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

The City of Evanston
Large Diameter (\(\geq 36''\)) Combined Sewer
$14.4M Estimated Cost to Rehabilitate 7.2 Miles

Combined Sewer
- Large, brick or SCT

Main Road
- Local Street
- Railroad
- Water
- City Boundary

1 inch equals 0.5 mile
1:31,667

This map is provided "as is" without warranties of any kind. See [www.cityofevanston.org/citymaps.html](http://www.cityofevanston.org/citymaps.html) for more information.
Sewer Spending Breakdown-10/11

- Debt Service, $14,215,356
- Fleet, $305,500
- Transfers, $536,200
- Capital, $730,000
- Personnel, $1,720,524

Total FY10/11 Sewer Budget is $17,507,580
Sewer Spending Breakdown - 17/18

- Debt Service, $7,735,570
- Transfers, $327,146
- Capital, $900,000
- Personnel & Operations, $2,451,446
- Fleet, $332,316

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

Historical and Projected Water Sales

Water Sold (100 Cu Ft)

- Actual
- VK
- MP
- Staff
- Trend
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

<table>
<thead>
<tr>
<th></th>
<th>As Shown in FY 10/11 Budget</th>
<th>Based on Actual Water Sales as of 2/28/10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY 09/10 Estimated</td>
<td>FY 09/10 Actual</td>
</tr>
<tr>
<td>CCF Water Sold</td>
<td>3,600,000</td>
<td>3,363,728</td>
</tr>
<tr>
<td>Revenue</td>
<td>$14,640,377</td>
<td>$13,622,967</td>
</tr>
<tr>
<td>Expenses</td>
<td>$2,914,557</td>
<td>$3,127,797</td>
</tr>
<tr>
<td>Debt Service</td>
<td>$14,054,700</td>
<td>$14,102,111</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>$16,969,257</td>
<td>$17,229,908</td>
</tr>
<tr>
<td>Beginning Fund Balance</td>
<td>$5,735,564</td>
<td>$5,735,564</td>
</tr>
<tr>
<td>Ending Fund Balance</td>
<td>$3,406,684</td>
<td>$2,128,622</td>
</tr>
</tbody>
</table>

- **CCF Water Sold**
  - FY 09/10 Estimated: 3,600,000
  - FY 10/11 Proposed: 3,600,000
  - FY 09/10 Actual: 3,363,728
  - FY 10/11 Proposed: 3,600,000

- **Revenue**
  - FY 09/10: $14,640,377
  - FY 10/11: $14,288,000
  - FY 09/10 Actual: $13,622,967
  - FY 10/11 Proposed: $14,288,000

- **Expenses**
  - FY 09/10: $2,914,557
  - FY 10/11: $3,292,224
  - FY 09/10 Actual: $3,127,797
  - FY 10/11 Proposed: $3,292,224

- **Debt Service**
  - FY 09/10: $14,054,700
  - FY 10/11: $14,215,356
  - FY 09/10 Actual: $14,102,111
  - FY 10/11 Proposed: $14,215,356

- **Total Expenses**
  - FY 09/10: $16,969,257
  - FY 10/11: $17,507,580
  - FY 09/10 Actual: $17,229,908
  - FY 10/11 Proposed: $17,507,580

- **Beginning Fund Balance**
  - FY 09/10: $5,735,564
  - FY 10/11: $3,406,684
  - FY 09/10 Actual: $5,735,564
  - FY 10/11 Proposed: $2,128,622

- **Ending Fund Balance**
  - FY 09/10: $3,406,684
  - FY 10/11: $187,104
  - FY 09/10 Actual: $2,128,622
  - FY 10/11 Proposed: ($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

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

### Sewer Rate

- **FY 10/11**: $3.94
- **FY 11/12**: $4.18
- **FY 12/13**: $4.47
- **FY 13/14**: $4.83
- **FY 14/15**: $4.83
- **FY 15/16**: $4.83
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

