

- COLLECTIONS SYSTEM
- WASTEWATER  
TREATMENT FACILITY
- BIOSOLIDS FACILITY

# WATER RECLAMATION ANNUAL REPORT

# EXCELLENT STAFF

## DEDICATED SERVICE

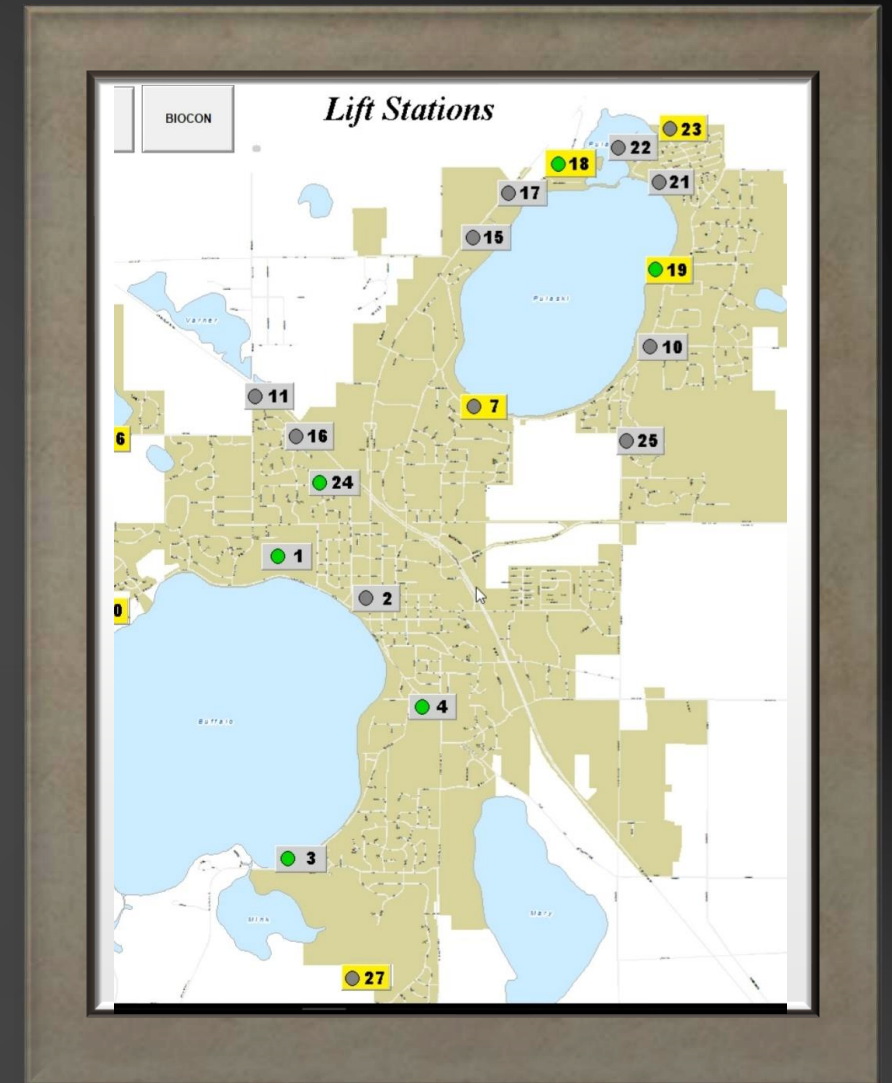
## ABUNDANT EXPERTISE

- 7 Staff members- 113 years experience.
- 6 Full-Time, 1 Part-Time
- All levels of required licensure and development plans for advancing
- Cross training for all operations
- Wide variety of skills involving both maintenance and operations.



