

Water & Sewer Rates, Capital, and Revenue Opportunities

City of Evanston

Division of Water & Sewer

February 24, 2009

Agenda

- Evanston Water Utility History
- Capital Improvement Program
- 2008 Water & Sewer Rate Study
- Future Options

Evanston Water Utility

- 365,000 customers
 - Evanston
 - Skokie
 - Northwest Water Commission
- Water Plant rated at 108 mgd
- Second largest water utility in Illinois

Water Utility Milestones

- 1874 – First 2 mgd pump and associated water main installed
- 1911 – Began disinfection
- 1914 – First 12 mgd water plant built (Filters 1-6)



Water Utility Milestones

- 1924 – 12 mgd expansion (Filters 7-12)
- 1934 – Storage reservoir built
- 1944 – Began supplying water to Skokie
- 1948 – 24 mgd expansion (Filters 13-18)
- 1964 – 24 mgd expansion (Filters 19-24)
- 1980 – Major plant rehabilitation and upgrade
- 1985 – Began supplying water to NWC
- 1990 – Minor plant rehabilitation and upgrade

Capital Improvement Programs

Proposed Projects

Security Equipment

- Funding
 - \$50K/year from Water Fund
 - \$200K one-time grant from BZPP
- Vulnerability Assessment (2003) identified \$2M in proposed improvements
- Water plant security improvements
- Remote site security improvements

Water Billing Software

- Vendor selected in 2008
- Project currently being implemented
- Target completion date –
September 2009

SCADA System Replacement

- Funding: \$1,500,000 in FY09/10
- Initially installed in 1983
- Last upgraded in 1997
- Unable to purchase replacement parts

SCADA System Replacement



Zebra Mussel Control System

- Funding: \$1,350,000 beginning in FY 11/12
- Installed in 1992
- Breaks on feed lines to 2 out of 3 intakes
- Inspections by in-house divers indicate some build-up occurring on the 54" and 42" intakes

54" Intake Anchor Ice Control System

- Funding: \$500,000 beginning in FY12/13
- Now scheduled in FY09/10
- Needed to mitigate icing on intakes, which can shut down plant operations
- Plant shutdowns historically rare but have occurred in 2007 and 2009
- Investigating sole-source supplier of new heated intake screens



Filter Rehabilitation

- Funding: \$2,250,000 beginning in FY09/10
- Filters 19-24 installed in 1964
- Media replacement
- Roof replacement
- Structural repairs



Emergency Interconnection

- Funding: \$2,200,000 beginning in FY09/10
- Currently in design phase
- Cost sharing with Skokie and Wilmette



Tuckpointing Pumping Station & Filter Building

- Funding: \$450,000 beginning in FY09/10
- High Lift Pumping Station built in 1948
- Low Lift Pumping Station built in 1956
- Filter Building built in 1948
- No significant tuckpointing since original construction



Standpipe Painting

- Funding: \$700,000 beginning in FY10/11
- Regular maintenance extends life



Standpipe Painting

- Painting every 10 years extends life
- South Standpipe last painted in 1996
- North Standpipe last painted in 1997



Asbestos Removal

- Funding: \$50,000/year beginning in FY09/10
- Asbestos used as pipe insulation
- Some asbestos is worn and friable, posing a health hazard
- Other needs to be removed so that maintenance on piping can be performed

AMR Radio Transmitter Replacement

- Funding: \$1,875,000 beginning in FY13/14
- Existing AMR system installed between 2000 - 2002
- MTUs at that time had an expected battery life of 10-15 years
- Replace over three year period

Non-Destructive Testing of Concrete Structures

- Funding: \$500,000 beginning in FY11/12
- Testing of concrete water plant structures

Facility	Year(s) Built
Clearwells	1912, 1924, 1948, 1964
Reservoir	1934
Mixing/Settling Basins	1948, 1964
Detention Basins	1974

Concrete Structure Rehabilitation

- Funding: \$5,400,000 beginning in FY13-14 (4-year implementation)
- Staged to keep water plant in operation



Master Meter Replacement

- Funding: \$705,000 beginning in FY13/14
- Three critical flowmeters that meter water leaving the treatment plant
- Installed in 1948 and 1964
- Improve accuracy for billing and for regulatory reporting

