

City of Dothan, Alabama

Omussee Creek WWTP Upgrades

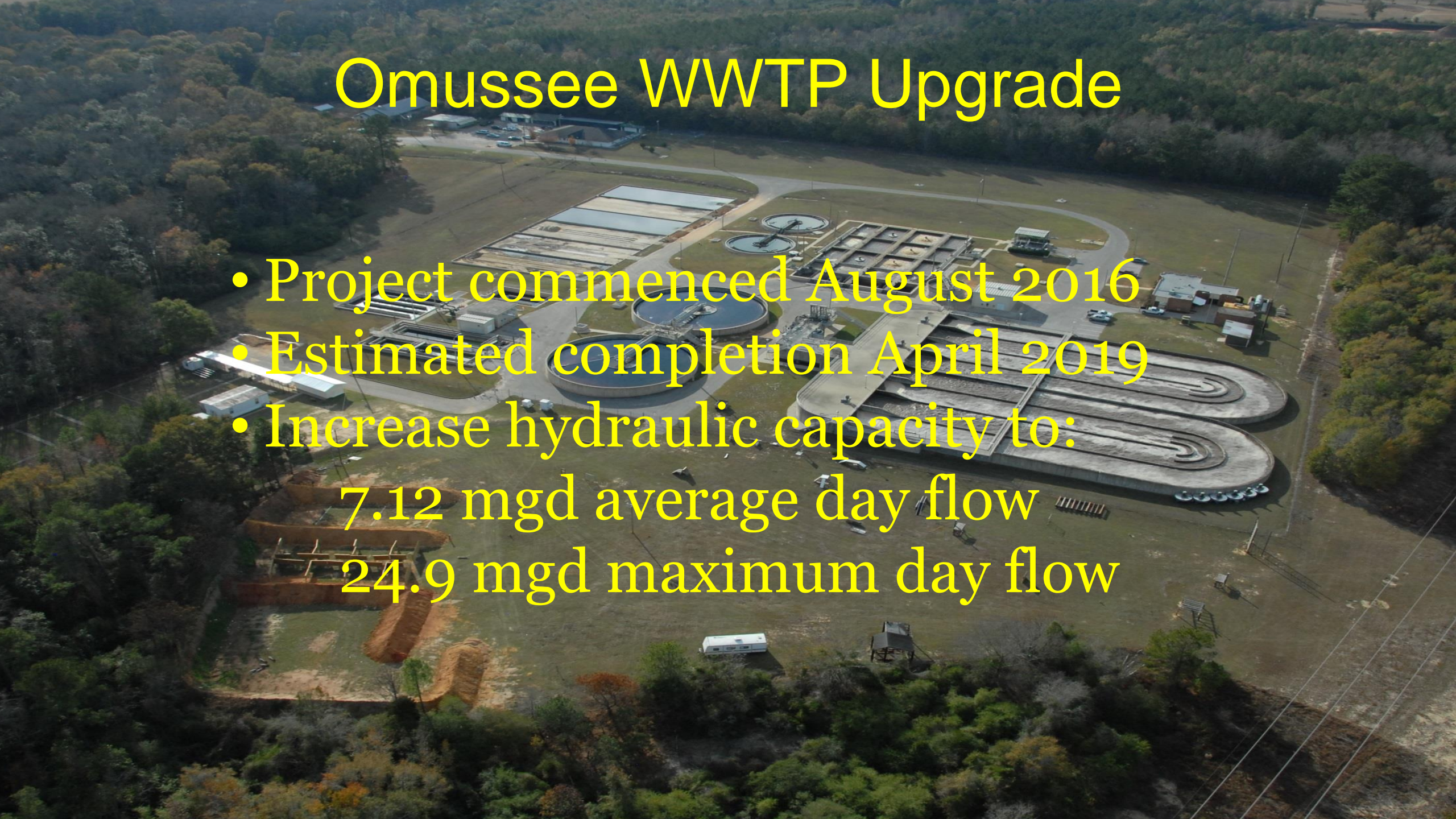
March 7, 2019

ASCE-AL Winter Meeting 2019



Omussee WWTP Upgrade

- Project commenced August 2016
- Estimated completion April 2019
- Increase hydraulic capacity to:
 - 7.12 mgd average day flow
 - 24.9 mgd maximum day flow



Omussee WWTP Upgrade

- Scope of Work:
Influent Pump Station, headworks, aeration basin, clarifier, filters, UV disinfection, sludge dewatering, FOG/septage receiving and treatment, emergency power, etc.

