



NEW Water Update Meeting

September 15, 2017



Today's Agenda

- 2018 Budget – Tom Sigmund
- R2E2 – Nate Qualls
- Interceptor System Master Plan – Lisa Sarau




NEW Water 2018 Budget

*Protecting our most
valuable resource,
water*



NEW Water Opportunities and Challenges

- 
- R2E2 start-up and stable operation
 - Compliance with Wisconsin Pollution Discharge Elimination System (WPDES) permit
 - Support improvement of area waters
 - Resource recovery
 - Reduce natural resource consumption
 - Equitable rates for customers



2018 Priorities

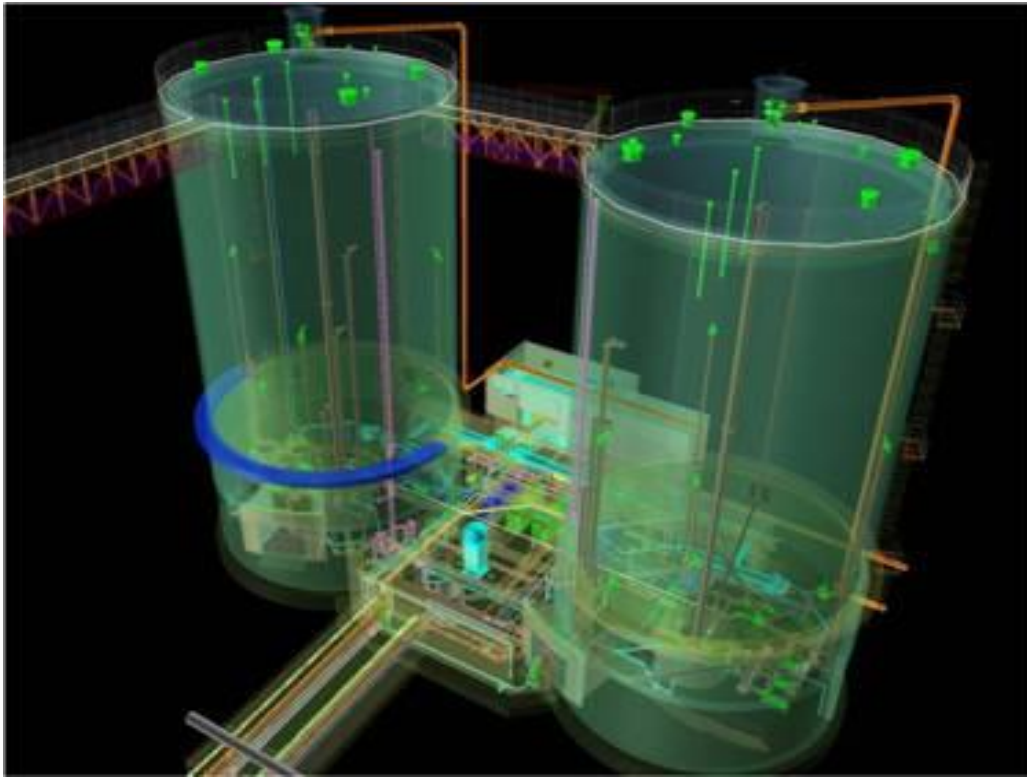
- Formalize and implement an organization-wide safety strategy
- Further develop and integrate NEW Water culture
- Startup and stable operation of R2E2 project
- Develop long-term WPDES compliance strategy
- Complete condition and criticality assessment of all NEW Water assets
- Address interceptor capacity and condition issues
- Expand research into resource recovery opportunities

NEW Water 2018 Budget Drivers

- Complete Adaptive Management pilot and begin full-scale
- Abandon interceptor segment
- Complete condition & criticality assessments
- Increase fixed charge to 65% of capital budget



