



VILLAGE OF SHOREWOOD SEWER FACILITY PLAN MEETING #6

M. Chris Swartz, Village Manager
Village Center • May 9, 2011

Tonight's Agenda



- Recap of Process
- Facility Plan Goals
- Recommended Projects
- Financial Summary
- Threats to Completion
- Next Steps
- Question/Answer

Recap of Process



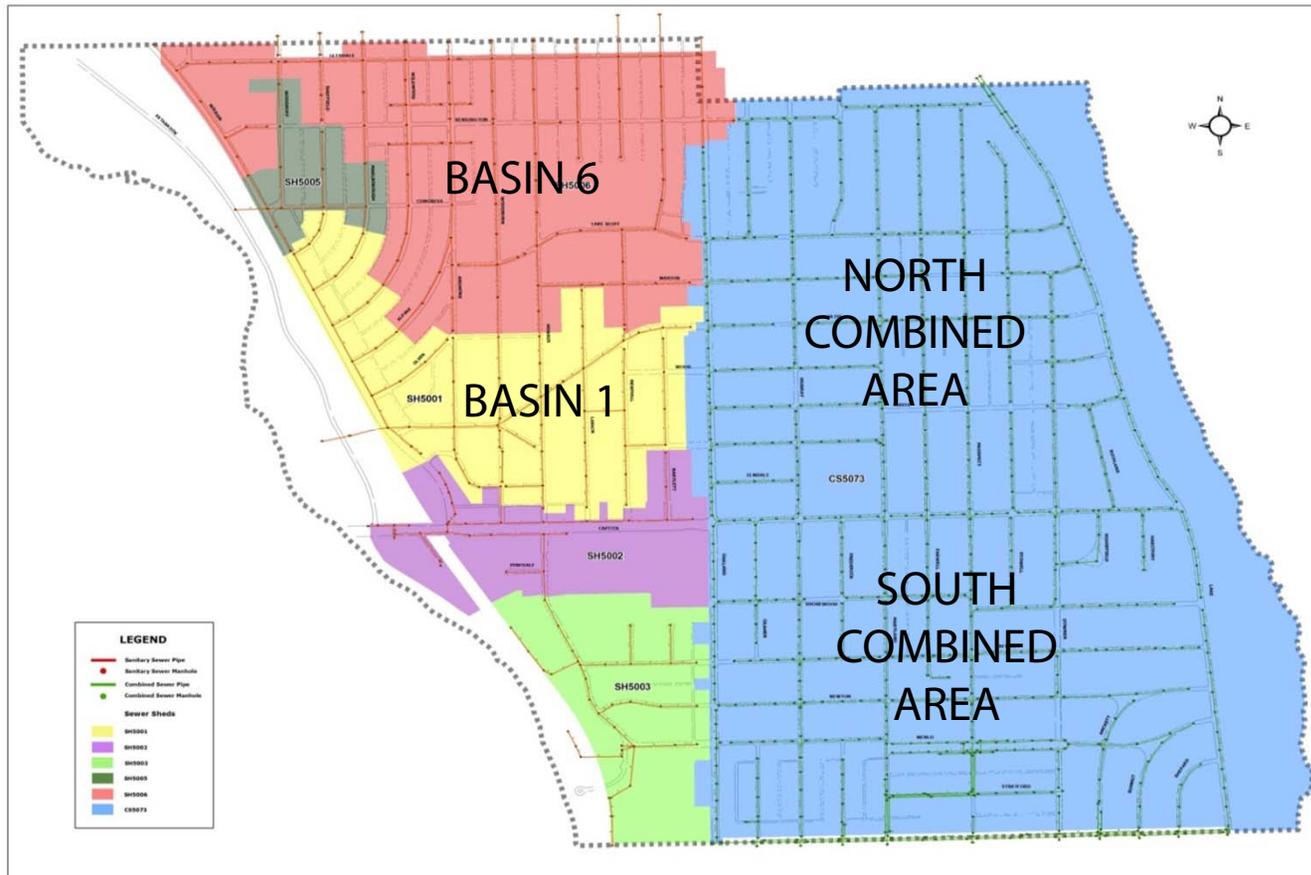
July 2010	Heavy rains on July 14-15 and July 22 caused flooding and basement back-ups throughout the Village.
Aug. 2010	Four public meetings; Village made sewers top priority.
Sept. 2010	Comprehensive sewer facility plan initiated.
Nov. 2010	System models completed, problem areas identified and presented at public meeting on November 4.
Dec. 2010	Facility plan framework developed (4 goals). Presented to public at December 13 meeting.
Feb. 2011	Initial solution projects identified and presented to public at February 8 meeting. Village hired team of engineers to analyze solutions and alternatives.
April 2011	Engineers submit project recommendations in form of Pre-Design Memorandums. Projects presented to public at April 6 meeting.
April-May 2011	Staff refine financial plan and implementation schedule. Board consideration in late May.

