: Authorize staff to prepare, but not publish, a Request for Proposals document for Council review and input.
- December 18, 2012: Staff provides draft RFP for Council review and input.
- By January 15, 2013: Council provides input on Draft RFP.
- January 31, 2013: RFP published.
- March 1, 2013: RFP responses due.
- March 2013: Evaluate RFP responses.
- April 2013: Award engineering contract.

This proposed process would allow progress to continue on the Willow Road Tunnel Project while, on parallel tracks, the Stormwater Utility Feasibility Study and the Baxter & Woodman drainage studies of the remaining 6 drainage areas of town can be completed and reviewed by the Village Council before the Council considers awarding an engineering contract. By following this process, the Council would not be committing to the expenditure of funds for detailed engineering until a contract is awarded.

Recommendation:

At this point in the project schedule, staff recommends authorization to prepare for Council review and input, but not publish, a Request for Proposals for detailed design

engineering services associated with the Tunnel Project. Staff anticipates returning this item for Council feedback in December 2012.

Attachments:

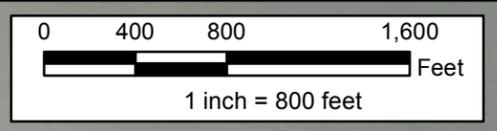
1. Tunnel Project: Willow Road Route
2. Tunnel Project: Alternate Route – Ash Street

ATTACHMENT #1
Tunnel Project: Willow Road Route



Legend

- Existing Storm Sewers
- Lake Michigan Outlet

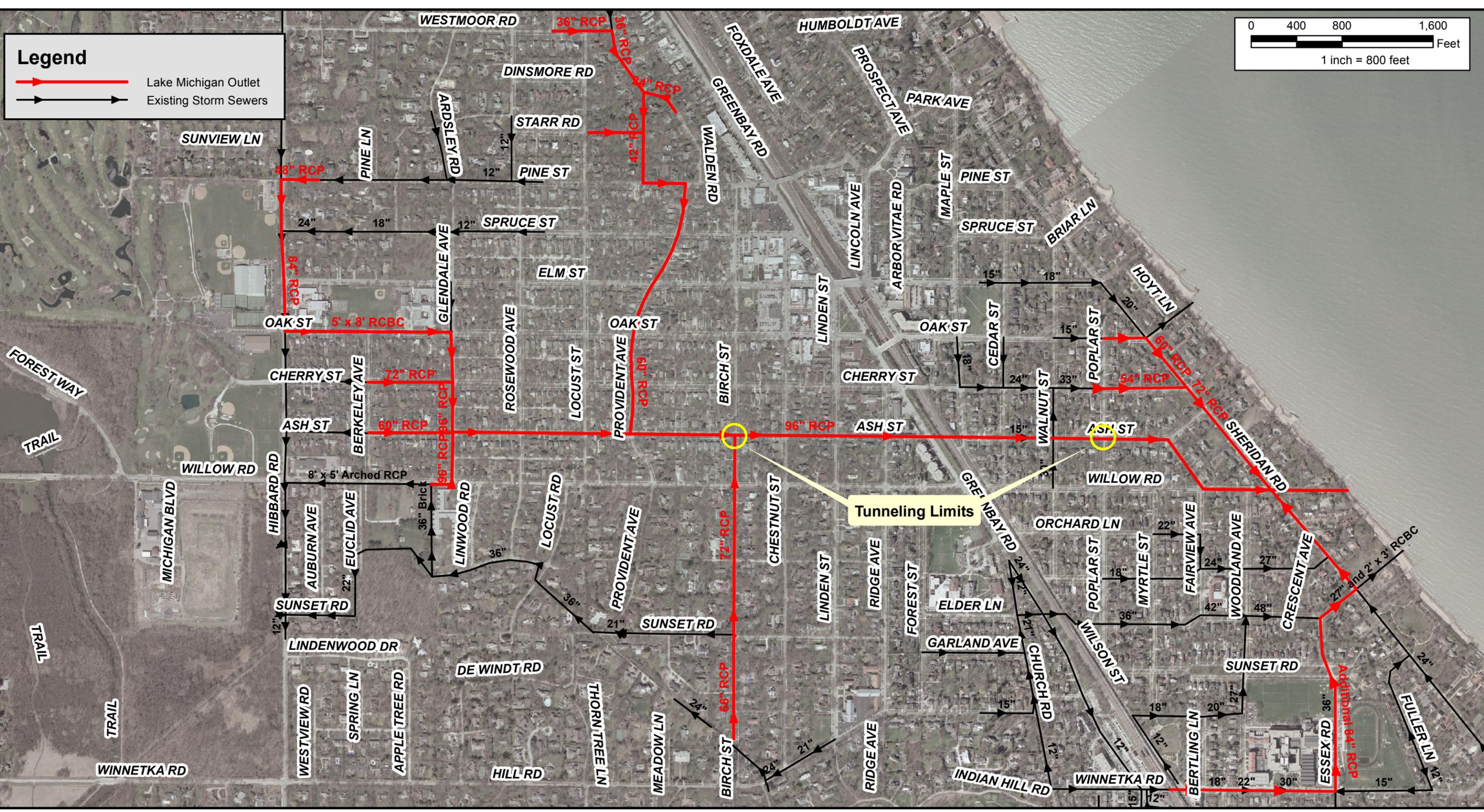


Tunneling Limits

 <p>Christopher B. Burke Engineering, Ltd. 9575 West Higgins Road, Suite 600 Rosemont, IL 60018 (847) 823-0500 / FAX (847) 823-0520</p>	CLIENT	Village of Winnetka	PROJECT NO.	08-0671	DSGN.	MJB	CHKD.		
	TITLE	Lake Michigan Outlet - Willow Road						DATE	11/7/12
									EXHIBIT

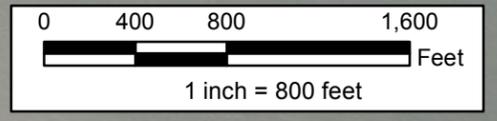
Agenda Packet, P. 12

ATTACHMENT #2
Tunnel Project: Alternate Route – Ash Street



Legend

- Lake Michigan Outlet
- Existing Storm Sewers



Tunneling Limits



Christopher B. Burke Engineering, Ltd.
 9575 West Higgins Road, Suite 600
 Rosemont, IL 60018
 (847) 823-0500 / FAX (847) 823-0520

DSGN.	MJB	CHKD.	
CLIENT Village of Winnetka		PROJECT NO. 08-0671	
TITLE Lake Michigan Outlet - Ash Street		DATE 11/7/12	
		EXHIBIT Agenda Packet, P. 14	



Agenda Report

Subject: **Stormwater Funding Mechanisms**

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

Date: November 8, 2012

On September 18, 2012, the Village Council awarded a contract to Municipal & Financial Services Group (MFSG) to conduct a Stormwater Utility Feasibility Study. The approved proposal includes four workshops: (1) Stormwater Funding Mechanisms, (2) Level of Service, (3) Rate/Fee Analyses, and (4) Implementation. Attached is a PowerPoint summarizing MFSG's presentation for the first workshop.

In addition to Village staff, Kevin McCanna of Speer Financial will attend to discuss the Interest Rate Cycle, General Obligation Bonds, Revenue Bonds and Home Rule Status.

Recommendation:

This is an informational presentation.

Attachments:

1. MFSG PowerPoint
2. Staff presentation from November 8, 2011 Village Board Study Session regarding Stormwater Bond Issuance and Financing.

ATTACHMENT #1

MMSG PowerPoint



Municipal & Financial
Services Group



Village of Winnetka

Storm Water Utility Feasibility Study



Stormwater Funding Mechanisms Primer

November 13, 2012

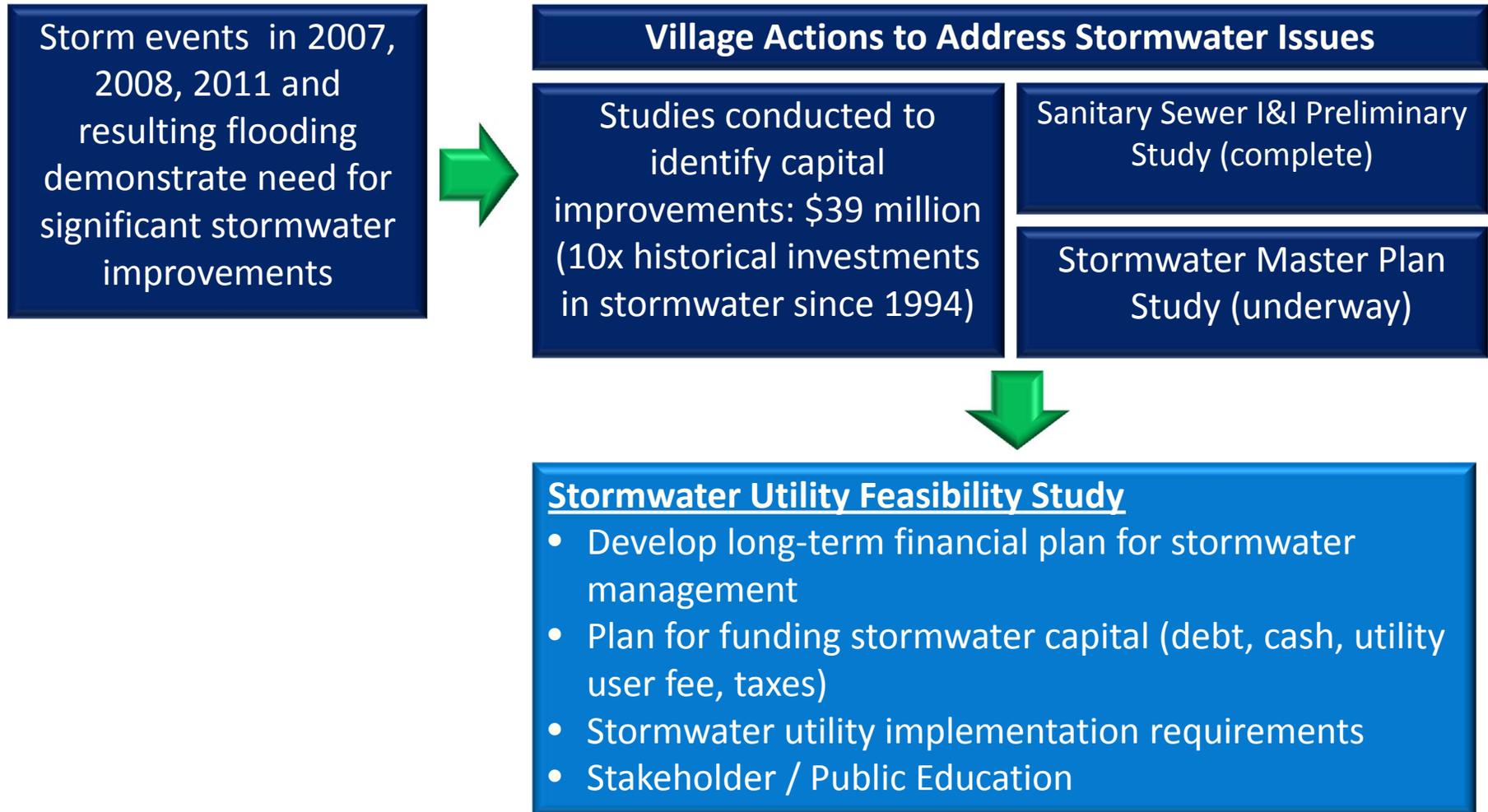


Agenda

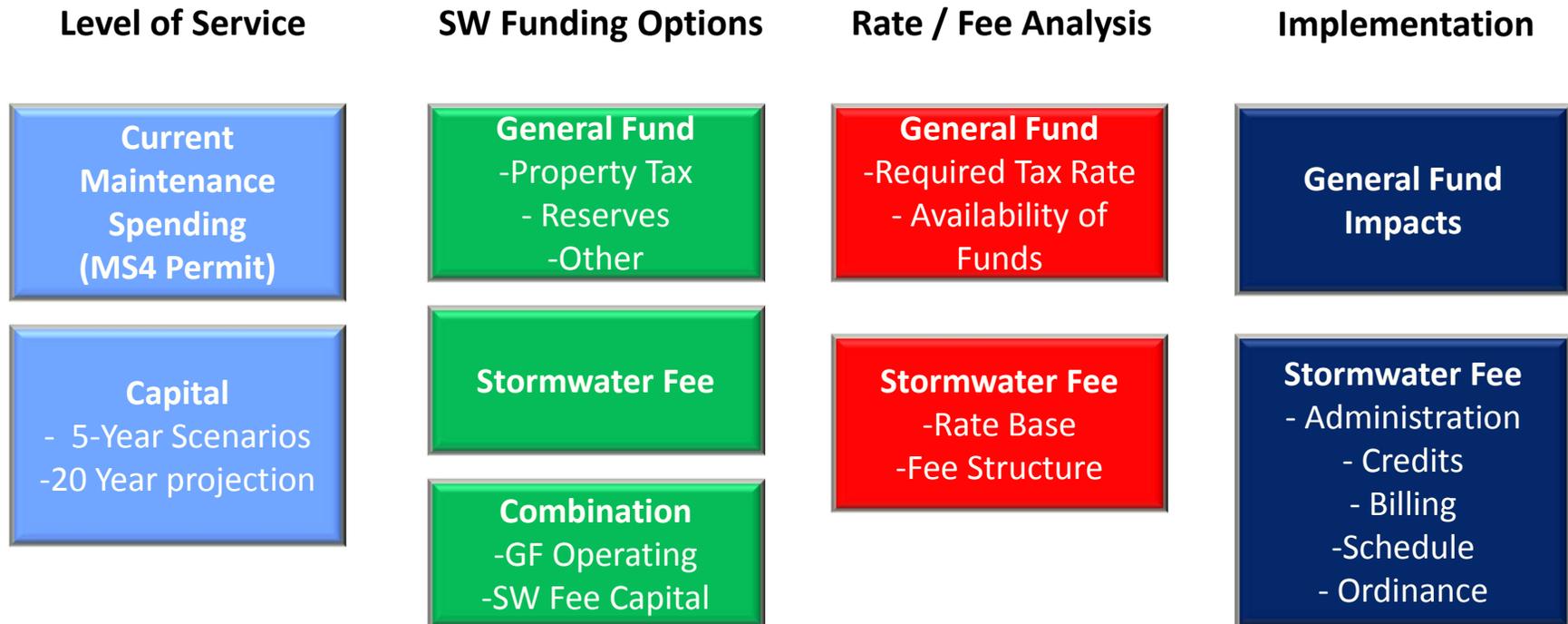
- ❑ Stormwater Utility Feasibility Study Overview
- ❑ Stormwater Funding
- ❑ Desired Outcomes / Considerations
- ❑ Discussion

Study Overview

Background



Stormwater Utility Feasibility Overview



Level of Service

Current Maintenance
Spending
(MS4 Permit)

Capital
- 5-Year Scenarios
- 20 Year projection

- Study will identify the full cost of providing stormwater service in the Village.
 - Documentation of existing and future operating and maintenance costs.
 - Detailed examination and development of multiple 5 year capital improvement scenarios
 - Development of 20 year capital improvement plan

Stormwater Funding Options

General Fund
-Property Tax
- Reserves
-Other

Stormwater Fee

Combination
-GF Operating
-SW Fee Capital

- Study will examine and develop multiple stormwater funding options.
 - Funding of stormwater operations and capital from General Fund or Stormwater Fee or Combination .
 - Development of financing plans including:
 - Debt issuance
 - Cash “pay-as-you-go” funding
 - Dynamic financial model to facilitate analysis

Rate / Fee Analysis

General Fund

-Required Tax
Rate

- Availability of
Funds

Stormwater Fee

-Rate Base

-Fee Structure

- Based on the financial plans, determine the necessary tax rate and stormwater fee.
 - Examine availability of funds from GF and required property tax rate.
 - Full development of stormwater fees:
 - Rate Base - unit of measure for the fee (impervious area or other)
 - Fee Structure - how the fee is imposed (uniform fee for all, parcel by parcel, average or other)
 - Detailed documentation of property owner impacts.