R2E2 Rate Stabilization Reserve

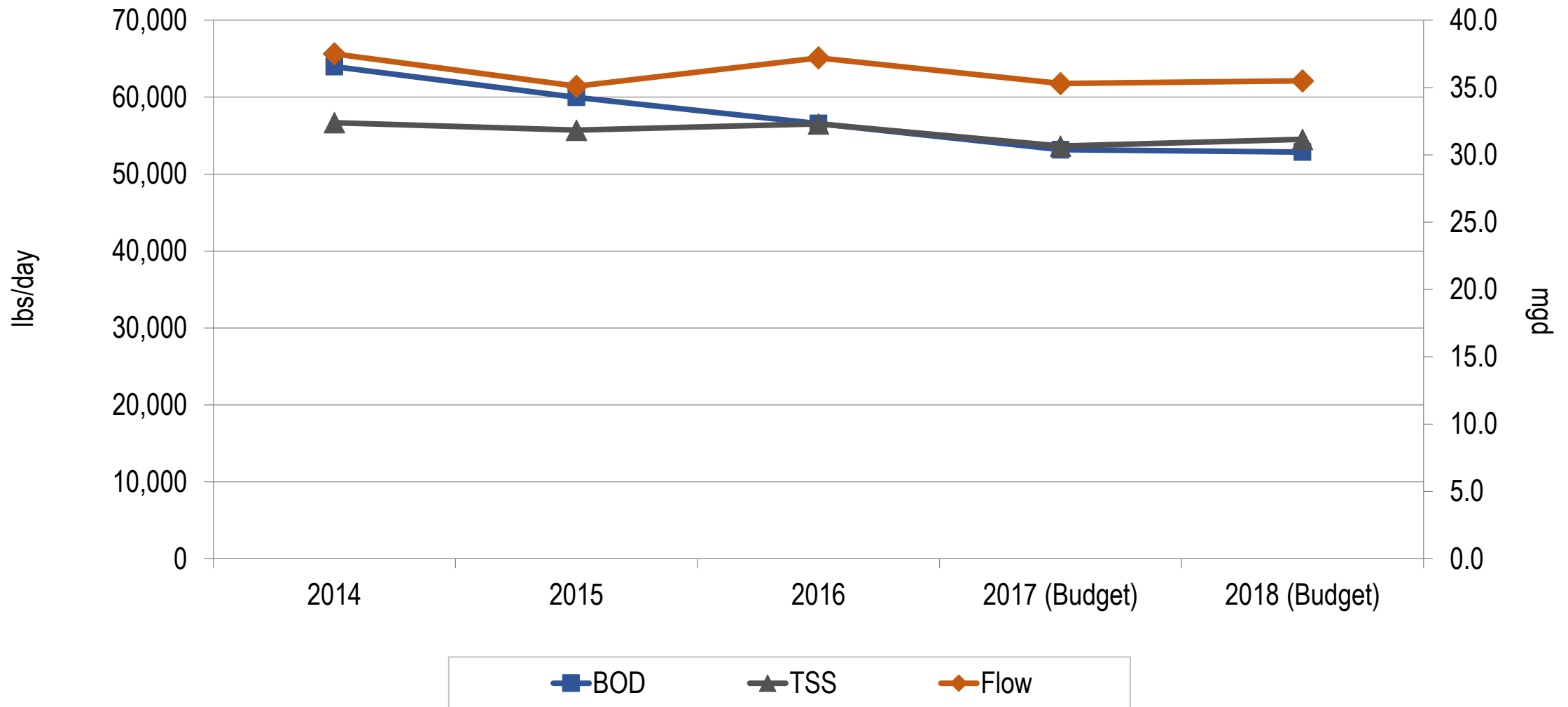


- \$11,016,446 in reserve as of 7/2017
- Reserve used on R2E2 project construction beginning in 2017



