Water and Sewer Fund Presentation

Evanston City Council

April 12, 2010

Introduction

- Sewer and water funds face many challenges
- Significant infrastructure needs from deferred maintenance
- Declining water sales have reduced incoming revenues
- Need additional revenues and/or debt restructuring
- Evanston is not alone and many providers face the same issues

Agenda

- Sewer Fund
- Water Fund
- Wholesale Water Customers
- Public Outreach
- Alternative Energy Sources

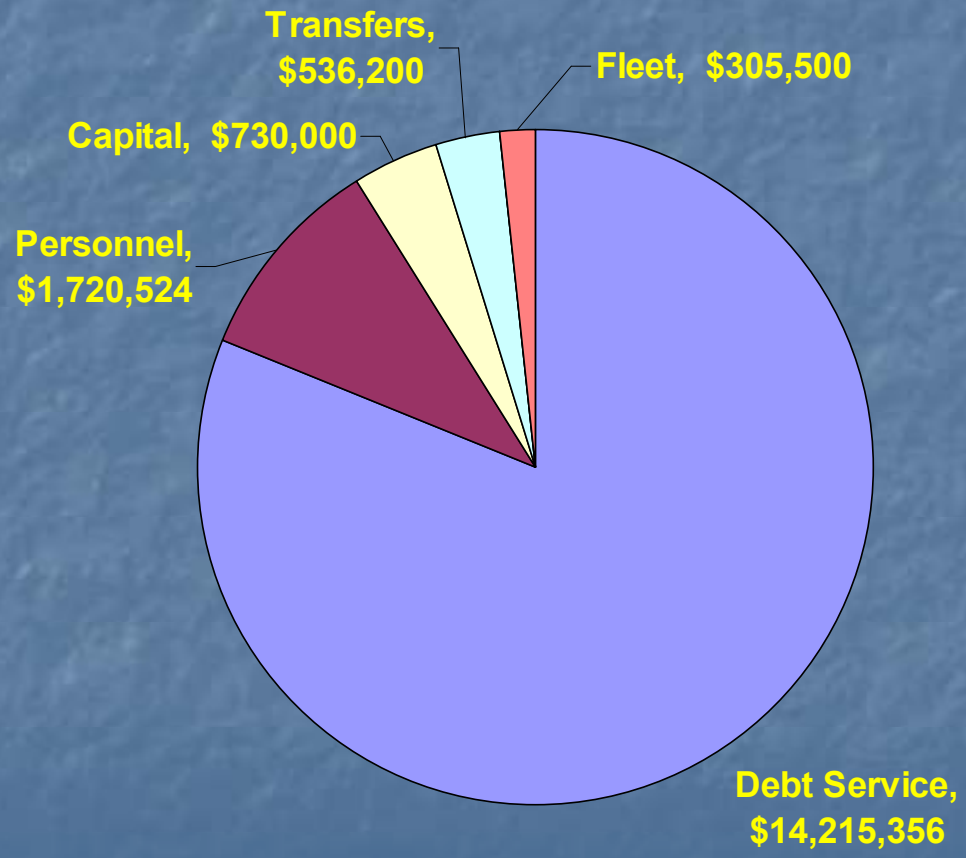
Sewer Fund

Sewer Infrastructure Needs

- Completed the initial long range sewer plan
  - Built a new relief sewer to handle stormwater – did NOT address existing sewer system
  - Constructed over 18 years
  - Cost $210 M
  - Many significant rain events in past 3 years have resulted in few basement backups due to the sewer system surcharging

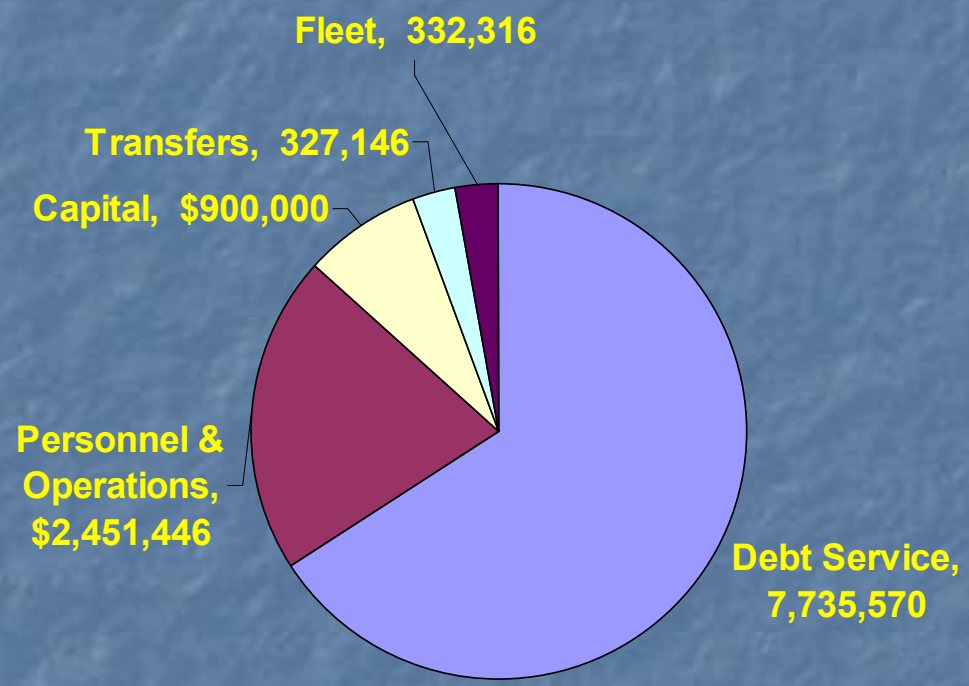
Combined Sewer System

Sewer Spending Breakdown-10/11



Total FY10/11 Sewer Budget is $17,507,580

Sewer Spending Breakdown-17/18



Total FY17/18 Sewer Projection is $11,746,478

Sewer Rate History

- Last sewer rate increase in 2004
- Based on current rate, ($3.94/100 cu ft) average Single Family Residence is paying $417.64/year ($1.14/day)

Sewer Rate History

- Historically, sewer rates were established to pay the debt service on the long range sewer program based on projected water utilization
- Between 1990 and 2000, the sewer rate was reviewed and adjusted annually based on actual costs for O&M, capital, and debt service
- This process resulted in unpredictable (often very large) rate increases being enacted on an almost annual basis
- In 2000 an ordinance was passed to stabilize the rate increases for the next 4 years

Sewer Rate History

- Ordinance 12-O-00 established the following proposed sewer rates:

Beginning 3/01/00	$3.10/100 cu ft
Beginning 3/01/01	$3.41/100 cu ft
Beginning 3/01/02	$3.75/100 cu ft
Beginning 3/01/03	$4.13/100 cu ft

- Ordinance 13-O-03 established the following proposed sewer rates:

Beginning 3/01/03	$3.75/100 cu ft
Beginning 3/01/04	$3.94/100 cu ft
Beginning 3/01/05	$4.13/100 cu ft