Implementation

General Fund Impacts

Stormwater Fee

- Administration
- Credits
- Billing
- Schedule
- Ordinance

- The study will develop the necessary implementation materials to carry out the financial plan.
 - Document impacts to General Fund and any necessary actions.
 - Develop materials required to implement a stormwater utility and fee.

Study Timeline



Stormwater Funding

Stormwater Funding

Funding Options

Stormwater
Fee

General
Fund:

- Property Tax
- Reserves
- Other

Cash
Funded

Debt
Funded

Financing Methods

Funding Option: Property Taxes

- ❑ The Village has historically funded stormwater maintenance and capital with property taxes on a cash “pay-as-you-go” basis

- ❑ Benefits of Property Tax Funding
 - Limits Change - Current practice
 - Administrative Simplicity

- ❑ Disadvantages
 - Limits on ability to generate sufficient funds to retire debt
 - Increases the Village’s outstanding debt (GO Bonds)

Funding Option: Stormwater Fees

- ❑ Stormwater Fees and Utilities are becoming increasingly common in IL and across the US. **Why?**
- ❑ Improved Equity
 - Users contribute based on stormwater impact
 - Property value does not correlate to stormwater impact
 - Tax-exempt properties pay their fair share
- ❑ Fiscally accountable
 - Fees are driven by level of service and needs
 - Fees are exclusively used for stormwater needs
 - Establishment of enterprise fund

Funding Option: Stormwater Fees

- ❑ Dependable revenue stream
 - Allows for pro-active management of system, resulting in lower life-cycle costs
 - Allows for issuance of revenue bonds
 - Allows for long-term planning

- ❑ Brings stormwater services to the forefront as a vital service to Village property owners
 - Fees increase public awareness of actual costs
 - Provides opportunity for education
 - Stormwater utility identifies costs easier
 - Motivates on-site stormwater management

Taxes Vs. Stormwater Fees

	Property Taxes	Stormwater Fees
Administrative Simplicity	✓	X
Revenue Stability / Dependability	X	✓
Equity - Correlation between SW Generation and Individual Property	X	✓
All Property Owners Contribute	X	✓
Deductibility (Residential Property Owners)	✓	X
Fiscal Accountability / Transparency	X	✓
Community Awareness	X	✓
Encourages Onsite Stormwater Management	X	✓

Financing Method: Debt

- ❑ The use of debt is common for stormwater capital projects
 - Magnitude of the projects often requires financing
 - Stormwater assets are long-lived / repayment matches life of asset
 - Does result in higher costs over life of project (issuance costs, interest)
- ❑ Home Rule Status means Village has no debt limit and quick market access
- ❑ Very low interest rate cycle
 - Bank qualification obtains lowest rates if debt annually limited to \$10,000,000
 - Proceeds must be spent within three years
- ❑ Repayment of Bonds
 - Property taxes or stormwater fees can be used to retire debt
 - If stormwater fee is implemented the Village could issue revenue bonds (pledge revenues of utility)

Financing Method: Debt

- ❑ Revenue Bonds
 - Need stable, quantifiable revenues
 - Coverage requires excess revenues
 - Reserves require increased size
 - Rating likely to be lower than Aaa
 - Places additional requirements on the Village
 - Debt coverage requirements
 - Debt service reserve

- ❑ General obligation bonds
 - Aaa rating
 - Lowest cost
 - Taxes can be (partially) abated with fee revenue

Financing Method: Cash - “Pay-As-You-Go”

- ❑ Typically used for:
 - Operations and maintenance of stormwater system
 - Short lived assets
 - Routine annual capital improvements
 - Small, one-time capital projects

- ❑ Fiscally traditional approach to funding stormwater
 - Results in higher taxes or fees in short-term but lower long-term

- ❑ Does not provide intergenerational equity (current property owners paying today for assets that will benefit future owners).

Theoretical Example

- ❑ Village issues \$30 million in bonds to fund stormwater capital projects - results in annual debt service of \$2.1 million⁽¹⁾

Theoretical Data			Results	
Property Type	Impervious Area (square feet)	Property Taxes	Annual Property Owner Bill Using: Taxes ⁽²⁾	Annual Property Owner Bill Using: Stormwater Fee ⁽³⁾
Residential A	3,500	\$20,000	\$416	\$300
Residential B	3,500	\$40,000	\$833	\$300
Commercial	7,000	\$30,000	\$625	\$600
Tax Exempt	3,500	\$ -	\$ -	\$300

(1) Assuming 20 year bond at 3.5%

(2) Assuming Village levied property taxes

(3) Assuming stormwater fee is assessed per 3,500 square fee of impervious area at \$25 per month

Desired Outcomes / Considerations

Desired Outcomes

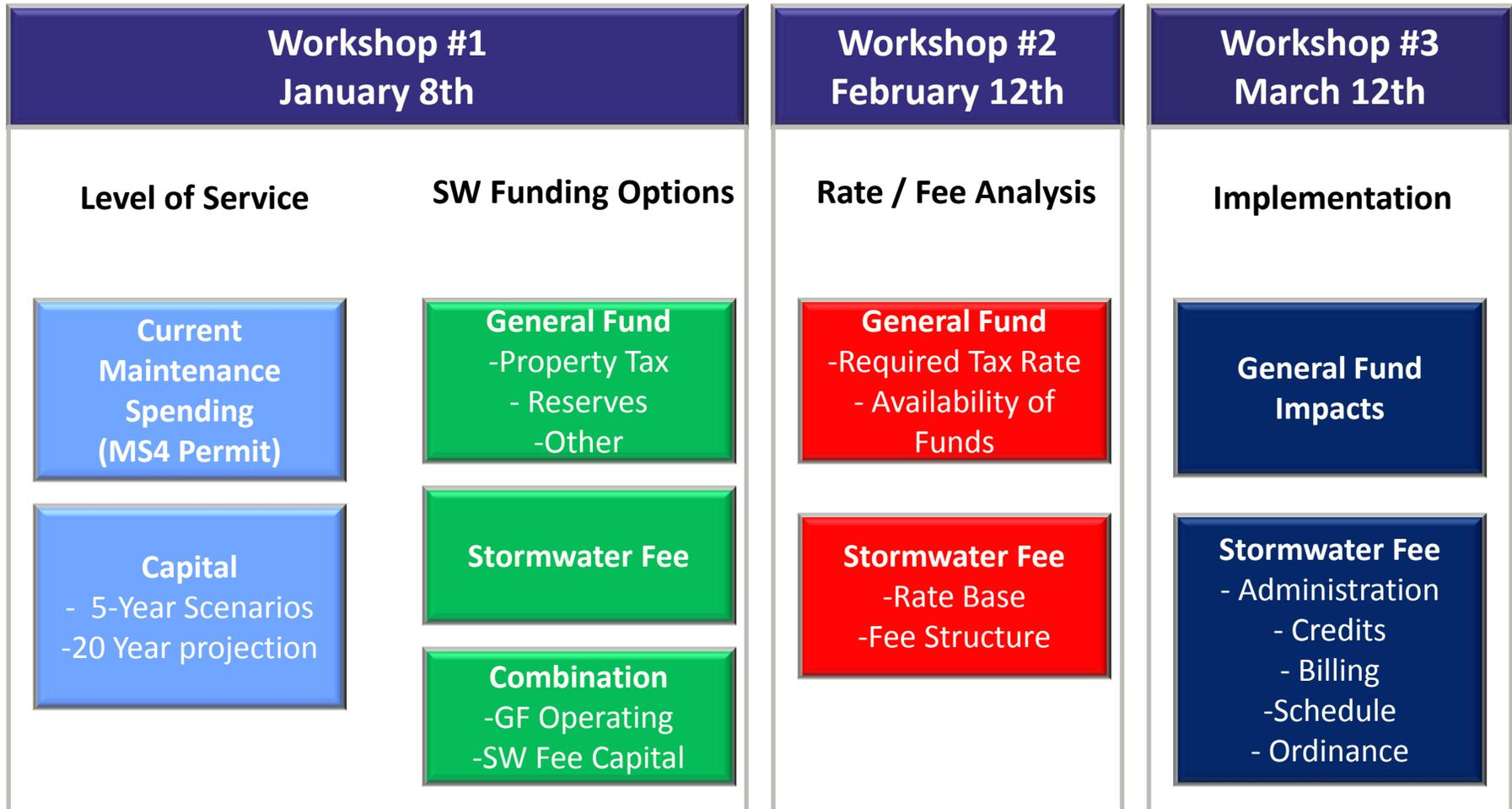
- The study will develop:
 - The full cost of providing stormwater service in the Village (maintenance and capital)
 - Financial plans for funding stormwater (taxes, stormwater fees or combination)
 - The necessary tax rate, stormwater fee and document the impact on property owners
 - Implementation materials (GF actions, materials to implement stormwater utility and fee)

Considerations

- What are the Council's key concerns related to:
 - The study
 - Funding of stormwater improvements
 - Other

- What potential obstacles exist for the study?

Study Timeline Recap



Questions / Discussion

ATTACHMENT #2

**November 8, 2011 Village Council Study Session Materials
Stormwater Bond Issuance and Financing**

STUDY SESSION
WINNETKA VILLAGE COUNCIL
Winnetka Police Department
410 Green Bay Road
Winnetka, Illinois 60093
Tuesday, November 8, 2011
7:30 p.m.

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AGENDA

- 1) Call to Order.
- 2) Discussion: Stormwater Bond Issuance and Financing2
 - a) Exhibit A7
 - b) Exhibit B8
 - c) Exhibit C9
 - d) Exhibit D11
 - e) Exhibit E15
 - f) Exhibit F26
 - g) Exhibit G40
- 3) Public Comment
- 4) Executive Session
- 5) Adjournment

NOTICE

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Agenda Report

Subject: Stormwater Bond Issuance

Prepared by: Ed McKee, Finance Director

Date: November 4, 2011

Ref: August 2, 2011 Council Agenda, pp. 26-39
August 16, 2011 Council Agenda, pp. 94-128

Executive Summary

After several meetings in which the financing of stormwater improvements was discussed (see attachments), Staff was directed to research whether it makes sense to issue bonds now, even though the project is at least a year away in terms of needing cash.

I have had several conversations with the Village's financial advisor, Kevin McCanna, of Speer Financial Inc. Based on those conversations and what is known today, it is my professional opinion that it would be premature to issue bonds now. It would be to the Village's advantage to more fully define the project's scope and determine how it intends to repay the bonds before issuing debt. It is imperative that the funding mechanism – be it property taxes, utility fees, an SSA, or reserves – be clearly identified before any debt is incurred because it is necessary to explain to those buying the bonds how they will be repaid. There are simply too many unknowns to recommend moving forward with a bond issue at this time.

Preliminary Debt Issue Analysis

If the Village were to proceed with a \$10,000,000 debt issuance in the near term, it would increase the Village's expenses immediately. The annual principal and interest payments would be \$730,000 for the next 20 years. If interest rates remain unchanged and the Village issues bonds one year from now, the annual debt would be about \$700,000. The difference is largely the net cost of the Village paying interest on the bonds for a full year before the proceeds are needed.

During recent Council meetings it has been suggested that because of the extremely low municipal borrowing interest rates currently available, now is the time for the Village to issue debt. However, this has been the case for the last several years and similar arguments could have been made throughout this period. While the borrowing rate the Village would pay on a bond issue is, in fact, very low, the net cost of issuing municipal tax exempt debt now and temporarily investing the proceeds is high by historical standards. There was a time when there was no financial penalty to issuing debt before the cash was needed to fund a project. Then, it was possible to earn enough in interest income on your temporary investments to pay the interest expense on the tax exempt bonds.

Today, however, the Village would likely pay about 3.5% interest on a 20-year bond issue and earn almost nothing on those proceeds if they were temporarily invested. In this scenario, the Village would incur an immediate cost of about \$29,000 per month (a 3.0% interest rate difference between the interest paid on the bonds issued and the earnings rate on the temporarily invested \$10,000,000). This \$29,000 per month expense is real and increases the overall project cost.

If the Village knew what future interest rates would be, it is possible that it would make sense to issue bonds now despite the \$29,000 monthly cost. For example, if in the next year municipal borrowing rates were to rise by 15 basis points (0.15%), the Village would be at about the break even point. That is, the extra \$29,000 monthly expense for one year would be about the same dollar amount as the higher municipal borrowing costs.

If municipal borrowing rates were to increase significantly more than 15 basis points, it might prove to be a good financial decision to issue bonds now. Unfortunately, future interest rates are unknown; rates could be higher, lower, or about the same as they are now. On the other hand, if rates were to fall over the next year, the decision to issue bonds now would cost the Village in excess of \$348,000 (12 months x \$29,000).

