



Quarterly Update Meeting

December 6, 2018

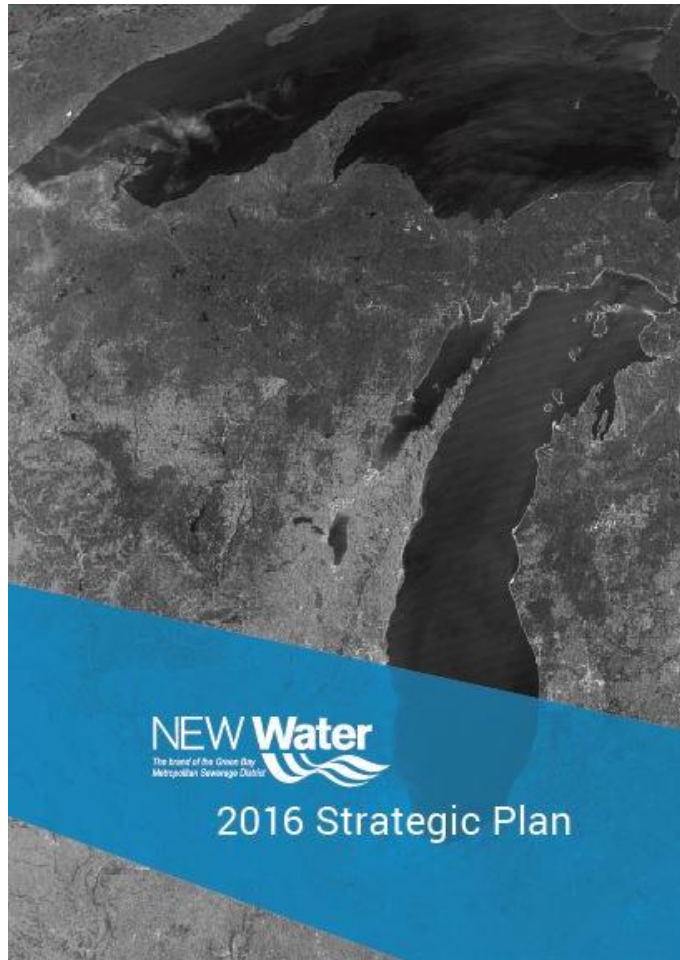
Today's Agenda

- Welcome & overview – Tom Sigmund, Executive Director
- Strategic Plan update – Tom Sigmund
- Budget update – Tom Sigmund
- Adaptive Management update – Bill Hafs / Jeff Smudde, Director of Environmental Programs
- R2E2 update & video – Nate Qualls, Director of Technical Services
- Inflow & Infiltration update – Nate Qualls
- Green Bay Packaging update – Nate Qualls
- De Pere Facility update – Pat Wescott, Director of Operations
- “Love Your Pipes” holiday message – Tricia Garrison, Public Affairs & Education



*Protecting our most
valuable resource,
water*

Strategic Plan Update



Link on NEW Water website:

[Strategic Plan 2016](#)

