Agenda

- Welcome & Introductions
- Preliminary 2018 Budget & Rates
- Capital Program Information
- Cost Allocation & Map Information
- Q&A
- Informal Breakouts
2018 Rate Setting Schedule

• Customer Listening Sessions
  • April 6: Metro Cities St. Croix Room
  • April 13: Golden Valley City Hall
  • April 27: Industrial customer workshop, St. Paul

• May 9: Environment Committee Direction for Public Meetings

• Municipal Customer Forums*
  • May 23: Minnetonka Community Center
  • June 8: Metro Cities St. Croix Room

• July 11: Environment Committee Review of Customer Input & 2018 Rate Adoption Recommendation

• July 26: Council Rate Adoption

• Aug. 23: Council Preliminary Operating Budget Adoption

* public input
WHO WE SERVE
7-county Twin Cities Metro Area
109 communities
2,600,000 people

OUR FACILITIES
8 wastewater treatment plants
610 miles of interceptors
250 million gallons per day (avg)
212 meter stations

OUR ORGANIZATION
600+ employees
$7 billion in assets (replacement cost)
$140 million per year capital program
Compliance Performance

National NACWA Platinum Level Compliance

# of Years with Greater than 5 Years Continuous Compliance
(through 2015 and awarded in 2016)

- Hastings: 25
- St. Croix Valley: 24
- Seneca: 15
- Blue Lake: 10
- Eagles Point: 10
- Empire: 8
2018 Executive Summary

• Sources & Rates
  • Wastewater charge: .......................... 3.7%
  • Sewer Availability Charge: ........... No Increase
  • Industrial Strength Charge: ............. 6.8%
  • Industrial Permit Fee: .......................... 3.7%

• Expenses
  • 3.1% increase over 2017

• Other Significant
  • 2018 based on 2016 calendar year flows
2018 Sources – $280.7M

- Fee for service
- No other sources
- No other expenses

*Other includes State Appropriations, Investment Earnings, and Other Misc. Revenue
2018 Uses by Category - $280.7M

- Debt Service: 47%
- Salaries & Benefits: 23%
- Contracted Services: 7%
- Materials, Supplies & Chemicals: 6%
- Interdivisional Services: 6%
- Rent & Utilities: 6%
- Other: 5%
MCES Increase Drivers

<table>
<thead>
<tr>
<th>Category</th>
<th>Increase</th>
<th>Decrease</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt Service</td>
<td>3.3%</td>
<td></td>
<td>TBC</td>
</tr>
<tr>
<td>Labor</td>
<td>1.1%</td>
<td></td>
<td>TBC</td>
</tr>
<tr>
<td>Pay-As-You-Go</td>
<td></td>
<td>0.9%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Chemicals</td>
<td></td>
<td></td>
<td>-0.6%</td>
</tr>
<tr>
<td>Capital Outlay</td>
<td>0.1%</td>
<td></td>
<td>-0.3%</td>
</tr>
<tr>
<td>Utilities, Contracts, Materials</td>
<td></td>
<td></td>
<td>-0.9%</td>
</tr>
<tr>
<td>Use of Reserve</td>
<td></td>
<td></td>
<td>-0.9%</td>
</tr>
<tr>
<td><strong>Total 2018 MWC Budget</strong></td>
<td></td>
<td></td>
<td><strong>3.7%</strong></td>
</tr>
</tbody>
</table>
### MCES Operating Budget

