THE COST OF CLEAN

2016 WISCONSIN SEWER USER CHARGE SURVEY REPORT

OCTOBER 13, 2016
Overview

The Survey
Cost of Sewer
Cost of Water
Collection Systems
Affordability
What is the value of water?
The Survey

Survey was emailed Statewide in January

Completed surveys returned Jan – April
  ◦ Survey Monkey

Final Report is done!
The Survey

2016 Wisconsin Sewer User Charge Survey

Survey Overview

The Survey

III. Biosolids (Sludge) Processing

Do you process Biosolids (Sludge)?
- Yes
- No
- Not applicable

Current population (number of people, not number of households) served by wastewater treatment facility:

Does your community own and operate a wastewater treatment facility:
- Yes
- No
- Other: ____________________________

What entity treats your community’s sewage:

(skip to Section V)

IV. Discharge Type

What is your discharge method:
- Surface water (rivers, lakes, wetland, etc.)
- Groundwater (storage cells, etc.)
- Land application (spray irrigation, etc.)
- Other: ____________________________

Design Capacity (MGD). Use MGD format, 0.123 MGD equals 123,000 GPD:

Current Average Daily Flow (MGD). Use MGD format, 0.123 MGD equals 123,000 GPD:

V. Rate Information

What is your billing frequency:
- Monthly
- Bi-monthly
- Quarterly
- Annually

What are your Residential Fixed Fee sewer rates in dollars as of January 1, 2018 (per bill):

What volume is included in the Residential Fixed Fee, if any:
- Cubic feet
- Cubic yards

What are your Residential Volume Charge sewer rates in dollars as of January 1, 2018 (per bill):

What are your Effective date of last rate increase (mm/dd/yyyy):

Do you anticipate a rate increase in 2018:
- Yes
- No

Which residential sewer connection fee do you charge, if any:
- Residential Hook-up Fee
- Impact Fee
- Other:

VI. Hauled Waste

Do you accept Hauled Waste:
- Yes
- No

Do you accept Holding Tank waste:
- Yes
- No

Do you accept Septic Tank waste:
- Yes
- No

VII. High Strength Waste Charges

Do you assess a surcharge for high strength or industrial wastes:
- Yes
- No

If yes, which of the following High Strength Waste are you surcharging:
- BOD
- COD
- SS
- Nitrogen
- Phosphorus

VIII. Budget Information

What is your projected sewer utility budget for 2016 (or actual expenditures for 2015) include operation, maintenance, replacement and debt:

Are any General Fund Revenues derived from property tax levy allocated to the sewer utility:
- Yes
- No

IX. Collection Systems

Do you own and operate a collection system:
- Yes
- No

What is the approximate length of your collection system in miles (if known):

What is the approximate age in years of your oldest sewer:

Are you regularly televising a portion of your collection system:
- Yes
- No

X. Comments

Thank you for taking the time to fill out the 2016 Sewer User Charge survey.
2016 Survey Responses

Breakdown of Respondents by Population

- 1,001-2,000: 22%
- 2,001-5,000: 21%
- 5,001-10,000: 9%
- 10,001-50,000: 9%
- 1-500: 20%
- 501-1,000: 17%
- 50,001+: 2%

338 Respondents
Historic Survey Responses

Historic Survey Responses 1996-2016

Response by Year

Total Responses

- 100
- 200
- 300
- 400
- 500
- 600

1996
1998
2001
2004
2007
2010
2013
2016
Distribution of Treatment Type

- **No WWTF**: 19%
- **Aerated Lagoon**: 15%
- **Stabilization Pond**: 7%
- **Conventional Activated Sludge**: 20%
- **Oxidation Ditch**: 18%
- **Membrane Bioreactor**: 0.3%
- **Moving Bed Bioreactor**: 1%
- **Recirculating Sand Filter**: 4%
- **RBC**: 4%
- **Trickling Film/Bio-Tower**: 4%
- **SBR**: 3%
- **Package Plant**: 5%
Annual Cost by Treatment Type

- Aerated Lagoon
- Stabilization Pond
- Conventional Activated Sludge
- Oxidation Ditch
- Package Plant
- SBR
- Membrane Bioreactor
- Trickling Filter
- Moving Bed Reactor
- Recirculating Sand Filter

Average Annual Cost

- Lagoon System
- Activated Sludge System
- Fixed Film System
Annual Sewer Rates
Annual Sewer Rates (based on actual usage)
Variation of Sewer Charges (based on actual usage)
Annual Sewer Rates (based on 55,000 gpy)
Residential Water Use by Population (2015)

Usage in Gallons

Population

1-500 501-1,000 1,001-2,000 2,001-5,000 5,001-10,000 10,001-50,000 50,001+

33,264 35,038 36,114 38,711 42,758 44,884 45,648

Legend:
- Blue: Avg Water Use by Population
- Red: Statewide Average
- Green: 55,000 Gallons for Rate Comparison
Historic Sewer Charges (based on 55,000 gpy)
Sewer Cost Increase Since 1996

