

EVANSTON ILLINOIS

Utilities Department Update

Water Fund and Capital Program Status
Wholesale Water Sales Update

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Utilities Director

March 16, 2015

WATER DIVISION GOALS

- **Provide clean, safe, reliable water
24 / 7 / 365**
- **Establish fair, competitive, and
reasonable water rates**
- **Work toward rates that reflect the true
cost of service**
- **Protect the Evanston retail rate payers**



WATER FUND GOALS

- **Maintain a minimum cash balance of \$3,500,000**
- **Debt Service cost < 25% of operating revenue**
- **Replace / rehabilitate 1% (1.5 miles) of the water distribution system annually**
- **Maintain water treatment plant in good operating condition**

WATER FUND STATUS

Water Fund Balance

- **\$7,719,000 at beginning of FY 2015**
- **Projected to be \$3,708,000 at end of FY 2015**
- **Maintain balance at or near \$3.5M target in 2016 & beyond**

Debt Service

- **9.3% of operating revenues in FY 2015**
- **Projected to increase to a high of 24% by FY 2028**
- **Plan to phase out debt funding of water main program**

DISTRIBUTION SYSTEM STATUS

Water Main Replacement / Rehab

- Averaged 1.6 miles/year since 2010
- FY 2015 water main program:
 - Replace 1.7 miles
 - Rehab 0.75 miles of critical transmission main via CIPP lining to lower costs



Other Projects & Initiatives

- Rehabilitate 2 standpipes in FY 2015
- Annual leak detection program

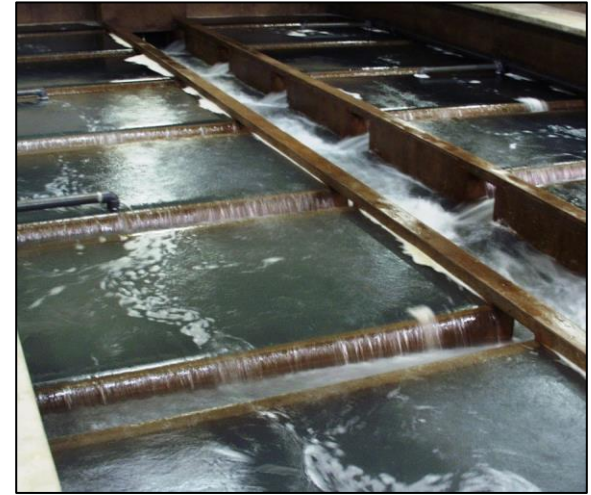
WATER PLANT STATUS

Recent Water Plant Projects

- Upgraded 1964 filters & filter building
- Replaced SCADA system
- Replaced 10 of 31 roofs since 2010
- Water intake reliability improvements

Other Projects & Initiatives

- Electricity load shedding program
- Metering improvements
- Public outreach on water issues



KEY FINDINGS

Water Fund is financially sound:

- **Evanston has the lowest retail water rate in Cook County**
- **The Water Fund is maintaining the target cash reserve**
- **The Water Fund has a AAA bond rating from Moody's**
- **Moving towards full cost pricing while maintaining affordability for Evanston retail rate payers**