- The proposed rate increase on 3/01/05 was postponed pending the results of a cost of service study

- Ordinance 94-O-05 established the sewer rate at $3.94/100 cu ft as of 8/31/05

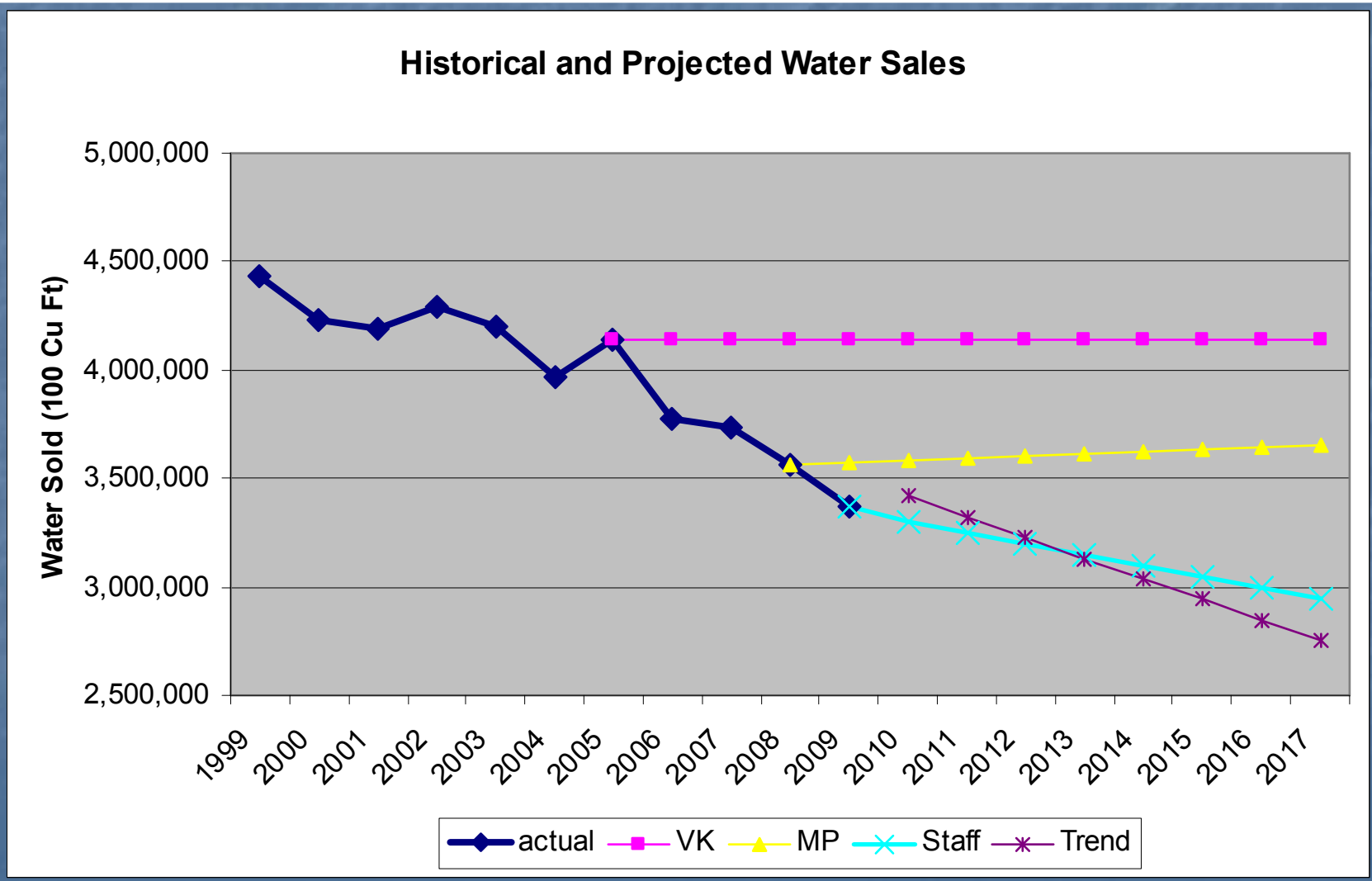
Usage History

- The 2005 rate was based on the estimated water usage of 4,135,800 CCF (100 cu ft)
- Actual water usage has been substantially less than projected – the 2009 and 2010 budgets were based on estimated water usage of 3,600,000 CCF
- Actual water usage in FY09/10 was 3,363,700 CCF
- This is 19% below the 2005 usage level. In order to maintain revenues, a 19% rate increase would have been needed

Usage History

- Since 1998…
  - Evanston's water usage has decreased more than 16%
  - Skokie's water usage has decreased 26%
  - NWC's water usage has decreased by 13% while the population served has increased by 11%
- CMAP indicates that Chicago's consumption has decreased 18% since 1990 with a concurrent population growth of 24%

Evanston Water Consumption



Existing Sewer Fund Shortfall

- Malcolm Pirnie completed a cost of service study in 2008 indicating rate increases were needed to cover operating and debt service
  - Sewer rate was not adjusted
  - Water sales declined below the projected amounts
- The current FY10/11 budget projects the sewer fund balance to be below $200,000 by the end of this budget year
- Based on actual FY09/10 revenues and FY10/11 budget, the sewer fund balance will have a $1M deficit at the end of the current budget year

Sewer Fund – Actual vs. Projected

	As Shown in FY 10/11 Budget		Based on Actual Water Sales as of 2/28/10	
	FY 09/10 Estimated	FY 10/11 Proposed	FY 09/10 Actual	FY 10/11 Proposed
CCF Water Sold	3,600,000	3,600,000	3,363,728	3,600,000
Revenue	$14,640,377	$14,288,000	$13,622,967	$14,288,000
Expenses	$2,914,557	$3,292,224	$3,127,797	$3,292,224
Debt Service	$14,054,700	$14,215,356	$14,102,111	$14,215,356
Total Expenses	$16,969,257	$17,507,580	$17,229,908	$17,507,580
Beginning Fund Balance	$5,735,564	$3,406,684	$5,735,564	$2,128,622
Ending Fund Balance	$3,406,684	**$187,104**	$2,128,622	**($1,090,958)**

Options for Balancing the Sewer Fund

- Based on lower usage levels in 2009-10, the 2010-11 budget requires either a rate increase of at least 8% or a bond issue of $1.1 M
- In future years, more bonds must be issued and/or a rate increase will be needed to reach 2013 when existing debt begins to retire

Sewer Revenue Increase – Option S1

- $12M in bonds over three years with debt service paid from the Sewer Fund
- The debt service on these bonds will be $963,000 annually for 20 years
- Three annual rate increases of 6%, 7% and 8% beginning on January 1, 2011