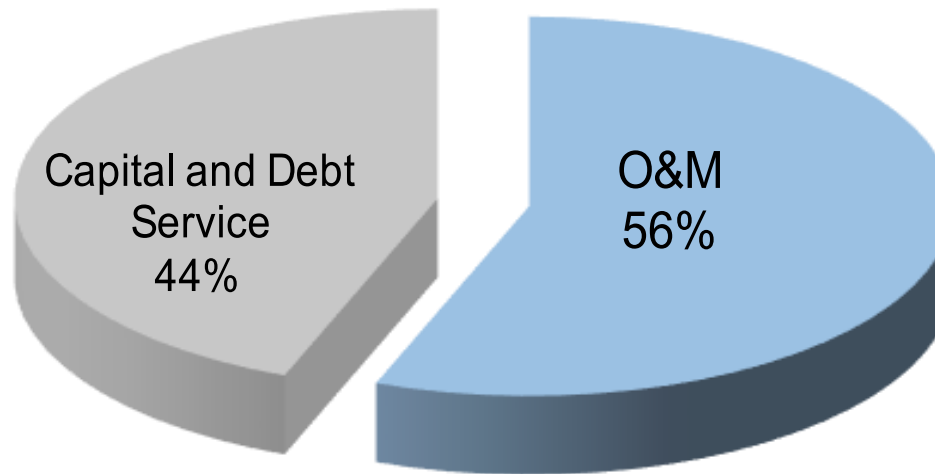
Proposed 2018 Budget

Flows and Loads

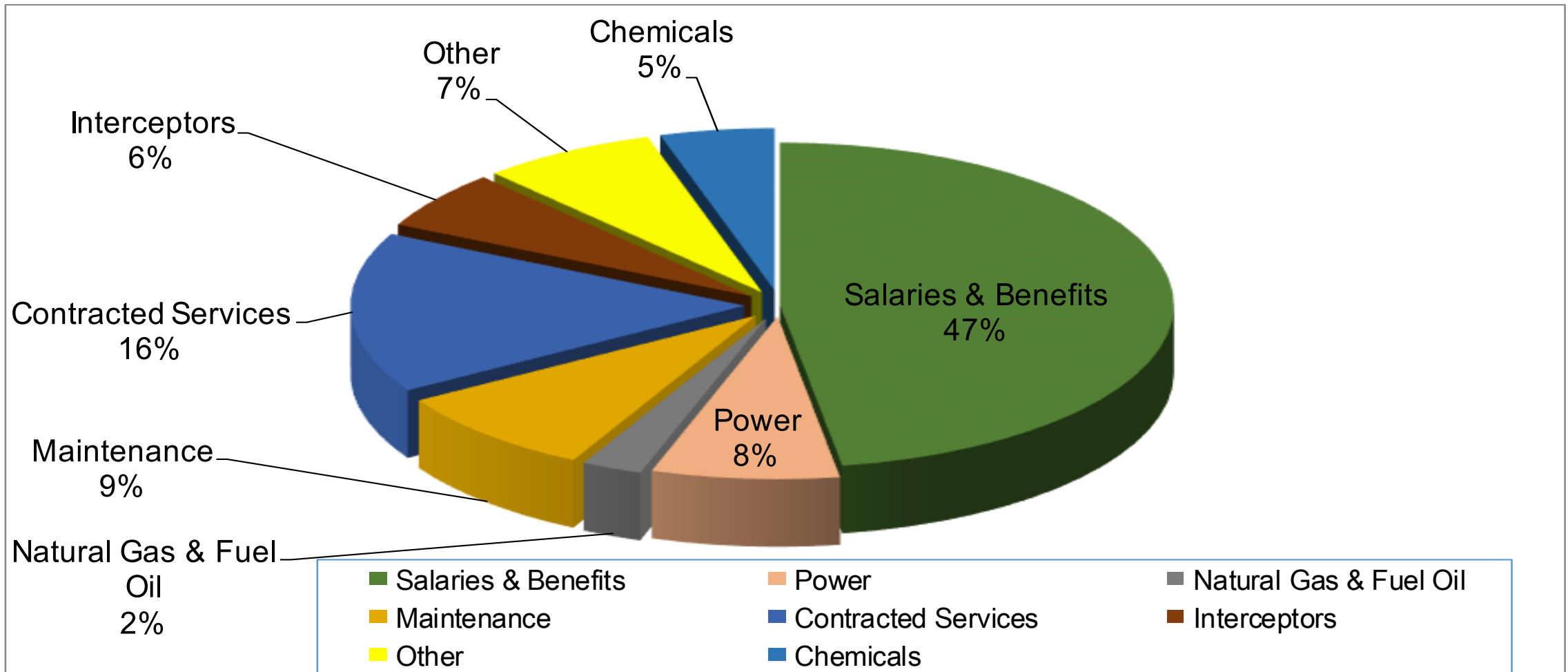


2018 Proposed Expenses

Budget Category	2017 Budget	2018 Budget
Operations & Maintenance (O&M)	\$20,688,547	\$22,231,585
Debt Service and Annual Capital	\$18,419,054	\$17,549,439
Total Expenses	\$39,107,601	\$39,781,024



2017 O&M Expense Distribution





2018 Major Capital Projects

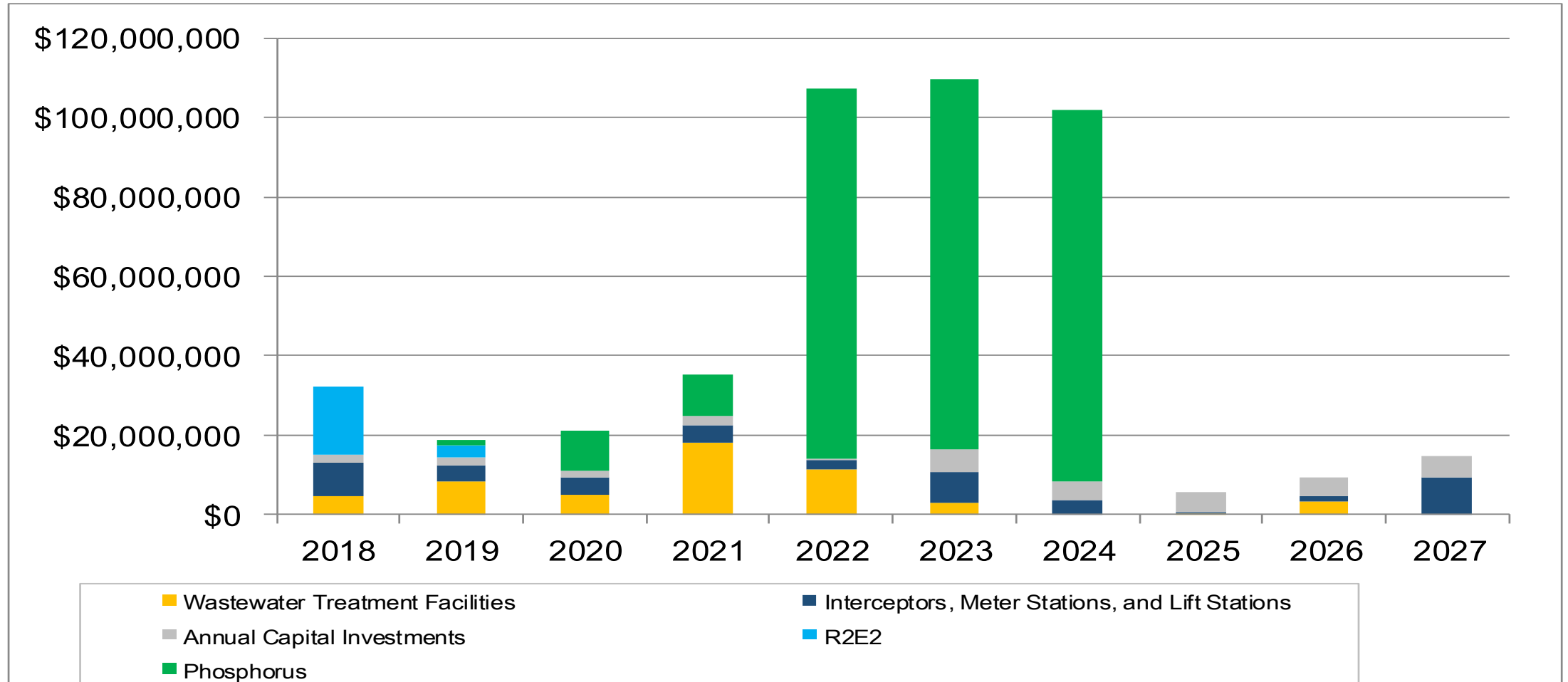
- R2E2 Contract 34 - \$17M
- GBF & DPF Clarifier Rehabilitation - \$12.2M
- DPF Primary Substation & Emergency Generator - \$5.2M
- DPF Service Water Replacement - \$2.4M
- Dutchman Creek Interceptor Rehab & Replacement - \$2.6M (ICR Reserve)
- Bayview Interceptor Replacement - \$4.1M (ICR Reserve)
- Charles Street Interceptor Replacement - \$1.7M (ICR Reserve)
- East River Interceptor Rehabilitation – \$3.8M



2018 Annual Capital

- Demolish solids building at DPF
- Upgrade final two DPF process air blowers
- GBF campus paging system
- Financial and HR software replacement
- Lift station alarm notification system
- Replace two DPF building roofs

Proposed Long-Term Capital Projects

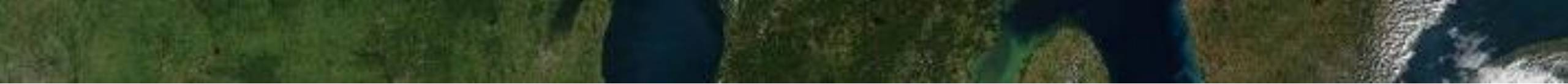


**** Please note: all costs are in 2017 dollars.***



Capital Projects for 2019-2022

- R2E2 Contract 35 demo and site work - \$3M
- GBF influent pumping improvements - \$8M
- GBF aeration blower improvements - \$7M
- GBF thickening replacement - \$6M
- GBF & DPF headworks improvements - \$9M
- Phosphorus removal at GBF & DPF - \$114M



Capital Projects for 2019-2022 (cont.)