DISTRIBUTION SYSTEM CIP

Annual Water Main Program

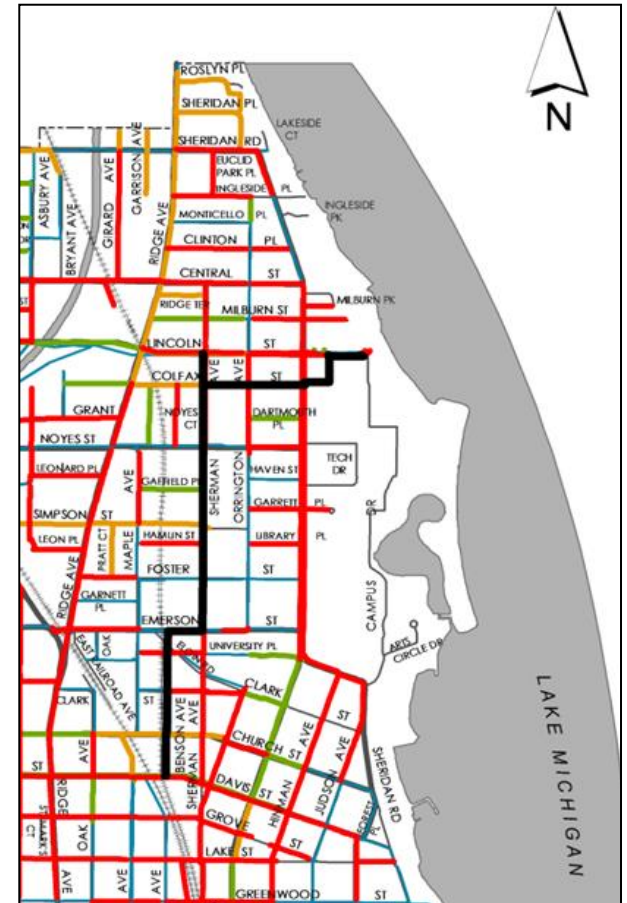
- Target at least 1.5 miles per year at \$3.5 million (plus inflation)
- Construction costs have increased in recent years
- Maximize use of CIPP lining to do more in existing budget
- Use TIF District and IEPA funding to supplement Water Fund



DISTRIBUTION SYSTEM CIP

Large Diameter Water Main

- 30” transmission main between water plant and downtown Evanston
- 1.4 miles long, 80 years old
- 3 breaks since 2008
- Applying to IEPA for loan funding
- Original cost estimate \$7.2 million



DISTRIBUTION SYSTEM CIP

Major Projects – Near Term

	2015	2016	2017	2018	2019	2020
Annual Water Main Program	\$22 million					
Standpipe Painting & Repair	\$3.5M					
Sheridan Road Water Main	\$4.25M					
30" Transmission Main Rehab		\$7.2 million				

WATER PLANT CIP

Major Projects – Near Term

	2015	2016	2017	2018	2019	2020	2021
Reliability Improvements	\$5.5 million						
Treated Water Storage	\$20.5 million						
Roof Replacements				\$500,000			
Intake Replacement						\$18 million	