Sewer Budget – Option S1

	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16
CCF Water	3,600,000	3,250,000	3,200,000	3,150,000	3,100,000	3,050,000
Sewer Rate	$3.94	$4.18	$4.47	$4.83	$4.83	$4.83
Rate Increase	--	6%	7%	8%	--	--
Revenues	$13.3 M	$13.7 M	$14.4 M	$15.3 M	$15.1 M	$14.8 M
New Bonds	$3.0 M	$4.0 M	$5.0 M	--	--	--
Total Revenue	**$17.3 M**	**$17.7 M**	**$19.4 M**	**$15.3 M**	**$15.1 M**	**$14.8 M**
Expenses	$3.3 M	$3.6 M	$3.6 M	$3.7 M	$3.7 M	$3.8 M
Exist. Debt Service	$14.2 M	$14.2 M	$14.1 M	$11.4 M	$9.7 M	$9.3 M
New Debt Service	--	$0.2 M	$0.6 M	$1.0 M	$1.0 M	$1.0 M
Total Expenses	**$17.5 M**	**$18.0 M**	**$18.3 M**	**$16.1 M**	**$14.4 M**	**$14.1 M**
Unrestricted Fund Balance	**$2.1 M**	**$1.8 M**	**$2.9 M**	**$2.2 M**	**$2.8 M**	**$3.6 M**

Sewer Revenue Increase – Option S2

- $10M in bonds over three years with debt service paid from a property tax levy to the General Fund
- The debt service on these bonds will be $803,000 annually for 20 years
- Three annual rate increases of 6%, 7% and 8% beginning on January 1, 2011

Sewer Budget – Option S2

	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16
CCF Water	3,600,000	3,250,000	3,200,000	3,150,000	3,100,000	3,050,000
Sewer Rate	$3.94	$4.18	$4.47	$4.83	$4.83	$4.25
Rate Increase	--	6%	7%	8%	--	-12%
Revenues	$13.3 M	$13.7 M	$14.4 M	$15.3 M	$15.1 M	$13.1 M
New Bonds	$3.0 M	$4.0 M	$3.0 M	--	--	--
Total Revenue	**$17.3 M**	**$17.7 M**	**$17.4 M**	**$15.3 M**	**$15.1 M**	**$13.1 M**
Expenses	$3.3 M	$3.6 M	$3.6 M	$3.7 M	$3.8 M	$3.8 M
Exist. Debt Service	$14.2 M	$14.2 M	$14.1 M	$11.4 M	$9.7 M	$9.3 M
Total Expenses	**$17.5 M**	**$17.8 M**	**$17.7 M**	**$15.1 M**	**$13.5 M**	**$13.1 M**
Unrestricted Fund Balance	**$2.1 M**	**$2.0 M**	**$1.7 M**	**$1.9 M**	**$3.5 M**	**$3.5 M**
GF Property Tax Levy		**$0.24 M 0.6%**	**$0.56 M 1.4%**	**$0.8 M 2.0%**	**$0.8 M 2.0%**	**$0.8 M 2.0%**

Sewer Revenue Increase – Option S3

- $17 M in bonds over 4 years with debt service paid from a property tax levy to the General Fund
- The debt service on these bonds will be $1,364,000 annually for 20 years
- No sewer rate increase

Sewer Budget – Option S3

	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16
CCF Water	3,600,000	3,250,000	3,200,000	3,150,000	3,100,000	3,050,000
Sewer Rate	$3.94	$3.94	$3.94	$3.94	$3.94	$3.94
Rate Increase	--	--	--	--	--	--
Revenues	$14.3 M	$12.9 M	$12.7 M	$13.3 M	$12.3 M	$12.1 M
New Bonds	$5.0 M	$4.0 M	$4.0 M	$3.0 M	--	--
Total Revenue	**$18.3 M**	**$16.9 M**	**$17.7 M**	**$16.6 M**	**$12.3 M**	**$12.1 M**
Expenses	$3.3 M	$3.6 M	$3.6 M	$3.7 M	$3.8 M	$3.8 M
Exist. Debt Service	$14.2 M	$14.2 M	$14.1 M	$11.4 M	$9.7 M	$9.3 M
Total Expenses	**$17.5 M**	**$17.8 M**	**$17.7 M**	**$15.1 M**	**$13.5 M**	**$13.1 M**
Unrestricted Fund Balance	**$3.1 M**	**$2.3 M**	**$2.3 M**	**$3.7 M**	**$2.6 M**	**$1.6 M**
GF Property Tax Levy		**$0.4 M 1.0%**	**$0.72 M 1.8%**	**$1.0 M 2.5%**	**$1.3 M 3.2%**	**$1.3 M 3.2%**

5-Year Impact of Sewer Charge to Single Family Residence

	Additional Sewer Rate Charges	Additional Property Tax Charges	Total Additional Costs	Cost/Year
Option 1	$372	$0	$372	$74
Option 2	$309	$160	$469	$94
Option 3	$0	$234	$234	$47

Additional property tax costs are based on a residence with a current total tax bill of $10,000 and are for the total amount of bonds in that option.

Sewer Rate Comparison

- Communities bill on different units and rate structures
- To make a fair comparison, all sewer rates have been converted to Cost/1,000 gallons
- Evanston Rate:

  $3.94/100 cu ft = $5.27/1,000 gal

  $4.83/100 cu ft = $6.46/1,000 gal (S1 or S2)

Sewer Rate Comparison

Community	Sewer Rate/1000 gal
Highland Park	$0.45 + $6.00 monthly fee
Buffalo Grove	$0.60
Northbrook	$0.80
Glencoe	$0.92
Wheeling	$1.15
Lake Forest	$1.16
Wilmette	$1.34
Chicago	$1.73
Palatine (in village)	$2.42

Community	Sewer Rate/1000 gal
Deerfield	$3.40
Palatine (outside village)	$3.94
Arlington Heights	$4.36
Lincolnshire (in village)	$5.12
Evanston	**$5.27**
Lincolnshire (outside village)	$5.63