- 1,500: 4.5%
- 501-1,000: 4.7%
- 1,001-2,000: 5.4%
- 2,001-5,000: 5.1%
- 5,001-10,000: 4.1%
- 10,001-50,000: 3.2%
- 50,001+: 4.1%
- Statewide: 4.7%
Water Use and Cost
Historic Water Use by Population

- Usage in Gallons vs Population
- Population categories: 1-500, 501-1,000, 1,001-2,000, 2,001-5,000, 5,001-10,000, 10,001-50,000, 50,001+, Statewide average
Historic Water Rates by Population (based on 55,000 gpy)
2016 Water and Sewer Rates by Population

<table>
<thead>
<tr>
<th>Population</th>
<th>Water</th>
<th>Sewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-500</td>
<td>$400</td>
<td>$100</td>
</tr>
<tr>
<td>501-1,000</td>
<td>$350</td>
<td>$250</td>
</tr>
<tr>
<td>1,001-2,000</td>
<td>$300</td>
<td>$200</td>
</tr>
<tr>
<td>2,001-5,000</td>
<td>$250</td>
<td>$150</td>
</tr>
<tr>
<td>5,001-10,000</td>
<td>$200</td>
<td>$100</td>
</tr>
<tr>
<td>10,001-50,000</td>
<td>$150</td>
<td>$50</td>
</tr>
<tr>
<td>50,001+</td>
<td>$100</td>
<td>$0</td>
</tr>
<tr>
<td>Statewide Average</td>
<td>$350</td>
<td>$250</td>
</tr>
</tbody>
</table>
Sources of Sewer Revenue
Billing Frequency

[Bar chart showing billing frequency by population size and frequency type (Quarterly, Monthly, Other)].
Annual Charge Compared to Billing Frequency

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Annual Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annually</td>
<td>$407</td>
</tr>
<tr>
<td>Quarterly</td>
<td>$479</td>
</tr>
<tr>
<td>Bi-Monthly</td>
<td>$491</td>
</tr>
<tr>
<td>Monthly</td>
<td>$531</td>
</tr>
</tbody>
</table>
Revenue Source - Property Tax

Percent of Communities with a Property Tax Component by Population

- 18% for 1-500 population
- 9% for 501-1,000 population
- 7% for 1,001-2,000 population
- 7% for 2,001-5,000 population
- 16% for 5,001-10,000 population
- 0% for 10,001-50,000 population
- 0% for 50,000+ population
- 8% for Statewide Average

Population categories include:
- 1-500
- 501-1,000
- 1,001-2,000
- 2,001-5,000
- 5,001-10,000
- 10,001-50,000
- 50,000+

Statewide average: 8%
Revenue Source - Impact and Connection Fees

Population
- Hook-up fee
- Impact fee

Statewide Average
Historic Connection Fee Charges

2001-2016 Statewide Average Hook-up and Impact Fee
Revenue Source - Hauled Wastes

![Bar chart showing revenue sources by population size for holding tanks and septage.](chart.png)
Hauled Waste Charges (per 1,000 gallons)
Revenue Source - High Strength Surcharges

![Bar chart showing the percentage of revenue from high strength surcharges across different population groups. The chart includes categories for BOD, TSS, Nitrogen, and Phosphorus.](chart.png)
High Strength Surcharges
Collection Systems
Age of Collection Systems

Nominal Life = 50 Years
Sewer Televising

![Bar chart showing the percentage of communities televising sewer systems for different population sizes in 2013 and 2016. The chart includes bars for population sizes ranging from 1-500 to 50,001 and above, with a statewide average. The chart indicates the percentage of communities televising and the percentage of sewer systems televised.]
Affordability
Historic Median Household Income

Population

- 1-500
- 501-1,000
- 1,001-2,000
- 2,001-5,000
- 5,001-10,000
- 10,001-50,000
- 50,001+
- Statewide Average

Year

- 2000
- 2009
- 2014

Income

- $0
- $5,000
- $10,000
- $15,000
- $20,000
- $25,000
- $30,000
- $35,000
- $40,000
- $45,000
- $50,000
- $55,000
- $60,000

$60,000

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Sewer Cost as a Percent of MHI
Range of Sewer Cost Percent of MHI
Available Funding – USDA RD

![Available Funding Graph]

The graph shows the available funding for grants from 1997 to 2015. The funding fluctuates over the years, with a notable spike in 2010.
Available Funding – WDNR CWF

*Prior to 2010 Principle Forgiveness Grants were not available
Available Funding –
CDBG PF
What is the value of water?

ITT Corporation Value of Water Survey
Clean Water is a Bargain

- Mobile: $153
- Electric Power: $105
- Gasoline: $100
- Satellite TV: $78
- Natural Gas: $58
- Cable TV: $35
- Landline Phone: $33
- Sewer: $36
- Water: $21
What’s Next

Final Report is Ready – Survey respondents should have received an email this week to download report

Download a copy

http://www.msa-ps.com/News---Info/Publications.aspx

Hardcopies will be available for $50
Thank You!

Survey Respondents
WDNR Environmental Loans Division
Wisconsin Public Service Commission
USDA Rural Development
Questions/Discussion

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