Property Tax Analysis

In order to put an additional \$700,000 expense (the annual principal and interest cost on a \$10,000,000 20 year bond issue) into perspective, I would like to compare that to the annual property tax levy. The Village represents approximately 13% of the total tax bill and the 2011 property tax levy for the Village totals about \$13.5 million. Therefore, a \$700,000 expense, if funded solely from property taxes, would in and of itself equate to a 5.2% increase in the Village property tax levy. This is in addition to the need to increase the levy about 2.8% for increased operating expenses. If the total cost of the stormwater project ends up around \$40,000,000 and that was paid entirely from property taxes, that would equate to a 20.8% increase in the Village portion (13%) of the property tax bill, or an approximately \$568¹ increase in property taxes for someone with a current total property tax bill of about \$20,000.

It is important to note that if residents pay for stormwater improvements via property taxes, they may be able to deduct this expense from their income taxes. It would also mean that someone with a \$40,000 property tax bill would pay twice as much for stormwater improvements as someone with a \$20,000 property tax bill, regardless of the amount of impervious lot coverage or any other factors.

¹ See Exhibit C – cost of a \$40,000,000 bond issue, column B

Stormwater Utility Analysis²

Another option for repaying bonds is to assess a user charge on the community as a whole, those benefitting, or some combination thereof. If \$10,000,000 of bonds were financed through a user charge assessed on all parcel owners, it would equate to a \$12.95 per month (\$155.40 per year) charge for all 4,500 parcel owners for the next 20 years. If the total amount financed was \$40,000,000, the monthly charge would be \$51.80 (\$621.60 per year).

The following documents are attached for your reference:

Exhibit A: Debt service schedule assuming the Village issues bonds in January of 2012 and pays interest for one year before the project starts. This indicates an annual cost of about \$730,000, except for the initial period.

Exhibit B: Debt service schedule assuming principal and interest costs start year 1. This indicates an annual cost of about \$700,000.

Exhibit C: Spreadsheet showing the cost of financing \$10,000,000 increments of stormwater improvements. The analysis includes three scenarios: (i) funding the cost equally among 4,500 parcels; (ii) funding based on property taxes – for someone with a \$20,000 total property tax bill; and (iii) funding based on property taxes – for someone with a \$40,000 total property tax bill.

Exhibit D: Agenda report with Subject “Stormwater Improvement Financing Options: Stormwater Utility” (August 11, 2011).

Exhibit E: Agenda Report with Subject “Report on Storm and Flood Event and Stormwater Management Strategies (July 29, 2011).

Exhibit F: Agenda Report with Subject “2011 Property Tax Analysis,” (October 26, 2011).

Exhibit G: Compilation of Council minutes of meetings at which stormwater financing has been discussed.

You may note that there is a slight difference between the amounts calculated in Exhibit C from previously distributed materials. The amounts in Exhibit C have been updated to reflect the current municipal borrowing rates which are lower than when the prior analysis was performed.

Next Steps

As the above discussion shows, based on current market conditions and the very preliminary cost projections, issuing bonds at this time would be premature and add unnecessarily to the financing costs of the ultimate project.

² See Exhibit C, column A

Following is a list of the steps that are necessary to prepare for a timely financing issue. It should be noted that the steps are not in a strict chronological order, as some of them can be done simultaneously. In addition, if multiple projects are done at the same time, or if the Council decides to use a combination of financing tools, there may be parallel tracks for some of the steps. These steps will be incorporated into the critical path schedule that staff is preparing for the Council, which will better illustrate both the entire stormwater project as a whole and the sequencing of individual tasks within that framework.

- 1) Define scope of project (s).
 - a) Identify protection levels for each project area/watershed.
 - b) Obtain more detailed preliminary engineering for each project area/watershed.
 - c) Identify special technical issues for each project area (e.g., soil borings, utility relocation).
 - d) Continue working with other agencies to identify possible detention areas and route for possible tunnel.
 - e) Identify permits, agreements and approvals needed.
- 2) Obtain secondary engineering review(s).
- 3) Complete project engineering.
- 4) Refine project cost estimates.
- 5) Consider project scheduling within budgetary framework:
 - a) Impact on other capital projects.
 - b) Determine whether project(s) will be done simultaneously or in phases.
- 6) Determine underlying financing principles and budget impact:
 - a) Should any of the project costs be paid in full up front? (i.e., current budget, cash reserves)
 - b) Should recovery of project costs be financed over time and spread among all properties in the Village based on taxable value of the property? (i.e., property taxes)
 - c) Should recovery of project costs be financed over time and allocated based on localized improvements and/or benefits? (i.e., special service areas or user fees)
 - d) Should recovery of project costs be financed over time and allocated based on the amount of impermeable surface? (i.e., user fees)

- e) Should project costs be financed by a combination of any of the above?
- 7) Work with Financial Advisor (Speer Financial) and Bond Counsel (Chapman & Cutler) to determine amounts to be financed and types of bonds to be issued:
 - a) General obligation bonds
 - b) Special service area bonds
 - c) Revenue bonds to be paid from user fees from stormwater utility (to be established)
 - d) General obligation bonds backed by alternate revenue source (user fees)
- 8) Establish stormwater utility and user fees (if necessary).
 - a) Amend Village Code.
 - b) Adopt resolution setting fees.
 - b) Consider initiating revenue stream before bonds are issued.
- 9) Establish special service area(s) (if necessary).
 - a) Each SSA requires an ordinance proposing the SSA, publication of notice, public hearing, ordinance establishing, and separate tax levy ordinance.
 - b) Because tax levy ordinance is passed in December, revenue stream will begin with taxes levied during the year following creation of the SSA
- 10) Finalize project bid package, issue bid notices.
- 11) Direct Finance Director, Financial Advisor, Bond Counsel and Village Attorney to prepare bond issuance materials.
- 12) Adopt bond ordinance(s).
- 13) Enter into contracts for project work.
- 14) Issue bonds.

Staff and the Village's Financial Advisor, Kevin McCanna of Speer Financial Inc., will be available at the meeting to discuss this issue further and answer any questions.

Recommendation:

Provide policy direction.

VILLAGE OF WINNETKA

Stormwater G.O. Bonds

\$10,000,000--Interst Only One Year

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+i
12/15/2012	-	-	305,277.78	305,277.78
12/15/2013	380,000.00	3.500%	350,000.00	730,000.00
12/15/2014	390,000.00	3.500%	336,700.00	726,700.00
12/15/2015	405,000.00	3.500%	323,050.00	728,050.00
12/15/2016	420,000.00	3.500%	308,875.00	728,875.00
12/15/2017	435,000.00	3.500%	294,175.00	729,175.00
12/15/2018	450,000.00	3.500%	278,950.00	728,950.00
12/15/2019	465,000.00	3.500%	263,200.00	728,200.00
12/15/2020	485,000.00	3.500%	246,925.00	731,925.00
12/15/2021	500,000.00	3.500%	229,950.00	729,950.00
12/15/2022	515,000.00	3.500%	212,450.00	727,450.00
12/15/2023	535,000.00	3.500%	194,425.00	729,425.00
12/15/2024	555,000.00	3.500%	175,700.00	730,700.00
12/15/2025	575,000.00	3.500%	156,275.00	731,275.00
12/15/2026	595,000.00	3.500%	136,150.00	731,150.00
12/15/2027	615,000.00	3.500%	115,325.00	730,325.00
12/15/2028	635,000.00	3.500%	93,800.00	728,800.00
12/15/2029	660,000.00	3.500%	71,575.00	731,575.00
12/15/2030	680,000.00	3.500%	48,475.00	728,475.00
12/15/2031	705,000.00	3.500%	24,675.00	729,675.00
Total	\$10,000,000.00	-	\$4,165,952.78	\$14,165,952.78

Yield Statistics

Bond Year Dollars	\$119,027.22
Average Life	11.903 Years
Average Coupon	3.500000%
Net Interest Cost (NIC)	3.500000%
True Interest Cost (TIC)	3.4979358%
Bond Yield for Arbitrage Purposes	3.4979358%
All Inclusive Cost (AIC)	3.4979358%

IRS Form 8038

Net Interest Cost	3.500000%
Weighted Average Maturity	11.903 Years

VILLAGE OF WINNETKA

Stormwater G.O. Bonds

\$10,000,000

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+i
12/15/2012	395,000.00	3.500%	305,277.78	700,277.78
12/15/2013	365,000.00	3.500%	336,175.00	701,175.00
12/15/2014	375,000.00	3.500%	323,400.00	698,400.00
12/15/2015	390,000.00	3.500%	310,275.00	700,275.00
12/15/2016	405,000.00	3.500%	296,625.00	701,625.00
12/15/2017	420,000.00	3.500%	282,450.00	702,450.00
12/15/2018	435,000.00	3.500%	267,750.00	702,750.00
12/15/2019	450,000.00	3.500%	252,525.00	702,525.00
12/15/2020	465,000.00	3.500%	236,775.00	701,775.00
12/15/2021	480,000.00	3.500%	220,500.00	700,500.00
12/15/2022	495,000.00	3.500%	203,700.00	698,700.00
12/15/2023	515,000.00	3.500%	186,375.00	701,375.00
12/15/2024	530,000.00	3.500%	168,350.00	698,350.00
12/15/2025	550,000.00	3.500%	149,800.00	699,800.00
12/15/2026	570,000.00	3.500%	130,550.00	700,550.00
12/15/2027	590,000.00	3.500%	110,600.00	700,600.00
12/15/2028	610,000.00	3.500%	89,950.00	699,950.00
12/15/2029	630,000.00	3.500%	68,600.00	698,600.00
12/15/2030	655,000.00	3.500%	46,550.00	701,550.00
12/15/2031	675,000.00	3.500%	23,625.00	698,625.00
Total	\$10,000,000.00	-	\$4,009,852.78	\$14,009,852.78

Yield Statistics

Bond Year Dollars	\$114,567.22
Average Life	11.457 Years
Average Coupon	3.5000000%
Net Interest Cost (NIC)	3.5000000%
True Interest Cost (TIC)	3.4978574%
Bond Yield for Arbitrage Purposes	3.4978574%
All Inclusive Cost (AIC)	3.4978574%

IRS Form 8038

Net Interest Cost	3.5000000%
Weighted Average Maturity	11.457 Years

**Village of Winnetka
Storm Water Financing Costs
Equal Share Versus Property Tax Based**

Exhibit C
11.4.2011

	Column A Equal Share For All Parcels	Column B Property Tax Based - \$20,000 Total Bill	Column C Property Tax Based - \$40,000 Total Bill
Debt Total	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000
Annual Principal and Interest #	\$ 700,000	\$ 700,000	\$ 700,000
Basis of Allocation Per Parcel (4,500)	0.0222%		
Property Taxes - \$20,000 Total		0.0203%	
Property Taxes - \$40,000 Total			0.0406%
Debt Under This Scenario Per Home	\$ 2,220	\$ 2,030	\$ 4,060
Annual Principal and Interest Per Home	\$ 155.40	\$ 142.10	\$ 284.20
Monthly Principal and Interest Per Home	\$ 12.95	\$ 11.84	\$ 23.68
Debt Total	\$ 20,000,000	\$ 20,000,000	\$ 20,000,000
Annual Principal and Interest #	\$ 1,400,000	\$ 1,400,000	\$ 1,400,000
Basis of Allocation Per Parcel (4,500)	0.0222%		
Property Taxes - \$20,000 Total		0.0203%	
Property Taxes - \$40,000 Total			0.0406%
Debt Under This Scenario Per Home	\$ 4,440	\$ 4,060	\$ 8,120
Annual Principal and Interest Per Home	\$ 310.80	\$ 284.20	\$ 568.40
Monthly Principal and Interest Per Home	\$ 25.90	\$ 23.68	\$ 47.37
Debt Total	\$ 30,000,000	\$ 30,000,000	\$ 30,000,000
Annual Principal and Interest #	\$ 2,100,000	\$ 2,100,000	\$ 2,100,000
Basis of Allocation Per Parcel (4,500)	0.0222%		
Property Taxes - \$20,000 Total		0.0203%	
Property Taxes - \$40,000 Total			0.0406%
Debt Under This Scenario Per Home	\$ 6,660	\$ 6,090	\$ 12,180
Annual Principal and Interest Per Home	\$ 466.20	\$ 426.30	\$ 852.60
Monthly Principal and Interest Per Home	\$ 38.85	\$ 35.53	\$ 71.05

Assumes a 3.5% interest rate on 20 year bond issue, which equates to a repayment factor of about 7%.

**Village of Winnetka
Storm Water Financing Costs
Equal Share Versus Property Tax Based**

Exhibit C
11.4.2011

	Column A Equal Share For All Parcels	Column B Property Tax Based - \$20,000 Total Bill	Column C Property Tax Based - \$40,000 Total Bill
Debt Total	\$ 40,000,000	\$ 40,000,000	\$ 40,000,000
Annual Principal and Interest #	\$ 2,800,000	\$ 2,800,000	\$ 2,800,000
Basis of Allocation Per Parcel (4,500)	0.0222%		
Property Taxes - \$20,000 Total		0.0203%	
Property Taxes - \$40,000 Total			0.0406%
Debt Under This Scenario Per Home	\$ 8,880	\$ 8,120	\$ 16,240
Annual Principal and Interest Per Home	\$ 621.60	\$ 568.40	\$ 1,136.80
Monthly Principal and Interest Per Home	\$ 51.80	\$ 47.37	\$ 94.73
Debt Total	\$ 50,000,000	\$ 50,000,000	\$ 50,000,000
Annual Principal and Interest #	\$ 3,500,000	\$ 3,500,000	\$ 3,500,000
Basis of Allocation Per Parcel (4,500)	0.0222%		
Property Taxes - \$20,000 Total		0.0203%	
Property Taxes - \$40,000 Total			0.0406%
Debt Under This Scenario Per Home	\$ 11,100	\$ 10,150	\$ 20,300
Annual Principal and Interest Per Home	\$ 777.00	\$ 710.50	\$ 1,421.00
Monthly Principal and Interest Per Home	\$ 64.75	\$ 59.21	\$ 118.42

AGENDA REPORT

SUBJECT: Stormwater Improvement Financing Options:
Stormwater Utility

PREPARED BY: Katherine S. Janega, Village Attorney

REF: August 2, 2011 Council Agenda, pp. 26 - 39

DATE: August 11, 2011

Introduction

At the August 2, 2011, regular Council meeting the Council received a comprehensive report on the storms of July 22-23, and on possible infrastructure improvements. Part of that report included preliminary information on the Village's options for financing stormwater improvements. (August 2, 2011, Agenda pp. 31 – 35) In the course of its discussions, the Council requested further information on stormwater utilities.