<table>
<thead>
<tr>
<th></th>
<th>FY 10/11</th>
<th>FY 11/12</th>
<th>FY 12/13</th>
<th>FY 13/14</th>
<th>FY 14/15</th>
<th>FY 15/16</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CCF Water</strong></td>
<td>3,600,000</td>
<td>3,250,000</td>
<td>3,200,000</td>
<td>3,150,000</td>
<td>3,100,000</td>
<td>3,050,000</td>
</tr>
<tr>
<td><strong>Sewer Rate</strong></td>
<td>$3.94</td>
<td>$4.18</td>
<td>$4.47</td>
<td>$4.83</td>
<td>$4.83</td>
<td>$4.25</td>
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<tr>
<td><strong>Rate Increase</strong></td>
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<td>6%</td>
<td>7%</td>
<td>8%</td>
<td>--</td>
<td>-12%</td>
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<tr>
<td><strong>Revenues</strong></td>
<td>$13.3 M</td>
<td>$13.7 M</td>
<td>$14.4 M</td>
<td>$15.3 M</td>
<td>$15.1 M</td>
<td>$13.1 M</td>
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<tr>
<td><strong>New Bonds</strong></td>
<td>$3.0 M</td>
<td>$4.0 M</td>
<td>$3.0 M</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>$17.3 M</td>
<td>$17.7 M</td>
<td>$17.4 M</td>
<td>$15.3 M</td>
<td>$15.1 M</td>
<td>$13.1 M</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td>$3.3 M</td>
<td>$3.6 M</td>
<td>$3.6 M</td>
<td>$3.7 M</td>
<td>$3.8 M</td>
<td>$3.8 M</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>$17.5 M</td>
<td>$17.8 M</td>
<td>$17.7 M</td>
<td>$15.1 M</td>
<td>$13.5 M</td>
<td>$13.1 M</td>
</tr>
<tr>
<td><strong>Unrestricted</strong></td>
<td>$2.1 M</td>
<td>$2.0 M</td>
<td>$1.7 M</td>
<td>$1.9 M</td>
<td>$3.5 M</td>
<td>$3.5 M</td>
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<tr>
<td><strong>Fund Balance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GF Property</strong></td>
<td>$0.24 M</td>
<td>$0.56 M</td>
<td>$0.8 M</td>
<td>$0.8 M</td>
<td>$0.8 M</td>
<td>$0.8 M</td>
</tr>
<tr>
<td><strong>Tax Levy</strong></td>
<td>0.6%</td>
<td>1.4%</td>
<td>2.0%</td>
<td>2.0%</td>
<td>2.0%</td>
<td>2.0%</td>
</tr>
</tbody>
</table>
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
<table>
<thead>
<tr>
<th></th>
<th>FY 10/11</th>
<th>FY 11/12</th>
<th>FY 12/13</th>
<th>FY 13/14</th>
<th>FY 14/15</th>
<th>FY 15/16</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CCF Water</strong></td>
<td>3,600,000</td>
<td>3,250,000</td>
<td>3,200,000</td>
<td>3,150,000</td>
<td>3,100,000</td>
<td>3,050,000</td>
</tr>
<tr>
<td><strong>Sewer Rate</strong></td>
<td>$3.94</td>
<td>$3.94</td>
<td>$3.94</td>
<td>$3.94</td>
<td>$3.94</td>
<td>$3.94</td>
</tr>
<tr>
<td><strong>Rate Increase</strong></td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Revenues</strong></td>
<td>$14.3 M</td>
<td>$12.9 M</td>
<td>$12.7 M</td>
<td>$13.3 M</td>
<td>$12.3 M</td>
<td>$12.1 M</td>
</tr>
<tr>
<td><strong>New Bonds</strong></td>
<td>$5.0 M</td>
<td>$4.0 M</td>
<td>$4.0 M</td>
<td>$3.0 M</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>$18.3 M</td>
<td>$16.9 M</td>
<td>$17.7 M</td>
<td>$16.6 M</td>
<td>$12.3 M</td>
<td>$12.1 M</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td>$3.3 M</td>
<td>$3.6 M</td>
<td>$3.6 M</td>
<td>$3.7 M</td>
<td>$3.8 M</td>
<td>$3.8 M</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>$17.5 M</td>
<td>$17.8 M</td>
<td>$17.7 M</td>
<td>$15.1 M</td>
<td>$13.5 M</td>
<td>$13.1 M</td>
</tr>
<tr>
<td><strong>Unrestricted Fund Balance</strong></td>
<td>$3.1 M</td>
<td>$2.3 M</td>
<td>$2.3 M</td>
<td>$3.7 M</td>
<td>$2.6 M</td>
<td>$1.6 M</td>
</tr>
<tr>
<td><strong>GF Property Tax Levy</strong></td>
<td>$0.4 M</td>
<td>$0.72 M</td>
<td>$1.0 M</td>
<td>$1.3 M</td>
<td>$1.3 M</td>
<td>$1.3 M 23%</td>
</tr>
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</table>
### 5-Year Impact of Sewer Charge to Single Family Residence