- Ninth St. interceptor rehab - \$3M
- East Fox River interceptor rehab - \$3M
- Fox River Crossing interceptor rehab - \$2M
- Annual Capital - \$2M average per year
- Total expected capital projects over four years - \$184M
(with phosphorus), \$70M (without phosphorus)



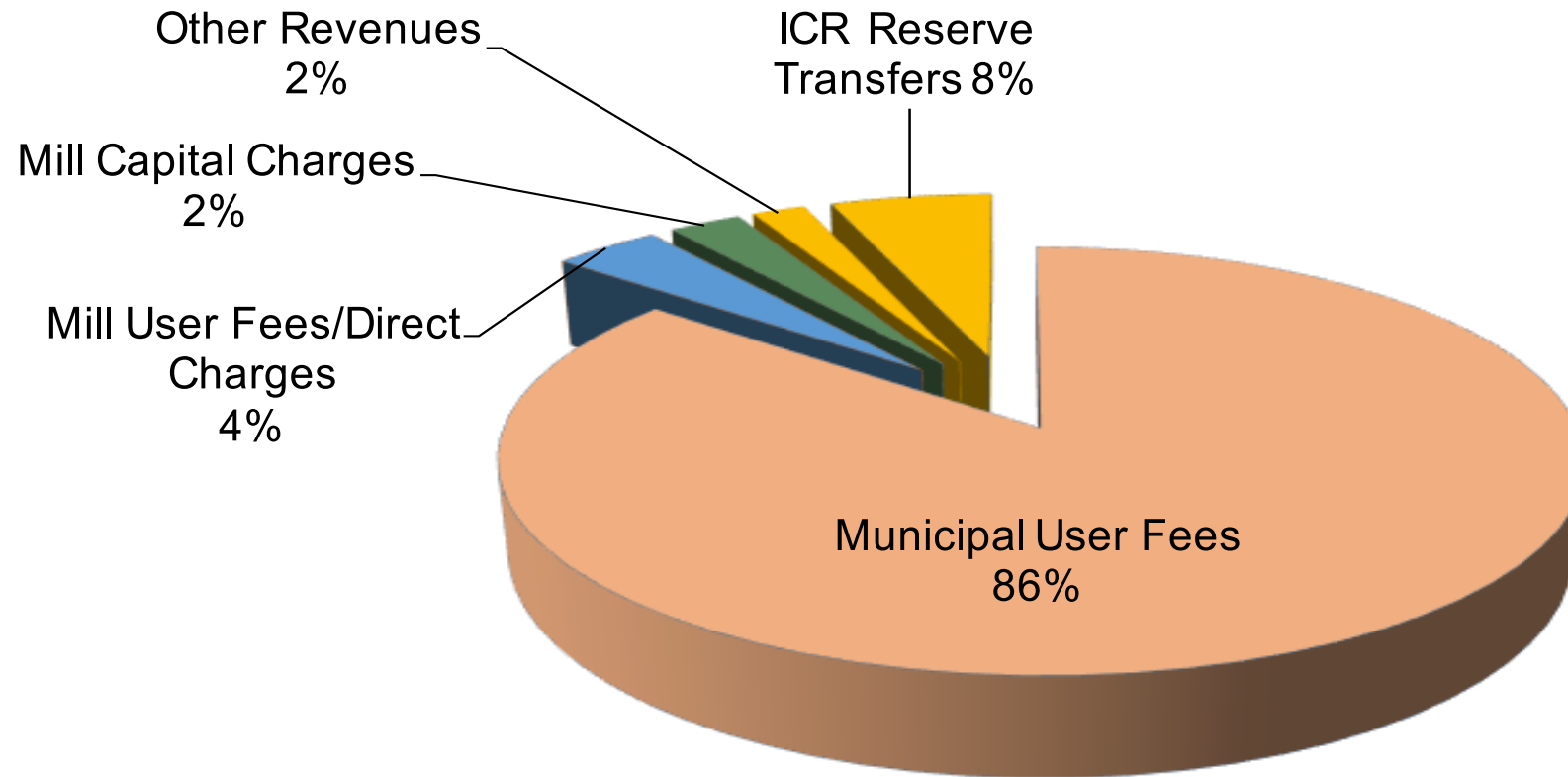
Impact of Changing Fixed Charge from 45% to 65% of Capital Budget

- Most significant increase to a customer of 6.6% (\$21,000)
- Most significant decrease to a customer of 2.5% (\$112,000)
- Changes to other customers are less than 1%
- Fixed charge accounts for \$11,407,136 in 2018 Budget

2018 Municipal Rate

Parameter	2017 Rate	2018 Rate	% Change
Total Combined Rate (1,000 gals)	\$3.19780	\$3.05279	-4.5%
Volume (1,000 gals)	\$0.72126	\$0.74475	3.2%
Biochemical Oxygen Demand (lbs)	\$0.41913	\$0.34628	-17.4%
Suspended Solids (lbs)	\$0.36651	\$0.28116	-21.4%
Phosphorus (lbs)	\$0.58901	\$0.75652	28.4%
Total Kjeldahl Nitrogen (lbs)	\$0.76448	\$0.68979	-9.8%
Fixed Charge	\$0.78834	\$0.89812	13.9%