http://newwater.us/media/158553/NEWWaterStrategicPlan2016_LowRes.pdf

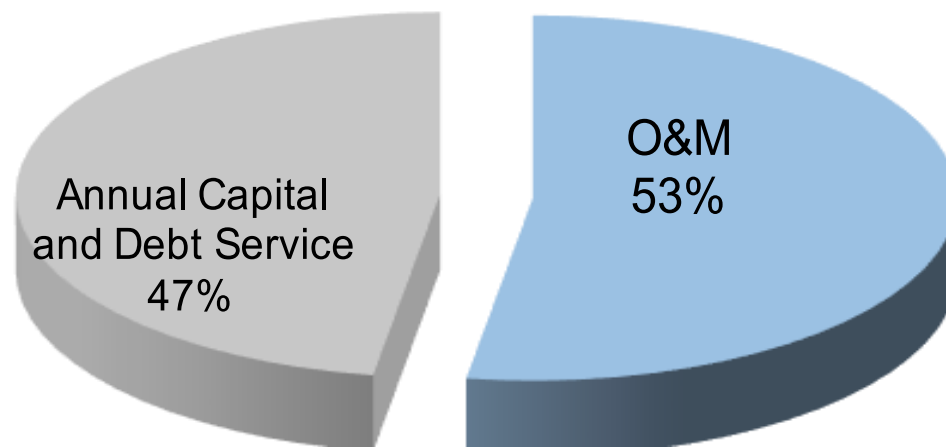
NEW Water 2019 Budget

December 5, 2018



2019 Proposed Expenses

Budget Category	2018 Budget	2019 Budget	% Change
Operations & Maintenance (O&M)	\$21,649,280	\$21,193,678	-2.1%
Debt Service and Annual Capital	\$18,264,439	\$19,164,177	+4.9%
Total Expenses	\$39,913,719	\$40,357,855	+1.1%



2019 O&M Expenses

Broad Categories	2018 Budget	2019 Budget
Salaries & Benefits	\$10,401,955	\$10,741,619
Power	\$1,923,964	\$1,537,400
Natural Gas & Fuel Oil	\$487,404	\$327,449
Chemicals	\$945,239	\$1,045,447
Maintenance – Plant	\$1,942,867	\$1,688,721
Interceptors	\$690,490	\$1,106,301
Contracted Services	* \$3,588,058	** \$2,966,020
Solid Waste Disposal	\$180,686	\$283,828
Insurance	\$250,375	\$274,830
Administrative	\$1,238,242	\$1,222,063
Total O&M Expenses	\$21,649,280	\$21,193,678

* \$388,609 of this cost to be offset by grants (2018)

** \$311,729 of this cost to be offset by grants (2019)

2019 Revenue

Broad Categories	2018 Budget	2019 Budget
Municipal User Fees	\$34,221,844	\$34,341,032
Mill User Fees	\$1,441,121	\$1,342,045
Mill Direct Charges	\$109,756	\$117,200
Mill Capital Charges	\$1,037,677	\$1,163,822
General Reserve Interest	\$2,175	\$14,019
Other Revenues	* \$767,024	** \$1,177,702
ICR and Debt Reserve Transfers	\$2,334,123	\$2,027,034
General Fund Transfers	\$0	\$175,000
Total Revenues	\$39,913,719	\$40,357,855

* \$388,609 of this cost to be offset by grants (2018)

** \$311,729 of this cost to be offset by grants (2019)

Municipal Rate Example Comparison

Parameter	2018	2019	% Change
Volume (1,000 gals)	\$0.86580	\$0.91399	5.6%
Biochemical Oxygen Demand (lbs)	\$0.60003	\$0.53245	-11.3%
Suspended Solids (lbs)	\$0.53842	\$0.52656	-2.2%
Phosphorus (lbs)	\$0.99086	\$1.01111	2.0%
Total Kjeldahl Nitrogen (lbs)	\$0.93280	\$0.97315	4.3%

Note: Rates shown above are for **comparison only** and **include allocation** of \$11,871,888 fixed charge for 2018 and \$12,456,715 fixed charge for 2019. Parameter rates billed to customers do not include fixed charge; that amount is billed separately.

An update was done to the Cost of Service Allocation for the 2019 budget that adjusted some cost allocations.