<table>
<thead>
<tr>
<th>Category</th>
<th>2016</th>
<th>2017</th>
<th>2018*</th>
<th>% Change ('18 v. ‘17)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SOURCES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipal Wastewater Charges</td>
<td>201.0</td>
<td>212.0</td>
<td>219.7</td>
<td>3.5%</td>
</tr>
<tr>
<td>Industrial Charges</td>
<td>14.7</td>
<td>13.8</td>
<td>13.7</td>
<td>(0.7%)</td>
</tr>
<tr>
<td>Transfer from SAC Fund</td>
<td>39.2</td>
<td>39.4</td>
<td>41.9</td>
<td>6.4%</td>
</tr>
<tr>
<td>Other Sources¹</td>
<td>11.1</td>
<td>7.0</td>
<td>5.3</td>
<td>(24.3%)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>266.0</td>
<td>272.2</td>
<td>280.6</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>2016</th>
<th>2017</th>
<th>2018*</th>
<th>% Change ('18 v. ‘17)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor</td>
<td>67.1</td>
<td>63.5</td>
<td>65.8</td>
<td>3.6%</td>
</tr>
<tr>
<td>Contracted Services</td>
<td>18.9</td>
<td>20.9</td>
<td>20.7</td>
<td>(1.0%)</td>
</tr>
<tr>
<td>Materials &amp; Supplies</td>
<td>8.8</td>
<td>8.9</td>
<td>8.6</td>
<td>(3.4%)</td>
</tr>
<tr>
<td>Chemicals</td>
<td>7.9</td>
<td>8.3</td>
<td>8.7</td>
<td>4.8%</td>
</tr>
<tr>
<td>Utilities</td>
<td>18.6</td>
<td>16.6</td>
<td>15.9</td>
<td>(4.2%)</td>
</tr>
<tr>
<td>Debt Service</td>
<td>115.5</td>
<td>124.0</td>
<td>131.0</td>
<td>5.6%</td>
</tr>
<tr>
<td>Capital Outlay</td>
<td>3.0</td>
<td>4.0</td>
<td>3.4</td>
<td>(15%)</td>
</tr>
<tr>
<td>Central Services</td>
<td>13.8</td>
<td>15.5</td>
<td>16.1</td>
<td>3.9%</td>
</tr>
<tr>
<td>PAYGO (Capital Projects)</td>
<td>7.0</td>
<td>7.0</td>
<td>9.0</td>
<td>28.6%</td>
</tr>
<tr>
<td>Other Expenses²</td>
<td>5.4</td>
<td>3.4</td>
<td>1.4</td>
<td>(58.8%)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>266.0</td>
<td>272.2</td>
<td>280.6</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

1. Includes state appropriations, reserves, interest, and other revenue.
2. Includes pass-through grants from state appropriations.
* Preliminary
Preliminary Budget: Labor

• Labor Costs
  • 655 Regular FTEs same as 2016
  • 685 FTEs including OT
  • Vacancy Factor = 30 FTEs
    • Analyzed open position impact
  • General salary increases, plus steps

• Risk Factors: attrition rates, workforce planning, and health care costs (self-insured)

BUDGETED FTES

<table>
<thead>
<tr>
<th>Year</th>
<th>Budgeted FTEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>948</td>
</tr>
<tr>
<td>2014</td>
<td>699</td>
</tr>
<tr>
<td>2015</td>
<td>702</td>
</tr>
<tr>
<td>2016</td>
<td>683</td>
</tr>
<tr>
<td>2017</td>
<td>683</td>
</tr>
<tr>
<td>2018</td>
<td>685</td>
</tr>
</tbody>
</table>
Pay-As-You-Go (PAYGO)

HISTORICAL PAYGO PAYMENTS

PAYGO Payments (Millions)

'08 $3
'10 $1
'12 $1
'14 $2
'16 $7
'18 $9

PAYGO Payments (Millions)

$0 $1 $2 $3 $4 $5 $6 $7 $8 $9 $10

'08 '10 '12 '14 '16 '18
Preliminary Budget: Debt Service (DS)

Debt Service Transfer

- Change: +$7.0M or 5.6%
- 2017 ...... $124.0M
- 2018 ...... $131.0M

PAYGO

- Change: $2.0M or 28.6%
- 2017 ...... $7.0M
- 2018 ...... $9.0M

• Long-term Risk Factors
  • Capital spending increases (e.g., regulatory)
  • Interest rate increases on new debt (e.g., market rates, less subsidized money from Public Facilities Authority)
Cost Control / Minimizing Increases