2018 Revenue Sources



■ Municipal User Fees

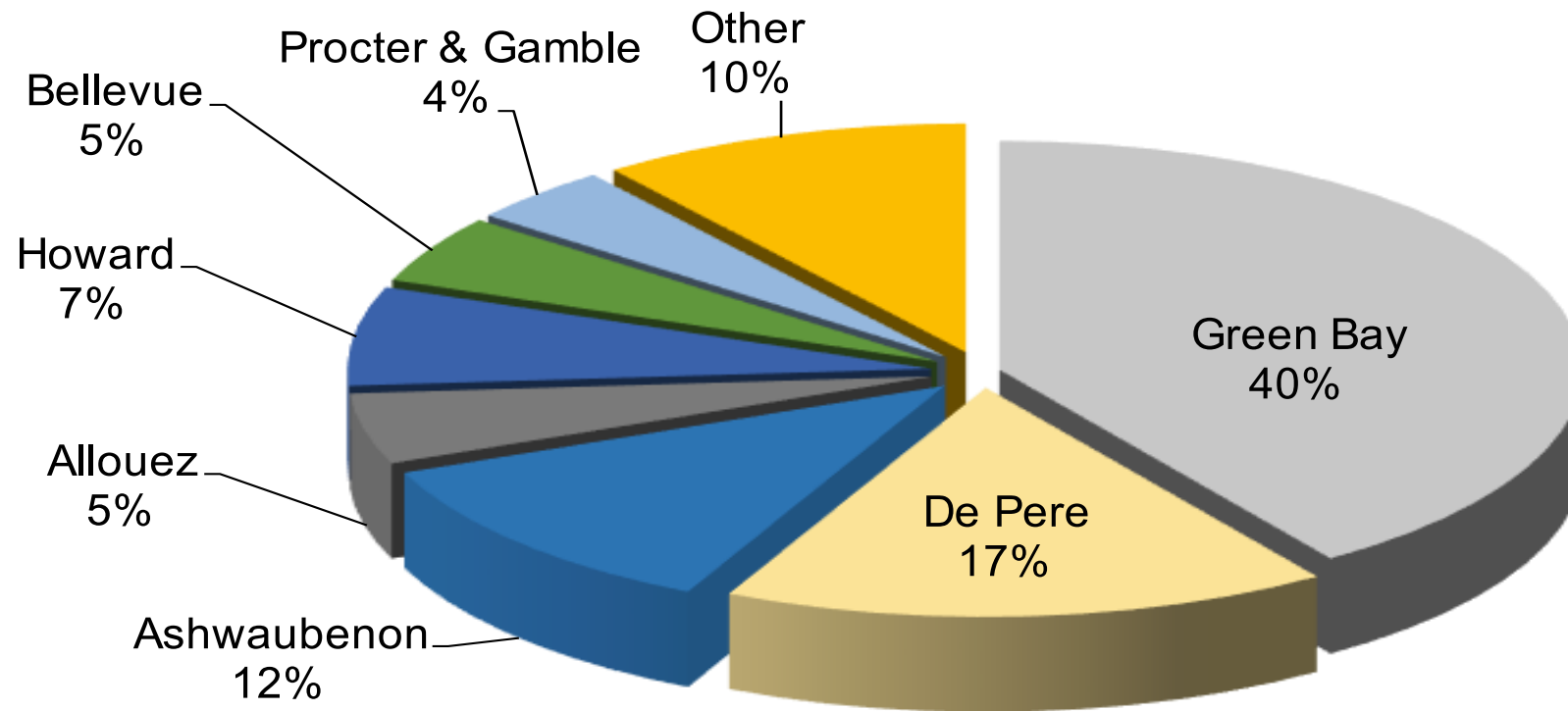
■ Mill User Fees/Direct Charges

■ Mill Capital Charges

■ Other Revenues

■ ICR Reserve Transfers

2018 Revenue Breakdown by Customer



Other includes: Villages of Hobart, Luxemburg, Pulaski, and Suamico; Towns of Lawrence, Ledgeview, and Scott; and Sanitary Districts Dyckesville, New Franken, and Pittsfield



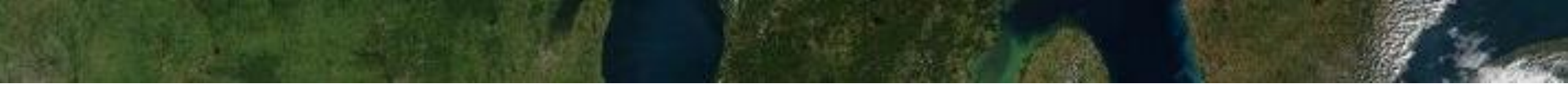
2018 Budget Summary

- Recommend a 1.7% increase in budgeted total expenses
- O&M expenses increased by 7.5% over 2017 budget
- WPS 0% electricity rate increase
- 4.7% reduction in capital cost over 2017 budget
- Recommend increasing fixed charge from 45% to 65% of capital budget
- Offset most interceptor debt service using ICR reserve

Next Steps

- One-on-one meetings for customers not able to attend the all customer meeting
- Second budget workshop (*September 27*)
- Customer meeting(s)
- Budget hearing and adoption (*December 6*)
- Customer notification





R2E2 Update



R2E2 Contract 34 Update

- Project to construct Anaerobic Digestion & Solids Facility
- Work completed
 - Significant electrical and mechanical work completed
 - Digester walls post-tensioning
 - Digester cover construction
 - Ash decant basin construction
- Work underway
 - Continued mechanical and electrical installation
 - Digester wall insulation and final coating
 - Biogas treatment equipment installation
 - Final aeration basin modifications
 - Testing and training of subsystems





Contract 34 Proposed Timeline

- 2017
 - Digester wall finished, covers placed, mechanical & electrical installation
 - Continue solids facility process mechanical & electrical installation
 - Continue construction of fluid bed reactor and air pollution control equipment
 - Ash dewatering cells construction
 - Biogas storage & treatment mechanical installation
 - Solids facility testing/training/startup
- 2018
 - Digestion & biogas facilities testing/training/startup
 - Nutrient extraction system testing/training/startup
 - August 2018 – Final Completion