2019 Budget Summary

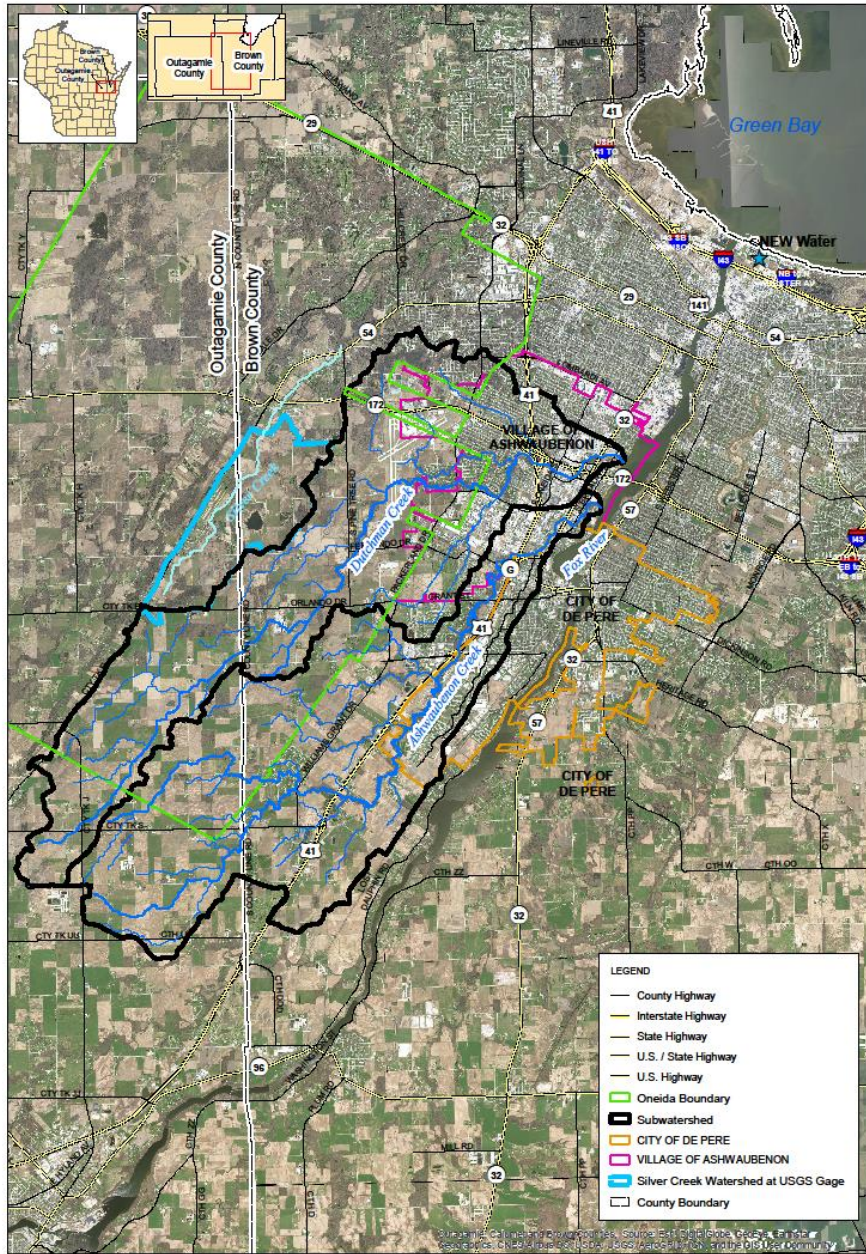
- Recommend a 1.1% increase in budgeted total expenses
- O&M expenses decreased by 2.1% over 2018 budget
- 4.9% increase in capital cost over 2018 budget
- Offset most interceptor debt service using ICR reserve

Next Steps

- Customer notification



Adaptive Management Update



Map of new watershed, Ashwaubenon Dutchman Creek

- LEGEND
- County Highway
 - Interstate Highway
 - State Highway
 - U.S. / State Highway
 - U.S. Highway
 - Oneida Boundary
 - ▭ Subwatershed
 - ▭ CITY OF DE PERE
 - ▭ VILLAGE OF ASHWAUBENON
 - ▭ Silver Creek Watershed at USGS Gage
 - ▭ County Boundary

Adaptive Management Update

Bill Hafs is retiring!

New Environmental Programs Director:

Jeff Smudde

jsmudde@newwater.us

R2E2 Update

- Anaerobic Digestion
 - Both digesters seeded and fully operational
 - All primary and secondary sludge fed to digesters
 - Producing approximately 450 scfm of biogas
 - Future: Addition of High Strength Wastes in early to mid-2019
- Co-generation
 - Consistently running (1) biogas engine
 - Producing approx. 1,600 kW of electrical energy



R2E2 Update

- Thickening, Dewatering and Drying
 - Fully operational
 - Challenges: Conveyance of sludge and rags/wipes
- Incineration
 - Fully operational
 - Compliance testing completed; awaiting results
 - Challenges: Additional fuel needed at this time
- Nutrient Recovery
 - Start-up commencing over next couple of weeks