Facility Plan Goals



GOAL 1	Provide basement back-up protection for 2 inches of rain in 1 hour throughout the Village.
GOAL 2	Reduce Inflow and Infiltration (I&I) in separated area for back-up protection for 4 inches of rain in 1 hour.
GOAL 3	Long-term separation of the sanitary and storm sewer in the combined area, resulting back-up protection against a minimum of 4 inches per 1 hour in this area.
GOAL 4	Reduce street flooding throughout the Village to provide a minimum of 2 feet freeboard during 3 inch per hour rainfall.

Targeted Improvement Areas



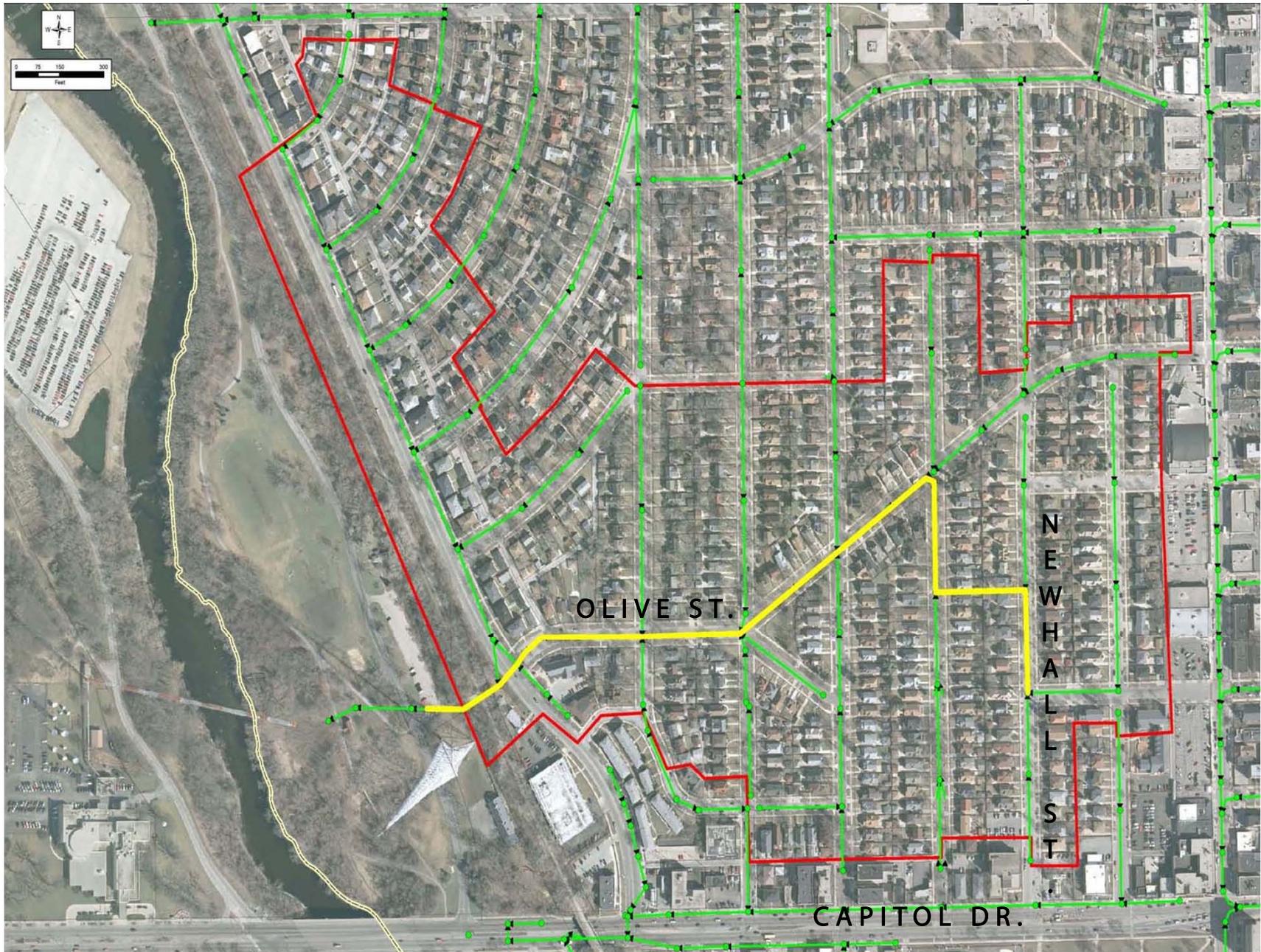
Basin 1 Recommendations



- Strand Associates of Milwaukee:

Recommended Project	Estimated Cost	Timeline	Goal(s) Addressed
Upsizing current sanitary pipe that runs from N. Newhall St. to E. Olive St. to N. Wilson Dr.	\$1.85 million	2012	GOAL 1
Construct new storm sewer pipes on N. Newhall St.	\$0.24 million	2012	GOAL 4
Test and repair existing private property laterals	\$6,000 per home	2012-2021	GOAL 2
Foundation drain disconnect incentive	\$2,000 per home/incentive	2012-2021	GOAL 2

Strand Associates – Basin 1 Sanitary Sewer Project



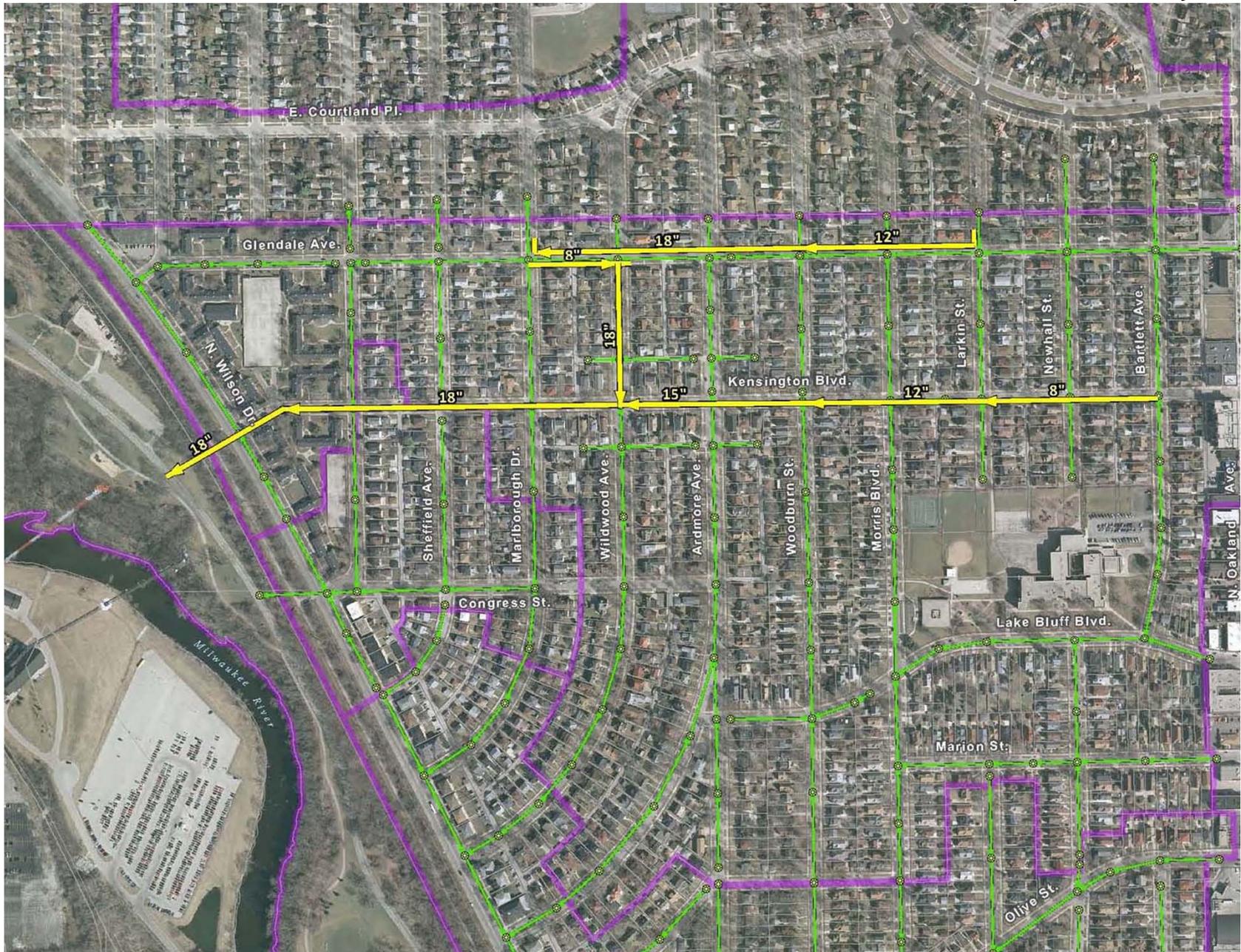
Basin 6 Recommendations



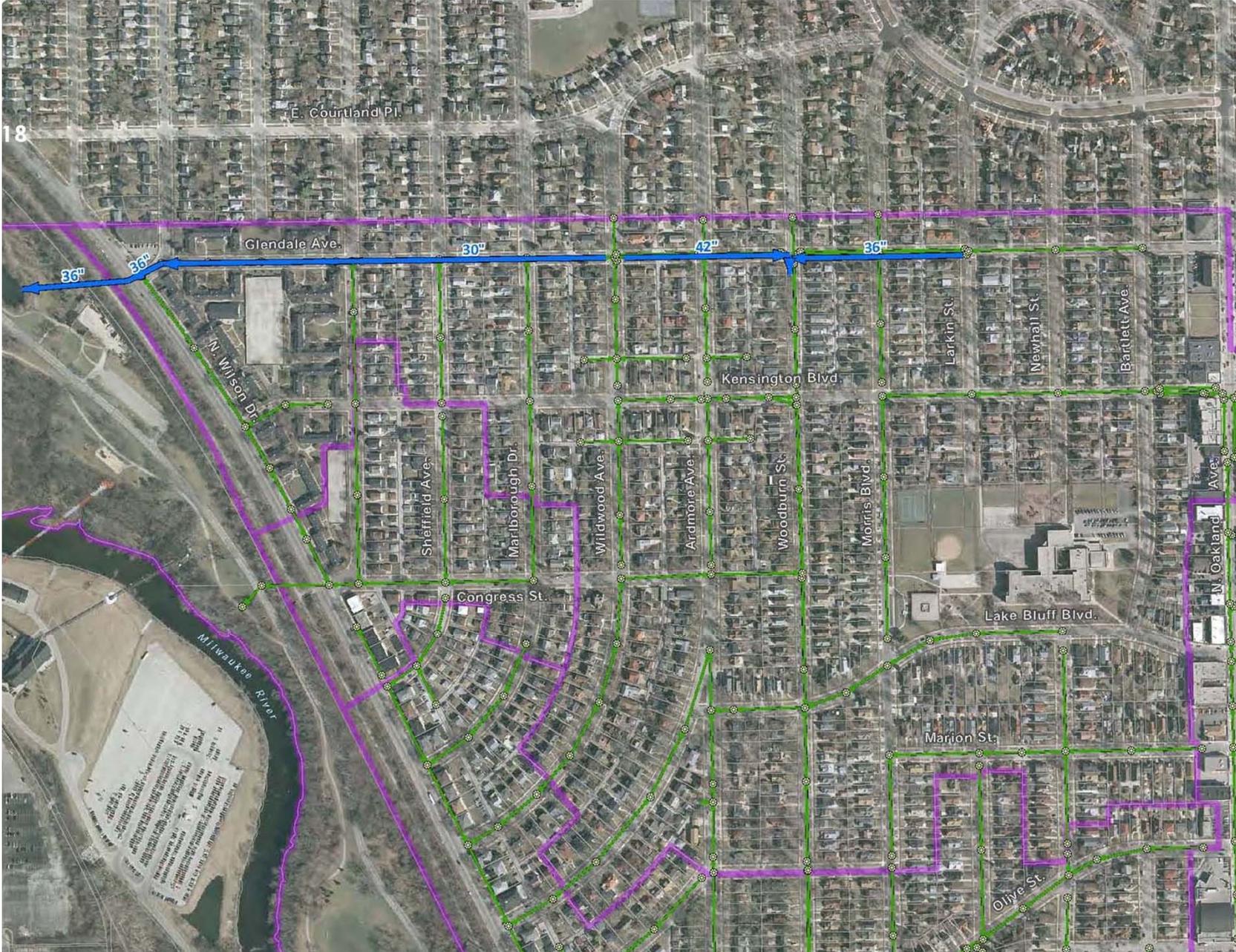
- Baxter & Woodman of Burlington:

Recommended Project	Estimated Cost	Timeline	Goal(s) Addressed
Construct new sanitary sewer pipes along E. Glendale Ave., N. Wildwood Ave. and E. Kensington Blvd.	\$4.2 million	2012	GOAL 1
Construct new storm pipe from E. Glendale Ave. to the Milwaukee River	\$2.38 million	2013	GOAL 4
Test and repair existing private property laterals	\$6,000 per identified lateral	2012-2021	GOAL 2
Foundation drain disconnect incentive	\$2,000 per home/incentive	2012-2021	GOAL 2

Baxter & Woodman – Basin 6 Sanitary Sewer Project



Baxter & Woodman – Basin 6 Storm Sewer Project



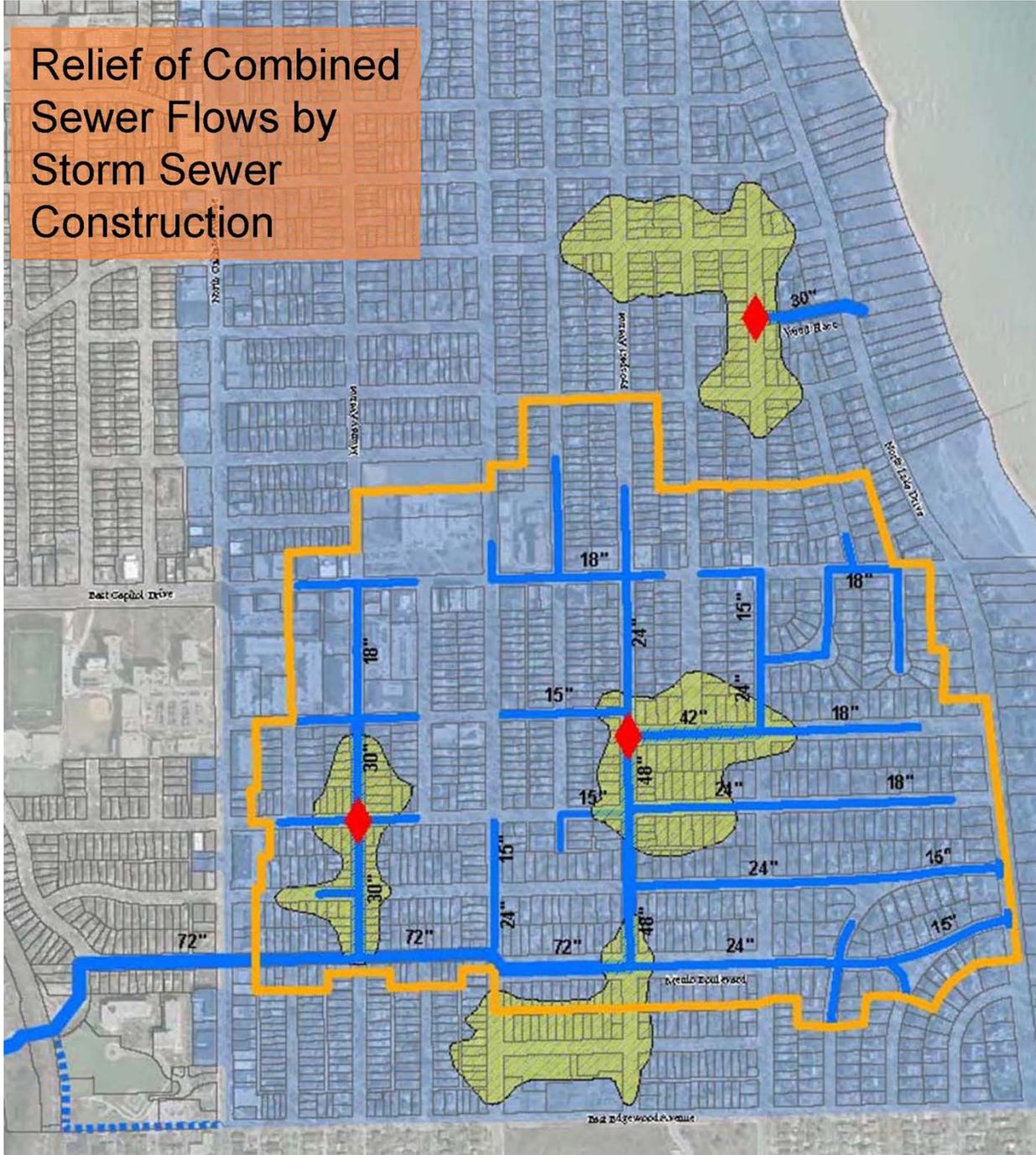
Combined-South Recommendations



- Ruekert-Mielke of Waukesha:

Recommended Project	Estimated Cost	Timeline	Goal(s) Addressed
Construct a storm sewer outfall pipe to run along E. Menlo Blvd. to the Milwaukee River	\$8 million	2012-2013	1, 3, 4
Construct a network of storm sewer pipes to connect to outfall	\$6.25 million	2014-2018	1, 3, 4
Construct a drainage way from N. Oakland Ave. to the Milwaukee River	\$0.40 million	2012	1, 3, 4

Relief of Combined Sewer Flows by Storm Sewer Construction



Ruekert-Mielke – Combined South Project

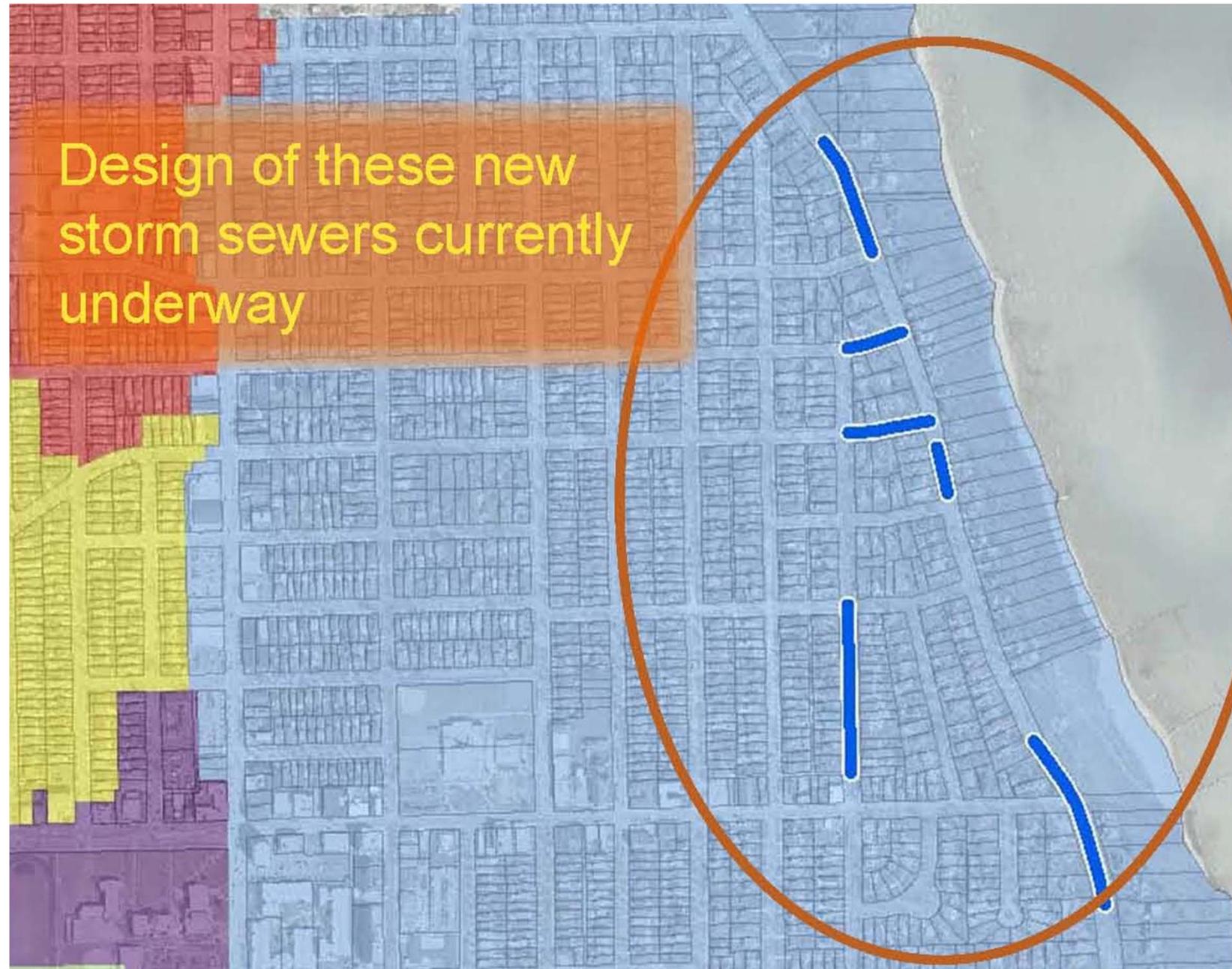
Combined-North Recommendations



- New storm sewer pipes have been designed for segments of road near Downer Ave. and will be constructed as part of 2011 road reconstruction program.
- Clark Dietz of Kenosha has also recommended:

Recommended Project	Estimated Cost	Timeline	Goal(s) Addressed
Upgrading combined sewer pipes along parts of E. Lake Bluff Blvd., N. Murray Ave., E. Kensington Ave. and N. Prospect Ave.	\$2.94 million	2011-2012	GOAL 1 GOAL 4

Combined North Storm Sewer Project with 2011 Road Program





Clark-Dietz – Combined North Project

Costs and Proposed Funding Sources



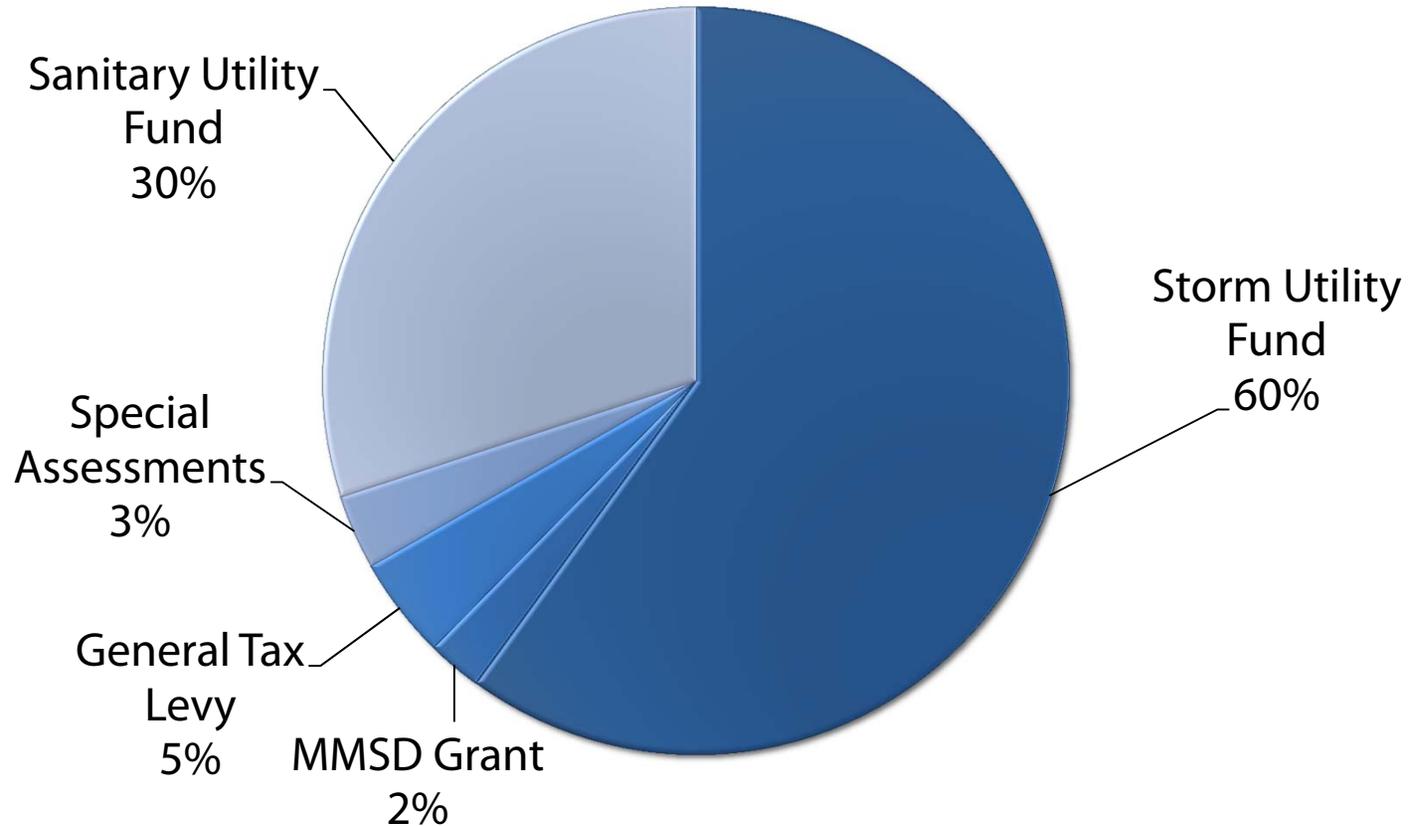
- Original facility plan (Jan. 2011): \$52.27 million
- Revised facility plan (May 2011): \$34.11 million

