



CITY OF  
**ST.CLOUD**  
MINNESOTA



# Utility Case Study Panel Discussion

# PUBLIC UTILITIES

Drinking Water	NEW Recovery	Stormwater	Hydro/Electric
<ul style="list-style-type: none"> <li>&gt; 1<sup>st</sup> Mississippi River</li> <li>&gt; 24 MGD</li> <li>&gt; Lime Softening</li> <li>&gt; 300 mi of pipe</li> <li>&gt; 5 Towers</li> </ul>	<ul style="list-style-type: none"> <li>&gt; 17 MGD</li> <li>&gt; Full BNR</li> <li>&gt; Biofuel Generator</li> <li>&gt; Class A Solids</li> <li>&gt; 290 mi of pipe</li> <li>&gt; 36 Liftstations</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Mississippi River</li> <li>&gt; 200 mi of pipe</li> <li>&gt; 212 Outfalls</li> </ul>	<ul style="list-style-type: none"> <li>&gt; 8.8 MW Hydro</li> <li>&gt; 23M kWh Solar Subscriptions</li> </ul>



**9 Regulatory Agencies**  
**Regional Hub**  
**40 Square Miles**  
**>22,000 Utility Accounts**  
**\$33M Operating Budget**  
**\$31M Capital Budget**





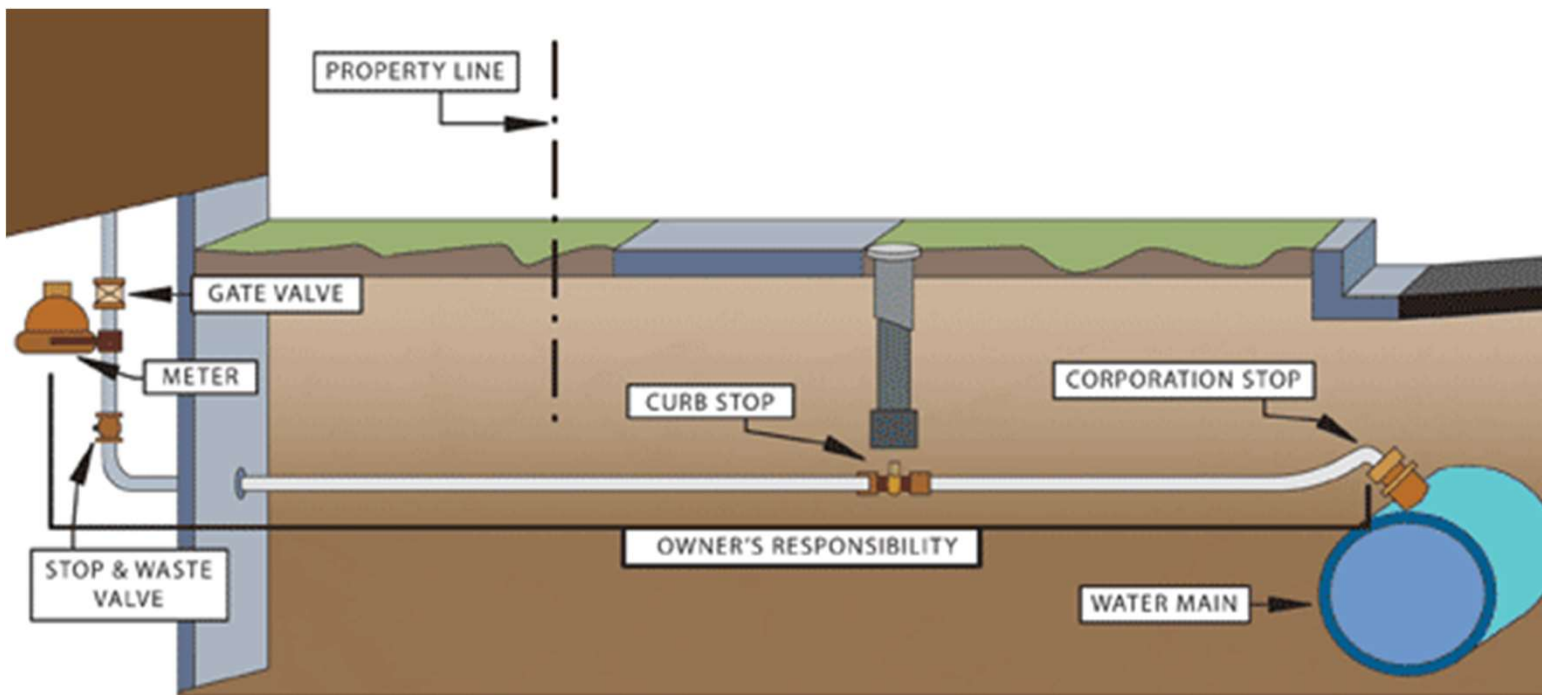
Aging Infrastructure  
Significant Growth  
Additional Regulations  
**Managing Expectations**  
**Workforce Challenges**

**Warmer, Wetter, Weirder:**  
Cold weather is warming.  
Increases in rain events.  
Extreme events increasing.

*Minnesota has warmed by 2.9F between 1895 and 2017, while getting an average of 3.4 inches wetter.*

*MN-DNR*

# Frozen Service Lines



## Service Lines

1980s ?  
2014 400  
2018 25

## Water Mains

2014 3  
2018 1

# Managing Expectations

LET IT  
**RUN!**

TO PREVENT FREEZING, PLEASE  
LEAVE A COLD WATER TAP  
RUNNING AT A STEADY RATE OF  
APPROXIMATELY 1/4 INCH  
(A PINKY FINGERS-WIDTH)

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Properties in the City of St. Cloud are experiencing frozen service lines.

If you experienced a frozen service in the past, the City is recommending you **LET IT RUN**.

The City will update its website daily with locations of current frozen services.

[[www.ci.stcloud.mn.us](http://www.ci.stcloud.mn.us)]

Please report a frozen service to (320) 255-7225 or email at [publicutilities@ci.stcloud.mn.us](mailto:publicutilities@ci.stcloud.mn.us)

# Veteran's Bridge Watermain



## Accumulated Precipitation – Saint Cloud Area, MN (ThreadEx)

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Powered by ACIS

**July 4, 2019**

**3" in one hour  
5" total**







## **Managing Customer's Expectations**

we can't come clear your storm drain  
you may have to go around the block

## **Workforce Challenges**

working outside – heat and cold extremes  
dangerous conditions  
flooding, weather threats  
cross trained employees

Lessons Learned:

Keep the sanitary system moving.

**Warmer, Wetter, Weirder**



## **CREAT Risk Assessment Application for Water Utilities**



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**Lisa Vollbrecht, Assistant Public Utilities Director**