Property Tax Levy Issues

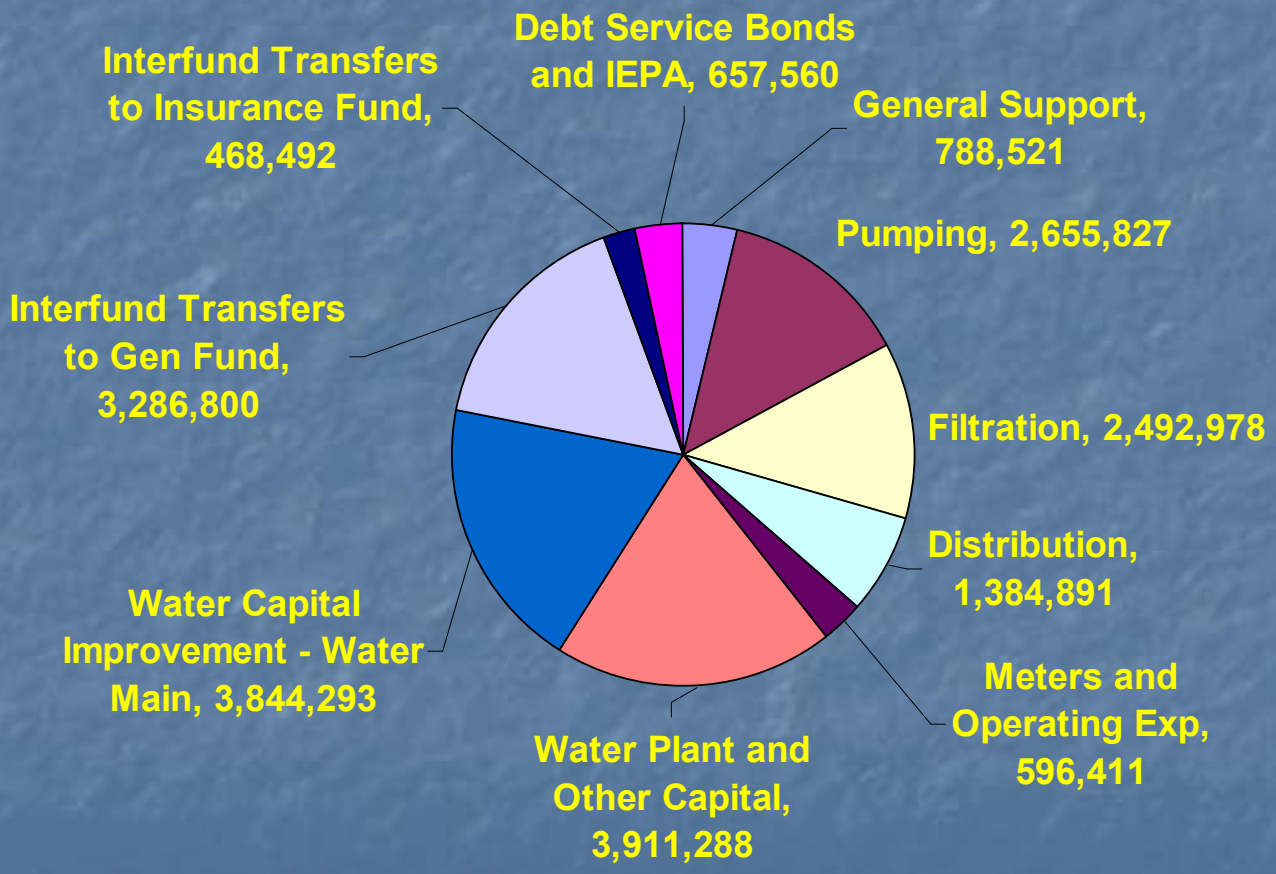
- Residents can realize a tax benefit from the addition of this fee on the property tax instead of as a rate increase
- Consider levying an additional reasonable charge on the sewer bill to not-for-profit customers

Reasonable Charge for Not-for-Profit Customers

- Focus on largest 25% – 30% of these customers
- By increasing the sewer rate by 25% for this group, could potentially generate $500,000 - $600,000 annually

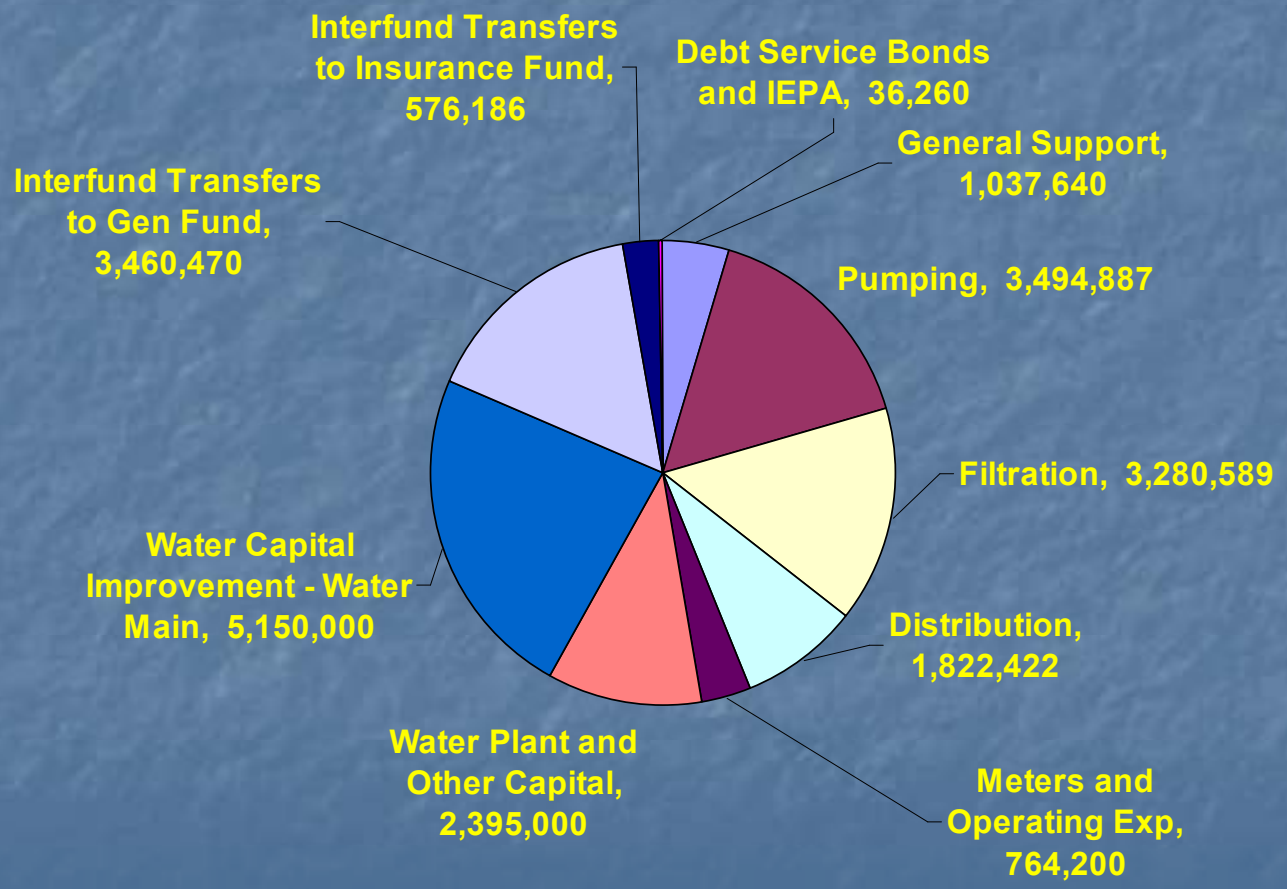
Water Fund

Water Spending Breakdown-10/11



Total FY10/11 Water Budget is $20,087,061

Water Spending Breakdown-17/18



Total FY17/18 Water Budget is $22,017,654

Water Rate History

- Last water rate adjustment in 2006
  - Revenue neutral
  - Resulted in reduced average water bill for Single Family Residences
- Last actual water rate increase in 1998
- Based on current rate, average Single Family Residence is paying $147.92/year ($0.41/day)