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

Sewer System Improvements

Annual Sewer Fund Budget:

Operating Expenses	\$2,238,200
Capital Improvements	\$ 1,575,200
Debt Service	\$14,054,700
Total Sewer Budget	\$17,868,100

Sewer System Improvements

■ Annual Capital Improvements:

<u>Item</u>	<u>Amount Budgeted</u>
Emergency Repairs	\$75,000
CIPP Lining	\$250,000
Sewer Improvements	\$675,000

Water and Sewer Rates

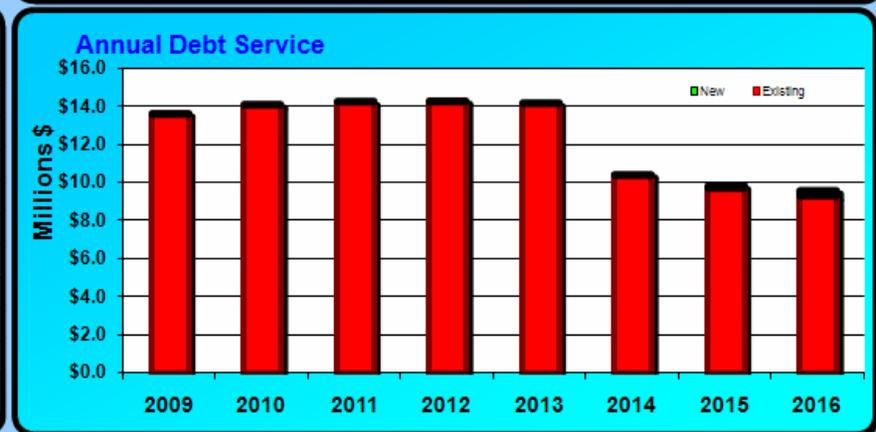
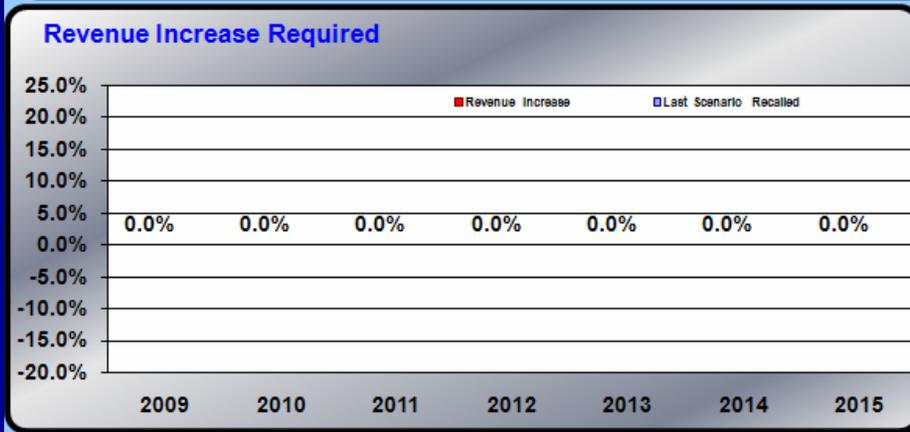
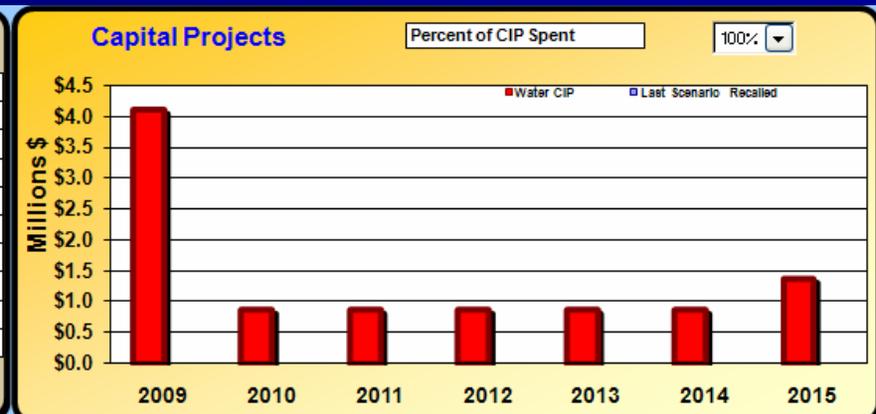
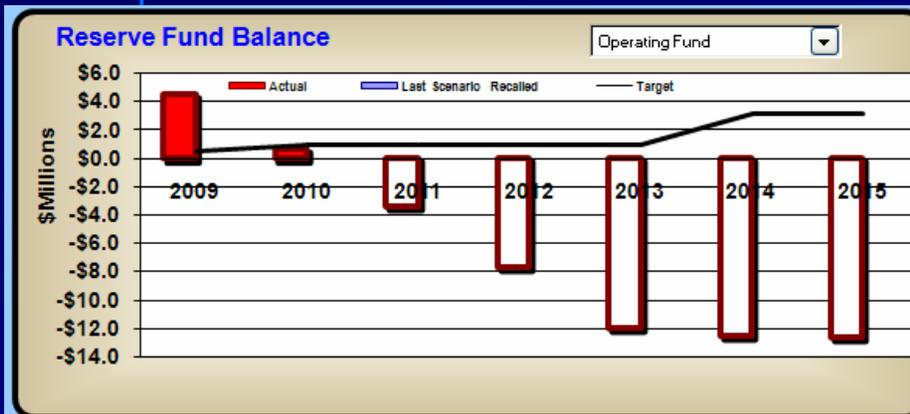
- Rate Study Recommendations
 - Water and Sewer Rates should be increased over each of the next three years
 - Reason? Debt Commitments in the Sewer Fund and Capital Project needs in the Water Fund