- Regular Full Time Equivalent Positions (FTEs) Flat to 2016
- Ongoing Work Force Development
- Capital Program Savings
- Use of $2M in Reserve Funds
- PAYGO up $2M
Comparative Information

25 peer city average retail sewer rate per household = $404

*2013 Rates (per 2014 NACWA survey, next update 2018)
Municipal Wastewater Charge Increase

2016 & 2017: • 5.4% Increase

2018 Proposed Budget: • 3.7% Increase

2019-2022 Projection: • ~5% Increase (over inflation due to Debt Service Pressure)

2018-2022 Goal: • <4% Increase

Long-Term Goal: • ≤ Inflation Rate
Sewer Availability Charge (SAC) allows MCES to build for the future, & charge in the future

- MCES builds pipes in anticipation of future growth, but distributes the cost over time and generations.
- Promotes regional growth: SAC future-proofs our system, allowing all communities to grow
- Frequent meetings with stakeholders to verify the program serves its constituents
SAC Information

• Charged to municipalities (wholesale)
  • Revenue reduces volume charge to cities

• For new connections or increased demand (available capacity)

• 1 SAC unit charged per 274 gallons of maximum daily wastewater flow availability

• Availability ≠ Treatment Service
  = “Capacity we stand ready to serve”

There are options to ease the SAC burden, including SAC deferral program
SAC Units: Recovering

2003: 21,150
2004: 20,542
2005: 19,334
2006: 17,052
2007: 15,193
2008: 10,392
2009: 6,653
2010: 8,304
2011: 9,817
2012: 15,663
2013: 14,589
2014: 18,096
2015: 18,427

Graph showing SAC units recovering from 2003 to 2016.
### Industrial Rates

<table>
<thead>
<tr>
<th>Rate Type</th>
<th>Prelim. 2018</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength Charge (excess lb TSS*)</td>
<td>$0.235</td>
<td>6.8</td>
</tr>
<tr>
<td>Standard Load Charge (per 1000 gal.)</td>
<td>$60.24</td>
<td>0.0</td>
</tr>
<tr>
<td>Industrial Load Charge (excess lb TSS*)</td>
<td>$0.413</td>
<td>0.0</td>
</tr>
<tr>
<td>Collar County Load Charge (per 1000 gal.)</td>
<td>$75.24</td>
<td>0.0</td>
</tr>
<tr>
<td>Portable Toilet Load Charge (per 1000 gal.)</td>
<td>$77.46</td>
<td>0.0</td>
</tr>
<tr>
<td>Holding Tank Load Charge (per 1000 gal.)</td>
<td>$10.92</td>
<td>6.0</td>
</tr>
<tr>
<td>Annual Permit Fee</td>
<td>$1,000-$9,675</td>
<td>3.7</td>
</tr>
<tr>
<td>General Permit Fee</td>
<td>$100-$500</td>
<td>0</td>
</tr>
</tbody>
</table>

*Total Suspended Solids*
Bryce Pickart
Assistant General Manager, Technical Services

Capital Projects in the Region
## Estimated Asset Value

**Regional Wastewater System**

<table>
<thead>
<tr>
<th>Asset</th>
<th>Estimated Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravity Sewers</td>
<td>$3.3 Billion</td>
</tr>
<tr>
<td>Forcemains</td>
<td>$0.7 Billion</td>
</tr>
<tr>
<td>Plants, Pump/Meter Stations</td>
<td>$3.0 Billion</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$7 Billion</strong></td>
</tr>
</tbody>
</table>
## Capital Investment In Asset Preservation

<table>
<thead>
<tr>
<th>Useful Life Basis</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravity Sewers</td>
<td>80 Years</td>
</tr>
<tr>
<td>Forcemains</td>
<td>40 Years</td>
</tr>
<tr>
<td>Plants, Pump/Meter Stations</td>
<td>30 Years</td>
</tr>
<tr>
<td>Average for System</td>
<td>55 Years</td>
</tr>
</tbody>
</table>
Capital Investment In Asset Preservation

