BURLINGTON PUBLIC WORKS

FY 2018 PROPOSED BUDGETS

Water
Wastewater
Stormwater
DPW MISSION STATEMENT

- We steward Burlington’s infrastructure and environment by delivering efficient, effective and equitable public services.
Water Resources

Providing clean water and fire protection services through:

• Water Supply
  – Treatment of water from Lake Champlain for drinking water
  – Distribution of water to homes, businesses and fire hydrants
  – Maintenance of water distribution system including valves, water mains & services, fire hydrants, elevated storage tanks and reservoirs

• Wastewater (Sanitary)
  – Treatment of sewage from homes and business before discharge to the Winooski River and Lake Champlain
  – Treatment of combined stormwater/wastewater to maximum extent practicable before discharge
  – Maintenance of collection system, three treatment plants, 25 pump stations

• Stormwater Management
  – Collection of stormwater runoff in combined and separate storm sewers
  – Regulatory review of increases in impervious surface or earth disturbances to mitigate (Chapter 26)
  – Watershed Planning and Retrofit design to mitigate stormwater runoff volumes and treat pollutants before discharge to waterways
Water Resources, by the Numbers

- 1 water plant
- **110** miles of water mains
- 3 Wastewater Treatment Plants
- 49 miles of sanitary sewer
- 45 miles of combined sanitary / storm sewer
- 37 miles of storm sewer
- 25 pump stations
- **102** storm water outfalls
- **2,000+** catch basins
- 900 fire hydrants
- 2 post-closure landfills
- 1 methane powered generating station
FY17 Water Resources Work

- Water Quality Panel
- Water Main Lining
- Filter Gallery Valve Replacement
- Cleaning of water intake screen
- Polymer Pump
- Clarifier blanket detector
- Grant St. SW Infiltration system
- Wastewater Vactor
High Level FY’18 Budget Goals:

- Sufficient resources to maintain smooth water, wastewater and stormwater operations and strong regulatory compliance

- Expand distribution water capital reinvestment levels to reduce water main breaks, tap water discoloration and unplanned water service disruptions; maintain other water capital reinvestment to address deferred maintenance, maintain regulatory compliance and produce high quality tap water.

- Maintain wastewater and stormwater capital investments to catch up on deferred maintenance, maintain regulatory compliance and protect water quality

- Address electrical safety issues

- Meet debt service requirements for $3.25 M FY17 Water borrowing and maximize health of Water Fund to enhance Moody’s A1 rating.

- Balance staffing with infrastructure related workload to increase project delivery capacity

- Update Water Resources organizational structure to reflect current day operations and needs

- Leverage reasonably healthy cash balances in Wastewater and Stormwater to fund one time expenses and spread out overall water resource utility rate increase over FY18 and FY19
## Water Resources FY’18 Budgets:

<table>
<thead>
<tr>
<th>Fund</th>
<th>Estimated Cash at FY17 End</th>
<th>Estimated Cash at FY18 End</th>
<th>O&amp;M Days Cash on Hand at FY18 End</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater</td>
<td>$ 357,531</td>
<td>$ 354,115</td>
<td>137</td>
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<tr>
<td>Wastewater</td>
<td>$2,547,957</td>
<td>$2,332,129</td>
<td>146</td>
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<tr>
<td>Water</td>
<td>$1,688,675</td>
<td>$1,682,717</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Stormwater</th>
<th>Wastewater</th>
<th>Water</th>
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</thead>
<tbody>
<tr>
<td>FY 16 Budget</td>
<td>FY 17 Budget</td>
<td>FY 18 Budget</td>
<td>Change from FY 17</td>
</tr>
<tr>
<td>Revenues</td>
<td>$1,347,818</td>
<td>$1,595,751</td>
<td>$1,584,222</td>
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<tr>
<td>Expenses</td>
<td>$1,330,878</td>
<td>$1,844,638</td>
<td>$1,605,638</td>
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<tr>
<td>Net to Reserve</td>
<td>$16,940</td>
<td>($248,887)</td>
<td>($21,416)</td>
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</table>

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<td>FY 18 Budget</td>
<td>Change from FY 17</td>
</tr>
<tr>
<td>Revenues</td>
<td>$8,035,048</td>
<td>$7,889,750</td>
<td>$7,825,160</td>
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<tr>
<td>Expenses</td>
<td>$7,737,637</td>
<td>$8,062,168</td>
<td>$8,040,988</td>
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<tr>
<td>Net to Reserve</td>
<td>$297,411</td>
<td>($172,418)</td>
<td>($215,828)</td>
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</tr>
<tr>
<td>Revenues</td>
<td>$6,545,746</td>
<td>$6,509,265</td>
<td>$6,678,702</td>
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<tr>
<td>Expenses</td>
<td>$6,479,743</td>
<td>$7,027,297</td>
<td>$6,684,661</td>
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<tr>
<td>Net to Reserve</td>
<td>$66,003</td>
<td>($136,194)</td>
<td>($5,959)</td>
</tr>
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</table>

