Investing in Your Water & Sewer System
to Protect Public Health and the Environment
OVERVIEW: TOPICS TO CONSIDER

1. Who We Are
2. Water and Sewer Financial Outlook
3. Condition of Our Water & Sewer System
4. Necessary Infrastructure Investments
5. Current vs. New Rate Structure
6. Five-Year Rate Plan
WHO WE ARE

We are **320 employees**, who serve more than **250,000 people** and **6,000 businesses** in the Dayton, Ohio region.

**Our Vision:** To be leaders and trusted stewards of the environment focused on service, collaboration, innovation, and financial responsibility.

**Our Mission:** We serve our community by providing high quality water, wastewater, recycling, and solid waste services to support a sustainable environment.
Over the past 8 years, Montgomery County rate increases averaged 1.25% per year.

The average rate increase in Ohio over the same time period was about 4% per year.

Source: Ohio EPA 2015 Sewer and Water Rate Survey, Raftelis Financial Consultants (Ohio average 10-year rate increases used for data points 2016 & 2017)
FINANCIAL OUTLOOK: PRACTICING FISCAL RESPONSIBILITY

From 2012-2016, we’ve kept our operational costs flat, despite rising inflation, increased costs for materials, and decreasing consumption.

In 2015, we saved $350,000 in reduced energy costs. In 2016, we won a $650,000 DP&L energy rebate.

From 2014-2017, we won $4.5 million in grant money to fund capital projects.

From 2013-2016, our lab earned $421,000 in testing revenue to help offset costs.

(Right) Director Pat Turnbull accepts the 2016 AMWA Gold Award for Exceptional Utility Performance.
FINANCIAL OUTLOOK: HIGHER MAINTENANCE COSTS

Old infrastructure costs more to maintain. As our infrastructure ages, it breaks down more often and loses efficiency.

Replacing old infrastructure with new infrastructure is also expensive.

The cost for necessary construction materials has risen at a much faster pace than our rate increases.

The cost for 8” Ductile Iron Pipe (material used for water mains) rose 24% in the past five years, from $16.75 to $22.08 per foot.
FINANCIAL OUTLOOK: DECREASING CONSUMPTION

Water consumption has decreased more than 20% over the past 10 years (2% each year).

This means that revenue is flat despite modest rate increases over the same period.

Consumption will likely continue to decrease.
FINANCIAL OUTLOOK SUMMARY

• Our rate increases have been below the regional and national average.

• Montgomery County has been fiscally responsible.

• Our aging infrastructure costs more to maintain and replace. Continuing with the status quo presents an unacceptable level of risk.

• Decreasing water consumption has reduced our revenue and eroded the effect of rate increases.
CONDITION OF OUR WATER & SEWER SYSTEM
OUR SYSTEM IS LARGE & VALUABLE

Total value of our water and sewer system = $3.1 BILLION

Water and sewer systems require ongoing maintenance and continuous replacement.
OUR SYSTEM IS GETTING OLD

• Much of our underground infrastructure was installed 60-70 years ago.
• We spend about $2 million each year just to repair main breaks.
• It costs about $1 million to replace just 1 mile of water main...

...and we have 1,400 miles of water and 1,200 miles of sewer mains.

Every time we have to repair a water main break, it costs $6,000.
OUR SYSTEM IS GETTING OLD

Our two wastewater plants were built in 1977 and 1954 (upgraded 1985), using federal funds that no longer exist.

Our three major water pump stations are 30 years old.

» In 2015-2016 alone, we spent $3 million on repairs and upgrades to these pump stations.
NECESSARY INFRASTRUCTURE INVESTMENTS
TWO LARGE PROJECTS WE NEED TO PURSUE IN NEXT 5 YEARS

1. Replace/upgrade the main sewer line and pump station to our Western Regional Wastewater Treatment Plant.

2. Build an additional water feed to ensure water service reliability to our south service area (Centerville, Jefferson Township, Kettering, Miami Township, Moraine, and Washington Township).
#1 – UPGRADE SEWER LINE & PUMP STATION

**RISK:** 40-year-old sewer line and pump station to Western Regional Wastewater Treatment Plant needs to be rehabilitated or replaced. Only sewer line for more than 83,000 people and businesses.

**SOLUTION:** Replace and/or upgrade sewer line and pump station

**COST** = $65-85 Million
WHAT HAPPENS IF IT FAILS?
RISK: Only one large water main serves Centerville, Jefferson Township, Kettering, Miami Township, Moraine, and Washington Township. This is the water main that provides fire protection and drinking water to more than 150,000 people, hospitals, and businesses.

SOLUTION: Build an additional water feed from the City of Dayton.

COST = $76-118 Million
WHAT HAPPENS IF IT FAILS?

Northridge Service Area (Butler Township, Harrison Township, Huber Heights, Jefferson Township, Riverside, and Trotwood)

Greater Moraine Service Area (Centerville, Jefferson Township, Kettering, Miami Township, Moraine, and Washington Township)

• Affected by large, single transmission main outage
• 75% of our customers (60,000 accounts)
• Includes hospitals, businesses, retirement communities, etc.
UNDERGROUND WATER/SEWER LINES

• We currently spend about $2 million on water and $2 million on sewer line replacements every year.
• We need to increase spending to 4X our current rate to ensure long-term system reliability, which is:
  $10.5 million/year on water
  $6.4 million/year on sewer
ABOVEGROUND INFRASTRUCTURE

We operate and maintain:

- 2 wastewater treatment plants,
- 3 equalization basins,
- 36 sewer lift stations,
- 12 water pump stations,
- 14 water storage facilities (water towers, reservoirs),
- and 12,000 fire hydrants.
We need to invest more in our aboveground infrastructure. The estimated cost to maintain and upgrade our aboveground infrastructure for the next 20 years is...