Pursuant to that request, this memo provides a more detailed explanation of the nature, purpose and legal structure of stormwater utilities, the procedural steps for establishing a stormwater utility, and the policy issues that need to be decided along the way. In addition, this memo also provides a table listing the advantages and disadvantages of the different financing methods that were identified in the August 2 agenda materials.

Two other points should be noted at the outset. First, the purpose of this memo is to provide the Council with more information, rather than to ask the Council to decide on a course of action at this time. As the list of policy issues below discloses, there are other decisions to be made, and more information to be gathered, before the Council will be in a position to decide which of the financing options is most appropriate. Second, although any discussion of a stormwater utility necessarily includes a discussion of all financing alternatives, this memo is intended to provide detailed information only on the stormwater utility method, as requested by the Council, rather than to recommend a particular financing method.

Discussion

1. What is a stormwater utility?

There are three general ways to define a utility: (i) by the nature of the commodity or service provided, (ii) by the nature of ownership, and (iii) by the way in which they are governed.

The functional concept of utilities is widely understood, because utilities touch our everyday lives. The most familiar of the utilities are those that provide the service of delivering a commodity to the customer, such as water, electricity, telephone service and natural gas. Less familiar are the utilities that provide the service of removing products from the customer's premises. Stormwater utilities fall into this latter category, as do refuse services, and sanitary sewer services.

Stormwater Utility

August 12, 2011

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Like the Village's water, electric, refuse and sanitary sewer utilities, a stormwater utility would be owned and operated by the Village. Like all municipal utilities (and unlike investor owned utilities, which are subject to the Illinois Commerce Commission), a Village stormwater utility would be governed and regulated by the Village itself.

More specifically, a Village of Winnetka stormwater utility would provide a mechanism for funding capital improvements designed to protect properties within the Village through a stormwater mitigation program that includes collecting, detaining and transporting stormwater at controlled rates of flow so that it is ultimately deposited into its natural outflows in the Skokie River and Lake Michigan.

2. What are the benefits of a stormwater utility?

There are two principal benefits to establishing a stormwater utility.

First, because the Village already provides the basic services that a stormwater utility would provide, the primary benefit of establishing a stormwater utility is that it would create an identifiable, predictable revenue stream that would be designated solely for the capital improvements to the stormwater system. This dedicated revenue stream would enable the Village to issue revenue bonds, making large sums of money available as necessary to fund large-scale improvements to the existing stormwater management system, while allowing the debt to be paid down over time as the system is used.

Revenues of the stormwater utility would be deposited into a new enterprise fund that would be created solely for the stormwater utility. This enterprise fund would operate in the same manner as the Village's four other enterprise funds, which manage and account for the revenues and operating costs of the Village's water, electric, refuse and sanitary sewer utilities. (Currently, the operations of the existing stormwater infrastructure is funded through property taxes and is accounted for in the Village's General Fund.)

Second, as with the other enterprise funds, user fees would be developed to fund the stormwater utility. User fees would be designed to provide an equitable measurement of the impact that each property in the Village has on stormwater flows. Because user fees would apply to all properties, regardless of their tax status, creation of a stormwater utility is generally regarded as a more equitable means of funding major stormwater management improvements. (User fees are discussed in greater detail in point 4, below.)

3. How is a stormwater utility established?

From a procedural standpoint, establishing a stormwater utility is a straightforward process, as the Village's home rule status enables it to create a stormwater utility by enacting an ordinance. The ordinance would add a new chapter to Title 13 of the Village Code, which contains the chapters that establish and govern the Village's water, electric and sewer systems. (The Village's refuse removal system is governed by Chapter 8.16 of the Village Code, which is part of the Village's health and safety regulations.)

Drafting the actual ordinance establishing a stormwater utility requires considering the purpose of the ordinance as well as the nature and extent of the improvements. For example, the

Stormwater Utility

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stormwater utility provisions in some Illinois communities include not only the basic utility fees and billing provisions, but also construction, development and usage regulations pertaining to storm drainage and floodplain management infrastructure, which makes for a lengthy, complex ordinance. Other Illinois municipalities, such as Highland Park, have focused simply on creating the stormwater utility fee, stating the purpose of the fee, and establishing billing and collection procedures. For such municipalities, the development, storm and floodplain regulations are found in other locations in their municipal codes.

Winnetka's floodplain regulations (Chapter 15.68) are part of Title 15 of the Village Code, which governs all of construction and property development. Because there would be no need to develop a new regulatory scheme for stormwater management, Winnetka's new Code chapter could be as simple as Chapter 13.12, which governs the Village's sewer system. (See Attachment 2)

4. Who would run the stormwater utility?

As with the Village's other four utilities, a Village stormwater utility would be governed by the Village Council and operated by Village employees. No separate governing entity would be required. As noted above, the governing policies of the stormwater utility would be defined in the Village Code. The Department of Public Works, which also includes the Village Engineer, would continue to be responsible for the day-to-day operations of the system.

5. How are user fees established?

Procedurally, user fees would be set by the Village Council, which would adopt an annual rate resolution as it currently does for all of the Village's other utility services. However, the method of establishing the user fee is more complex than for the other utilities for, unlike the water, electric, refuse and sewer utilities, which can meter the amount of product delivered or measure the amount of waste removed or wastewater produced, a stormwater utility system handles water that cannot be metered.

The most commonly used metric for establishing stormwater user fees is through determining the intensity of development and impact of run-off by measuring impervious surfaces, developing units based on average residential equivalents, and setting a base rate per equivalent unit. The greater the impervious surface on a given parcel, the more equivalent units it would have, and the greater the charge would be.

The foregoing paragraph is a very skeletal and simplistic description of the rate structure, which requires engineering expertise to develop. However, the basic method is sound and has been upheld in Illinois courts. See *Church of Peace v. City of Rock Island*, 357 Ill.App.3d 471, 828 N.E.2d 1282, 293 Ill.Dec. 784 (3d Dist. 2005).

6. How does user fee financing compare with other methods of financing?

The several financing methods that were outlined in the August 2, 2011, fall into two general categories: (i) "pay-as-you-go," using available cash from general revenues and accumulated surplus, and (ii) long-term financing, using some form of bond. These methods are compared in detail in the table provided in Attachment 1 to this Agenda Report.

Stormwater Utility

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7. What are the next steps?

It is necessary for the Council to gather additional information and address several policy issues before establishing a stormwater utility system and fund. Those further steps and decisions include the following:

- Obtain further information from Village Engineer and consulting engineer on engineering and cost estimates for stormwater system improvements.
- Decide on scope and scheduling of improvements.
- Determine cost of proposed improvements.
- Obtain information from Finance Director and Village Manager on project financing methods.
- Determine amount of project to be financed through revenue bonds.
- Obtain cost of service study and proposed rate methodology and structure from Village Engineer and consulting engineer.
- Obtain information from Village Engineer, consulting engineer and Village Attorney on scope of regulation needed to manage proposed improvements.
- Village Attorney to draft ordinance creating stormwater utility and resolution setting rates, with assistance from Village Engineer and consulting engineer.
- Adopt ordinance and resolution establishing stormwater utility and setting fees.

All of the foregoing decision points would be brought back to the Council for action as indicated in the proposed Timeline provided by the Village Engineer, so the project can continue to move steadily forward.

Reference Materials

The following materials are attached for the Council's reference:

Attachment 1 Table listing advantages and disadvantages of the different financing methods for stormwater improvements

Attachment 2 Title 13 of the Winnetka Village Code, "Municipal Utility Services"

Recommendation:

Information only. No action required.

AGENDA REPORT

SUBJECT: Report on July 22-23, 2011 Storm and Flood Event and Stormwater Management Strategies

PREPARED BY: Robert M. Bahan, Village Manager
Steven M. Saunders, Director of Public Works / Village Engineer
Ed McKee, Finance Director
Katherine S. Janega, Village Attorney

DATE: July 29, 2011

Introduction

In the week since the rain storm that inundated the Village late Friday night and early Saturday morning on July 22 and 23, Village staff has focused on four key tasks: (1) to make sure that Winnetka's citizens received prompt and courteous assistance in dealing with the aftermath of the storm; (2) to take all necessary steps to compile and transmit information documenting the extent of damage so as to maximize opportunities for State and/or federal aid; (3) to provide information to residents as soon as it becomes available; and (4) to analyze the event so as to provide the Council and community with a full report of what transpired and what actions can be taken to reduce future risks of recurrence. This Agenda Report focuses on the fourth task.

Description of the Storm and How the Rainfall Was Managed

1. What happened?

In the overnight hours of July 22-23, the Village of Winnetka was impacted by a significant rainfall that overwhelmed the Village's sewer systems and led to severe flash flooding and basement flooding throughout the Village. A Cook County Precipitation Network rain gauge located in southwestern Winnetka, which remotely records precipitation in 10-minute intervals, recorded 3.99 inches of rain between 11:00 p.m. and midnight on July 22, including 0.98 inches between 11:40 p.m. and 11:50 p.m. alone.

The heaviest rainfall occurred between 11:00 p.m. and 1:30 a.m., during which time 5.99 inches of rain fell. According to the County rain gauge, a total of 6.61 inches of rain fell by the time rain completely stopped at 10:00 a.m. Saturday morning. Preliminary data from a Winnetka Park District weather station located on the golf course indicated rainfall from the storm of nearly 7 inches. (See Attachment 1 for rainfall data.)

2. How does our system work?

With the exception of a narrow strip along and west of Green Bay Road, Winnetka is what is known as a separate-sewer community, meaning that there are two separate sewer systems. The storm sewer system collects stormwater runoff from streets and yards,

downspouts, and sump pump discharges, while the sanitary sewer system collects wastewater from interior plumbing systems.

The Village's storm sewers drain either to the Skokie River and its tributary, the East Diversion Ditch, or to Lake Michigan. Although the two watersheds are generally divided by the Union Pacific Railroad tracks, an area around North Shore Country Day School does drain east under the railroad towards Lake Michigan.

The Village's sanitary sewers drain to a network of intercepting sewers operated by the Metropolitan Water Reclamation District of Greater Chicago ("MWRD"). These intercepting sewers convey wastewater to the North Side Treatment Plant located near Howard Street and McCormick Boulevard in Skokie, where it is treated and discharged to the North Shore Channel and, ultimately, to the North Branch of the Chicago River.

3. What about the Wilmette Locks?

If there is a most frequently asked question received by staff, it is: "Have the Wilmette Locks been opened yet?" or some variant thereof. The "locks" at Wilmette Harbor actually refers to a 32-foot gate mechanism that operates as a level control on the North Shore Channel. In its normal closed configuration, this gate prevents treated or partially treated sewage from flowing into Lake Michigan, instead directing wastewater and stormwater south into the North Branch of the Chicago River. When the gate is opened, a combination of wastewater and stormwater is directly discharged to Lake Michigan.

According to the MWRD, the primary purpose of opening this gate is to prevent overbank flooding on the North Shore Channel and the North Branch of the Chicago River, by allowing a second outlet for the channel. As reported in the Chicago Tribune, the gate was opened at approximately 2:20 a.m. on Saturday morning. An additional gate at Navy Pier was opened approximately one hour later. This was done to prevent serious overbank flooding along the Channel and the North Branch of the Chicago River.

Opening the gate at the Wilmette Locks does not affect either the level of Lake Michigan or the level of the Skokie River, meaning that the Village's storm sewer systems are completely independent of this gate. It is less clear whether this operation has any effect on the operation of the Village's sanitary sewer system.

4. What worked?

The Village operates stormwater pumping stations at Tower Road, Sunview Lane, Ash Street, Mt. Pleasant Street, Evergreen Lane, and Winnetka Avenue. None of these pump stations lost electrical service during or after the storm, and based on staff observations and on pump hour meters (where equipped), each of the pump stations, with the exception of the Ash Street pump, functioned during and after the storm.

5. What didn't work?

The area between Hibbard Road, Glendale Avenue, Oak Street, and Willow Road is tributary to a stormwater pump station located at Ash Street and Hibbard Road. Stormwater is

discharged to a control structure on the west side of Hibbard Road to drain into the Hibbard Road storm sewer, with an overflow accommodation to drain to Duke Child Field.

The pump station at Ash and Hibbard failed at some point during the storm when debris in the storm sewer system became clogged in the pump and jammed the impeller. The pump was reset, but continued to clog and had to be removed, manually cleaned, and reinstalled in the lift station. This operation took approximately 1 hour, and was completed by about 1:00 p.m. on Saturday. Once the pump was reinstalled, and because of the amount of water that had accumulated in the watershed, additional pumping capacity consisting of 6 portable pumps with discharge hose diameters ranging from 2 to 4 inches was employed. These 6 portable pumps were operated from about 3:00 p.m. on Saturday until about 1:00 a.m. Sunday morning, when the water level dropped sufficiently that the single underground pump could sufficiently drain the system.

6. Damage Data

The Village received 219 emergency service calls during and immediately following the storm. These calls dealt with a variety of issues, including tree damage and power outages, but the vast majority of the calls were for flooding of streets and basements.

There was particularly widespread basement flooding as a result of the storm. Some basements flooded because sump pumps failed or were overwhelmed by the amount of water coming in, many basements flooded as a result of sanitary sewer backups, and other basements flooded directly, as a result of water overtopping foundations or flowing in through window wells.

A complete and accurate count may never be available; however, a count of the debris piles placed on the parkways on the Monday and Tuesday after the storm indicated 749 such piles. This is likely an undercount, given that piles were still being placed out on Friday, July 29, after the storm. (See Attachments 2 and 3 for location maps showing the location of emergency calls and of debris piles counted on Monday and Tuesday.)

Possible Engineering Solutions for Severe Rain Storms

1. What type of system would be required to handle the recent storm?

Christopher Burke Engineering was asked to perform a rough calculation of the detention volumes needed to accommodate a 100-year level of flood protection for just the northern and southern study areas in the 2009 assessment.

The 2009 study recommended constructing 10.4 acre-feet of detention located at Duke Child Field. To accommodate the 100-year storm, for both areas, a total of 101.6 acre-feet of storage are necessary, a nearly tenfold increase. In addition, larger conveyance systems would be required to move the water to the proposed detention facilities.