WATER PLANT CIP

Other Projects & Long-Range Plans

Settling Basin Concrete Rehab – \$400,000 in 2018-2019

Mechanical Systems Upgrade – \$700,000 in 2018-2019

Electrical System Upgrade – \$650,000 in 2021-2022

Low Lift Pump Improvements – \$2.1 million in 2025-2027

High Lift Pump Improvements – \$1.4 million in 2028-2029

Other Improvements – estimate \$3 million/year total

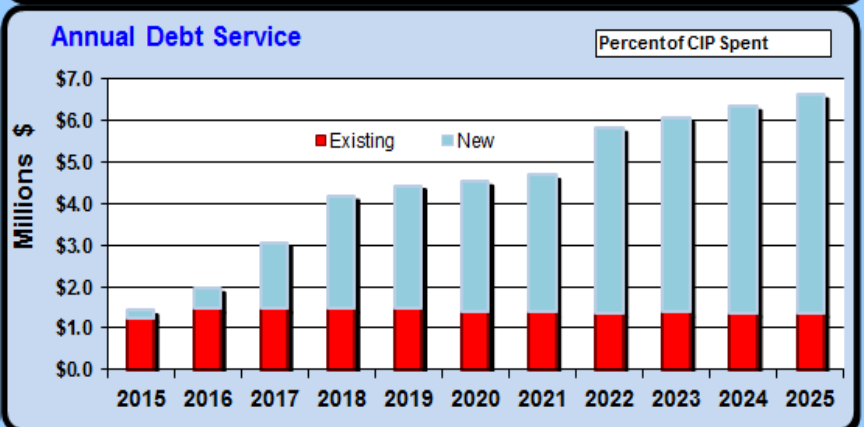
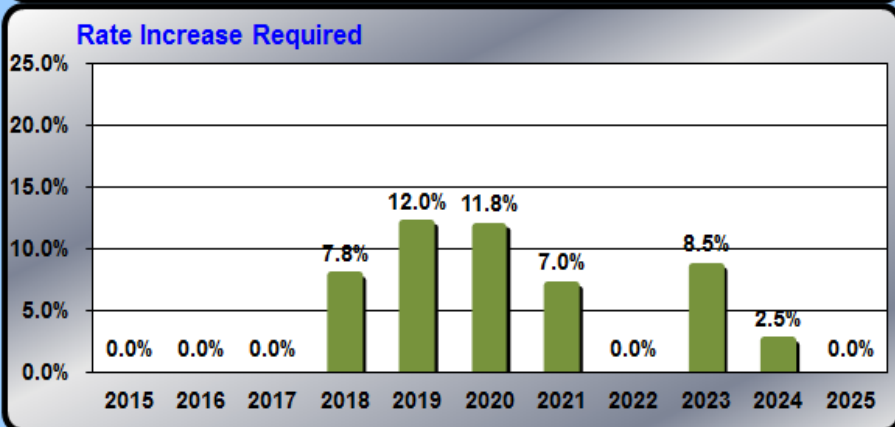
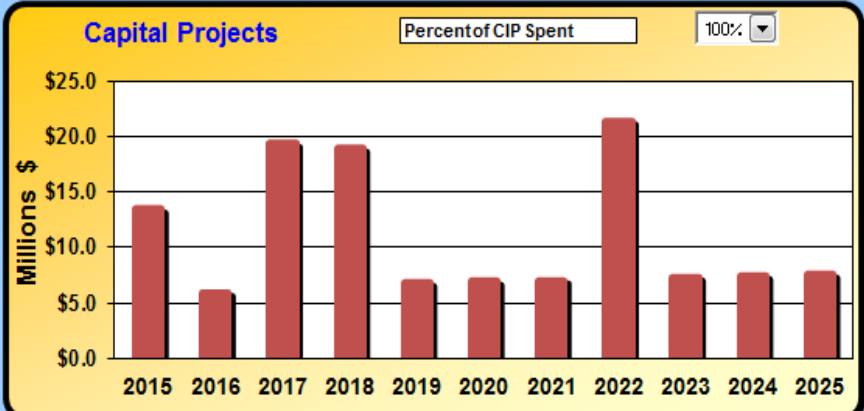
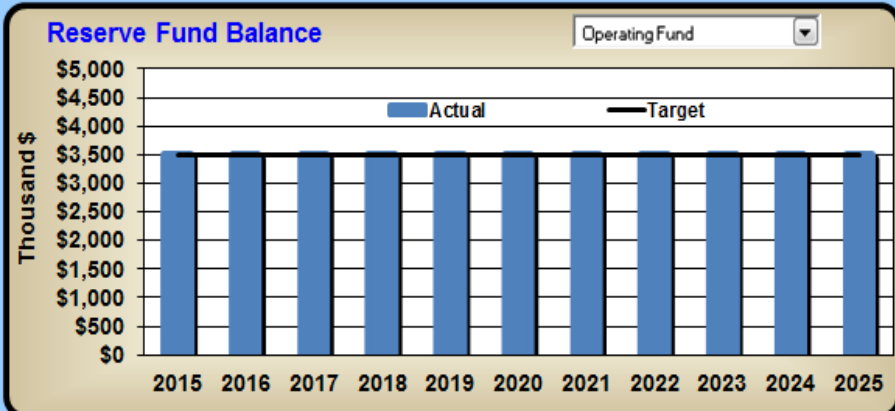
**City of Evanston
e-Forecast Version 2.0**

Select Last Year to Solve: **2028**
 Actual Year Solved To: **2044**
 Time: **0 Seconds**

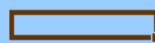
Water System DASHBOARD

Model Integrity Test: **Optimized!**
 Calc Error: **Balanced**
 OK!