FY 09/10

- Per Budget Submitted and Approved:
 - Both Water and Sewer Funds have sufficient funds for operating and capital expenditures while maintaining a positive fund balance

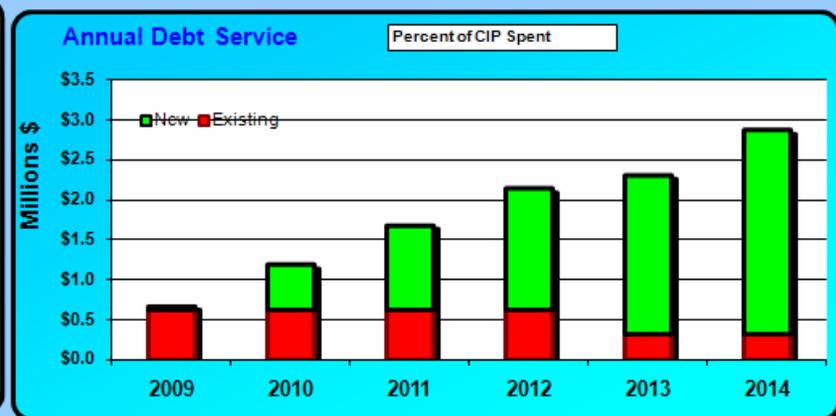
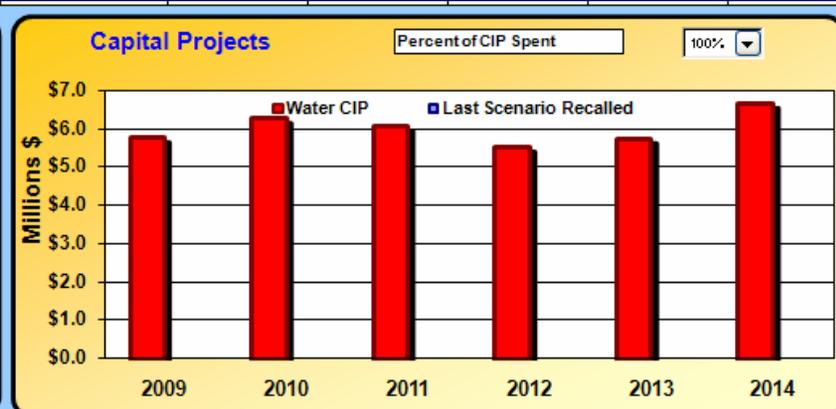
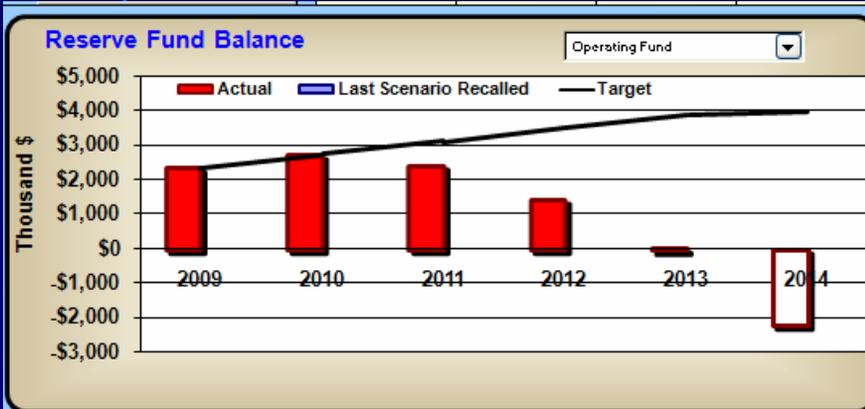
Sewer Financial Forecast Under Current Rates