2. How would the \$14.1 million improvements have handled the July 22-23 storm?

The recommended improvements from the 2009 and 2011 Flood Risk Reduction Assessments were designed to alleviate flooding for up to the 10-year design storm event. The July 22-23 storm produced twice the rainfall depth used to design those recommended improvements.

Christopher Burke Engineering modeled the July 22-23 storm across the proposed improvements, assuming that all of the recommended improvements had been implemented, and determined that the improvements would have provided little flood reduction for this event. For example, Cherry and Berkeley, the two Greenwood areas, Pine east of Hibbard, Spruce east of Hibbard, the Sunset pedestrian walkway, Oak and Sheridan, the Ravines, the upper Provident areas, and the Winnetka underpass all would have flooded to within 0.3 feet (3.5 inches) of what occurred on July 22-23. Only Maple and Sheridan, and the Tower Manor area (assuming these improvements were added to the recommendations) showed significant reductions.

3. What has already been done?

Since 1985, the Village has invested significantly in storm and sanitary sewer improvements. In 1985, the Village undertook a \$4 million+/- Sanitary Sewer Rehabilitation Program that resulted in correcting broken, leaking, and undersized sanitary sewers Village-wide through sewer replacement, lining, cross-connection elimination, and a new pumping facility at the bottom of the Sheridan Road Ravines to eliminate sewage overflows to the Lake. The Village has also performed multiple and ongoing sewer lining projects to restore and seal sanitary sewers using trenchless methods. The Village has also completed the following storm sewer improvements since 1994, at a cost of \$3,567,000:

Winnetka Ave Pump Station (1994)	\$505,000
Sub-area 8 Improvements (1995)	\$354,000
Hibbard Road Improvement (1998)	\$414,000
Spruce Street Outfall (2001)	\$118,000
Tower Road Improvements (2002)	\$551,000
Golf Course Improvements (2003-04)	\$416,000
Ravines Outfall (2004)	\$147,000
Sunview Lane Improvements (2005)	\$230,000
Tower Pump Station (2005)	\$50,000
Cherry Street Outfall (2005)	\$186,000
Ash Street Improvements (2008)	\$151,000
Spruce Street Improvements (2008)	\$445,000

Possible Next Steps

Clearly, the question of the day is “Now what? What can we do to eliminate or reduce the chances of this happening again?”

1. Redirect Cost-Benefit Analysis.

The Village has already engaged Christopher Burke to perform a Cost-Benefit Analysis of the recommended improvements to prioritize what should be done first, for a fee of \$14,800. Given what occurred last week, this analysis is no longer relevant, and Staff recommends that this contract be immediately re-directed to an analysis of the Sunset/DeWindt study area and the Northern Study area (Pine to Willow east of Hibbard) to identify possible improvements that would provide effective flood damage risk reduction for larger storms including the 25-year, 50-year, and 100-year rainfall events.

The deliverable of this contract would be a technical report and exhibits detailing flood conveyance and storage improvements to protect low-entry elevations within the selected watershed for the 25-year, 50-year, and 100-year events. Staff is identifying these two areas for the basic reason that these areas were inundated for the longest period of time, and to the greatest extent. This is not to say that other areas were not affected severely, but the magnitude and duration of flooding in these areas was extreme. This is the same reason why these two drainage areas were selected for the initial analysis after the 2008 flood event. A third area, the Greenwood area, could be included in this analysis for an additional \$2,000, and the Tower/Foxdale area could likewise be added for an additional \$3,000. Depending on the areas selected, the cost range for this work would be \$15,000 to \$19,000. Staff will provide a formal cost proposal for Council consideration at the August 2, Council meeting.

2. Identify and Pursue Open Space for Detention.

It is anticipated that providing larger-scale flood protection will require significant storage of floodwaters, using all available open spaces. Unfortunately, all of the larger open spaces suitable for detention are owned by other governmental units, including New Trier High School (Duke Child Field), District 36 (Skokie-Washburne field), the Winnetka Park District (Skokie Playfield, Crow Island Park/Woods, Corwin Park), and the Cook County Forest Preserve.

While open space is very useful for stormwater detention, it also has other passive and active uses, and the landowning agencies have missions other than providing stormwater relief. The Village will need to engage in serious, direct, and ongoing dialogues with these agencies to either acquire or obtain usage rights to all suitable open space to construct stormwater detention facilities.

It is important to note that the \$14.1 million for the currently proposed project does not anticipate land-acquisition costs, which could be significant.

Options for Financing Stormwater Improvements

As the Village evaluates the level of stormwater improvements, there are options available for financing those improvements. As of the latest report, the amount of funding required is approximately \$14 million, which would require additional financial resources to accomplish.

Costs associated with stormwater improvements include engineering for the design of improvements, acquisition of retention land, regrading of land, and the installation of storm sewers, and pumps.

The following options for financing storm water improvements fall into three categories: User Fee, Property Tax, and Use of Reserves.

1. User Fee: Create a Storm Water Utility

Under Home Rule powers, the Village could establish a stormwater utility to finance storm water improvements. The stormwater utility is an exceptionally flexible way of paying for storm water improvements and can be customized as desired.

The charge could be a fixed fee spread evenly among all property owners or could cover just select areas of the community. The fee could also be based on other factors, such as the relative amounts of impervious surface on individual parcels. The charge could be added to utility bills and collected with other utility payments.

Storm water utilities are becoming a more common means of paying for storm water improvements because their benefits such as:

- Providing a reliable source of funding;
- Being essentially a user fee leading to equitable cost assessment;
- Being able to increase or decrease funding quickly to meet needs;
- Using the proceeds to pay for capital projects, equipment, maintenance, and compliance; and
- Addressing unfunded federal mandates related to storm water.

A stormwater utility would generate a revenue stream that would be dedicated towards improving specific infrastructure needs. As with the Village's electric utility, a stormwater utility can have a flexible structure of rate categories. The various rate structures can be scaled to reflect land use categories and take into consideration zoning districts or development patterns. The rate structure can also be adjusted to reflect the potential use of General Fund Reserves, benefits derived from jurisdictional transfers from the State of Illinois, and the potential receipt of any grant funding or intergovernmental collaboration.

The following table delineates the costs of issuing \$10-, \$15-, and \$20-million dollars in debt and what that would cost residents, assuming those costs were to be split equally among all parcel owners. For example, a \$15-million dollar project spread over 20 years would cost about \$246.67 per year per parcel (bold amount on chart).

	Total Amount Financed	Annual Cost **		
		10 Year Level Debt	15 Year Level Debt	20 Year Level Debt
Debt Total	\$ 10,000,000	\$ 1,230,000	\$ 900,000	\$ 740,000
Per Parcel (4,500) *	\$ 2,222	\$ 273.33	\$ 200.00	\$ 164.44
Monthly		\$ 22.78	\$ 16.67	\$ 13.70
Debt Total	\$ 15,000,000	\$ 1,845,000	\$ 1,350,000	\$ 1,110,000
Per Parcel (4,500) *	\$ 3,333	\$ 410.00	\$ 300.00	\$ 246.67
Monthly		\$ 34.17	\$ 25.00	\$ 20.56
Debt Total	\$ 20,000,000	\$ 2,460,000	\$ 1,800,000	\$ 1,480,000
Per Parcel (4,500) *	\$ 4,444	\$ 546.67	\$ 400.00	\$ 328.89
Monthly		\$ 45.56	\$ 33.33	\$ 27.41

* Parcels including residences, commercial, and governments assumed at

4,500

** Based on the following present value factors, 4% interest:

0.123

0.090

0.074

Over the past several years, there has been an increase nationally in the creation of stormwater utilities, as municipalities have sought to mitigate the impact of flooding upon private as well as public properties. The creation of these utilities reflects an accepted method for equitably assessing the costs of the system toward solving a problem that affects an entire community, not just the properties that are directly impacted.

Recommendation:

A storm water utility is recommended if significant storm water improvements are pursued.

2. Property Tax Options

A. Special Service Area

The Village could finance the improvements by defining the areas improved and assessing a charge to properties in that area. This financing option allocates the cost based on the assessed value of the properties in the special service area.

The special service area has several benefits: it is a reliable source of on-going funding, the costs are assessed against the properties that benefit from the improvements, the tax can be

adjusted annually, and it is easy to explain to customers. The fees also rebalance themselves as property values increase in the areas improved.

The following table delineates the costs of issuing \$10-, \$15-, and \$20-million dollars in debt and what that would cost residents. The following table is based on a homeowner with a current total property tax bill of \$20,000, of which the Village portion is about 13.1% or \$2,635.

	Total Amount Financed	Annual Cost **		
		10 Year Level Debt	15 Year Level Debt	20 Year Level Debt
Debt Total	\$ 10,000,000	\$ 1,230,000	\$ 900,000	\$ 740,000
Annual Cost		\$ 247.00	\$ 181.00	\$ 149.00
Debt Total	\$ 15,000,000	\$ 1,845,000	\$ 1,350,000	\$ 1,110,000
Annual Cost		\$ 371.00	\$ 271.00	\$ 223.00
Debt Total	\$ 20,000,000	\$ 2,460,000	\$ 1,800,000	\$ 1,480,000
Annual Cost		\$ 495.00	\$ 362.00	\$ 298.00

* Assumes \$20,000 property tax bill, \$2,635 Village portion, or 0.020106% of total Village Property Tax Levy.
 ** Based on the following present value factors, 4% interest: 0.123 0.090 0.074

The downside to using a property tax method is that the costs are directly proportional to property values as determined by the County, which is not necessarily related to the nature and extent of the benefit received. Additionally, if the size of the area paying for the improvement is relatively small, the cost per parcel can become prohibitively high.

Recommendation:

Special service areas are an option to address localized problems that are not community-wide problems.

B. Increase Village-Wide Property Taxes

The Village has increased property taxes less than most other governmental entities that tax our residents. From 1997 to 2009, staff estimates that while, overall, property taxes increased by about 74%, the increase in the taxes levied by the Village over the same time period was about 34%, less than half the overall rate.

Currently, the Village portion of a typical property tax bill is approximately 13%. The Village could raise property taxes an extra 3% each year for three years. If those dollars were dedicated for storm water purposes, at the end of three years, the Village would have a revenue stream of \$1,170,000. A \$1,170,000 annual revenue stream could support about \$15,600,000 of bonds (assuming a 20 year term and 4% interest rate).

While property taxes generate additional revenues, there are many concerns with this option, including: property tax increases are not popular, properties would be assessed based on the tax value of the parcel rather than on the extent that they contribute to the problem or benefit from the improvement, and tax exempt entities would not be required to pay.

Staff would estimate that a homeowner with a \$20,000 total property tax bill would pay an additional \$79.02 annually for a 3% increase in the Village's portion of the property tax levy (\$20,000 total x 13.17% Village portion x 5% = \$79.02).

Recommendation:

Given the community sensitivity to property taxes, staff does not recommend this option.

3. Strategic Use of General Fund Reserves

As of March 31, 2011, the Village's General Fund had an available cash balance of \$17.23 million¹. The Village's policy is to maintain a minimum cash balance of at least \$11 million for operational needs and to allow for unforeseen events. Maintaining an appropriate fund balance is prudent, given the age of the Village's infrastructure, the desire to potentially fund other projects (downtown repairs, sanitary sewer repairs, roads, and other infrastructure needs), and the current economic environment.

If the Village were to determine that almost all of the discretionary General Fund reserves should be dedicated for storm water improvements, up to \$6.23 million could be available. However, if all \$6.23 million were allocated to storm water improvements, few if any reserves would be available to pay for other capital projects or meeting exigent circumstances.

Recommendation:

Staff would suggest that up to \$5.0 million of reserves could be used to fund storm water improvements on a 1:3 matching basis with any new revenues created or bonds issued for storm water improvements (i.e., for every \$3 of new revenues or \$3 of bonds issued, \$1 of General Fund reserves would be used).

4. Other Considerations

The Village can also issue debt under each of the above options. This process takes approximately three to four months to accomplish. Debt provides a source of funds that allows a municipality to complete a project in the near term and pay for that benefit over an extended time period. This is similar to buying a home and amortizing that cost over the term of the mortgage.

Stormwater improvements tend to have a long life, exceeding 30 years, which makes the use of debt an appropriate instrument for such expenditures. This allocates the cost of these

¹ Calculated as \$19.87 million on page 7 of 3/31/2011 CAFR, less deposits payable (\$1.57 million), accounts payable (\$.61 million), and due to other funds (\$.46 million) = \$17.23 million.

improvements over time to those who will likely benefit and avoids making current residents pay the full cost of benefits they might not receive if they move.

A rough calculation can be made to estimate how much debt a given revenue stream can support. For every \$75,000 of annual revenue created, \$1,000,000 of bonds can be issued assuming a 4% interest rate and 20 year repayment schedule. A 15-year repayment schedule requires about \$90,000 of annual revenue.

The Village has about \$140,000 of annual debt service that will cease in calendar year 2015. This \$140,000 would support about \$1.8 million in bonds, assuming a 20 year repayment schedule.

Potential Service Enhancements

1. Backflow Prevention Program.

In 2006, as a means of helping property owners protect their property from sewer backups, the Village of Winnetka instituted a program to participate in the cost of installing backflow prevention devices on individual sanitary sewers. A backflow prevention device consists of a one-way valve placed on the sewer line serving a building that prevents sewage from flowing back into a building's basement. Outgoing wastewater is pumped around the one-way valve into the system. These systems are very effective, but not fail-safe, in preventing basement flooding of the type experienced by some residents during the July 22-23 flash floods.

The program also provides reimbursement for homeowners that wish to convert their homes to overhead sewer. This is a more robust project that eliminates any below-ground direct connections to the sanitary sewer by the use of an ejector pit and pump that collects wastewater from basement plumbing and floor drains and discharges and pumps it out to the sewer system. Ground-floor and upper floor plumbing continue to drain via gravity. This is significantly more expensive, but is also more reliable as a protective measure. All new construction is built with overhead sewer by code.

Since the Village has instituted the program, 13 applications for reimbursement have been submitted, at an average system cost of just under \$6,000 per installation. The most expensive installation for which reimbursement was requested was \$11,885. The Village's reimbursement level is 50% of the cost up to a maximum reimbursement of \$2,500. Given the effectiveness of these systems, it is reasonable to say that if more homeowners had taken advantage of this program, fewer basements would have suffered flood damage.