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Clear Rate Adjustments	0.0%			7.75%	12.0%	11.75%	7.0%	0.0%	8.5%	2.5%



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Typical Bill	\$211.12	\$232.42	\$232.42	\$232.42	\$250.43	\$280.48	\$313.44	\$335.38	\$335.38	\$363.88	\$372.98



City of Evanston
e-Forecast Version 2.0



	2015	2016	2017	2018	2019	2020
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GROWTH ASSUMPTIONS

Select Growth Scenario

Growth Scenario 1

0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
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GENERAL ASSUMPTIONS

Interest Earnings Rate

0.25%	0.25%	0.25%	1.0%	1.0%	1.0%
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Percent of Year Rate Increases Effective

100%	100%	100%	100%	100%	100%
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Operating Reserve (Months of O&M)

0	0	0	0	0	0
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Plus: Adjustment (\$)

3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
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Total Operating Reserve

3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
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CAPITAL FINANCING ASSUMPTIONS

Revenue Bond Debt Financing Terms

Issuance Costs

1.5%					
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Interest Rate

3.75%	4.25%	4.25%	4.25%	4.25%	4.25%
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Amortization Period (years)

20	20	20	20	20	20
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General Obligation Bond Debt Financing Terms

Issuance Costs

1.0%					
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Interest Rate

3.5%	4.0%	4.0%	4.0%	4.0%	4.0%
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Amortization Period (years)

20	20	20	20	20	20
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State Revolving Loan Fund Financing Terms

Issuance Costs

0.00%					
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Interest Rate

1.930%	2.295%	2.295%	2.50%	2.5%	2.5%
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Amortization Period (years)

20	20	20	20	20	20
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City of Evanston e-Forecast Version 2.0						Classification Descriptions					
Water Fund Operations and Maintenance											
	Classification			Cost			1	2	3	4	5
Trap	2	3	4	Escalation	Description		2015 YE Estimate	2016	2017	2018	2019
	BEGINNING BALANCES										
1	BAL	CA	NA	NA	Beginning Unrestricted Fund Balance		7,052,360				
1	REVENUE										
1	R	RR1	NA	Constant	Water Sales - Evanston		6,252,400	Future Years Projected by Model. See W_FundCalc Works			
1	R	OR	NA	Constant	Penalty - Evanston		-	-	-	-	-
1	R	OR	NA	Wholesale	Water Sales - Skokie		2,913,000	2,970,000	4,802,000	5,128,000	5,848,000
1	R	OR	NA	Wholesale	Water Sales NWWC		5,315,000	5,498,000	5,678,000	6,063,000	6,914,000
1	R	OR	NA	Wholesale	Water Sales Des Plaines		250,000	580,000	599,000	640,000	730,000
1	R	OR	NA	Rentals	Property Sales and Rentals		146,100	153,405	161,075	169,129	177,585
1	R	OR	NA	Constant	Misc Revenue		160,000	160,000	160,000	160,000	160,000
1	R	OR	NA	Constant	Fees and Merchandise Sale		70,000	70,000	70,000	70,000	70,000
1	R	OR	NA	Constant	Fees and Outside Work		70,000	70,000	70,000	70,000	70,000
1	R	OR	NA	Phosphate	Phosphate Sales		45,000	47,250	50,085	53,090	56,276
1	R	OR	NA	Inflation	Cross Connection Control Fees		120,000	123,600	127,308	131,127	135,061

City of Evanston
e-Forecast Version 2.0



Water Fund Capital Improvements

Line No	Description	1 2015	2 2016	3 2017	4 2018	5 2019
1						
2	Security Equipment	50,000	50,000	50,000	50,000	50,000
3	Masonry Evaluation and Tuckpointing	300,000	0	0	0	0
4	SCADA System Upgrades	0	250,000	0	0	0
5	48" Intake Impr/Zebra Mussel Control	1,500,000	0	0	0	0
6	Water Plant Reliability Improvements	0	500,000	1,000,000	4,000,000	0
7	Standpipe Painting and Repairs	3,500,000	0	0	0	0
8	Sheridan Road Water Main Replacement	4,225,000	0	0	0	0
9	Laboratory HVAC Replacement	0	0	0	90,000	300,000
10	Master Meter & Chem Feed Improvements	450,000	0	0	0	0
11	Roof Repair and Replacement	0	0	100,000	100,000	100,000
12	Finished Water Storage Improvements	0	1,200,000	10,752,000	7,168,000	0
13	Transformer Room Electrical Improvements	0	0	0	0	0
14	Low Lift 4/5/6 Pump Improvements	0	0	0	0	0
15	Settling Basin 1/2 Rehabilitation	0	0	0	50,000	350,000
16	Water Main Replacement - bond or cash funded	3,487,600	3,590,000	3,298,000	3,269,000	3,194,000
17	30" Feeder Main Replacement - Lincoln to Davis	0	0	3,800,000	3,410,000	0
18	Filter Workshop Sprinkler System	0	0	0	150,000	0
19	Water Main Replacement - Cash Funded	0	0	400,000	540,000	729,000
20	Wash Water Pumps Rehabilitation	0	0	0	0	0
21	Filter Freight Elevator and Controls Rehab	0	0	0	150,000	0