Water 5-Yr CIP

Fiscal Year	Water Plant Capital Program	Distribution System Capital Program	Total Capital Spending
10/11	$3,756,000	$3,844,000	$7.6M
11/12	$1,637,000	$3,250,000	$4.9M
12/13	$1,810,000	$3,525,000	$5.3M
13/14	$3,085,000	$3,600,000	$6.7M
14/15	$5,600,000	$3,600,000	$9.2M
Total	$15,888,000	$17,819,000	$33.7M

Water Capital Summary

- Capital Improvement
  - Water Treatment Plant Improvements
    - Based on the existing contract, NWC pays approximately 58% of cost of improvements as the assets are depreciated
  - Distribution System Improvements
    - Paid for entirely by Evanston residents

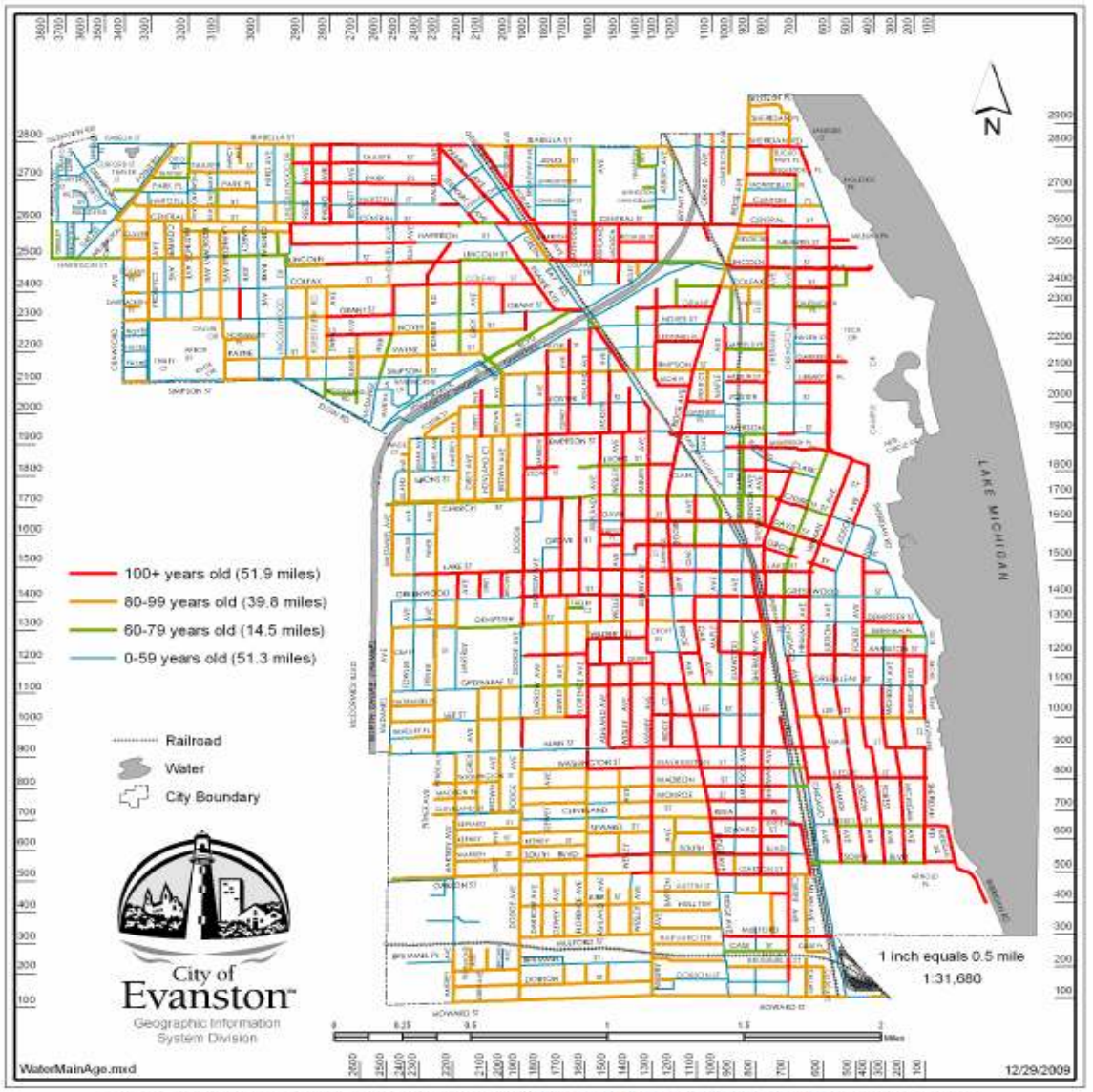
Water Capital Summary

- WTP Improvements
  - Proposed 5 year CIP of $15.9M
    - SCADA Replacement
    - Filter Rehabilitation
    - Zebra Mussel Control System
    - Flash Mix Replacement
    - AMR System Replacement
    - Concrete Rehabilitation
- Distribution System Improvements
  - Proposed 5 year CIP of $17.1M
    - 1.5 miles of water main replacement per year

Water Main Improvement

- Funding: Approx. $3.1M/year to replace 1.5 miles annually
- Water mains have an est. life of 100 yrs
- Evanston has 157 miles of water main
- 52 miles are over 100 years old
  - At 1.5 miles/year, 35 years to replace
- 39 miles are 80 to 99 years old
  - Start replacing in 2045 (115 to 134 yrs old)
  - At 1.5 miles/year, 26 years to replace
- Also upgrade mains for fire flow and to address maintenance problems

Water Main Improvements



Historical Funding of CIP

- WTP Improvements
  - Partially paid through annual revenues
  - Partially paid through water bonds (current bonds expire in 2013)
  - NWC pays approximately 58% as asset depreciates
- Distribution System Improvements
  - Paid through annual revenues
  - Issuing Debt for distribution system capital, which will continue for 100 years is not the optimal solution (needless interest costs in such a case)

Water Fund Trend

	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16
Total Revenue	$15.4 M	$12.8 M	$13.1 M	$13.4 M	$13.5 M	$13.6 M
Total Expenses	$20.1 M	$17.7 M	$18.3 M	$20.0 M	$23.9 M	$22.2 M
Net (Deficit)	($4.7 M)	($4.9 M)	($5.2 M)	($6.6 M)	($10.4 M)	($8.6 M)

Water Revenue Increase – Option W1

- $18.1 M in bonds over four years with debt service paid from the Water Fund
- The debt service on these bonds will be $1.45 million annually for 20 years
- Three annual rate increases of 10%, 5% and 3% beginning on January 1, 2011, Future adjustments needed, otherwise Water Fund goes negative in 2014