R2E2 Video



Link to R2E2 video on NEW Water website:

[R2E2: A New Era in Resource Recovery Video](http://newwater.us/projects/r2e2-project/)

<http://newwater.us/projects/r2e2-project/>

Inflow & Infiltration (I&I)

- What is I&I?
 - I&I is also known as **clear water**, getting into both NEW Water's collection system, as well as the collection systems of all our municipal customers, and being delivered to our treatment facilities
 - During heavy rain or storm events, the ground becomes saturated, which can result in excessive clear water coming to NEW Water facilities for treatment (as much as 2 – 4 times the norm recently), stressing the capacity of our treatment processes
 - Clear water is attributable to leaky pipes out in the collections system; nationally, it is estimated that as much of 80% of I&I comes from private properties/residences
 - I&I reduction is an important issue requiring partnership
 - *For more on this issue, check out the [Clean Water Institute report](#)*

Inflow & Infiltration Update

- Next Steps:
 - Meet with Customers regarding I&I Analysis for their areas
 - Recommend formation of a stakeholder advisory group

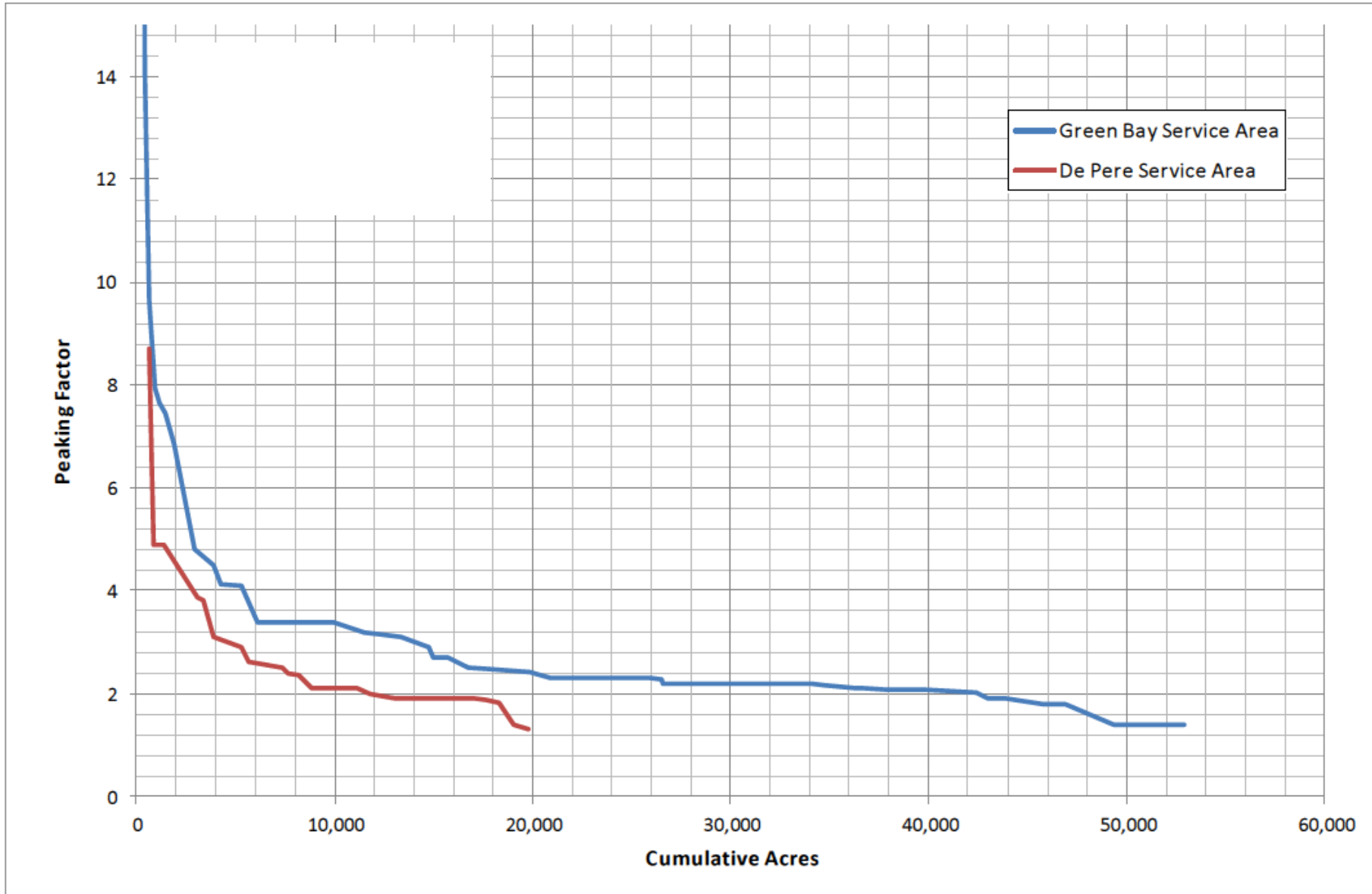


Figure 6-13: Cumulative Distribution of Peaking Factor

Green Bay Packaging Update

- Reclaimed Water System design is underway
 - Green Bay Packaging to continue evaluation of feasibility
- Brown County regional storm water pond and piping design is underway
- Drafting of agreements is underway
- Anticipated timeline:
 - Mill interceptor tie-in – Fall 2019
 - Consistent discharge to NEW Water – Early to mid-2020
 - New mill operational – early 2021