**Investment Goal**

100% Investment ÷ 55 Years (Average Useful Life) =

1.8% **Investment per year**

1.8% x $7 Billion (Estimated Asset Value) =

Approximately $130 Million per year
Interceptor System Asset Renewal Priorities

1. Gravity Sewers
   - Condition 5 – CCTV
   - Condition 4 – Coordination
   - I/I Mitigation

2. Pressure Sewers
   - Criticality
   - Condition

3. Lift Station
   - Criticality
   - Condition

4. Meter Improvements
   - Quality
   - Condition
Interceptor System Asset Renewal Plan (2016-2030)

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravity Sewers</td>
<td>6-7 miles/year</td>
</tr>
<tr>
<td>Pressure Sewers</td>
<td>3-4 miles/year</td>
</tr>
<tr>
<td>Pump Stations</td>
<td>3 stations/year</td>
</tr>
<tr>
<td>Meter Stations</td>
<td>10 stations/year</td>
</tr>
<tr>
<td><strong>Annual Investment</strong></td>
<td><strong>~$100 Million</strong></td>
</tr>
</tbody>
</table>
2017 Pipe Condition

- Excellent
- Good
- Fair
- Poor
- Critical
Current Projects

MCES Treatment Plants

Current Projects

- Project Under Design
- Project Under Construction
- MCESInterceptor
Future Projects

- WTP: MCES Treatment Plants
- Future Projects:
  - Project Start Next 5 Years
  - MCES Interceptor
Interceptor Projects

Mound

Installing MCES interceptor within the community

Portion of city watermain being installed with MCES project
10 Year Capital Improvement Program: Ramsey County
Plant Projects
Empire Digester

Project Cost:
$4.8 Million

Energy Savings
$350K/year
Plant Projects
Blue Lake Digester

- Optimized program effectiveness
- Sustainability
- Permit compliance

- Dryer exhaust used to preheat sludge in digesters
- 3 new digesters (eliminate need for additional dryers)

- Biosolids processing into “MinnGrow” Fertilizer

- Gas storage

<table>
<thead>
<tr>
<th>Season</th>
<th>Gas Produced</th>
<th>Gas Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter</td>
<td>4M</td>
<td>8M</td>
</tr>
<tr>
<td>Spring</td>
<td>8M</td>
<td>12M</td>
</tr>
<tr>
<td>Summer</td>
<td>12M</td>
<td>16M</td>
</tr>
<tr>
<td>Fall</td>
<td>8M</td>
<td>12M</td>
</tr>
</tbody>
</table>

BTU/hr
Seneca Wastewater Treatment Plants
Kyle Colvin,
Asst. Manager of Engineering Services

Cost Allocation
Community Cost Impact Factors

Total 2018 MWC Budget
$219.7M

+3.7%

Regional Flow Volume

Community Flow Volume

+6.41%

Community’s Share of Total Regional Flow

Total 2018 Community MWC Costs
Flow & Charges: MWCs

If MWCs for a fiscal year equal $219.7M, then...

- ABC = 22% of flow → 22% MWC →
  \[ \$219.7M \times 0.22 = \$48.3M \]

- XYZ = 10% of flow → 10% of MWC →
  \[ \$219.7M \times 0.10 = \$22.0M \]

- 123 = 3% of flow → 3% of MWC →
  \[ \$219.7M \times 0.03 = \$6.6M \]
Charge Variations

If overall flow goes down, but ABC’s flow stays the same, then…

ABC’s share of MWC will **increase** over previous year

If overall flow goes up, but ABC’s flow stays the same, then…

ABC’s share of MWC will **decrease** over previous year

Regional Wastewater flow

Community ABC’s flow

5% of the total Municipal Wastewater Charge (MWC)
City of Plymouth 2018 Municipal Wastewater Charge (MWC) Determination

For the 2018 Cost Allocation Year, the total regional wastewater flow was 90,764,09 million gallons and the MWC to be allocated for the region is $219,710,263. This table below shows the wastewater flow data used to determine the 2018 MWC, or annual charge, for your community.