FY18 Budget deficits addressed through use of cash reserve.
Key Drivers (revenue side)

- **Additional consumption due to growth in the City:**
  - Using conservative increases for W and WW based on previous years + anticipated projects coming on line in FY18

- **4.9% increase in Water wholesale (sold to Colchester Fire District #2) rate ($1.01 ⇔ $1.06/100 cf)**

- **Implement modest “off-cycle” water meter reading charge to recover staff costs**
  - $30 fee for final meter readings required as part of property sales
  - Examples of fee for same service in other Vermont communities: Winooski ($35), Rutland ($35), St. Albans ($32.25), Shelburne ($25), South Burlington ($12), CWD ($10)
Key Drivers (expense side)

- **Water Debt Service** \( W: \$239\text{K} \)

- **Change in Franchise Fee accounting:**
  - City Charter (27-122) requires that Water and Wastewater utilities collect a 3.5% Franchise Fee on retail sales for payment to the General Fund
  - Previously this was listed as an expense within the operating budget (e.g. FY17 Franchise Fee “expense” line = $202k for W and $266k for WW) and was “captured” within the rate
  - As of FY18 customers will be explicitly charged the 3.5% on the water/sewer bills similar to BED bills and fee “accounted” for as a liability outside annual budget

- **Additional Water Resources Engineer (limited service) to support increase in capital reinvestment workload:**
  - Utilize capital funds to cover increase in salary expense

- **Water Resource Reorganization and Reclassifications:**
  - Salary lines
    - WW (\$15k);
    - W: (\$1.6k);
    - SW (\$3.2k)
  - Wastewater structure reorganization
    - Convert vacant WW Chief position (one of two Chief positions) to establish one Wastewater Facilities Manager over all of Wastewater
    - Convert one plant operator position Senior Plant Operator position at Main Plant
  - Job Description Update and Reclassification
    - Utility Billing Administrator \( \ddagger \) Utility Financial and Customer Service Manager
    - Stormwater/GIS Technician \( \ddagger \) Water Resources Asset Manager
Water Distribution Reinvestment

- Bond – 88% YES 🌟🌟
- $3.25M Series 2017

<table>
<thead>
<tr>
<th>Rehabilitation through relining</th>
<th># of miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pine St (Lakeside to Howard) - 1894 pipe</td>
<td></td>
</tr>
<tr>
<td>Pine Street (Lakeside to Howard) 1980 pipe</td>
<td></td>
</tr>
<tr>
<td>Pine St (Maple to Main)</td>
<td></td>
</tr>
<tr>
<td>South Cove (ALL)</td>
<td></td>
</tr>
<tr>
<td>Austin Dr (Red Rocks to Home)</td>
<td></td>
</tr>
<tr>
<td>Crescent Rd – (All)</td>
<td></td>
</tr>
<tr>
<td>Dunder (All)</td>
<td></td>
</tr>
<tr>
<td>St Paul (Main to Maple)</td>
<td>2.74</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Open Dig Replacement</th>
<th># of miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethan Allen Parkway (Lopes to Sandy)</td>
<td></td>
</tr>
<tr>
<td>Ethan Allen Parkway (Sandy to Farrington)</td>
<td></td>
</tr>
<tr>
<td>Ethan Allen Parkway (Farrington to James)</td>
<td></td>
</tr>
<tr>
<td>Colchester Ave (Nash to Barret)</td>
<td></td>
</tr>
<tr>
<td>Curtis Ave (ALL)</td>
<td></td>
</tr>
<tr>
<td>Latham Ct</td>
<td></td>
</tr>
<tr>
<td>Ferguson Ave (Pine-SHELBURNE)</td>
<td></td>
</tr>
<tr>
<td>Maple St (Battery to Pine)</td>
<td>1.42</td>
</tr>
</tbody>
</table>

- FY18 Debt Service*                    – Estimated $239k
- Rate impact                            – $0.167/100 cf

*Recent Moody’s A1 rating and other bond market factors may reduce debt service amount
Key Drivers (expense side)

- **Water Debt Service** · W: ($239K)

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Key Drivers (expense side) cont’d