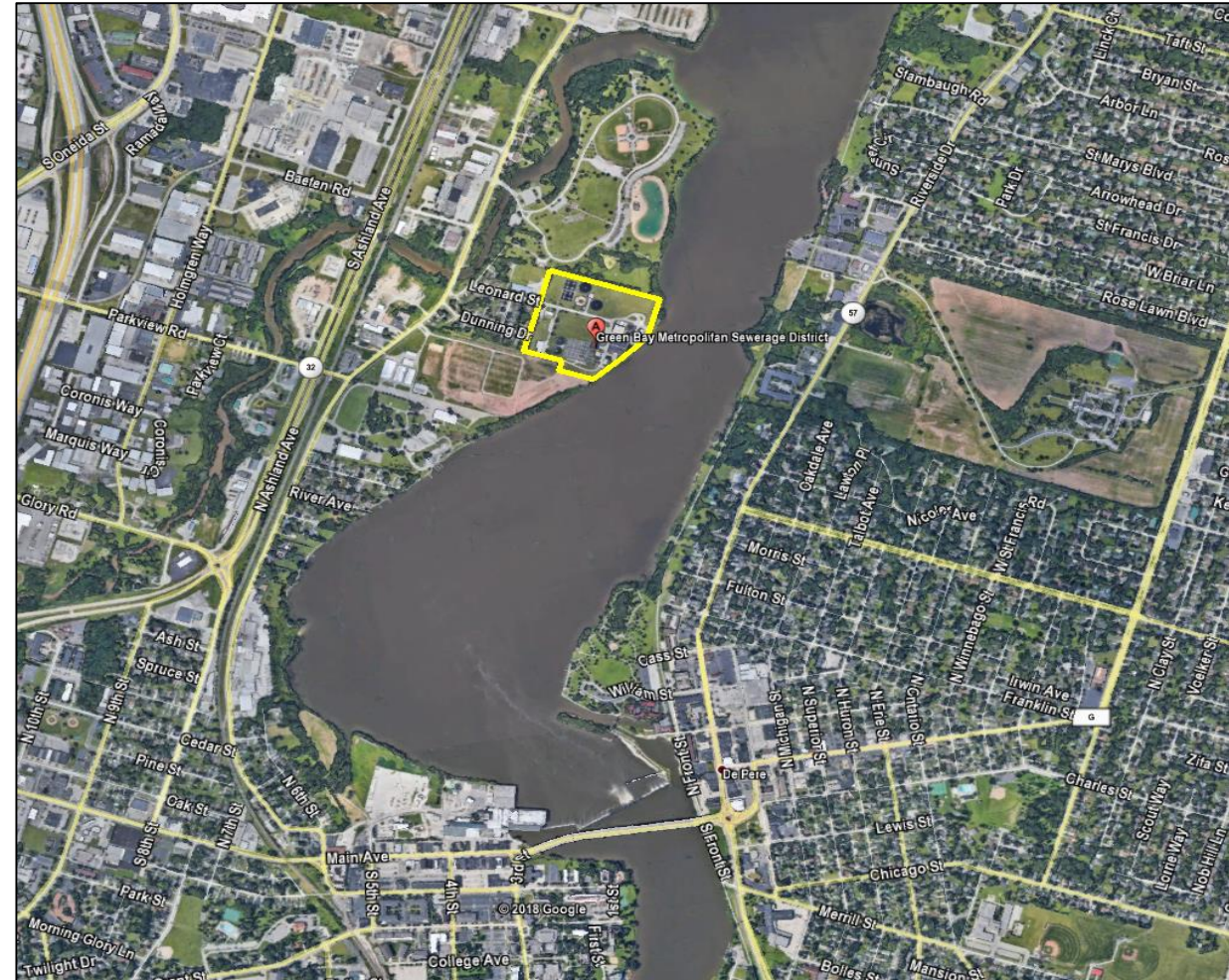
De Pere Facility Update

- NEW Water acquired the operation and maintenance of the facility in 2007.
- The facility serves the following communities:
 - City of De Pere
 - Village of Ashwaubenon
 - Town of Ledgeview Sanitary District #2
 - Town of Lawrence Utility District
- Advanced tertiary treatment facility with preliminary treatment, secondary treatment, tertiary filtration, and disinfection.
- 2018 YTD average daily flow = 8.51 mgd or 5,900 gallons per minute.