As a means of encouraging more homeowners to take advantage of this program, staff is proposing two possible modifications to this program for the Council's consideration.

The first modification is to increase the Village's maximum reimbursement cap to cover more expensive installations, perhaps capping the Village's reimbursement at \$4,000 or \$4,500. Of the 13 reimbursement requests, nine were capped at less than 50% of the installation cost.

The second modification would be for the Village to jointly bid the program to establish standard, and hopefully reduced, costs for installing a backflow prevention system. The

Village's purchasing power could be used to provide a resident potentially better pricing than they could obtain on their own.

2. Floodproofing Assessment.

In several cases of basement flooding, water entered the basement through specific locations or entry pathways, such as a low window well or entry point. These situations could possibly be addressed by individual property improvements, rather than by area-wide infrastructure improvements.

Staff recommends that the Council consider the possibility of providing a Village-wide program whereby homeowners could receive an individual property flood protection assessment. Such a program anticipates a site visit by an engineer, internal and external property inspections, and a flood risk reduction report containing recommendations to reduce the risk of flooding for a property owner. The property owner would then be free to act on the report as they wish, implementing some, all, or none of the recommendations. The Village could administer this program by competitively soliciting proposals from engineering firms to provide a standard property evaluation fee, which could be paid for in full by the Village, in full by the property owner, or some combination thereof.

Recommendation:

1. Provide policy direction on Possible Next Steps (p. 5, points 1 and 2).
2. Provide policy direction on Recommendations (pp. 7, 8 and 9).

To: Village Council
 From: Ed McKee, Jr., Finance Director
 Date: October 26, 2011
 Re: 2011 Property Tax Levy Analysis

Executive Summary:

The Village of Winnetka is primarily a residential community that pays for many traditional municipal services with property tax revenues. Additionally, the Village operates several utility funds where users pay for those costs with rates that reflect the Village's costs.

The Village's share of a typical Winnetkan's total property tax bill has declined 22.5% from 17.23% in 1997 to 13.36% today. This reduction was achieved through careful management of expenses, including reducing the number of employees from 178 in 1989 to 154 in 2012. Over the last 13 years, the Village's property taxes have grown slightly less than the rate of inflation. The following chart that shows how property taxes would be allocated among the taxing districts in 1997 and 2010 for a hypothetical tax payer whose 1997 property tax bill of \$14,877 grew to \$25,946 in 2010:

**Comparison of Property Taxes Paid
 Typical Taxing Districts in Winnetka
 2010 Versus 1997**

10.26.2011

	1997 *			2010 **			Increase in Taxes Paid	% Change
	Tax Rate	Taxes Paid	%	Tax Rate	Taxes Paid	%		
Winnetka Public Schools	2.723	\$4,712	31.67%	2.432	\$10,317	39.76%	\$5,605	119.0%
New Trier High School	1.967	\$3,404	22.88%	1.474	\$6,253	24.10%	\$2,849	83.7%
Village of Winnetka	1.481	\$2,563	17.23%	0.817	\$3,466	13.36%	\$903	35.2%
Cook County	1.028	\$1,779	11.96%	0.474	\$2,011	7.75%	\$232	13.0%
Winnetka Park District	0.445	\$770	5.18%	0.271	\$1,150	4.43%	\$380	49.4%
Water Reclamation District	0.451	\$780	5.24%	0.274	\$1,162	4.48%	\$382	49.0%
All Others	0.502	\$869	5.84%	0.374	\$1,587	6.12%	\$718	82.6%
Total	8.597	\$14,877	100.00%	6.116	\$25,946	100.00%	\$11,069	74.4%
Consumer Price Index - U	158.600			215.949	13 Year Increase in CPI >>			36.2%

Below is a graph that depicts how much of each property tax dollar is received by the various taxing districts, with the Village receiving 13.36 cents of every dollar:



Pensions have received more attention in the press recently, though the Village has been reporting on this liability and the impact during our budget process for more than eleven years. As of March 31, 2011, the Village's pension liability is estimated at \$91 million with \$60 million in pension assets. This equates to a 66% funded ratio and \$31 million unfunded liability. Over time, the Village has contributed \$786,000 more than the actuarially determined amounts.

From a budget standpoint, there is some strength in select revenues such as building permits and a slight rebound in sales taxes. However, some revenues are struggling, such as shared revenues from the state and interest income which has declined significantly as interest rates have fallen. There remains a risk that the State will reduce municipal revenues legislatively as they address the State's poor financial condition.

The Village has also kept many of the fees unchanged for many years to help keep the cost to the homeowners down. Utility fees are adjusted when needed to fund operations and capital needs.

Because of the Village's conservative financial policies (adopting a reasonable budget, reducing staff when possible, and carrying significant cash reserves) we have weathered the financial stresses well compared to other municipalities. In absolute terms, however, the outlook remains guarded.

From a capital investment perspective, the Village is looking at various storm water improvements. The Council will need to define the scope of the projects to be implemented and how they will be financed.

From a budget perspective, staff will be proposing a storm water fund in the 2012/13 Village Budget to account for significant storm water improvements. The creating of a storm water fund does not in itself require an increase in property taxes or user fees. It does, however, give the Village an opportunity to account for storm water expenses in one area and is the most transparent way for the Village to show the community how we are addressing this important issue.

While the Village Staff has not proposed an increase in the property tax levy to fund storm water improvements, that is an option the Council may elect to utilize. Additionally (or alternatively), the Council may elect other means to finance storm water improvements such as user fees, special service areas, etc. to pay for these improvements.

The proposed 2011 property tax levy provides additional dollars for operating needs only and does not generate any additional dollars for storm water improvements.

If the Village were non-home rule, the 2011 property levy would be limited to the percentage increase in the CPI – U for calendar 2010 (+1.5%) plus any growth in the tax base from new development. For the 2011 property tax levy, it is estimated that the Village can increase property taxes 2.5% to 3.1% (1.5% increase in the CPI and a 1.0% to 1.6% increase from new development) and still remain within the property tax caps. The proposed 2.8% Village property tax increase will cost a tax payer with a \$20,000 total property tax bill \$40 more per year (see note 1).

Current Year Analysis:

The Council and staff developed a framework in November 2005 to evaluate property tax revenue requests for the Village. The primary objective is to keep property taxes low over the long term without compromising the ability to complete capital projects on a pay as you go method. The main factors considered in setting the property tax levy are 1) budget strength (as measured in terms of revenues matching expenses), 2) cash balances, 3) projected capital, and 4) pension funding. A higher rating allows for a lower property tax levy amount without compromising the Village's financial health.

A score of 1 to 10 is assigned each category. A score of 1 indicates the financial position is very weak and expenses/capital projects should be eliminated and / or revenues increased. A ranking of 10 indicates strong operating revenues, solid reserves, and properly funded pension liabilities which would allow operations to continue without any significant tax or fee increases.

While the preliminary 2012 budget projection indicates flat revenues, staff understands the Council’s direction to limit tax and fee increases for homeowners. The overall financial rating of 30 for 2011 falls at the high end of the moderate financial category. In addition to supporting the staff’s property tax recommendation, the moderate financial category would also support modest service reductions and / or revenue increases.

Below is a summary of the ratings for the various factors used in suggesting a property tax levy amount for the Village:

Factor	2011	2010	2009	2008	2007	2006
Budget Projections	8	8	8	8	8	8
Cash Reserves	10	10	10	10	9	9
Projected Capital ##	8	8	8	8	8	8
Pension Funding	4	4	4	6	6	6
Total	30	30	30	32	31	31

The 2011 property tax levy column assumes no more than \$5 million is used for stormwater projects in the 2012/13 budget.

The following scale is used in evaluating the property tax levy. A rating of 30 for 2010 suggests the Village should capture all of the inflationary increase and all of the new development increase as explained below:

Score/ Finances are ...	Tax Levy Recommendation	Because the tax levy should...
35 – 40 Very Strong	Maintain same dollar amount, consider new development \$’s	Be gradually reduced in real dollars consistent with the Village’s needs.
31 -34 Strong	Capture new development \$’s and some or all of the inflation increase.	Be increased somewhat to offset the impact of inflation on costs.
26 – 30 * Moderate	<i>Capture new development \$’s, all of the inflation increase, and consider modest service reductions and / or other revenue increases.</i>	<i>Be increased to offset inflation and stabilize revenues for operational and capital needs.</i>
21 – 25 Weak	Capture new development \$’s, all of the inflation increase, and consider noticeable service reductions and / revenue increases.	Be increased to offset inflation and stabilize revenues for operations and capital needs. Additional increases possible to rebuild revenues.
20 and Below Very Weak	Capture new development \$’s, all of the inflation increase, and consider significant service reductions and / revenue increases.	In addition to the reasons under “Weak”, consider additional increases to rebuild cash balances.

The methodology used by the Council in the past would suggest a property tax levy increase of 2.8%.

I have added a second column to the following chart to illustrate what changes would be needed if the Village were to issue \$10,000,000 of storm water debt. This column assumes that the principal and interest cost on these bonds is \$700,000 per year for 20 years (see note #2). I have also assumed that the property tax levy for these bonds is phased in over a two year period to lessen the impact on tax payers in any one year.

If the storm water bonds were issued as explained above, there would be an additional \$71 of property taxes in 2011 (\$111 - \$40 = \$71) to pay for one half of the principal and interest expense. In 2012, an additional \$71 increase (\$142 in total dedicated to storm water bonds annually) would be needed.

	%	Non Home-Rule Maximum @ 2.8%	%	Non Home-Rule 2.8% + Debt
2010 Property Taxes		\$ 13,105,359		\$ 13,105,359
Amounts Paid by Existing Residents Under Each Option				
Inflationary Increase	1.5%	\$ 196,580	1.5%	\$ 196,580
1/2 \$10mm Storm Debt Service		\$ -	2.7%	\$ 350,000
Existing Taxpayer Increase	1.5%	\$ 196,580	4.2%	\$ 546,580
Increase on \$20,000 Tax Bill	1.5%	\$ 40	4.2%	\$ 111
0.0203%				

Total Tax Levy Summary				
2010 Property Taxes		\$ 13,105,359		\$ 13,105,359
Plus: Inflationary Increase	1.5%	\$ 196,580	1.5%	\$ 196,580
New Development Increase	1.3%	\$ 170,461	1.3%	\$ 170,461
1/2 Storm Debt Increase			2.7%	\$ 350,000
Total 2011 Property Taxes	2.8%	\$ 13,472,400	5.5%	\$ 13,822,400

It is important to remember that the Village's property taxes are the largest and most stable revenue source for the general fund and are used to pay for most of the traditional municipal services (police, fire, public works, etc.).

Attached as supporting information are the following items:

Item	Page #
Comparison of Property Taxes Paid 2010 versus 1997	7
Property Tax Calculations	8
Tax Levy History	9
General Fund Budget Projections	10 - 11
General Fund Cash Projections	12
Pension Asset and Liability History	13 - 14

Staff will be available at the Council Meeting to present this material, answer questions, and make whatever changes are deemed appropriate to set the 2011 property tax levy amount.

Recommendation:

Consider setting the 2011 property tax levy at \$13,472,400, a projected \$40 increase for an existing tax payer with an annual \$20,000 total property tax bill. The overall percentage increase in the levy with new development is estimated at 2.8%.

Footnote 1: The increase for a typical homeowner was calculated as follows:

	Suggested Amount
Current Property Taxes	\$ 20,000
Village Portion (13.36%)	\$ 2,672
% Increase paid #	1.5%
Dollar Increase	\$ 40

assumes new development increases the tax base by 1.3%.

Footnote 2: The cost of issuing \$10,000,000 of debt:

Principal amount	\$	10,000,000
20 year 3.5% interest rate factor		7%
Annual Principal and Interest	\$	700,000

**Comparison of Property Taxes Paid
Typical Taxing Districts in Winnetka
2010 Versus 1997**

10.26.2011

	1997 *			2010 **			Increase in Taxes Paid	% Change
	Tax Rate	Taxes Paid	%	Tax Rate	Taxes Paid	%		
Winnetka Public Schools	2.723	\$4,712	31.67%	2.432	\$10,317	39.76%	\$5,605	119.0%
New Trier High School	1.967	\$3,404	22.88%	1.474	\$6,253	24.10%	\$2,849	83.7%
Village of Winnetka	1.481	\$2,563	17.23%	0.817	\$3,466	13.36%	\$903	35.2%
Cook County	1.028	\$1,779	11.96%	0.474	\$2,011	7.75%	\$232	13.0%
Winnetka Park District	0.445	\$770	5.18%	0.271	\$1,150	4.43%	\$380	49.4%
Water Reclamation District	0.451	\$780	5.24%	0.274	\$1,162	4.48%	\$382	49.0%
All Others	<u>0.502</u>	<u>\$869</u>	<u>5.84%</u>	<u>0.374</u>	<u>\$1,587</u>	<u>6.12%</u>	<u>\$718</u>	<u>82.6%</u>
Total	8.597	\$14,877	100.00%	6.116	\$25,946	100.00%	\$11,069	74.4%

Consumer Price Index - U	158.600	215.949	13 Year Increase in CPI >>	36.2%
CPI Index (December, 13 years)	1996	2009	Annual Geometric Mean >	2.4%

* 1997 Property taxes paid in March and August 2008.
** 2010 Property taxes paid in March and August 2011.