- WW plant testing fees (addt’l testing req’s in new State Permit):  
  - WW $9,760

- Increases in WW Repair and Maintenance:  
  - WW $35K

- Electrical Maintenance & Arc Flash Assessments (safety need):  
  - WW $63K  
  - W $45k

- Increased health insurance costs:  
  - WW $50k;  
  - W $48k;  
  - SW $6k

- Property Insurance:  
  - W $11.7k

- Workers Comp:  
  - WW $14k;  
  - W: $3.7k

- Cost allocations from General Fund
  - Indirect:  
    - WW $26k;  
    - W $22k;  
    - SW -$1.5k
  - DPW Cost allocation:  
    - WW $23k;  
    - W: $10.6k;  
    - SW -$5k

- Payment in Lieu of Taxes:  
  - WW: $141k  
  - W -$44k  
  - SW: $8k
Key Drivers (expense side) cont’d.

- Continued of focus on capital

Water Resources Annual Capital Investment (FY13 - FY18)

- Stormwater PayGo
- Wastewater PayGo
- Water PayGo
- Water Bond Funded Capital

Note 1: Includes use of cash reserve; Note 2: includes use of cash reserve and council authorized borrowing
Looking ahead to FY 19 and beyond

Opportunities and Challenges

- **Water Debt**
  - Important to maintain or increase Moody’s A1 rating
  - Maintain 1.25 Debt Coverage Ratio

- **Future Water Resources Borrowing**
  - Water:
    - Water Bond authorization will only replace/rehabilitate ~8-10 miles of our 110 mile distribution system
    - Redstone Storage tank maintenance (~$500k) due in FY2021; UVM tank maintenance ($1M) in FY27
  - Wastewater:
    - Potential capital deficits for replacement of existing process
    - Lake Champlain TMDL possible plant upgrades
    - Biosolids management
  - Stormwater
    - Lake Champlain TMDL impervious retrofits
    - Combined Sewer Overflow Management
    - Outfall Repair

- **Asset Management Investment**
  - Continuing asset management planning
  - In FY18, along with General Fund, develop specifications for bid for Computerized Maintenance Management System
  - FY19 implementation for Water Resources
Looking ahead to FY 19 and beyond

Opportunities and Challenges

- **Revenue Income Changes in Customer Base and usage**
  - Revenue base for W, WW and SW expected to go up FY19 – FY21
  - Increased usage from development will ideally temper “conservation” trends typical with water/wastewater utilities over long term
  - Losing South Burlington “Hadley” road customers starting Q3 FY2019 ($220k/year)
  - May lose some/all septage and sludge hauling customers due to need to conserve Phosphorus under new TMDL Phosphorus effluent limitations

- **Financial Planning: development of long range financial planning model**
  - Integrate
    - Operations & Maintenance cost escalation
    - Changes in customer usage
    - Capital plan costs
    - Debt Service
  - Track cash flow, reserves, debt coverage ratios, days of cash on hand
  - Estimate rate projections to meet revenue requirements
  - Will also integrated rate impact of combined water, wastewater, stormwater utilities

- **Financial Capability Assessment (as part of Integrated Planning)**
  - Inform compliance schedules for Lake Champlain TMDL
  - Inform need to develop income sensitive assistance programs
## Proposed FY 18 Water Resources Rates

<table>
<thead>
<tr>
<th>Utility</th>
<th>Existing FY17 Rate</th>
<th>Monthly Cost for Average Home Owner</th>
<th>Annual Cost for the Average Home Owner</th>
<th>Proposed FY18 Rate</th>
<th>Monthly Increase for Home Owner</th>
<th>Monthly Cost for Average Home Owner</th>
<th>Annual Cost for the Average Home Owner</th>
<th>Annual Cost for the Average Home Owner</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater</td>
<td>$6.60 per month for residential units</td>
<td>$6.60</td>
<td>$79.20</td>
<td>$6.60 per month for residential units</td>
<td>$0.00</td>
<td>$6.60</td>
<td>$0.00</td>
<td>$79.20</td>
<td></td>
</tr>
<tr>
<td>Wastewater</td>
<td>$5.55 per 100 cubic feet ($0.188 Franchise Fee included)</td>
<td>$41.89</td>
<td>$502.66</td>
<td>$5.49 + $0.192 Franchise Fee = $5.68/100 cf</td>
<td>$1.00¹</td>
<td>42.89¹</td>
<td>$11.97¹</td>
<td>$514.63¹</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>$4.05 per 100 cubic feet ($0.137 Franchise Fee included)</td>
<td>$30.57</td>
<td>$366.81</td>
<td>$4.11 + $0.144 Franchise Fee = $4.25/100 cf</td>
<td>$1.54¹ ($1.26 is due to $3.25M Bond)</td>
<td>32.11¹</td>
<td>$18.46¹</td>
<td>$385.27¹</td>
<td></td>
</tr>
<tr>
<td>Total Utility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$2.54</td>
<td>$81.59</td>
<td>$30.43</td>
<td>$979.10</td>
</tr>
</tbody>
</table>