- Solids from the treatment process is pumped to the Green Bay Facility for processing.



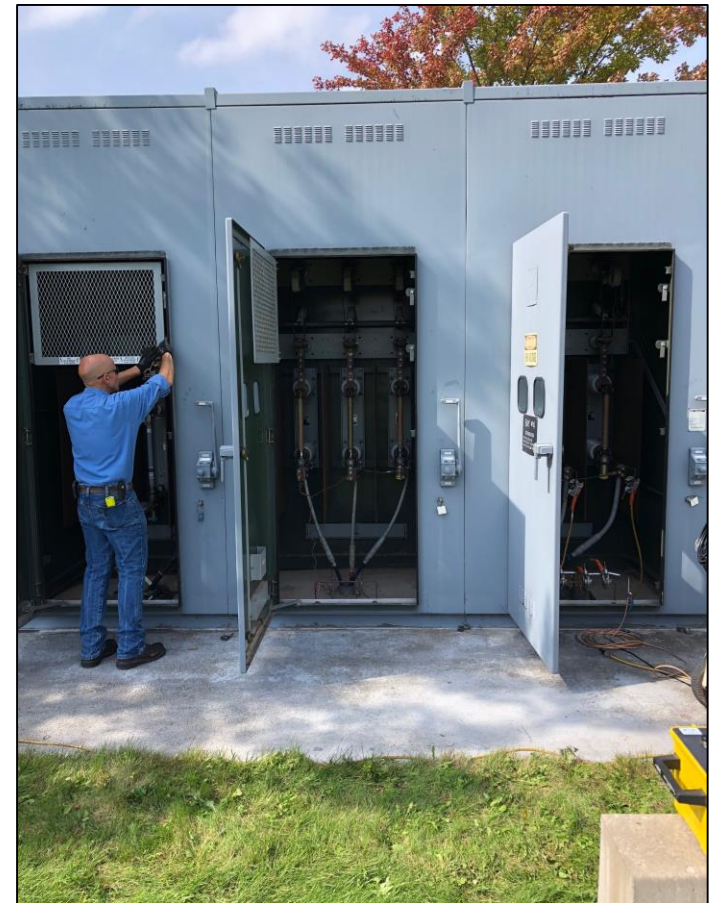
De Pere Facility Update

- The facility is located at 315 Leonard St. in De Pere. Situated between the Brown County Fairgrounds and Ashwaubomay Park.
- Treatment, Maintenance and Field Service staff is on site daily to perform rounds, equipment preventive maintenance, and sample collection.
- Facility is remotely operated from the control room at the Green Bay Facility.