No Sewer Rate Adjustments Would Result in Significant Revenue Deficiencies



Water Financial Forecast Under Current Rates

No Water Rate Adjustments Would Result in Significant Revenue Deficiencies



Can an Increase in the Sewer Rate be Avoided for FY2010/11?

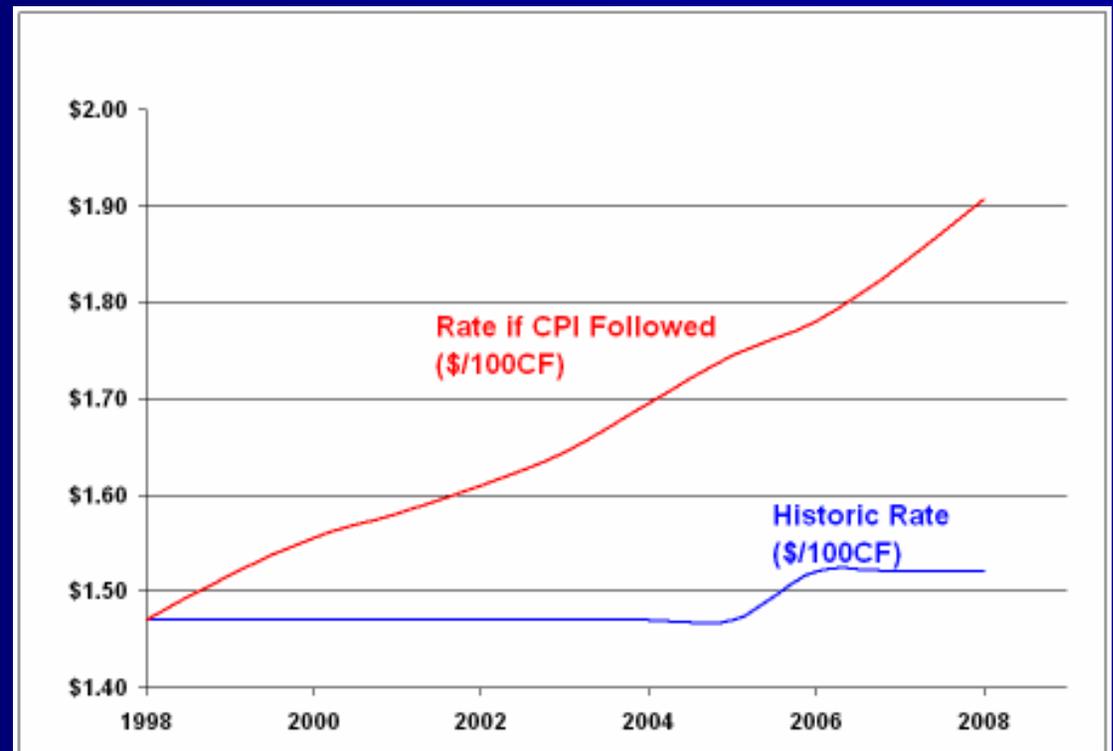
- **NO**... Would require all Capital Improvement Projects in both Water & Sewer to be eliminated
- Not feasible due to coordination with other Public Works projects
- Operational Costs are already lean