Village of Winnetka

Property Tax Levy Calculations

10.24.2011

<u>Tax Levy Category</u>	<u>Column A 2010 Extended Tax Levy</u>	<u>Column B 2011 Proposed Tax Levy</u>	<u>Column C (Column B - A) Dollar Change</u>	<u>C/A*100 Percent Change</u>
<u>General Fund:</u>				
Corporate	\$9,411,820	\$10,132,173	\$720,353	7.7%
FICA/Social Security	\$180,000	\$0	(\$180,000)	-100.0%
IMRF	\$375,000	\$0	(\$375,000)	-100.0%
Sub Total General	\$9,966,820	\$10,132,173	\$165,353	1.7%
<u>Other Funds:</u>				
Police Pension	\$959,387	\$992,534	\$33,147	3.5%
Fire Pension	\$940,074	\$1,108,794	\$168,720	17.9%
Storm Water Utility			\$0	
Refuse Utility	\$1,100,000	\$1,100,000	\$0	0.0%
Debt Service - Resurfacing 1999	\$139,078	\$138,899	(\$179)	-0.1%
Debt Service - Stormwater 2011			\$0	
Total Village-wide Tax Levy	\$13,105,359	\$13,472,400	\$367,041	2.8%
Less: Projected New Development				
@ 1.3%, (0.3% less than 10 yr. av.)		(\$170,370)	(\$170,370)	-1.3%
Existing Tax Payer Increase	\$13,105,359	\$13,302,030	\$196,671	1.5%

Increase Based on Total Property Tax Bill

Total Property Taxes Paid 100.00%	Other Taxing Distr. 86.64%	Village 13.36%	1.50% of Village
\$10,000	\$8,664	\$1,336	\$20
\$15,000	\$12,996	\$2,004	\$30
\$20,000	\$17,328	\$2,672	\$40
\$26,000	\$22,526	\$3,474	\$52
\$40,000	\$34,656	\$5,344	\$80

Village of Winnetka Tax Levy History

	Non-Home Rule Calculations				Actual Levy		\$'s Less Than NHR Limit	
	CPI Increase	New Develop.	Total	Max. Levy Possible (Excludes SSA's)	Actual Levy	% From PY	\$'s	\$'s
							Under Max. This Year	Under Max. Cumulative
				\$8,980,481				
2001 Actual	3.4%	1.5%	4.9%	\$9,419,625	\$9,419,625	4.9%		
2002 Actual	1.6%	1.3%	2.9%	\$9,694,132	\$9,694,132	2.9%		
2003 Actual *	2.4%	1.2%	3.6%	\$10,047,643	\$10,047,643	3.6%		
2004 Actual	2.5%	2.0%	4.5%	\$10,496,453	\$10,496,453	4.5%		
2005 Actual **	3.3%	1.8%	5.1%	\$11,031,772	\$10,969,000	4.5%	\$62,772	\$62,772
2006 Actual	3.4%	1.9%	5.3%	\$11,616,456	\$11,435,181	4.2%	\$181,275	\$244,047
2007 Actual	2.5%	1.8%	4.3%	\$12,115,964	\$11,972,591	4.7%	\$143,373	\$387,420
2008 Actual	4.1%	1.9%	6.0%	\$12,842,922	\$12,535,303	4.7%	\$307,619	\$695,039
2009 Actual	0.1%	1.2%	1.3%	\$13,009,880	\$12,748,403	1.7%	\$261,477	\$956,516
2010 Actual	2.7%	0.9%	3.6%	\$13,478,236	\$13,105,359	2.8%	\$372,877	\$1,329,393
2011 Proposed Tax Levy ***	1.5%	1.3%	2.8%	\$13,855,627	\$13,472,400	2.8%	\$383,227	\$1,339,743
Average '01-'10	2.6%	1.6%	4.2%		Proposed Incr.	2.8%		
					New Develop.	-1.3%		
					Net Increase	1.5%		

* The 2003 CPI amount of 1.9% plus a 0.6% increase for a fire pension change outside of the tax cap totals the 2.5% shown.

** In 2005, the Village became home rule which removed tax caps. The Max. Levy Possible column reflects the maximum property tax levy the Village could receive if we were still operating under tax caps.

*** The 2011 CPI increase, based on the cal. 2010 CPI change is 1.5%.

Village of Winnetka
General Fund Budget Projections
In Millions of Dollars

10.24.2011

	A		B	C				
	2013 Projected Budget	% Change (A vs. B)	2012 10.24.11 Estimate	2012 Budget	2011 Audit	2010 Audit	2009 Audit	2008 Audit
Revenues:								
Property Tax	\$ 12.23	1.9%	\$ 12.00	\$ 11.86	\$ 11.27	\$ 11.69	\$ 10.70	\$ 10.01
Permits	\$ 1.30	-13.3%	\$ 1.50	\$ 1.29	\$ 2.00	\$ 1.50	\$ 1.54	\$ 1.53
Payment in Lieu of Taxes	\$ 1.34	3.9%	\$ 1.29	\$ 1.29	\$ 1.34	\$ 1.38	\$ 1.32	\$ 1.42
Transfers	\$ 1.84	1.7%	\$ 1.81	\$ 1.81	\$ 1.84	\$ 1.82	\$ 1.78	\$ 1.72
Sales Tax	\$ 1.10	0.0%	\$ 1.10	\$ 1.10	\$ 1.23	\$ 1.18	\$ 1.30	\$ 1.50
Income Tax	\$ 1.00	7.5%	\$ 0.93	\$ 0.93	\$ 0.94	\$ 0.99	\$ 1.18	\$ 1.14
Telecom. Tax	\$ 0.65	0.0%	\$ 0.65	\$ 0.72	\$ 0.67	\$ 0.72	\$ 0.73	\$ 0.73
Services	\$ 1.07	1.9%	\$ 1.05	\$ 1.05	\$ 0.98	\$ 0.93	\$ 0.92	\$ 0.82
Natural Gas Tax	\$ 0.45	0.0%	\$ 0.45	\$ 0.48	\$ 0.44	\$ 0.46	\$ 0.70	\$ 0.62
Interest **	\$ 0.18	0.0%	\$ 0.18	\$ 0.18	\$ 0.28	\$ 0.42	\$ 0.55	\$ 0.65
All Others	\$ 1.50	0.0%	\$ 1.50	\$ 1.63	\$ 1.79	\$ 1.97	\$ 1.18	\$ 2.04
Total Revenues	\$ 22.66	0.9%	\$ 22.46	\$ 22.34	\$ 22.78	\$ 23.06	\$ 21.28	\$ 22.18
Expenses:								
Operations #	\$ 19.42	3.0%	\$ 18.85	\$ 18.85	\$ 18.61	\$ 18.56	\$ 17.84	\$ 17.06
Transfers Out (in) ***	\$ 1.05	-32.7%	\$ 1.56	\$ 1.86	\$ 1.02	\$ (1.28)	\$ 0.90	\$ 4.80
Operations total	\$ 20.47	0.3%	\$ 20.41	\$ 20.71	\$ 19.63	\$ 17.28	\$ 18.74	\$ 21.86
Margin from Operations	\$ 2.19	6.8%	\$ 2.05	\$ 1.63	\$ 3.15	\$ 5.78	\$ 2.54	\$ 0.32
Capital *	\$ 2.40	0.0%	\$ 2.40	\$ 3.01	\$ 2.10	\$ 2.19	\$ 2.34	\$ 2.40
Net Margin, After Capital	\$ (0.21)		\$ (0.35)	\$ (1.38)	\$ 1.05	\$ 3.59	\$ 0.20	\$ (2.08)

2013 based on 2.5% increase in operations + \$100k for police and fire pensions.

* The Village anticipates \$2.4 million annually for routine capital.

** Assumes \$20.0 m balance @ 1.50% earnings rate.

*** 2008 amount includes \$800k for refuse (Downtown Red.\$2.5m & Facilities \$1.5m excluded).

2010 includes \$750k for refuse and \$825k for streetscape. 2011 includes \$550k for refuse and \$2.85m to close Streetscape F

2012 amount includes refuse \$550k, Village Hall \$500k, Water Fund Loan \$300k, SSA3 Trapp Ln \$510k. Estm. assumes no w

2013 amount includes refuse \$550k, Village Hall \$500k.

Points Earned for Revenues and Operating Expenses
(maximum 5 points each)

Proposed Schedule:

Revenues (Estimated as a % of Budget)
Points Assigned *

< 92%	92-94	94-96	96-97%	98-102%	>102%
0	1	2	3	4	5

Operating Expenses (Estimated as a % of Budget)
Points Assigned *

< 98%	98-102%	102-104%	> 105%
5	4	2	0

* Points assignment calculated as:

2011 estimated revenue points \$ 22.46 estim. / \$ 22.34 budget = 101%

2011 estimated expense points \$ 20.41 estim. / \$ 20.71 budget = 99%

Total

Village of Winnetka
 General Fund Cash Projections
 In Millions of Dollars

10.24.2011

	Budget FYE 2011	Proj. FYE 2012
Cash Balance 4/1/2011	\$ 19.86	
Adjustments:		
Deposits	\$ (1.57)	
A/P and Reserved Amounts	\$ (1.14)	
Undesignated Cash	\$ 17.15	\$ 16.80
Estimated Revenues	\$ 22.46	\$ 22.66
Estimated Operating Expenses	\$ 20.41	\$ 20.47
Est. Contribution From Operations	\$ 2.05	\$ 2.19
Estimated Capital **	\$ (2.40)	\$ (2.40)
Estimated Cash-Flow For Year	\$ (0.35)	\$ (0.21)
Undesignated Cash 3/31	\$ 16.80	\$ 16.59
Ending Cash as a % of Operating Expenses and Capital Expenses	82%	81%

** Estimated at the historical norm of about \$2.4 million per year.

Points Earned for Cash Balances

Projected 2012 Ranking:

Cash as a % of Operating expenses	< 15%	16 - 25%	26%-45%	46%- 65%	> 66%
Points Assigned	0	3	6	9	10

Projected 3/31/2012 cash as a percent of policy maximum:

Policy Maximum	
6 months Operating Expenses	\$ 10.2
Cash needed to Fund Pensions at 90% (estm.)	\$ 22.2
Policy Maximum	\$ 32.4

Projected balance as a % of Maximum 51%

**Village of Winnetka
Pension Asset and Liability History
In Millions of Dollars**

9.1.2011
by: em

13

Fiscal Year Ended Data	Total				Police Pension - 6.25%				Fire Pension - 6.25%				IL. Municipal Retirement - 7.5%			
	Assets	Liabilities	Diff.	% Fund.	Assets	Liabilities	Diff.	% Fund.	Assets	Liabilities	Diff.	% Fund.	Assets	Liabilities	Diff.	% Fund.
2011	\$ 60.00	\$ 91.36	\$ (31.36)	66%	\$ 20.38	\$ 29.63	\$ (9.25)	69%	\$ 18.82	\$ 28.88	\$ (10.06)	65%	\$ 20.80	\$ 32.85	\$ (12.05)	63%
2010	\$ 58.97	\$ 90.79	\$ (31.82)	65%	\$ 18.90	\$ 28.78	\$ (9.88)	66%	\$ 17.80	\$ 28.12	\$ (10.32)	63%	\$ 22.27	\$ 33.89	\$ (11.62)	66%
2009	\$ 53.75	\$ 85.34	\$ (31.59)	63%	\$ 16.05	\$ 26.89	\$ (10.84)	60%	\$ 15.13	\$ 26.29	\$ (11.16)	58%	\$ 22.57	\$ 32.16	\$ (9.59)	70%
2008	\$ 62.40	\$ 80.72	\$ (18.32)	77%	\$ 18.24	\$ 23.94	\$ (5.70)	76%	\$ 16.86	\$ 25.01	\$ (8.15)	67%	\$ 27.30	\$ 31.77	\$ (4.47)	86%
2007	\$ 57.84	\$ 76.29	\$ (18.45)	76%	\$ 17.16	\$ 22.54	\$ (5.38)	76%	\$ 15.84	\$ 24.06	\$ (8.22)	66%	\$ 24.84	\$ 29.69	\$ (4.85)	84%
2006	\$ 53.53	\$ 69.40	\$ (15.87)	77%	\$ 16.26	\$ 20.03	\$ (3.77)	81%	\$ 14.95	\$ 21.62	\$ (6.67)	69%	\$ 22.32	\$ 27.75	\$ (5.43)	80%
2005	\$ 51.78	\$ 64.87	\$ (13.09)	80%	\$ 15.85	\$ 18.83	\$ (2.98)	84%	\$ 14.49	\$ 19.78	\$ (5.29)	73%	\$ 21.44	\$ 26.26	\$ (4.82)	82%
2004	\$ 48.74	\$ 61.54	\$ (12.80)	79%	\$ 14.40	\$ 18.11	\$ (3.71)	80%	\$ 13.33	\$ 18.55	\$ (5.22)	72%	\$ 21.01	\$ 24.88	\$ (3.87)	84%
2003	\$ 49.41	\$ 57.04	\$ (7.63)	87%	\$ 15.54	\$ 16.80	\$ (1.26)	93%	\$ 14.04	\$ 17.89	\$ (3.85)	78%	\$ 19.83	\$ 22.35	\$ (2.52)	89%
2002	\$ 46.52	\$ 54.37	\$ (7.85)	86%	\$ 15.22	\$ 16.44	\$ (1.22)	93%	\$ 13.78	\$ 16.92	\$ (3.14)	81%	\$ 17.52	\$ 21.01	\$ (3.49)	83%
2001	\$ 43.40	\$ 50.36	\$ (6.96)	86%	\$ 14.86	\$ 15.36	\$ (0.50)	97%	\$ 13.43	\$ 15.51	\$ (2.08)	87%	\$ 15.11	\$ 19.49	\$ (4.38)	78%
1980	\$ 3.25	\$ 12.46	\$ (9.21)	26%	\$ 1.32	\$ 3.89	\$ (2.57)	34%	\$ 1.42	\$ 4.36	\$ (2.94)	33%	\$ 0.51	\$ 4.21	\$ (3.70)	12%
2001 - 2011 Change	\$ 16.60	\$ 41.00	\$ (24.40)	-21%	\$ 5.52	\$ 14.27	\$ (8.75)	-28%	\$ 5.39	\$ 13.37	\$ (7.98)	-21%	\$ 5.69	\$ 13.36	\$ (7.67)	-14%
% Change	43%	87%	310%		39%	98%	2083%		42%	90%	405%		47%	76%	140%	

1980 amounts taken from 1981 CAFR.

Police and Fire investment assumptions, prior to 2006 - 7.0%, 2007 - 2009 - 6.50%, 2010 - 6.25%.

Points Earned for Pension Funding (10 point maximum)

Combined % Funded ***	< 60%	60 - 69%	70 - 79%	80 - 89%	90-100%	> 100%
Points Assigned	2	4	6	8	9	10

For Police and Fire Pension Funds:

* In 2007 the assumed rate of return was reduced from 7.0% to 6.5%.

In 2010 the assumed rate of return was reduced from 6.5% to 6.0%.

In 2011 the assumed rate of return was increased from 6.0% to 6.25%.

To fund all three pension plans at the 90% level would require \$ 22.22 million.

	100%	90%
Assets	\$ 60.00	\$ 60.00
Liabilities	\$ 91.36	\$ 82.22
Difference	\$ (31.36)	\$ (22.22) \$ (9.14)

**MINUTES
WINNETKA VILLAGE COUNCIL STUDY SESSION**

October 11, 2011

(Approved: xx, 2011)

A record of a legally convened meeting of the Council of the Village of Winnetka, which was held in the Winnetka Community House, Room 101 on Tuesday, October 11, 2011, at 7:30 p.m.