# COLLECTIONS SYSTEM

- 28 Liftstations (excludes grinders)
- Sewer Gravity -79 Miles
- Sewer Force -18 Miles





## COLLECTIONS SYSTEM FOCAL POINTS

- I & I reduction-
- Lift Station- communications & panel replacement
- Annual Jetting- 2021-17.8 miles



# INFLOW AND INFILTRATION

- We have implemented guidelines to incorporate new manhole castings and I & I barriers during street improvement projects.
- Televising of clay tile lines has been completed. We have begun to strategize ways to minimize I & I. We can do this through slip lining, conventional spot repairs, grouting and lining of malfunctioning manholes.



## LIFT STATION PANELS AND UPGRADES

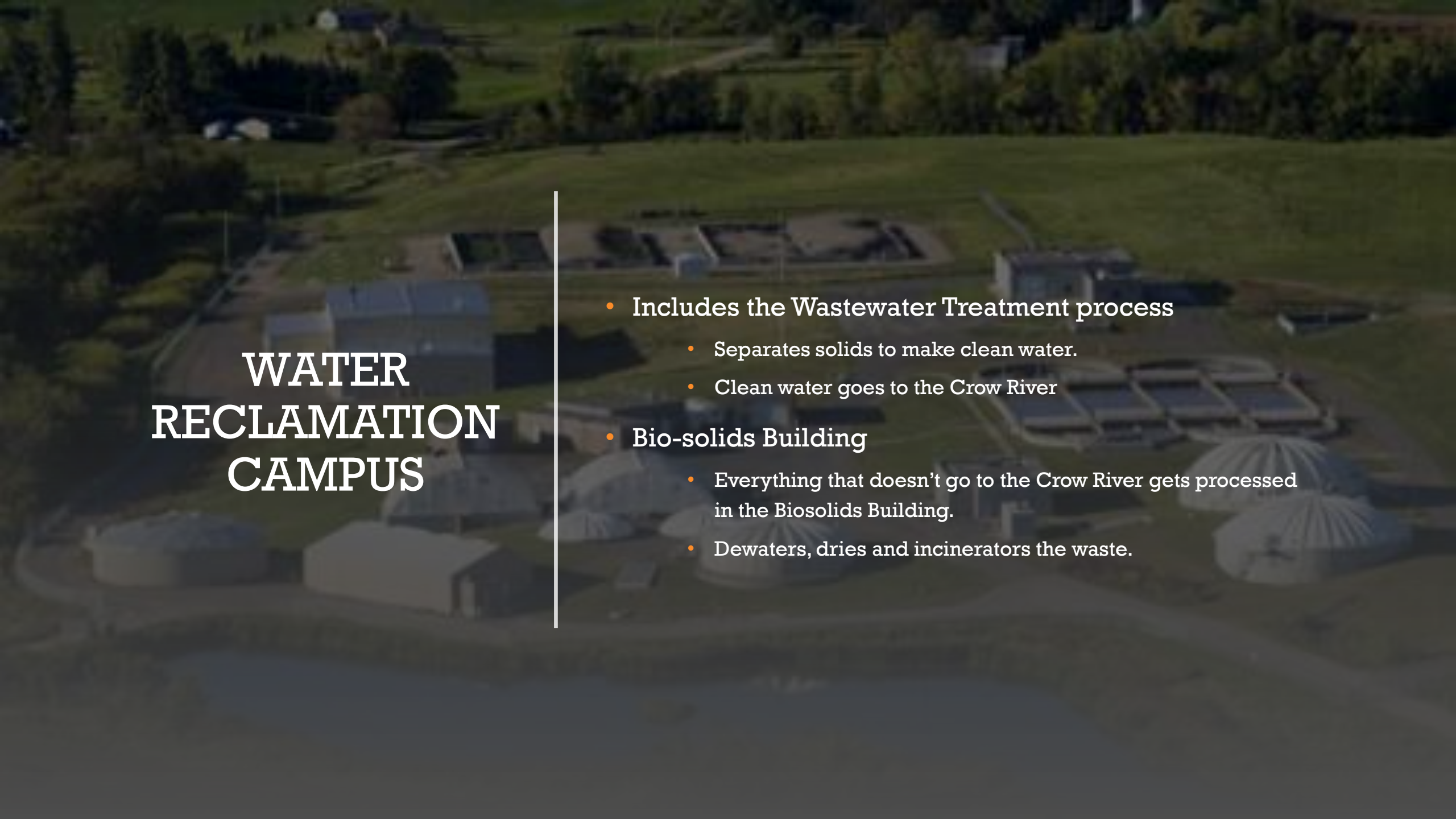
- 2 Panels a year-
- Allows for fiber or 4RF Radio communication for monitoring.
- Replacement of obsolete PLCs components
- Stainless Panels with VFD technology.
- Call us if you see a **RED LIGHT** blinking! (includes grinder stations around Lake Pulaski.
- Do not flush wipes!!!