Water Rate History

- March of 1998-Last true increase in water rate to residents/businesses, etc.
- July of 2006-Implemented Demand Charge-based on meter size
 - Most residents realized a slight savings
 - Medium to Large Users had an increase in charges
 - No change in overall revenue generation

Water Rates and the Consumer Price Index (CPI)

- What would our water rate be had the CPI been followed since the last water rate increase:
 - Rate of \$1.47 in 1999 would be \$1.91 today



Inclining/Water Conservation Rate Structure

- As usage increases beyond preset levels, rate would increase
- More common in “water poor” regions- rare in this part of the country
- Would require additional study by consultants on an account by account basis
- High impact to revenue if projected water usage is not met (unreliable!)

Wholesale Water Customers

■ Skokie

- Current rate is \$.9037/1,000 gallons
- Increases 2% to \$.9217/1000 gallons
March 1, 2009
- Increases based on CPI/PPI formula-has not exceeded 2% since 1997
- Contract expires February 28, 2017

Wholesale Water Customers

- Northwest Water Commission
 - Contract began in 1984-rate based on “excess plant capacity” using a return on rate base, depreciation and quantity charge
 - Renegotiated in mid 90’s to use the CPI/PPI formula on quantity charge only
 - Contract renegotiated again from 2006 to 2008 to return to original rate calculation

Wholesale Water Customers

- Northwest Water Commission-con'd
 - Restated Contract signed in October of 2008 resulted in approx. \$900K in back payments
 - Revenue increase of approx. 20% versus the CPI/PPI method
 - Contract expires in 2030 with a +/- 5 year caveat

Wholesale Water Customers

- Northwest Water Commission-con'd
 - Rate now using CPI/PPI would be equivalent to \$.4074/1,000 Gallons
 - Rate using Return on Investment, Depreciation and Quantity Charges equates to current rate of \$.5004/1,000 Gallons
 - Result is between \$350 K and \$500 K increase in revenue over CPI/PPI each year
 - This method results in the NWC contributing to Capital Project costs as well as direct expenses such as salaries, chemicals, electricity, etc.

Sewer Rate Recommendations

- Need to fund \$16M deficit
- First \$4M funded from reserves in FY09/10
- Operational Costs are already lean
- Issuing Debt to pay Debt – not recommended

Sewer Rate Recommendations

- Temporary Rate Increase
 - Recommend Sunset Rate Change
 - Simulates borrowing with no interest
- Staff Recommends a Smoothed Rate Adjustment for FY 10/11 through FY 12/13
 - Estimated at 10% annually

Water Rate Recommendation

- FY 09/10 anticipates \$5.8M in new bonds
- To maintain the Capital Improvement Program, similar bond issues would be needed each year
 - Results in an already large debt service that will increase each year

Water Rate Recommendations

- Rate increase needed to keep debt service from becoming unmanageable
- Staff recommends a Smoothed Rate Adjustment
 - Estimated at 10% annually

The Future...

- Chicago Department of Water Wholesale Rate Increasing
 - By January of 2010, Chicago wholesale water customers and residents will pay \$2.00/1000 gal
 - Rate has increased 14% in 2008 and 2009 with a final increase due in 2010

The Future...

- The NWC Water Supply Contract Expires in 2030 (+/- 5 yrs)
 - Just renegotiated this contract in 2008
- The Skokie Water Supply Contract Expires in 2017

The Future...

- Investigate increasing our Wholesale Customer base
- General research done on several communities that could be supplied by the City of Evanston
 - Potential revenue of \$9 Million/year
 - Capital Investments would be required

The Future...

- Next Step?

With Council Approval:

- Research viability / long term financial impact
- Hire:
 - Attorney / Firm to research current wholesale water supply contracts and legal viability
 - RFQ for Engineering firm to explore and estimate cost to implement