<table>
<thead>
<tr>
<th></th>
<th>Additional Sewer Rate Charges</th>
<th>Additional Property Tax Charges</th>
<th>Total Additional Costs</th>
<th>Cost/Year</th>
</tr>
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<tbody>
<tr>
<td>Option 1</td>
<td>$372</td>
<td>$0</td>
<td>$372</td>
<td>$74</td>
</tr>
<tr>
<td>Option 2</td>
<td>$309</td>
<td>$160</td>
<td>$469</td>
<td>$94</td>
</tr>
<tr>
<td>Option 3</td>
<td>$0</td>
<td>$234</td>
<td>$234</td>
<td>$47</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Community</th>
<th>Sewer Rate/1000 gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deerfield</td>
<td>$3.40</td>
</tr>
<tr>
<td>Palatine (outside village)</td>
<td>$3.94</td>
</tr>
<tr>
<td>Arlington Heights</td>
<td>$4.36</td>
</tr>
<tr>
<td>Lincolnshire (in village)</td>
<td>$5.12</td>
</tr>
<tr>
<td>Evanston</td>
<td><strong>$5.27</strong></td>
</tr>
<tr>
<td>Lincolnshire (outside village)</td>
<td>$5.63</td>
</tr>
</tbody>
</table>
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

Interfund Transfers to Insurance Fund, 468,492
Interfund Transfers to Gen Fund, 3,286,800
Water Capital Improvement - Water Main, 3,844,293
Debt Service Bonds and IEPA, 657,560
General Support, 788,521
Pumping, 2,655,827
Filtration, 2,492,978
Distribution, 1,384,891
Meters and Operating Exp, 596,411
Water Plant and Other Capital, 3,911,288

Total FY10/11 Water Budget is $20,087,061
Water Spending Breakdown-17/18

Water Capital Improvement - Water Main, 5,150,000

Water Plant and Other Capital, 2,395,000

Interfund Transfers to Gen Fund, 3,460,470

Interfund Transfers to Insurance Fund, 576,186

Debt Service Bonds and IEPA, 36,260

General Support, 1,037,640

Pumping, 3,494,887

Filtration, 3,280,589

Distribution, 1,822,422

Meters and Operating Exp, 764,200

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

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Water Plant Capital Program</th>
<th>Distribution System Capital Program</th>
<th>Total Capital Spending</th>
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<tbody>
<tr>
<td>10/11</td>
<td>$3,756,000</td>
<td>$3,844,000</td>
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<tr>
<td>11/12</td>
<td>$1,637,000</td>
<td>$3,250,000</td>
<td>$4.9M</td>
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<td>12/13</td>
<td>$1,810,000</td>
<td>$3,525,000</td>
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<td>13/14</td>
<td>$3,085,000</td>
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<tr>
<td>14/15</td>
<td>$5,600,000</td>
<td>$3,600,000</td>
<td>$9.2M</td>
</tr>
<tr>
<td>Total</td>
<td>$15,888,000</td>
<td>$17,819,000</td>
<td>$33.7M</td>
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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
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