Contract 34 Important Issues

- American Iron and Steel Requirements
 - contractor finalizing documentation
- Nutrient Recovery
 - proposed process changes and associated costs
- Granular Activated Carbon Absorber
 - process hazard analysis and safety improvements
- Construction Schedule
 - behind schedule and under review



R2E2 Contract 34 Update

- Net change order amount = approximately \$2,400
- Completed approximately \$112M of the \$131M construction contract through August '17
- Expensed approximately \$7.3M of the \$12.2M engineering services through July '17
- Utilized \$3.6M of \$11M cash reserves

Digester Wall Insulation

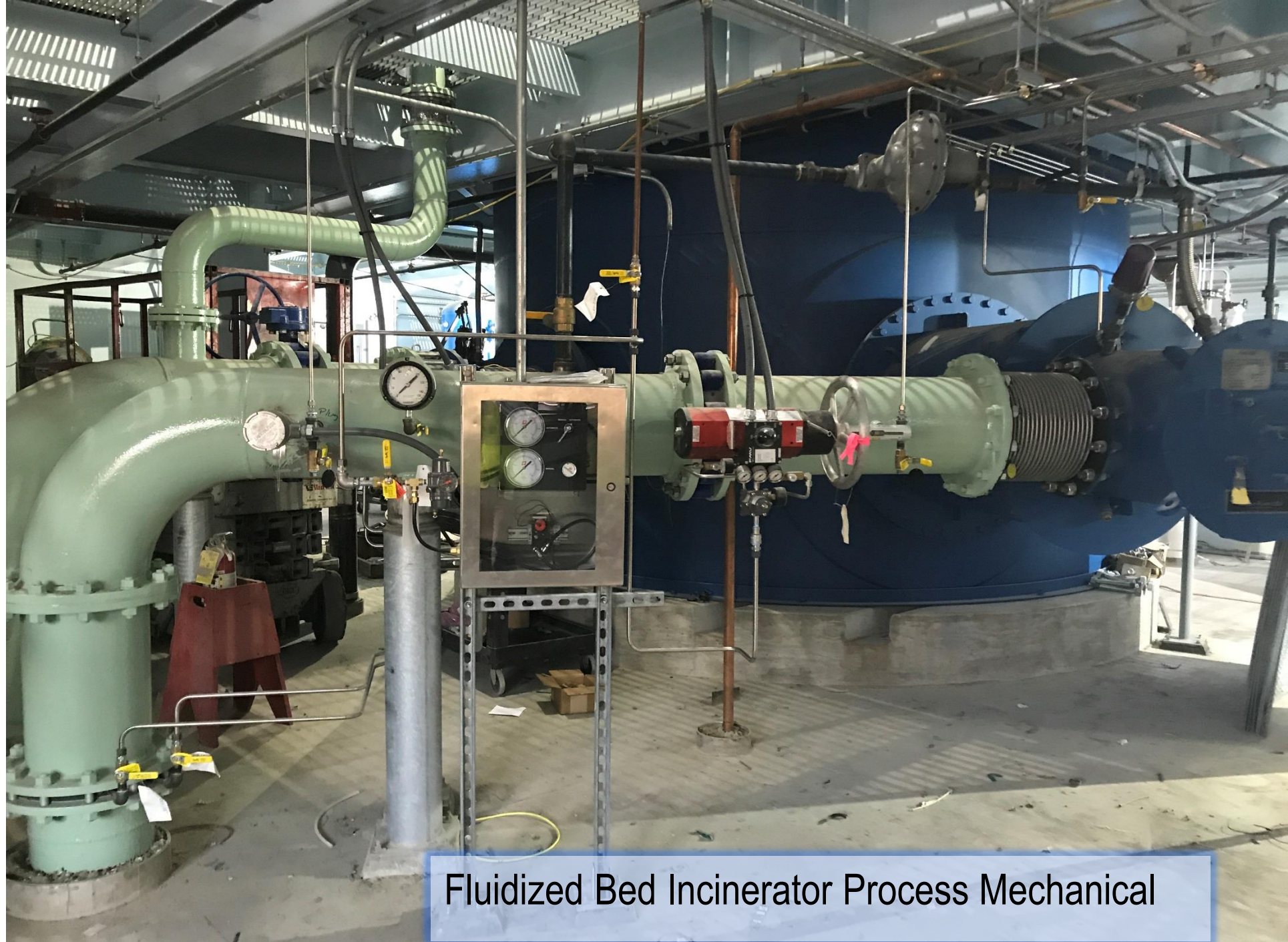




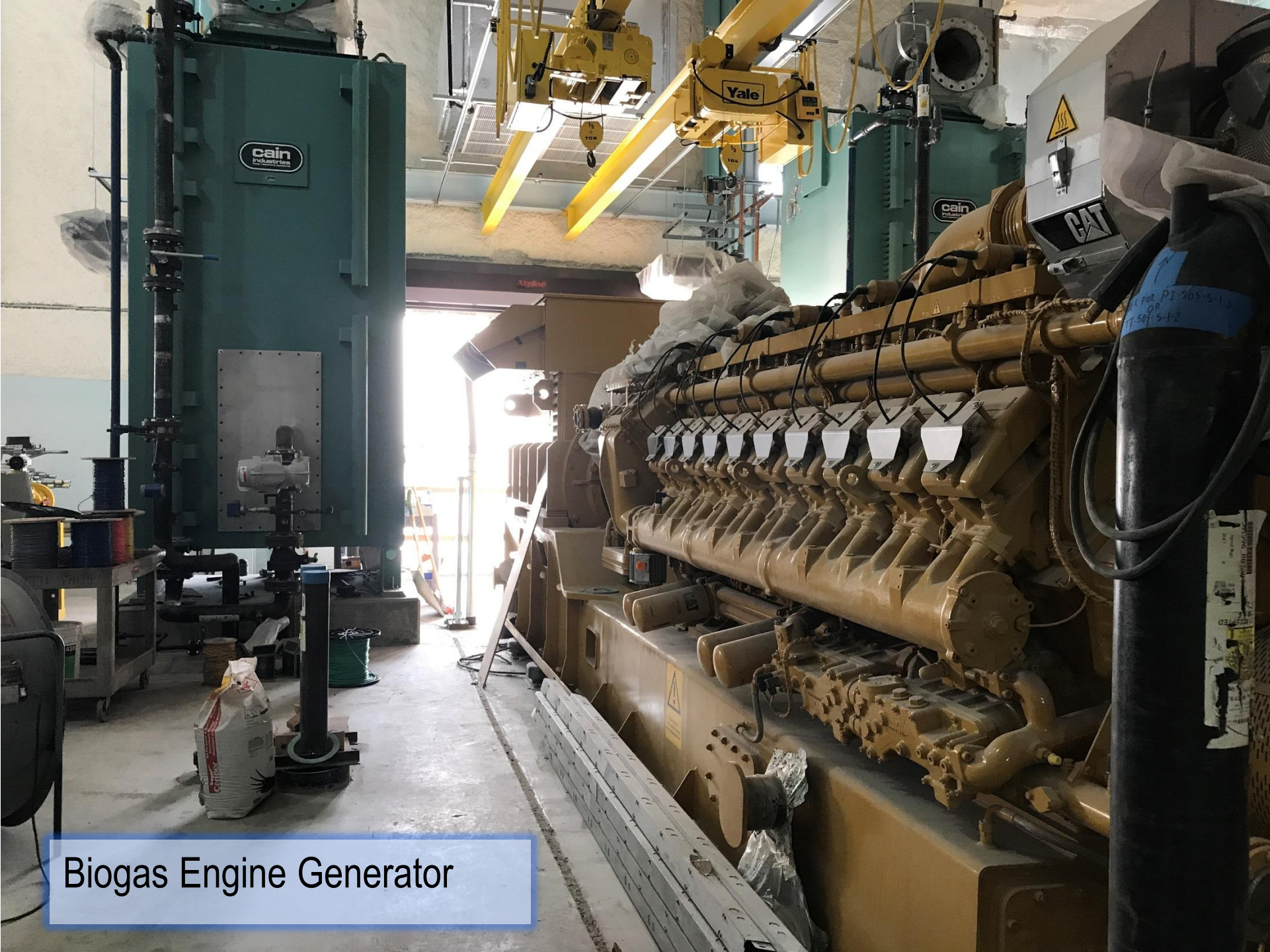
Digesters and Solids Facility

Biogas Treatment Equipment





Fluidized Bed Incinerator Process Mechanical



Biogas Engine Generator



Odorous Air Treatment System

Questions?



An aerial photograph showing a winding river with dark blue water, surrounded by lush green vegetation and some rocky banks.

Interceptor System Master Plan



Interceptor System Master Plan Update

- Update Agenda
 - Draft Capital Improvement Plan
 - Anticipated Spending
 - Next Steps



DRAFT 20-Year Capital Improvement Plan

- Projects Scheduled for Construction Years 2018 to 2022
 - 2018
 - Charles Street Interceptor Relay
 - Dutchman Creek Interceptor Relay and Rehabilitation
 - 2019
 - East River Interceptor Rehabilitation and Abandonment
 - 2020
 - Ninth Street Interceptor Rehabilitation and Extension
 - 2021
 - Fox River Crossing and East Fox River Interceptor Rehabilitation
 - 2022
 - East River Lift Station and Forcemain Improvements



DRAFT 20-Year Capital Improvement Plan

- Projects Scheduled for Construction Years 2023 to 2027