Project Type	Total Cost	Proposed Funding Source
Sanitary Sewer Improvements	\$6.05 million	Sanitary Utility Fund
Storm Sewer Improvements	\$19.82 million	Storm Utility Fund
Combined Sewer Improvements	\$2.94 million	Sanitary Utility Fund
Sanitary and Storm Pipe Lining Program	\$1.90 million	Sanitary and Storm Utility Funds
Private Property Lateral Rehab	\$3.00 million	Tax Levy, MMSD Grant, Special Assessment
Foundation Drain Disconnect	\$0.40 million	Tax Levy
Total	\$34.11 million	

Graph: Proposed Funding Sources



Breakdown of Proposed Funding Sources



Estimated Homeowner Costs



*Estimated Cost Increases to Homeowner (For all sewer facility plan projects)
(Compared to Current Costs)*

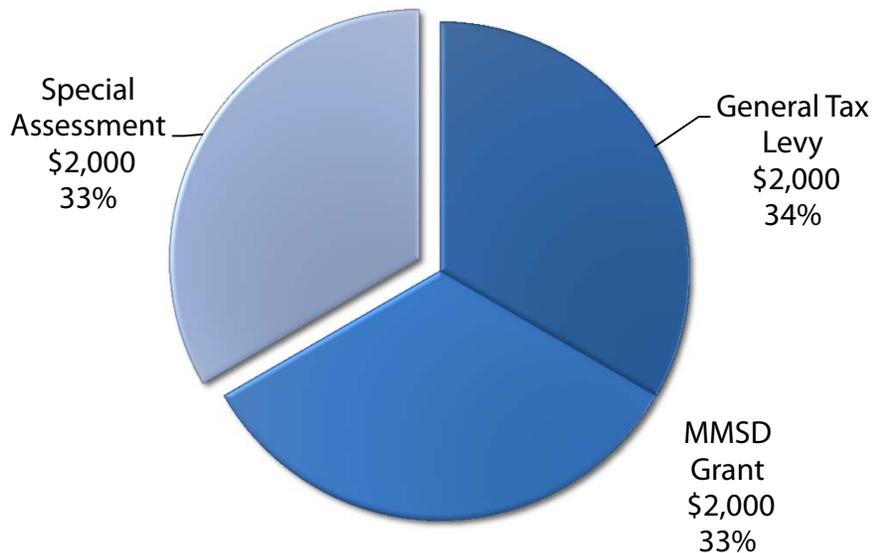
	Year 1 2012	Year 5 2016	Year 10 2021
Tax Levy Increase on \$300,000 home	\$ 49	\$ 107	\$ 134
Sanitary Sewer User Fee Increase	83	159	143
Stormwater User Fee Increase	56	90	94
Total Sewer Related Increases (Compared to Current)	\$ 188	\$ 355	\$ 371

Sample Special Assessment



- Select homes will be identified for repair/replacement of their lateral
- Estimated \$6,000 per lateral

Potential Lateral Funding Breakdown



<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total P&I</u>	<u>Ousting</u>
		4.00%		\$ 2,000
1	\$ 167	\$ 80	\$ 247	\$ 1,834
2	174	73	247	1,660
3	181	66	247	1,480
4	188	59	247	1,292
5	195	52	247	1,098
6	203	44	247	895
7	211	36	247	685
8	220	27	247	465
9	228	19	247	238
10	238	10	248	-
Total	\$ 2,000	\$ 466	\$ 2,466	

Threats to Project Completion



- MMSD limitations
- DNR permitting
- Board/Community support
- Costs/Funding
- Project feasibility
- Organizational capacity
- Implementation/Timing

Next Steps



May 17, 2011 Long-range financial planning meeting

May 31, 2011 Village Board consideration of:

- Approval of facility plan and financial plan
- Contracts for engineers to proceed with full design

June 2011 –
March 2012 Permitting and design work

June 2012 –
Sept. 2021 Project implementation

Thank You!



- Questions?

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Updates posted on: www.villageofshorewood.org/sewer