# SEWER JETTING

- We Jet as much as possible per year (weather permitting).
- No reported sewer backups in 2021.
- New combo truck has improved efficiency and safety.
- Try to maintain a 3 year cycle for cleaning.
- This year we cleaned approximately 94,000 feet of sewer lines.



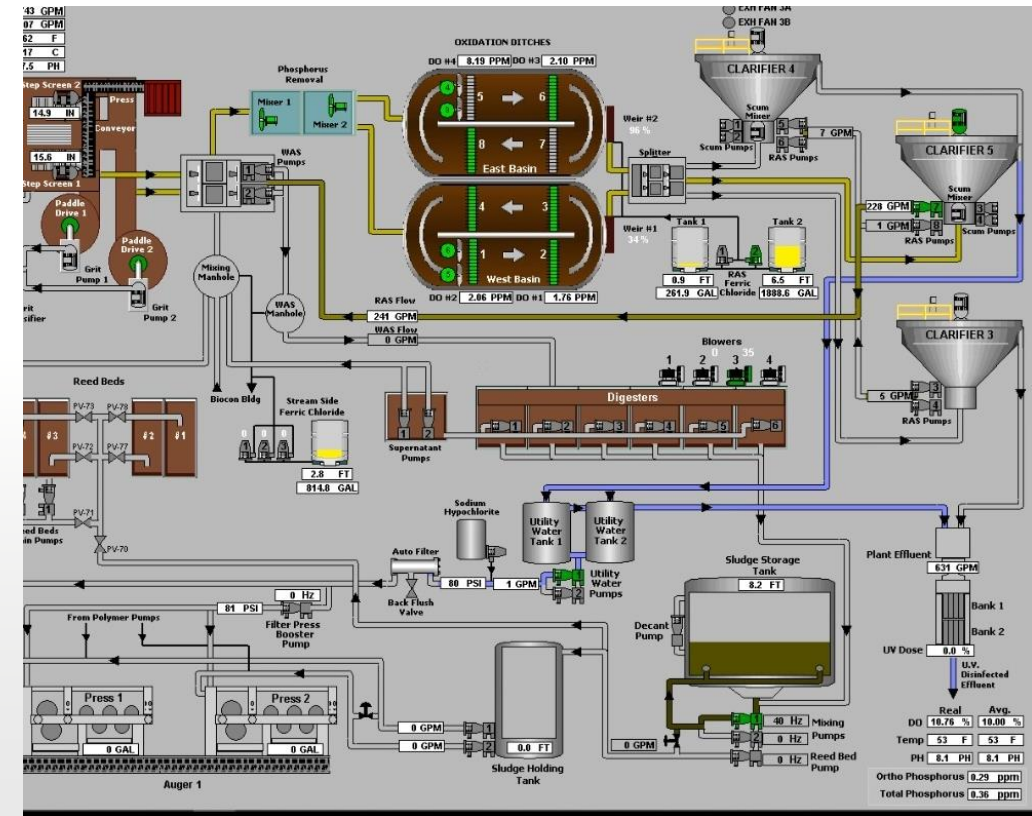
# WATER RECLAMATION CAMPUS

- Includes the Wastewater Treatment process
  - Separates solids to make clean water.
  - Clean water goes to the Crow River
- Bio-solids Building
  - Everything that doesn't go to the Crow River gets processed in the Biosolids Building.
  - Dewaterers, dries and incinerators the waste.