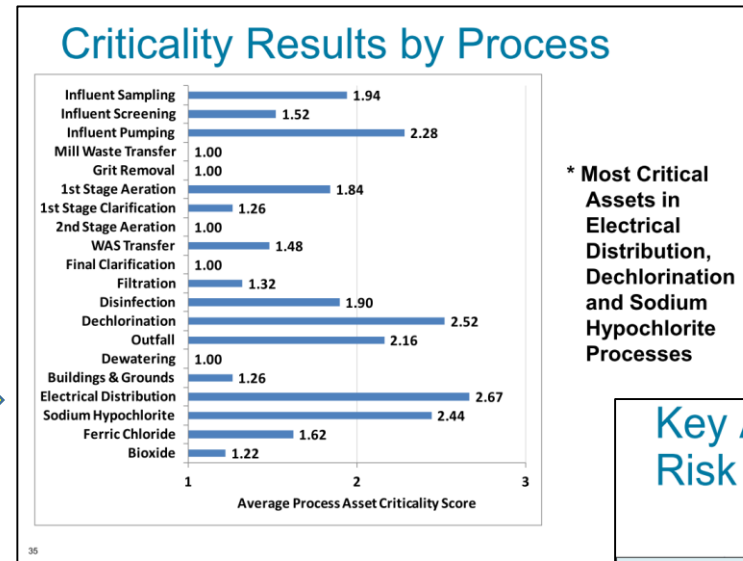
De Pere Facility Update

- Electrical power availability and reliability is a major concern for the operation of critical infrastructure.
- Electrical service to the plant is provided by two 24,900 volt WPS feeds.
- Large portions of the electrical distribution system at the facility are over 40 years old.
- Medium voltage switchgear and cable testing is conducted on a scheduled rotation.



De Pere Facility Update

- 2011 – 2012 condition and criticality work was completed at the De Pere Facility.
 - Asset condition
 - Criticality and redundancy were reviewed
 - Asset useful life was evaluated
 - Overall system scores were determined
- The De Pere Facility Primary Power and Emergency Generator project was introduced to the Capital Improvement Plan.



Key Assets Beyond EUL With High Risk Scores

Asset ID	Process	Group	Description	Risk Score
DP-PMS-Y001	Electrical Distribution	Electrical	PAD MOUNTED SWITCH SERVICE ENTRANCE SWITCHGEAR	12.00
DP-PMT-A001	Electrical Distribution	Electrical	PAD MOUNTED TRANSFORMER, SOUTH OF ADMIN BLD	12.00
DP-SWGR-Y001	Electrical Distribution	Electrical	ELECTRICAL SERVICE ENTRANCE SWITCH GEAR	10.40
DP-SDS-C002	Electrical Distribution	Electrical	SECONDARY DISTRIBUTION SYSTEM	7.20
DP-PMT-E002	Electrical Distribution	Electrical	PAD MOUNTED TRANSFORMER	7.00
DP-PMT-P007A	Influent Pumping	Electrical	PAD MOUNTED TRANSFORMER	5.32
DP-PMT-P007B	Influent Pumping	Electrical	PAD MOUNTED TRANSFORMER	5.32