Water Budget – Option W1

	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16
CCF Water	3,600,000	3,250,000	3,200,000	3,150,000	3,100,000	3,050,000
Water Rate	$1.52	$1.67	$1.75	$1.80	$1.80	$1.80
Rate Increase	--	10%	5%	3%	0%	0%
Revenues	$15.4 M	$12.8 M	$13.2 M	$13.4 M	$13.5 M	$13.5 M
New Bonds	$3.5 M	$4.8 M	$5.3 M	$4.5 M	--	--
Total Revenue	**$18.9 M**	**$17.6 M**	**$18.5 M**	**$17.9 M**	**$13.5 M**	**$13.5 M**
Expenses	$12.5 M	$12.8 M	$12.9 M	$13.3 M	$13.4 M	$13.8 M
Capital Improvement	$7.6 M	$4.9 M	$5.3 M	$6.7 M	$9.2 M	$8.5 M
New Debt Service	--	$0.3 M	$0.7 M	$1.1 M	$1.45 M	$1.45 M
Total Expenses	**$20.1 M**	**$18.0 M**	**$18.9 M**	**$21.1 M**	**$24.0 M**	**$23.7 M**
Unrestricted Fund Balance	**$4.9 M**	**$4.6 M**	**$4.1 M**	**$1.0 M**	**($9.5 M)**	**($19.6 M)**

Water Revenue Increase – Option W2

- $17 M in bonds over four years with debt service paid from a property tax levy to the General Fund
- The debt service on these bonds will be $1,364,000 annually for 20 years
- Three annual rate increases of 10%, 5% and 3% beginning on January 1, 2011
- Future adjustments needed, otherwise Water Fund goes negative in 2014

Water Budget – Option W2

	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16
CCF Water	3,600,000	3,250,000	3,200,000	3,150,000	3,100,000	3,050,000
Water Rate	$1.52	$1.67	$1.75	$1.80	$1.80	$1.80
Rate Increase	--	10%	5%	3%	--	--
Revenues	$15.4 M	$12.8 M	$13.2 M	$13.4 M	$13.5 M	$13.5 M
New Bonds	$3.5 M	$3.5 M	$5.0 M	$5.0 M	--	--
Total Revenue	**$18.9 M**	**$16.3 M**	**$18.2 M**	**$18.4 M**	**$13.5 M**	**$13.5 M**
Expenses	$12.5 M	$12.8 M	$12.9 M	$13.3 M	$13.4 M	$13.7 M
Capital Improvement	$7.6 M	$4.9 M	$5.3 M	$6.7 M	$9.2 M	$8.5 M
Total Expenses	**$20.1 M**	**$17.7 M**	**$18.2 M**	**$20.0 M**	**$22.6 M**	**$22.2 M**
Unrestricted Fund Balance	**$4.9 M**	**$3.5 M**	**$3.5 M**	**$1.9 M**	**($7.1 M)**	**($15.8 M)**
GF Property Tax Levy		**$0.28 M 0.7%**	**$0.56 M 1.4%**	**$1.0 M 2.5%**	**$1.0 M 2.5%**	**$1.0 M 2.5%**

5-Year Impact of Water Charge to Single Family Residence

	Additional Water Rate Charges	Additional Property Tax Charges	Total Additional Costs	Cost/Year
Option W1	$231	$0	$231	$46
Option W2	$158	$192	$350	$70

Water Rate Comparison

- Communities bill on different units and rate structures
- To make a fair comparison, all water rates have been converted to Cost/1,000 gallons
- Evanston Rate:

  $1.52/100 cu ft = $2.03/1,000 gal

  $1.80/100 cu ft = $2.41/1,000 gal

Water Rate Comparison

Community	Water Rate/1000 gal
Chicago	$2.01
Highland Park	$2.22
Evanston	**$2.03** (current)
Buffalo Grove	$2.40 + $1.90 monthly fee
Evanston	**$2.41** (W1 or W2)
Wilmette	$2.93
Northbrook	$3.40
Lincolnwood	$3.53
Skokie	$3.53
Glenview	$3.65

Community	Water Rate/1000 gal
Glencoe	$3.70
Lincolnshire	$4.08
Deerfield	$4.14
Gurnee	$4.45
Niles	$4.59
Wheeling	$4.62
Arlington Heights	$4.63
Morton Grove	$5.16
Lake Forest	$6.26

Water/Sewer Combined Rate Comparison

Community	Rate/1000 gal
Highland Park	$2.67 + $6.00 monthly fee
Lincolnwood	$3.53
Buffalo Grove	$3.38 + $1.90 monthly fee
Skokie	$3.53
Glenview	$3.65 + $6.87 monthly fee
Chicago	$3.74
Northbrook	$4.20
Wilmette	$4.27

Community	Rate/1000 gal
Niles	$4.59
Glencoe	$4.62
Wheeling	$5.77
Evanston	**$7.30** (current)
Lake Forest	$7.42
Deerfield	$7.54
Evanston	**$7.68** (S3 & W1/W2)
Arlington Heights	$8.99
Lincolnshire	$9.20

Not Just an Evanston Issue……

- National problem of declining water use and increased maintenance needs
- City of Chicago just completed three annual rate increases of 15%, 15%, and 14%, to all of their wholesale customers
- DuPage Water Commission is enacting a 20% rate increase in May 2010
- Illinois American, after increasing rates 10% in 2008, has requested a 30% rate increase this year
- Many suburbs and wholesale water suppliers have had to enact substantial rate increases in the last two years

Sewer Fund Summary

- Short-term cash flow problem until debt begins to retire in 2013
- If Option S3 selected, levy a reasonable charge to not-for-profit customers
- Complete a cost-of-service and fee study focusing on preferred solution(s) with recommendations presented in Fall 2010