 - 2023
 - West Fox River Interceptor Relay and Rehabilitation and Interplant Forcemain Extension
 - 2024
 - East Tower Drive Interceptor Rehabilitation – Phase 1
 - West Tower Drive Interceptor Rehabilitation
 - 2026
 - Southeast Interceptor and Northeast Interceptor Rehabilitation
 - 2027
 - East Tower Drive Interceptor Rehabilitation



DRAFT 20-Year Capital Improvement Plan

- Projects Scheduled for Construction Years 2028 to 2032
 - 2028 and 2029
 - Quincy Street Interceptor Relay



DRAFT 20-Year Capital Improvement Plan

- Projects Scheduled for Construction Years 2033 to 2037
 - 2033
 - Quincy Street 2 Interceptor Rehabilitation
 - 2034
 - East River Bellevue Interceptor Rehabilitation
 - 2035
 - East Tower Drive Interceptor Rehabilitation – Phase 3
 - 2037
 - Scott Bayshore Interceptor Rehabilitation
 - Duck Creek Interceptor Rehabilitation

Anticipated Spending 2017 to 2022

Task	Year					
	2017	2018	2019	2020	2021	2022
Charles Street Interceptor Relay						
Dutchman Creek Interceptor Relay and Rehabilitation						
East River Interceptor Rehabilitation and Abandonment						
Ninth Street Interceptor Rehabilitation and Extension						
East River Lift Station and Forcemain Improvements						
Fox River Crossing Rehabilitation						
East Fox River Interceptor Rehabilitation						
West Fox River Relay and Rehabilitation						
Interplant Forcemain Extension						
East Tower Drive Interceptor Rehabilitation Phase 1						
East Tower Drive Interceptor Rehabilitation Phase 2						
Annual Total	\$130,000.00	\$3,640,000.00	\$4,590,000.00	\$4,420,000.00	\$4,810,000.00	\$2,190,000.00
Cummulative Total	\$130,000.00	\$3,770,000.00	\$8,360,000.00	\$12,780,000.00	\$17,590,000.00	\$19,780,000.00