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

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

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

### Source: CCF Water
## 5-Year Impact of Water Charge to Single Family Residence

<table>
<thead>
<tr>
<th></th>
<th>Additional Water Rate Charges</th>
<th>Additional Property Tax Charges</th>
<th>Total Additional Costs</th>
<th>Cost/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option W1</td>
<td>$231</td>
<td>$0</td>
<td>$231</td>
<td>$46</td>
</tr>
<tr>
<td>Option W2</td>
<td>$158</td>
<td>$192</td>
<td>$350</td>
<td>$70</td>
</tr>
</tbody>
</table>
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
<table>
<thead>
<tr>
<th>Community</th>
<th>Water Rate/1000 gal</th>
<th>Community</th>
<th>Water Rate/1000 gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago</td>
<td>$2.01</td>
<td>Glencoe</td>
<td>$3.70</td>
</tr>
<tr>
<td>Highland Park</td>
<td>$2.22</td>
<td>Lincolnshire</td>
<td>$4.08</td>
</tr>
<tr>
<td><strong>Evanston</strong></td>
<td><strong>$2.03 (current)</strong></td>
<td>Deerfield</td>
<td>$4.14</td>
</tr>
<tr>
<td>Buffalo Grove</td>
<td>$2.40 + 1.90 monthly fee</td>
<td>Gurnee</td>
<td>$4.45</td>
</tr>
<tr>
<td><strong>Evanston</strong></td>
<td><strong>$2.41 (W1 or W2)</strong></td>
<td>Niles</td>
<td>$4.59</td>
</tr>
<tr>
<td>Wilmette</td>
<td>$2.93</td>
<td>Wheeling</td>
<td>$4.62</td>
</tr>
<tr>
<td>Northbrook</td>
<td>$3.40</td>
<td>Arlington Heights</td>
<td>$4.63</td>
</tr>
<tr>
<td>Lincolnwood</td>
<td>$3.53</td>
<td>Morton Grove</td>
<td>$5.16</td>
</tr>
<tr>
<td>Skokie</td>
<td>$3.53</td>
<td>Lake Forest</td>
<td>$6.26</td>
</tr>
<tr>
<td>Glenview</td>
<td>$3.65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Water/Sewer Combined Rate Comparison

<table>
<thead>
<tr>
<th>Community</th>
<th>Rate/1000 gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highland Park</td>
<td>$2.67 +</td>
</tr>
<tr>
<td></td>
<td>$6.00 monthly fee</td>
</tr>
<tr>
<td>Lincolnwood</td>
<td>$3.53</td>
</tr>
<tr>
<td>Buffalo Grove</td>
<td>$3.38 +</td>
</tr>
<tr>
<td></td>
<td>$1.90 monthly fee</td>
</tr>
<tr>
<td>Skokie</td>
<td>$3.53</td>
</tr>
<tr>
<td>Glenview</td>
<td>$3.65 +</td>
</tr>
<tr>
<td></td>
<td>$6.87 monthly fee</td>
</tr>
<tr>
<td>Chicago</td>
<td>$3.74</td>
</tr>
<tr>
<td>Northbrook</td>
<td>$4.20</td>
</tr>
<tr>
<td>Wilmette</td>
<td>$4.27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community</th>
<th>Rate/1000 gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niles</td>
<td>$4.59</td>
</tr>
<tr>
<td>Glencoe</td>
<td>$4.62</td>
</tr>
<tr>
<td>Wheeling</td>
<td>$5.77</td>
</tr>
<tr>
<td><strong>Evanston</strong></td>
<td><strong>$7.30</strong> (current)</td>
</tr>
<tr>
<td>Lake Forest</td>
<td>$7.42</td>
</tr>
<tr>
<td>Deerfield</td>
<td>$7.54</td>
</tr>
<tr>
<td><strong>Evanston</strong></td>
<td><strong>$7.68</strong> (S3 &amp; W1/W2)</td>
</tr>
<tr>
<td>Arlington Heights</td>
<td>$8.99</td>
</tr>
<tr>
<td>Lincolnshire</td>
<td>$9.20</td>
</tr>
</tbody>
</table>
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