Water Fund Summary

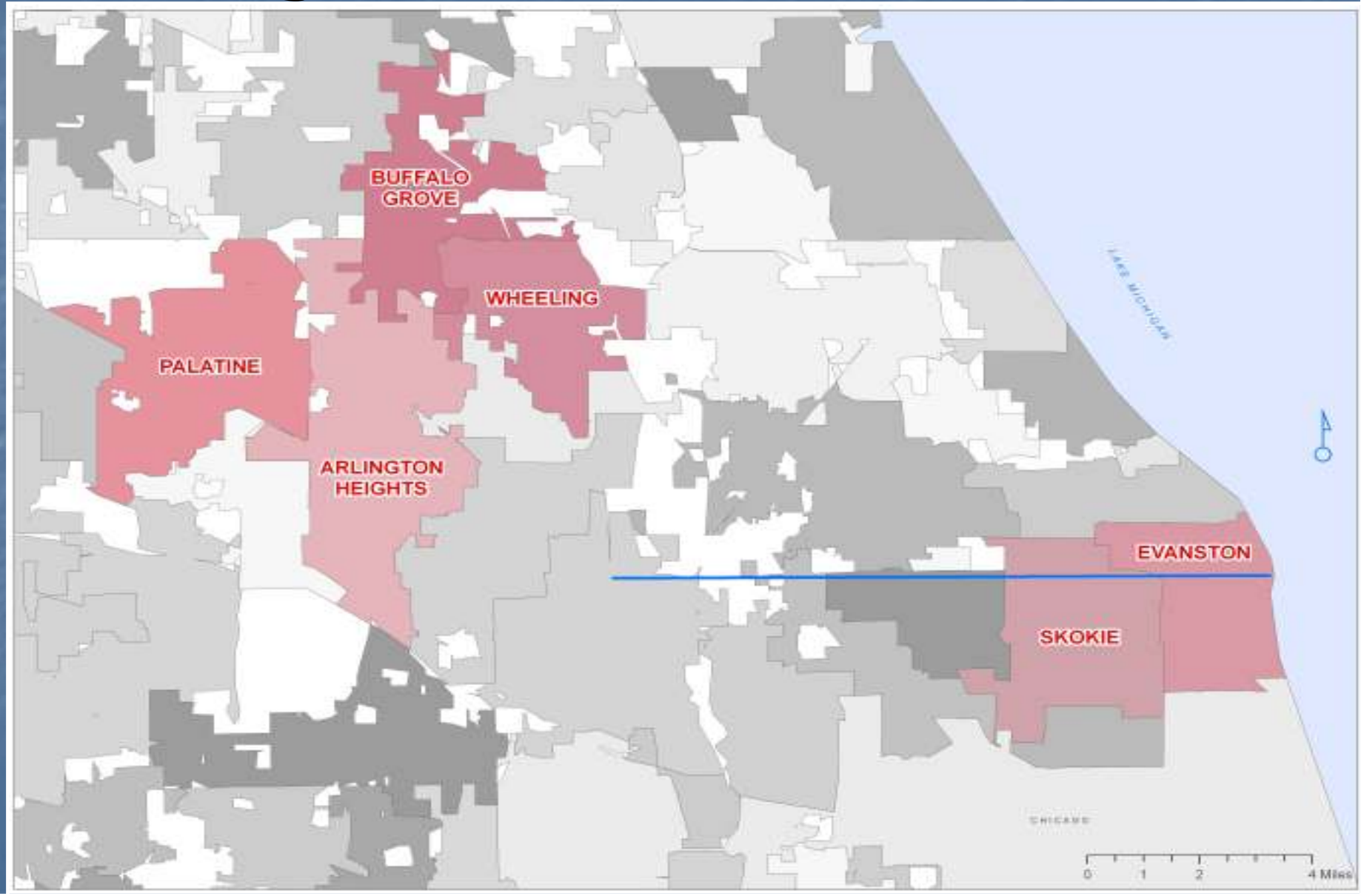
- Water Fund
  - Long-term revenue problem as current water usage continues to decline – revenue is not sufficient to meet minimum capital and operating costs
  - Complete a cost-of-service and fee study focusing on preferred solution(s) with recommendations presented in Fall 2010
  - In the long-term, investigate new long-term wholesale customer contracts

Wholesale Water Customers

Existing Wholesale Water Customers

- Village of Skokie
  - Became a wholesale customer in 1944
  - Latest agreement signed in 1997
  - 20-yr term (expires in 2017)
  - Currently paying $0.9401/1000 gal
- Northwest Water Commission
  - Became a wholesale customer in 1985
  - Latest agreement expires in 2030 +/- 5 years
  - Currently paying on average $0.5348/1000 gal

Existing Water Customers



Potential New Wholesale Water Customers – Short-term Outlook

- Use existing excess treatment plant capacity
- Minimal transmission system improvements
- Discussions with Skokie and the Northwest Water Commission about partnering
- Communities accessible through existing wholesale customers
- Action Items:
  - Complete a hydraulic analysis
  - Investigate existing wholesale water contracts of potential customers

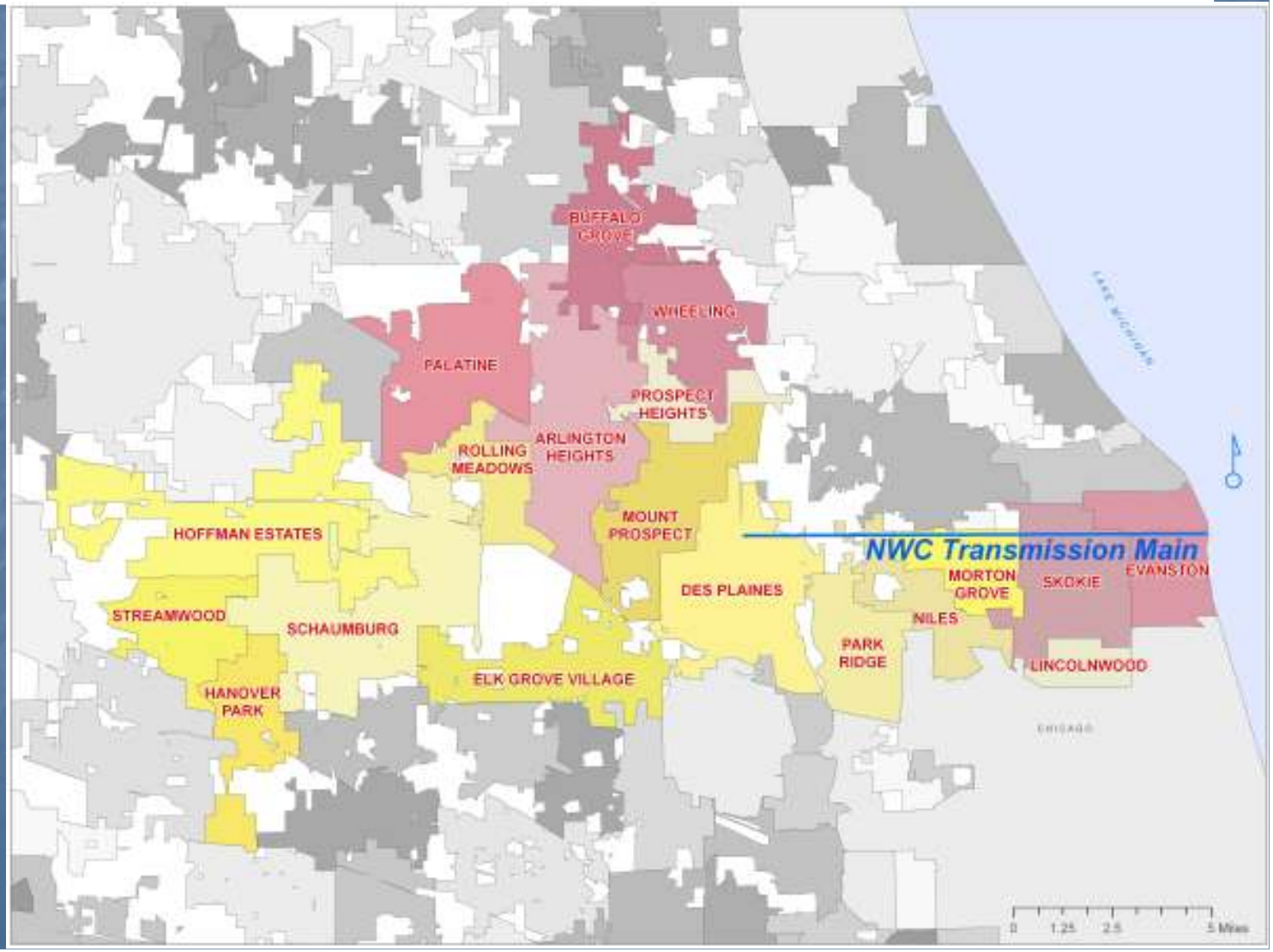
Potential New Wholesale Water Customers – Mid-term Outlook