<table>
<thead>
<tr>
<th></th>
<th>2017 Flow</th>
<th>2018 Flow</th>
<th>Percent of Regional Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,405.40 Mgal</td>
<td>2,404.06 Mgal</td>
<td>2.71%</td>
</tr>
<tr>
<td>Unmetered Flow (see below)</td>
<td>55.66 Mgal</td>
<td>55.66 Mgal</td>
<td>5.42%</td>
</tr>
<tr>
<td>2018 Flow Allocation</td>
<td>2,462.06 Mgal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The total flow for your community represents 2.71% of the regional flow. Your annual charge was calculated by multiplying your percentage of regional flow by the total MWC for the region, resulting in a 2018 annual charge of $5,050,531.96. This is an increase of 5.27% from the previous year, including the overall MWC budget increase of approximately 3.7%.

The table below includes the calculated, unmetered wastewater flows used to adjust the metered flow for your community. For unmetered flow calculations that rely on residential equivalent connection (REC) counts, the assumed wastewater generation rate varies between 60,000 and 100,000 gallons/year/REC based on historical community responses to wet weather, age of services, and other available data.

<table>
<thead>
<tr>
<th>Area</th>
<th>Calculation Description</th>
<th>1st Q</th>
<th>2nd Q</th>
<th>3rd Q</th>
<th>4th Q</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Districts</td>
<td></td>
<td>0.77</td>
<td>0.77</td>
<td>0.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minnekahta</td>
<td>75 REC x 10,000 x Water use/becomes</td>
<td>0.67</td>
<td>0.77</td>
<td>0.76</td>
<td>0.82</td>
<td>Plymouth data</td>
</tr>
<tr>
<td>Meals Groves</td>
<td>217 REC x 137 REC x 100,000</td>
<td>0.83</td>
<td>0.83</td>
<td>0.82</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sum of Areas: 87.14 Mgal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Calculation Description</th>
<th>1st Q</th>
<th>2nd Q</th>
<th>3rd Q</th>
<th>4th Q</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Districts</td>
<td></td>
<td>0.70</td>
<td>0.70</td>
<td>0.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minnekahta</td>
<td>75 REC x 10,000 x Water use/becomes</td>
<td>0.70</td>
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<td>0.82</td>
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<tr>
<td></td>
<td>Sum of Areas: 87.14 Mgal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unmetered Flow Total: 55.66 Mgal

May 16, 2017

City of Plymouth MCES Facilities

- Abandoned Meters
- Unmetered Meters
- Gravity Interceptor
- Foreman
- Misc. Facility

40712017

PRELIMINARY
2018 Rate Setting Schedule

• Customer Listening Sessions
  • April 6: Metro Cities St. Croix Room
  • April 13: Golden Valley City Hall
  • April 27: Industrial customer workshop, St. Paul

• May 9: Environment Committee Direction for Public Meetings

• Municipal Customer Forums*
  • May 23: Minnetonka Community Center
  • June 8: Metro Cities St. Croix Room

• July 11: Environment Committee Review of Customer Input & 2018 Rate Adoption Recommendation

• July 26: Council Rate Adoption

• Aug. 23: Council Preliminary Operating Budget Adoption

* public input
Plant Tour

Metropolitan Wastewater Treatment Plant – St. Paul, MN

• Tuesday, August 8, 2017: 9:00AM to 10:30AM
• Invites to be sent later this summer (first come, first served)

Plant Facts:

• Serves 65 communities & 1.8 million people
• Treats ~170 million gallons of wastewater per day
• 251 million gallons per day capacity
• 332 miles of interceptors to the plant
Plant Tour

Blue Lake Wastewater Treatment Plant – Shakopee, MN

• Thursday, August 17, 2017: 2:00PM to 3:30PM
• Invites to be sent later this summer (first come, first served)

Plant Facts:

• Serves 29 communities & 300,000 people
• Treats 26 million gallons of wastewater per day
• 32 million gallons per day capacity
• 108 miles of interceptors to the plant
Questions?
Individual Community
MWC Discussion