CURRENT WHOLESALE CUSTOMERS

Northwest Water Commission

Average Day – 21.8 mgd (59%)

Skokie

Average Day – 7.6 mgd (21%)

Evanston

Average Day – 7.5 mgd (20%)

POTENTIAL CUSTOMERS

Lincolnwood

- Series of meetings and letters exchanged since August 2014
- Recently lowered proposed rate from \$2.37 to \$2.05



POTENTIAL CUSTOMERS

Niles and Morton Grove

- **Highly engaged in comparing offers from Evanston and Wilmette / Glenview**
- **Contracted with an engineering firm, a management consultant, and legal counsel**
- **Indicated that they plan to make a decision by the end of March**

POTENTIAL CUSTOMERS

Niles, Morton Grove and Park Ridge

Projected Cost Savings – Year 1 (30-year debt*)			
Supplier	Morton Grove	Niles	Park Ridge
Wilmette/Glenview	\$580,000	\$570,000	--
Evanston (Morton Grove & Niles)	\$680,000	\$430,000	--
Evanston (MG, Niles, Park Ridge)	\$1,600,000	\$1,700,000	\$1,050,000

POTENTIAL CUSTOMERS

Niles, Morton Grove and Park Ridge

Projected Capital Costs for Transmission Main				
Supplier	Morton Grove	Niles	Park Ridge	Total
Wilmette/Glenview	\$15.1M	\$23.4M	--	\$38.5M
Evanston (Morton Grove & Niles)	\$36.2M	56.1M	--	\$92.3M
Evanston (MG, Niles, Park Ridge)	\$25.0M	\$40.4M	\$49.9M	\$115.3M

POTENTIAL CUSTOMERS

Niles, Morton Grove, and Park Ridge

Projected Wholesale Water Rates in Year 1 (per 1,000 gal)*			
Supplier	Morton Grove	Niles	Park Ridge
Wilmette/Glenview	\$2.56	\$2.56	--
Evanston (Morton Grove & Niles)	\$1.03	\$1.03	--
Evanston (MG, Niles, Park Ridge)	\$0.92	\$0.92	\$0.92

POTENTIAL CUSTOMERS

Niles, Morton Grove, and Park Ridge

Projected Total Water Supply Cost in Year 1 (per 1,000 gal)*			
Supplier	Morton Grove	Niles	Park Ridge
Wilmette/Glenview	\$3.49	\$3.49	--
Evanston (Morton Grove & Niles)	\$3.39	\$3.63	--
Evanston (MG, Niles, Park Ridge)	\$2.52	\$2.84	\$3.34

POTENTIAL CUSTOMERS

Northwest Suburban Municipal JAWA

- **Seven communities in western Cook County**
- **Average day demand 30 mgd**
- **Would require expansion of Evanston's water treatment plant**

City of Evanston

Wholesale Cost of Service Model

2

Scenario	ROR	% RCLD
1	0.095	0.25
2	0.100	0.50

Table of Contents

Worksheet	Description
Account Rates	Inputs regarding account information and current rates
Usage Rates	Inputs regarding usage information and current rates
Revenue	Calculates user charge revenue from info provided in Account Rates, enter Misc revenues
Expenses	Input operation and maintenance expenses for current budget year
Cashflow	Summarizes cashflow and allows user to adjust rate increases to meet fund balance targets
System Assets	Input water utility assets, depreciation, original cost, replacement cost, current value
Allocations	Input functional allocations related to expenses
Equivalent Meters	Calculates the number of meters on an equivalent, 3/4" meter basis
EUOS	Inputs of concentration and summary of estimated units of service
COS	Cost of service calculations and comparisons with revenue under existing rates
COS Rates	Calculation of cost of service based rates