- Expansion of treatment plant capacity
- Installation of large diameter transmission main(s)
- Action Items:
  - Hire attorney to negotiate contracts
  - Contract with engineering firm to provide the planning needed to enter into contracts

Potential New Wholesale Water Customers – Long-term Outlook

- Significant expansion of treatment plant capacity
- Installation of water transmission tunnels
- Action Items:
  - Enter into discussions with large water distribution authorities to become source of supply
  - Enter into discussions with proximate neighboring communities

Long-term Water Sale Increases



Public Outreach

Public Outreach

- Promote Evanston Tap Water Use
- Water Conservation
- Protection of the Water Supply

Public Outreach – Promote Evanston Tap Water

- Earth Day Celebration – April 24
- National Drinking Water Week – May 2 – 8
  - Mayoral proclamation
  - Farmer's Market Participation
- National Public Works Week – May 16
  - Farmer's Market Participation
- Green Living Festival – October 2

Public Outreach – Water Conservation

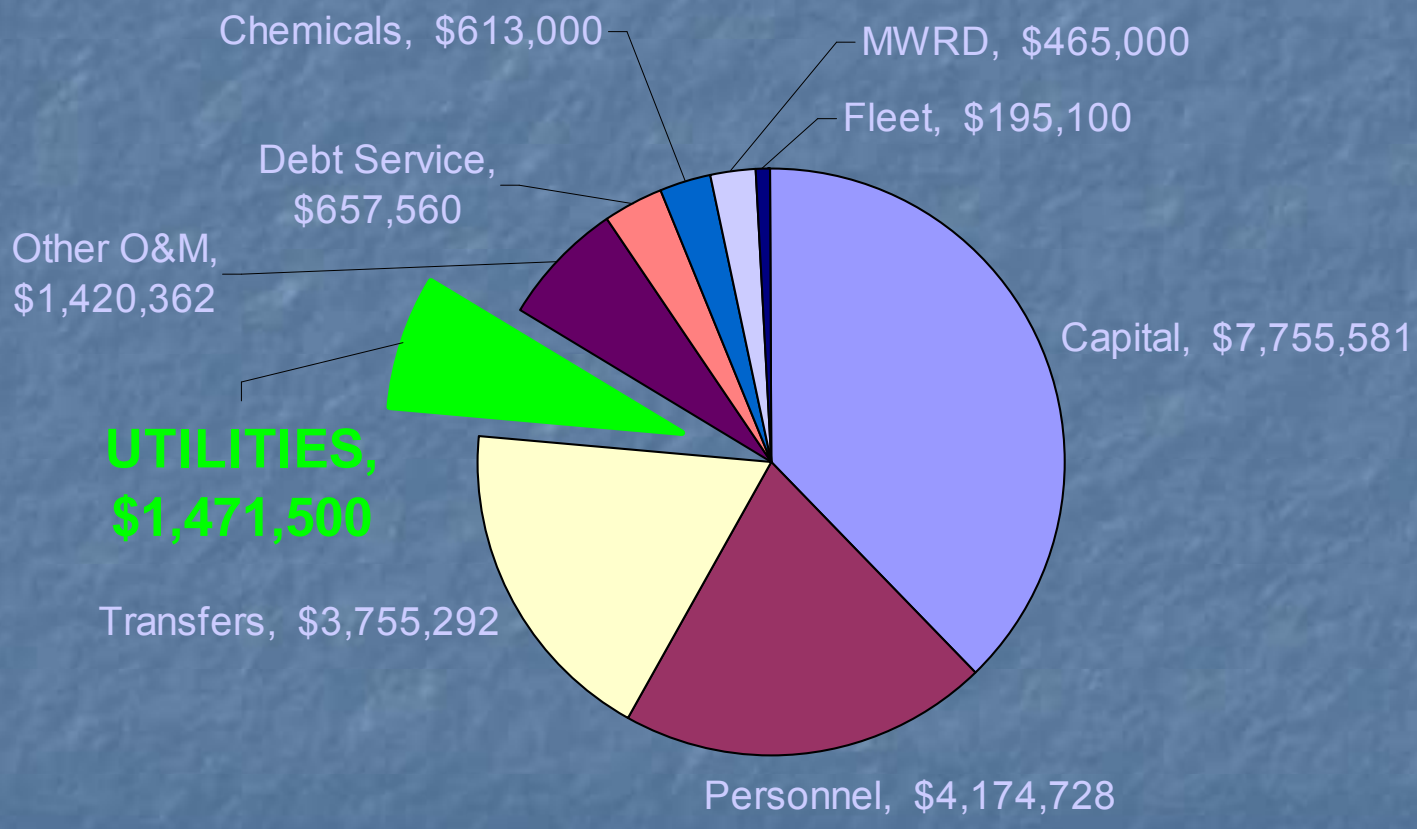
- City of Evanston is an EPA WaterSense Partner
  - Provide information on website
    - Fixing leaks
    - WaterSense label

Public Outreach – Protection of Water Supply

- Mandated by MS4 Permit to provide public outreach and information
- Public Outreach is done through website and by providing information at outreach events

Alternative Energy

Alternative Energy



Utilities (Electricity + Natural Gas) are 7% of the Budget

Alternative Energy – Potential Sources

- Solar Power
- Wind Power
- Fuel Cell
- Geothermal
- Waste-to-Energy

Alternative Energy – Solar Power

- Pilot Installation
  - 25 kW fixed solar panel
  - Located on roof of Pumping Station
  - Total Cost of $182,954
    - $35,000 from EECBG
    - $109,772 from ICECF
  - Estimated completion date of May 31
  - ROI of 16 years

Alternative Energy – Solar – Future Expansion

- Install on Mixing and Sedimentation Basins
- Estimated Installation Size (based on pilot installation data):
  - Total potential capacity = 470 kW
  - Total cost = $2.8M
- Potential Next Steps
  - Verify structural capacity of basin roof structure
  - RFP to select provider of installation
  - Apply for grant funding (potential up to 50% - 60%)

Alternative Energy – Wind Power Options

- Offshore wind power
  - Can provide for significantly more energy than just water plant energy use
- Large wind turbines located on shoreline at water plant
  - Can provide approximately the energy use required by water plant
- Small wind turbines
  - Minimal power generation

Alternative Energy – Wind Power Options

- Purchase Renewable Energy Credits/ "Green" Power
- Long-term Contract with Offsite Power Generation Facility