*** Please note: all costs are in 2017 dollars.**

Anticipated Spending 2023 to 2027

Task	Year				
	2023	2024	2025	2026	2027
West Fox River Relay and Rehabilitation					
Interplant Forcemain Extension					
East Tower Drive Interceptor Rehabilitation Phase 1					
Quincy Street Interceptor Relay					
East Tower Drive Interceptor Rehabilitation Phase 2					
Northeast Interceptor Rehabilitation					
Southeast Interceptor Rehabilitation					
West Tower Drive Interceptor Rehabilitation					
Annual Total	\$5,990,000.00	\$3,110,000.00	\$1,060,000.00	\$1,370,000.00	\$9,340,000.00
Cummulative Total	\$25,770,000.00	\$28,880,000.00	\$29,940,000.00	\$31,310,000.00	\$40,650,000.00

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Anticipated Spending 2028 to 2032

Task	Year				
	2028	2029	2030	2031	2032
Quincy Street Interceptor Relay					
Quincy Street 2 Interceptor Rehabilitation					
East River Bellevue Interceptor Rehabilitation					
Annual Total	\$18,590,000.00	\$10,340,000.00	\$0.00	\$40,000.00	\$250,000.00
Cummulative Total	\$59,240,000.00	\$69,580,000.00	\$69,580,000.00	\$69,620,000.00	\$69,870,000.00

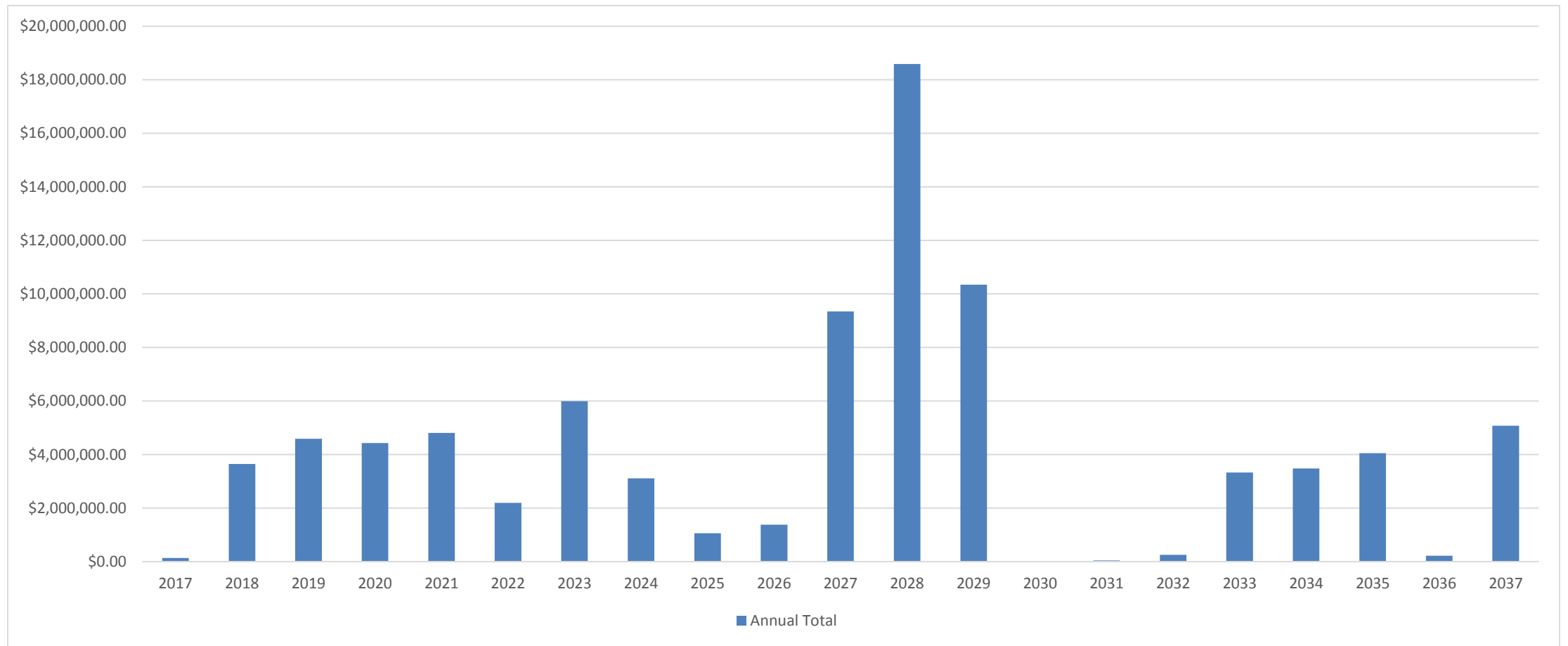
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Anticipated Spending 2033 to 2037

Task	Year				
	2033	2034	2035	2036	2037
Quincy Street 2 Interceptor Rehabilitation					
East River Bellevue Interceptor Rehabilitation					
East Tower Drive Interceptor Rehabilitation Phase 3					
Scott-Bayshore Interceptor Rehabilitation					
Duck Creek Interceptor Rehabilitation					
Annual Total	\$3,320,000.00	\$3,480,000.00	\$4,050,000.00	\$210,000.00	\$5,080,000.00
Cummulative Total	\$73,190,000.00	\$76,670,000.00	\$80,720,000.00	\$80,930,000.00	\$86,010,000.00

**** Please note: all costs are in 2017 dollars.***

Anticipated Spending



**** Please note: all costs are in 2017 dollars.***



Next Steps

- Coordination of NEW Water's DRAFT 20-Year Capital Improvement Plan with customer Capital Improvement Planning
- Interceptor System Improvement Challenges
 - Wastewater Treatment Plant Capacity
 - I&I Reduction
- Receipt of completed DRAFT Interceptor System Master Plan (ISMP)
- Individual Customer Meetings
 - Review findings of ISMP
 - Customers with Financial Obligations for Capacity Driven Projects



Questions?

Thank you for coming!

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