Date Acquired	Life (months)	Description	Asset Cost	Accumulated Depreciation	Net Book Value (OCLD)	RCLD
1/1/1909	1188	1909 36IN CI PIPE INTAKE	44,888	-33,296	11,592	515,467
1/1/1909	1188	1909 42IN CI PIPE INTAKE	56,452	-42,472	13,980	637,015
7/1/1957	1188	48IN INTAKE BRANCH CONN.	15,754	-3,929	11,825	94,692
7/1/1957	1188	36IN INTAKE BRANCH	68,821	-17,164	51,657	141,740
7/1/1957	900	SOUTH SHORE SCREEN WELL	153,713	-71,680	82,033	850,487
7/1/1957	900	NORTH SHORE SCREEN WELL	153,713	-71,680	82,033	850,487
7/1/1957	900	INTAKE TUNNEL	171,942	-68,169	103,773	1,137,776
7/1/1957	1188	48IN CI PIPE SOURCE INTAK	397,092	-103,939	293,153	1,221,418
7/1/1969	600	TRAVELING WATER SCREENS	38,855	-25,962	12,893	61,613
7/1/1969	600	TRAVELING WATER SCREENS	38,855	-25,962	12,893	61,613
12/3/1976	1188	54IN CONCRETE PIPE INTAKE	32,040	-5,748	26,292	126,648
12/3/1976	1188	48IN CONCRETE INTAKE	684,850	-122,851	561,999	2,738,941
12/3/1976	900	54IN CONCRETE PIPE INTAKE	740,385	-208,411	531,974	1,685,304
12/3/1976	1188	54IN CONCRETE INTAKE PIPE	1,034,251	-186,231	848,020	4,143,550
3/1/1954	1188	1894 6FT RAW WATER TUNNEL	3,644	-3,608	36	3,156
12/31/1990	600	48IN RAW WATER INTAKE/EXT	77,149	-27,010	50,139	97,864
10/1/1991	240	COMB STARTERS A1 & A2 VLV	3,115	-3,115		0
12/31/1993	240	ZEBRA MUSSEL CONTROL A92	417,505	-371,207	46,299	95,589
7/7/1993	120	A3/A7 ELEC STARTER	3,585	-3,585		0
1/12/2010	240	REHAB 1894 WELL	702,139	-70,038	632,102	1,259,341
2/9/2010	180	54" INTAKE ANCHOR ICE CONTROL	584,537	-74,433	510,105	1,016,284
Totals			5,423,286	-1,540,487	3,882,799	16,738,985

Annual Costs

Customer	O&M	Depreciation	Return	Total	\$/k-gal
Skokie	\$1,464,000	\$260,300	\$2,719,900	\$4,444,200	\$1.52
NWC	\$3,410,100	\$347,600	\$1,652,600	\$5,410,300	\$0.54
Lincolnwood	\$319,400	\$121,700	\$895,800	\$1,336,900	\$2.09
Morton Grove	\$524,200	\$43,500	\$293,400	\$861,100	\$0.82
Niles	\$702,000	\$58,200	\$392,700	\$1,152,900	\$0.81
Park Ridge	\$743,400	\$61,700	\$415,800	\$1,220,900	\$0.81
NSMJAWA	\$0	\$0	\$0	\$0	\$0

Revenue Requirements to be Covered by Evanston

Revenue Requirements	\$18,157,100
Skokie	\$4,444,200
NWC	\$5,410,300
Lincolnwood	\$1,336,900
Morton Grove	\$861,100
Niles	\$1,152,900
Park Ridge	\$1,220,900
NSMJAWA	\$0
Remainder	\$3,730,800

QUESTIONS?