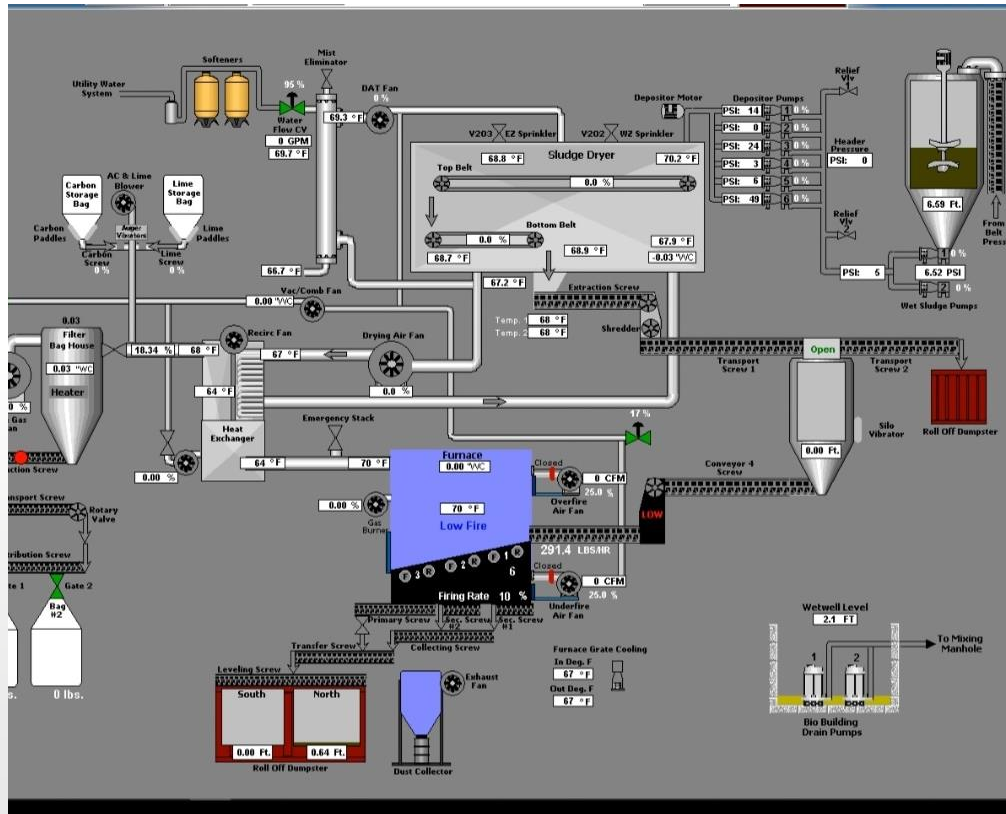


# WATER RECLAMATION PROCESS INFORMATION

- Preparations for Renewed Permit and Regulations.
  - More Sampling.
  - Tighter Regulations.
  - Compliance.
- Optimized Ferric Technology to reduce chemical use.
  - Increased chemical costs.
  - Healthier Treatment.
  - Less Solids for Incineration.
- Gearing up for Pre-Treatment Project for 2022
- Maintain Compliance with MPCA and use a Pro-Active approach to maintain optimization with current equipment.
- This year we will treat Approximately 386 Million gallons of water.



# BIO-SOLIDS PROCESSING



- We dewatered 4,203,055 gallons of liquid sludge
- Incinerated 323 Tons of dried bio-solids
- We continue to optimize our process for ease of operations, also to promote safety.
  - Some recent improvements to the process include: mixing station upgrades, dust collection and safety railings! All of which have provided optimization and promote safety!

# WRAP IT UP!

- The Wastewater Department Strives to Optimize its existing processes by taking a pro-active approach to maintain its existing Infrastructure.
- We want to extend a “Thank You!” to the residents of Buffalo and Council for supporting us when having to make some tough decisions on Infrastructure.
- .....Questions?