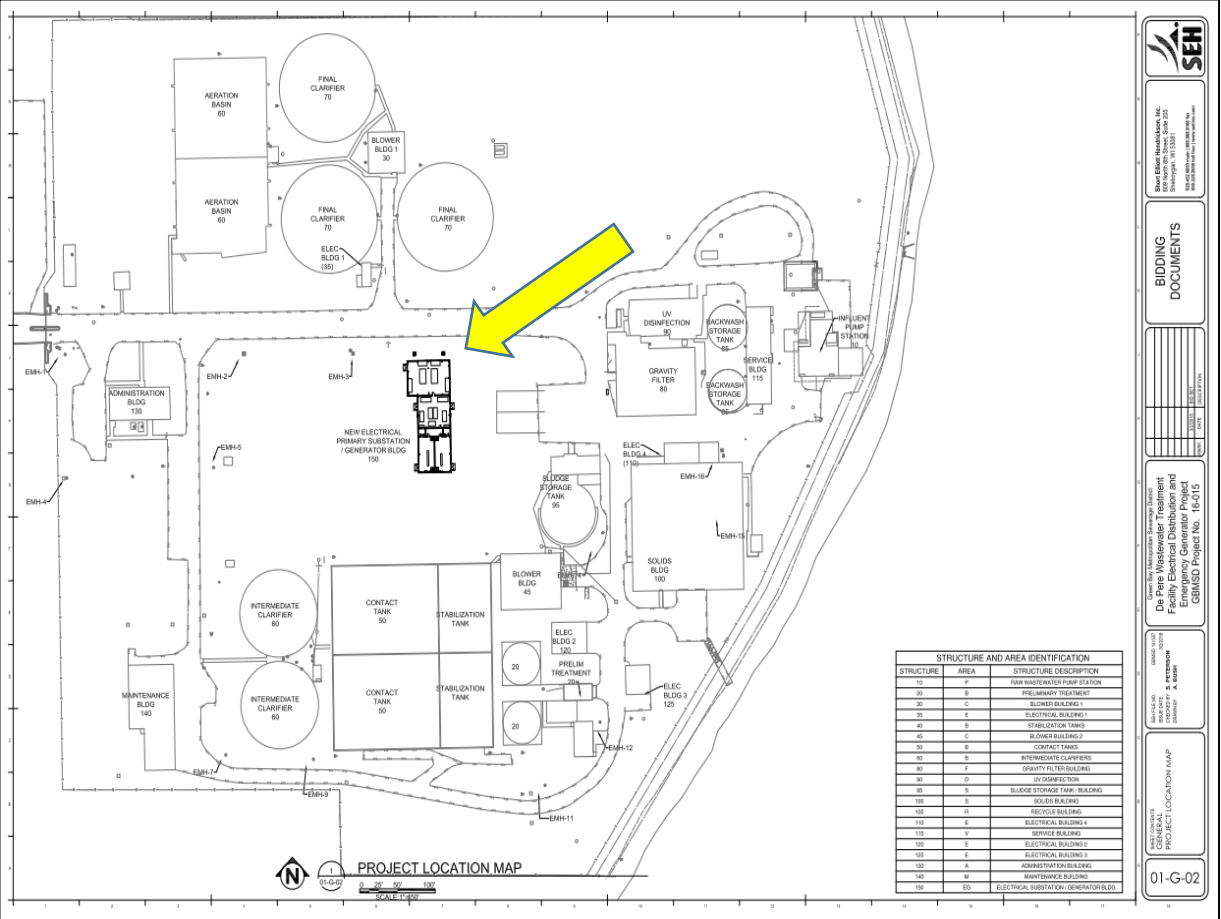
De Pere Facility Update

- Recent power related issues at De Pere
 - 09/05/18 – complete loss of both incoming power feeds to the facility for approximately 2.5 hours
 - 09/20/18 – complete loss of power for approximately 1.25 hours
 - 09/21/18 – partial loss of power for approximately 0.30 hours
 - 10/10/18 – complete loss of power for approximately 1.0 hour
- NEW Water has an agreement with a local generator provider to support NEW Water with an emergency generator in the event of a system wide outage.



De Pere Facility Update

- In October of 2018, the NEW Water Commission approved awarding the De Pere Facility Electrical Distribution and Emergency Generator Project for \$13,624,000.
 - Project includes construction of a new Primary Substation and Generator Building
 - Installation of new 24,900 volt switchgear
 - Two new 750 kw natural gas emergency generators
 - Replacement of various electrical distribution equipment



December 20, 2018
 December 20, 2019
 March 19, 2020

Notice to Proceed
 Substantial Completion
 Final Completion

SEH
 BIDDING DOCUMENTS
 PROJECT LOCATION MAP
 01-G-02

“Love Your Pipes” Holiday Message



Public Service Announcement!

- *New graphic – we invite you to share on social media & websites to help keep your pipes flowing, and help residents prevent homeowner backups*
- *Link to helpful information on the “Love Your Pipes” page:*
www.newwater.us/loveyourpipes

Thank you for coming!

Stay tuned to NEW Water news