- 1) Call to Order. President Jessica Tucker called the meeting to order at 7:33 p.m. Present: Trustees Gene Greable, Bill Johnson, Richard Kates, Chris Rintz, and Jennifer Spinney. Absent: Trustee Arthur Braun. Also in attendance: Village Manager Robert Bahan, Village Attorney Katherine Janega, Public Works Director Steve Saunders, Finance Director Ed McKee and approximately 30 persons in the audience.
- 2) Discussion: Supplemental Flood Risk Reduction Assessment: 25-, 50-, and 100-year Storm Events. In her opening remarks President Tucker repeated her pledge to continue to keep stormwater mitigation first and foremost on the Council's agenda. She thanked CBBEL and staff for the outstanding, comprehensive study and said that it is now time for the Council to take concrete steps to try to reduce recurrence of storm damage throughout the Village.

Mr. Saunders briefly recapped the events leading up to this study and provided some historical background on the development of Winnetka before introducing Thomas Burke from Christopher B. Burke Engineering, Ltd. (CBBEL).

Mr. Burke reviewed the scope of the Flood Risk Reduction Assessment, explaining the process employed by CBBEL to:

- Analyze all 8 study areas for the 25-, 50-, and 100-yr design storms;
- Identify drainage improvements to provide the required level of protection for each design storm; and
- Develop conceptual plans and cost estimates for drainage projects for each design storm.

Mr. Burke went through the PowerPoint presentation in detail until he got to the Ravine Study Area at which point Mr. Saunders took the floor.

Mr. Saunders explained that Sheridan Road is controlled by the Illinois Department of Transportation and that the only problem area is directly at the bottom of the ravines where flooding causes inconvenience and creates a public safety hazard. He reported that Burke's study information had been conveyed to IDOT, and in a meeting today they indicated that they are planning a project to address the problem area, which means that the Village's expense for the ravine improvements will be essentially nil.

Mr. Burke completed his presentation, at which point the Council took a brief recess before proceeding. The meeting resumed at 8:43 p.m.

Trustee Spinney asked Mr. Burke to assume that money was no object and to opine which of the options presented is the best solution for the Village. He indicated that he believes the Lake Michigan Outlet tunnel project, which benefits multiple study areas, would be the best because it has the most flexibility and opens up the opportunity for future improvements. He

cautioned, however, that there are significant regulatory hurdles to overcome and indicated that permitting could take more than a year to obtain.

Trustee Rintz asked Mr. Burke's opinion whether obtaining permits from the Army Corps of Engineers for the tunnel option or from the Cook County Forest Preserve for some of the other options was the most daunting. Mr. Burke replied that in his experience the Forest Preserve could prove to be the most difficult, and possibly a non-starter; however, the tunnel permitting could take longer to secure in view of the fact that the Village will be seeking to move water from one watershed to another. He was clear that there are too many unknowns to make a firm prediction.

Trustee Kates said that he believes the tunnel option to be a superb solution because it does not require any detention. He remarked that if the tunnel option is not chosen and the Forest Preserve proves to be a non-starter, then a number of the other projects would have to be redesigned. Mr. Burke concurred.

Mr. Kates also inquired about some of the data used in Burke's modeling and the status of the recent sanitary sewer survey, saying that the latter is important to the Village's overall understanding of the flooding that took place in July.

Mr. Burke and Mr. Saunders continued to respond to questions from the Trustees, who unanimously complimented CBBEL and staff on the thoroughness of their presentation and thanked them for their exhaustive efforts.

Overall, the Trustees and President Tucker expressed support for continuing to explore the viability of the tunnel project.

Audience members who commented were: Mitch Wywiorski, 1042 Westmoor Rd., Jim Gordon, 281 White Oak Ln., George Walper, 870 Prospect, Jim Feld, 260 White Oak Ln., Ron White, 434 Berkeley, Chris Bloom, 979 Willow, Nancy Henderson, 464 Linden, Kim Knaus, 905 Greenwood, and Jude Offerle, 112 Fuller Ln.

After Public Comment, President Tucker turned back to the Trustees for discussion.

Noting that the burden to the community is huge over the next 30 years, Trustee Greable had questions about timing, funding, and marginal costs. Although he voiced confidence in the Burke study, he suggested that the Village consider seeking a second opinion in view of the significant upheaval to the community and the significant cost.

With regard to Mr. Greable's suggestion, Mr. Saunders pointed out that the current study is actually the combination of three separate studies that in total have cost the Village approximately \$150,000. To start over again for a fresh look would be quite expensive and time consuming. He added that using the existing data, the Village could proceed to flesh out some of the smaller projects with an eye toward beginning some construction next year while it continues to pursue the tunnel project.

Trustee Spinney also expressed concern about financing and asked whether the Village needed to determine the amount of money needed before it could obtain financing.

Finance Director McKee said that it is possible to issue bonds at this point, but voiced concern about how those bonds would be repaid.

Attorney Janega added that she has been in contact with the Village's bond counsel, Chapman & Cutler, and they have suggested a combination of revenue bonds backed by property taxes. The question is at what point does the Village pull the trigger? Before staff can proceed to implement funding, the Council needs to provide more direction as to the timing and the amount of funding desired.

Manager Bahan said that the Council has a fundamental policy question to decide: Does it want to finance this through a stormwater utility or via property taxes? He also asked Mr. Saunders what additional data could be gathered before these decisions are made.

Mr. Saunders indicated that staff could proceed to obtain soil borings, identify utility conflicts, particularly along the proposed open cut, and begin to engage regulatory agencies in discussions about permitting.

Trustee Rintz cautioned against getting bogged down by always wanting more data. He said it is time to move forward and deal with the contingencies as they come up. He agreed that it makes sense to get second and third opinions on price, but no sense to go out for a second engineering study. He said that he would never vote for an increase in property taxes because taxes don't ever go down. However, with a stormwater utility, the rate can be adjusted. Mr. Rintz described the tunnel as "visionary," and something that the Village should not be afraid to embrace and attack. He opined that the Village stands a good chance of being stuck in the mud forever with the Forest Preserve; with the tunnel, the Village can lead the way in clean water standards and perhaps address some of the other lakefront issues in the process.

Trustee Kates agreed that the tunnel project is visionary and reasonable given the falling water levels of Lake Michigan. He indicated that he believes the Village should begin to pursue the appropriate regulatory agencies as quickly as possible, as well as move ahead with the smaller projects mentioned by Mr. Saunders, reiterating his belief that the Greenwood project still needs a little tinkering. Mr. Kates also urged the Village to complete the compilation of the sanitary sewer questionnaires so that those results can be analyzed to determine whether there are parts of the Village that are not being addressed by the CBBEL study.

After further discussion, there was a consensus to continue to explore the Lake Michigan Outlet tunnel option. Staff was directed to begin to explore any permitting that might be required, contact the necessary regulatory agencies, conduct soil borings and identify utility conflicts. In addition, CBBEL was asked to prepare a critical path schedule from start to finish, identifying all the activities needed to get to the finish line. Staff was asked to begin firming up the engineering for the smaller study areas and to continue studying financing options.

- 3) Executive Session. None.
- 4) Adjournment. Trustee Johnson, seconded by Trustee Spinney, moved to adjourn the meeting. By roll call vote, the motion carried. Ayes: Trustees Greable, Kates, Johnson, Rintz, and Spinney. Nays: None. Absent: Trustee Braun. The meeting adjourned at 11:05 p.m.

Recording Secretary

After further discussion, the Council unanimously preferred a two-tier system, as it recognizes the increased cost of installing overhead sewers, and directed Staff to prepare a code amendment to provide reimbursement of 50% of the installation costs for new systems, up to \$3,500 for new backflow preventer systems and up to \$5,000 for new overhead sewers.

ii) Stormwater Improvement Financing Options Stormwater Utility. Village Attorney Janega gave a presentation that explained that: (i) a stormwater utility is a method of funding infrastructure and operations through the collection of fees based on service provided; (ii) while the Village has basic stormwater and operational infrastructures, there are insufficient funds to pay for significant system improvements. She then outlined the available funding options:

- “Pay as you go” using cash reserves, general fund revenues, and user fees, which are not recommended for funding capital projects; or
- Long-term financing, such as general obligation bonds, revenue bonds, alternate revenue bonds or special service areas (SSA).

Attorney Janega explained that SSAs are not recommended, as no funds would be collected from tax exempt properties, and recommended considering revenue bonds as best suited for utility funding, because bonds: (i) can provide large amounts for up-front funding, (ii) provide a revenue stream through user fees, and (iii) spread the cost among users based on system use rather than on taxable property values.

Mr. Saunders then explained that there are two rate methodologies that are used to calculate stormwater user fees: (i) Equivalent Residential Unit (ERU), which uses the average amount of impervious surface to calculate fees; and (ii) Equivalent Hydraulic Area (EHA), which uses a blend of impervious and pervious surface in its calculations. He recommended using the ERU method, adding that GIS technology facilitates the necessary calculations.

Attorney Janega further explained that: (i) no decisions are required at this time; (ii) the purpose of the presentation is to give them information to digest in advance of having to make any policy calls; (iii) Staff will provide the Council with more detailed information before it commits to a course; and (iv) that the policy direction being sought tonight is whether or not to follow the course outlined in Mr. Saunders’ proposed timeline.

Mr. McKee said the Village is very sound, interest rates are low, and that some conversations can be begun with bond counsel ahead of time without committing the Village to a specific course of action at this time.

Trustee Greable said the Village would need a master plan from CBBEL, the Village’s engineering consultant.

Mr. Saunders said that CBBEL is working on increasing the level of protection for some critical areas in the Village, and that once the Council decides on what levels of protection will be applied to what areas of the Village, a master plan will be in place.

Trustee Kates asked about a master plan for the sanitary sewer.

Attorney Janega explained that a sanitary sewer utility already exists, that stormwater is a separate issue, and that not a lot is known currently about the sanitary backups, as the process is just beginning.

The Council asked questions and discussed the issue of bond funding with Attorney Janega and Mr. McKee.

In conclusion, President Tucker commented that the Council's discussion will prepare it to look at the next steps and help to keep forward momentum on the stormwater drainage issue.

- iii) Proposed Timeline – Stormwater Management Activities. Mr. Saunders reported that, at the request of the Council, Staff had created a preliminary timeline to advance and implement stormwater improvements throughout the Village. He noted that the preliminary timeline schedules actions through February of 2012, when the proposed FY2012-13 budget will be presented, and the Council can provide policy direction.

Regarding sanitary sewer flooding, Mr. Saunders noted: (i) there was significant sanitary sewer flooding in the July 22-23 flood event; (ii) the Village's consultant, CBBEL, had not been asked to examine that issue; (iii) information needs to be gathered to get an understanding of the number of homes that flooded strictly from sanitary backups, and to identify where the clusters are; (iv) he would not be able to answer questions about whether the Wilmette/Kenilworth combined sewers affect Winnetka residents until he has more information on the sanitary sewer backups.

President Tucker asked the public for its comments.

Ruth Allen, 265 White Oak Lane, complained about how long the Village is taking to act on flood remediation.

Dr. James Feld, 260 White Oak Lane, asked about what progress has been made since 2008 on meeting with other regulatory agencies about the detention question.

In response, Mr. Saunders reported the following:

- The Village had discussions with the Park District about the Skokie Playfields. Some progress has been made for 10-year protection, but if the protection level is increased, another site may have to be identified.
- The community has twice rejected the use of Crow Island Park for detention, which led to the installation of the Winnetka Avenue pump station.
- Cook County Forest Preserve District is not interested in providing detention for other government bodies.
- New Trier High School won't make a commitment about Duke Childs Field without seeing a design, especially given the higher level of protection being considered.

Manager Bahan added that discussions will be taking place with the Metropolitan Water Reclamation District, Park District, New Trier High School and School District 36 and that a report will be made to the public about the outcome of those discussions.

Trustee Braun said his heart goes out to residents affected by flooding. He agreed that: (i) storm sewer enhancement should be the Council's top priority; (ii) protection should go far beyond the 10-year level; and (iii) he would like to see all areas of the Village addressed.

Trustee Johnson said his sympathy is also with residents who experienced flooding. He stated that; (i) he has always been concerned about the effectiveness of 10-year flood protection; (ii) the limit on what can be spent is higher than it was before the July storm; and (iii) he favors taking a thoughtful approach and not rushing into anything.

Trustee Greable stated that: (i) flooding is a community-wide problem; (ii) some areas are severely impacted and that home values are in jeopardy as a result; (iii) he favors making infrastructure investments for future generations; (iv) the Winnetka Caucus should survey residents about how best to proceed; and (v) business and community leaders must be part of the solution.

President Tucker said Trustee Spinney had sent an email voicing her support for staff's recommendations.

Trustee Rintz stated that more surveys are not needed and that the downstream areas of the Village need attention focused on them. He added that: (i) he trusts Village staff to know what the problems are and how to fix them, especially the Village Engineer who has spent his whole career in Winnetka; (ii) the Council does not have the technical knowledge in this highly theoretical field to make determinations, and that the experts need to be let loose to do their jobs; and (iii) the Council needs to invest in some improvements that will move the Village into the 21st Century.

President Tucker steered the discussion to the issue of Staff's recommended next steps: (i) redirect the cost/benefit analysis; and (ii) identify and pursue open space for detention.

All of the Trustees favored directing CBBEL to study the entire Village and to model higher storm protection levels.

Trustee Rintz, seconded by Trustee Johnson, moved to authorize the Village Manager to sign a contract with CBBEL in an amount not to exceed \$50,000, accepting the proposal outlined in the Christopher Burke Engineering proposal dated August 2, 2011, which expands the scope of the previously approved cost/benefit analysis to include the entire Village and to cover 25-, 50- and 100-year flood events. By roll call vote, the motion passed. Ayes: Trustees Braun, Greable, Kates, Johnson and Rintz. Nays: None. Absent: Trustee Spinney.

The Council was unanimously in favor of identifying and pursuing open space for stormwater detention purposes.

Attorney Janega briefly described the options for financing stormwater improvements.

After a brief discussion, a consensus was reached to have Staff gather more information on financing alternatives and to report to the Council at the next meeting.

The Council briefly discussed Staff's recommendation to conduct flood-proofing assessments, and asked for more information to be brought back at a future meeting.