$12.5 Million per year
<table>
<thead>
<tr>
<th>Project / Option</th>
<th>Cost</th>
</tr>
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<tbody>
<tr>
<td>Upgrade sewer line to Western Regional WWTP</td>
<td>$65-85 Million</td>
</tr>
<tr>
<td>Additional Water Supply to South</td>
<td>$76-118 Million</td>
</tr>
<tr>
<td>20-YR Aboveground Infrastructure Investment</td>
<td>$250 Million</td>
</tr>
<tr>
<td>20-YR Buried Water Infrastructure Investment</td>
<td>$210 Million</td>
</tr>
<tr>
<td>20-YR Buried Sewer Infrastructure Investment</td>
<td>$128 Million</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$729-791 Million</strong></td>
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CURRENT RATE VS. NEW RATE STRUCTURE
CURRENT RATE STRUCTURE

100% of the cost to operate system is paid by ratepayers – people who benefit from services.

Current water/sewer rates include fixed charges and consumption-based charges.

Fixed portion of bill is too small to maintain stable, long-term financing for our system:

- Fixed charges = 20%
- Consumption-based charges = 80%
NEW RATE STRUCTURE (JAN. 2018)

Consumption Charge to cover cost to purchase water and also some capital costs

Fixed Service Charge to cover overhead costs

Capital Charge to cover capital costs related to system and infrastructure improvements

Larger portion of bill will be fixed, providing stable and long-term financing of our water and sewer systems:

Fixed charges = 40%
Consumption-based charges = 60%
### SAMPLE AVERAGE RESIDENTIAL CUSTOMER BILL
(5/8” METER, 18 CCF)

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>Water:</strong></td>
<td>$74.76</td>
<td>$86.07</td>
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<tr>
<td>Daily Fixed Meter, 91 Days</td>
<td>$14.80</td>
<td>Daily Fixed Meter, 91 Days</td>
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<tr>
<td>Consumption (First 100,000)</td>
<td>$58.16</td>
<td>Daily Capital Charge, 91 Days</td>
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<tr>
<td>Consumption (Above 100,000)</td>
<td>$0.00</td>
<td>All Consumption (Water)</td>
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<tr>
<td>Well Field Protection</td>
<td>$1.80</td>
<td>Well Field Protection</td>
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<tr>
<td><strong>Sewer:</strong></td>
<td>$95.43</td>
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<tr>
<td>Daily Fixed Meter, 91 Days</td>
<td>$29.40</td>
<td>Daily Fixed Meter, 91 Days</td>
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<tr>
<td>All Consumption (Sewer)</td>
<td>$66.02</td>
<td>Daily Capital Charge, 91 days</td>
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<tr>
<td><strong>Total:</strong></td>
<td>$170.19</td>
<td>Total:</td>
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FIVE-YEAR RATE PLAN
5-YEAR RATE PLAN
AVERAGE RESIDENTIAL CUSTOMER
COMBINED WATER/SEWER RATE INCREASE PER YEAR
RATE IMPACT IN 2018

• In 2018, there will be an average rate increase of 14% for combined water and sewer bills. This increase will help us catch up after seven years of small or no rate increases.

• This rate increase will vary based on customer type/class (e.g., meter size and consumption).

• A larger portion of this rate structure will be fixed.
# Regional Water & Sewer Bill Comparison

**Combined W/S Rate, 5/8” meter, 30 CCF per quarter**

<table>
<thead>
<tr>
<th>Location</th>
<th>Rate</th>
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<tbody>
<tr>
<td>DAYTON*</td>
<td>$169.25</td>
</tr>
<tr>
<td>WARREN COUNTY*</td>
<td>$205.21</td>
</tr>
<tr>
<td>CLARK COUNTY*</td>
<td>$242.10</td>
</tr>
<tr>
<td>MONTGOMERY COUNTY (2017)*</td>
<td>$254.16</td>
</tr>
<tr>
<td>LEBANON*</td>
<td>$269.16</td>
</tr>
<tr>
<td>CINCINNATI**</td>
<td>$275.47</td>
</tr>
<tr>
<td>MASON*</td>
<td>$283.68</td>
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<tr>
<td>MONTGOMERY COUNTY (2018)</td>
<td>$288.93</td>
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<tr>
<td>GREENE COUNTY*</td>
<td>$299.02</td>
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<tr>
<td>LOVELAND*</td>
<td>$313.77</td>
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<tr>
<td>CINCINNATI**</td>
<td>$337.09</td>
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<tr>
<td>PIQUA*</td>
<td>$368.71</td>
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<tr>
<td>CLEVELAND**</td>
<td>$370.03</td>
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<tr>
<td>MIAMISBURG*</td>
<td>$396.09</td>
</tr>
<tr>
<td>MIAMI COUNTY (DEERCLIFF/TIPP CITY)*</td>
<td>$455.42</td>
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<tr>
<td>MIAMI COUNTY (TROY)*</td>
<td>$491.91</td>
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* Data from 2017 Oakwood Rate Survey
** Rates as of Jan 2017
WHY NOW?

• Our infrastructure is aging. Most of the water/sewer system was built about 50-60 years ago.

• Time to reinvest now because assets are reaching full depreciation.

• Great Recession delayed planned rate increases and capital projects.
WHY THIS MATTERS?

We are stewards of a vital public service. We provide high quality water and sewer service to:

- Protect public health and the environment
- Ensure quality of life for citizens
- Promote economic development