Note 1: costs include 3.5% franchise fee surcharge

### Components of FY18 Proposed Rate Increase

- Water O&M and PayGo Capital
- Water Debt Service from Voter Approved Borrowing
- WW O&M and Pay Go Capital

Without Voter Approved Borrowing, required overall rate increase would be 1.7%
### Projected FY 19-20 Rates

<table>
<thead>
<tr>
<th>FY 2019</th>
<th>FY 2020</th>
</tr>
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<tbody>
<tr>
<td>Proposed FY19 Rate</td>
<td>Proposed FY20 Rate</td>
</tr>
<tr>
<td><strong>Monthly Increase for Home Owner</strong></td>
<td><strong>Monthly Increase for Home Owner</strong></td>
</tr>
<tr>
<td><strong>Monthly Cost for the Average Home Owner</strong></td>
<td><strong>Monthly Cost for the Average Home Owner</strong></td>
</tr>
<tr>
<td><strong>Annual Increase for Home Owner</strong></td>
<td><strong>Annual Increase for Home Owner</strong></td>
</tr>
<tr>
<td><strong>Annual Cost for the Average Home Owner</strong></td>
<td><strong>Annual Cost for the Average Home Owner</strong></td>
</tr>
<tr>
<td>3.18%</td>
<td>2.36%</td>
</tr>
</tbody>
</table>

#### 2019
- **$6.77** per month for residential units
  - Monthly Increase: $0.17
  - Monthly Cost: $6.77
  - Annual Increase: $2.04
  - Annual Cost: $81.24

- **$5.77 + $0.202 Franchise Fee = $5.97/100 cf**
  - Monthly Increase: $2.19
  - Monthly Cost: $45.07
  - Annual Increase: $26.25
  - Annual Cost: $540.88

- **$4.14 + $0.145 Franchise Fee = 4.28/ 100 cf**
  - Monthly Increase: $0.23
  - Monthly Cost: $32.34
  - Annual Increase: $2.81
  - Annual Cost: $388.08

<table>
<thead>
<tr>
<th>Net Annual Budget</th>
<th>O&amp;M Days Cash on Hand</th>
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</thead>
<tbody>
<tr>
<td>Stormwater</td>
<td>$84.18</td>
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<tr>
<td>Wastewater</td>
<td>$31.10</td>
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<tr>
<td>Water</td>
<td>$1,010.20</td>
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</table>

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<tr>
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<th>O&amp;M Days Cash on Hand</th>
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<tbody>
<tr>
<td>Stormwater</td>
<td>$86.17</td>
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<tr>
<td>Wastewater</td>
<td>$23.82</td>
</tr>
<tr>
<td>Water</td>
<td>$1,034.02</td>
</tr>
</tbody>
</table>

#### 2020
- **$6.88** per month for residential units
  - Monthly Increase: $0.11
  - Monthly Cost: $6.88
  - Annual Increase: $1.32
  - Annual Cost: $82.56

- **$5.89 + $0.206 Franchise Fee = $6.10/100 cf**
  - Monthly Increase: $0.94
  - Monthly Cost: $46.01
  - Annual Increase: $11.25
  - Annual Cost: $552.13

- **$4.26 + $0.149 Franchise Fee = $4.41/ 100 cf**
  - Monthly Increase: $0.94
  - Monthly Cost: $33.28
  - Annual Increase: $11.25
  - Annual Cost: $399.33

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Summary

S Request approval of FY 18 rates

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<th>Utility</th>
<th>Proposed FY18 Rate</th>
<th>Monthly Increase for Home Owner</th>
<th>Monthly Cost for the Average Home Owner</th>
<th>Annual Increase for Home Owner</th>
<th>Annual Cost for the Average Home Owner</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater</td>
<td>$2.47 per ISU ($6.60 per month for single family homes)</td>
<td>$0.00</td>
<td>$6.60</td>
<td>$0.00</td>
<td>$79.20</td>
<td></td>
</tr>
<tr>
<td>Wastewater</td>
<td>$5.49/100 cf</td>
<td>$1.00¹</td>
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<td>$11.97¹</td>
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<td>$30.43</td>
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Questions ?