Construction Cost = \$39,225,000

Why is this Project a Big Deal to the City?

- **Large Financial Endeavor: Largest, Single PO Issued by the City**
- **Solutions to Treatment Challenges: Additional Hydraulic Capacity**

Why is this Project a Big Deal to the City?

- **More Efficient Operations: Only City Location for FOG/Septage Receiving & Redundancy in Sludge Treatment & Handling Operations**
- **Safety: Conversion from Gas Chlorination to UV Disinfection**

Our Recipe for Success

7 Cups of City Commission Support

+

1 Cup of a Good Design

+

1 Package of an Experienced Contractor

+

1 Pinch of Responsible City Staff

Combine all ingredients in a safe environment and simmer for 2 years

=

YIELDS ONE SUCCESSFUL PROJECT

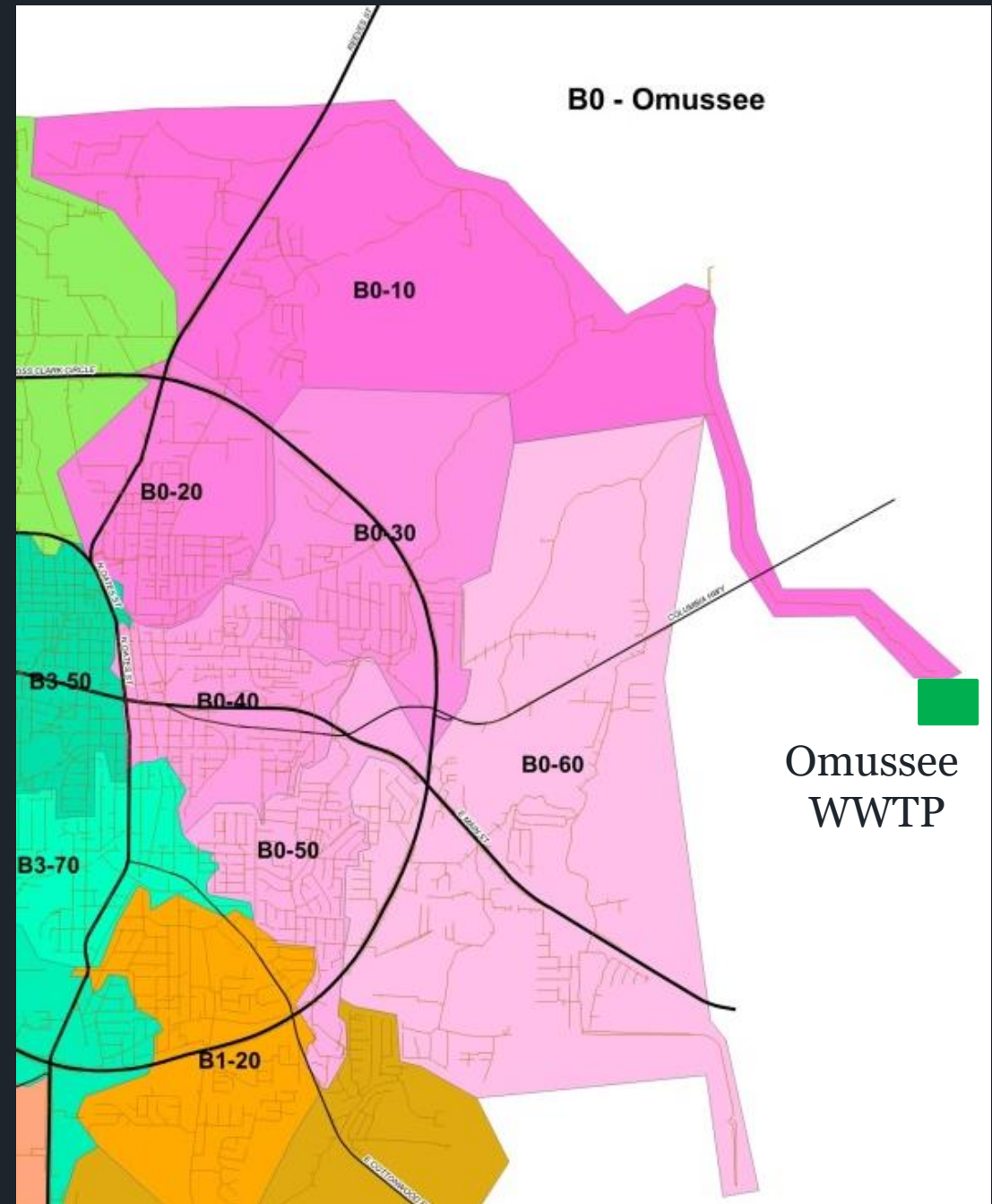
Owner's Project Insight

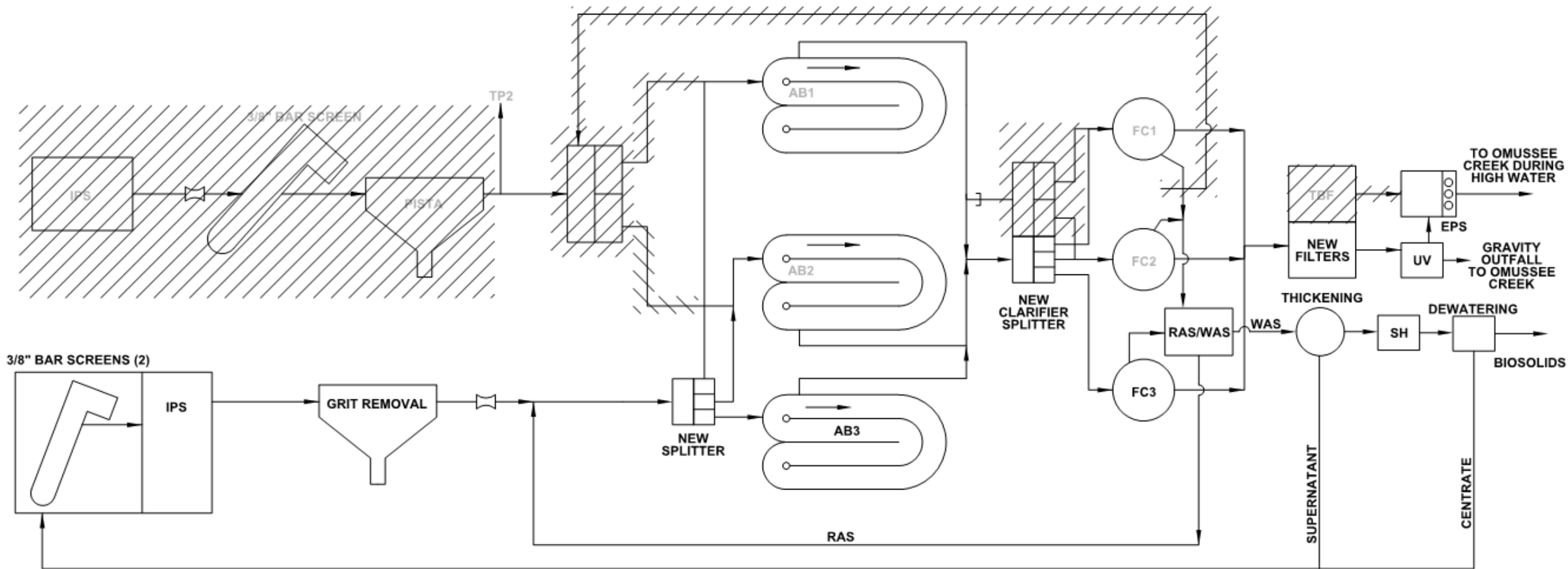
- Identify Operational Problems and Challenges
 - ✓ Involve your Operators in Design
 - ✓ Talk to your Maintenance Crews
 - ✓ Involvement in Design Meetings

Owner's Project Insight

- Prioritize What's Important
 - ✓ Understand Budget and Develop Scope Accordingly
 - “Change orders are ugly”
 - ✓ Plan for Unforeseen Circumstances
 - “Something will always get missed”
 - ✓ Consider O&M Costs of Completed Project
 - “Costs you live with forever”
- Select the Right Technology that's Right for your Staff
 - “Do your own research and ask questions”

Omussee Basin





ABBREVIATIONS

AB	AEROBIC BASIN
AD	AEROBIC DIGESTION
EPS	EFFLUENT PUMP STATION
FC	FINAL CLARIFIER
IPS	INFLUENT PUMP STATION
RAS	RETURN ACTIVATED SLUDGE
SH	SLUDGE HOLDING
TBF	TRAVELING BRIDGE FILTERS
TP	TREATMENT PLANT
UV	ULTRAVIOLET LIGHT DISINFECTION
WAS	WASTE ACTIVATED SLUDGE

LEGEND

—	PROPOSED
—	EXISTING
///	PROPOSED DEMO
○	MECHANICAL SURFACE AERATOR

Omussee WWTP Upgrade



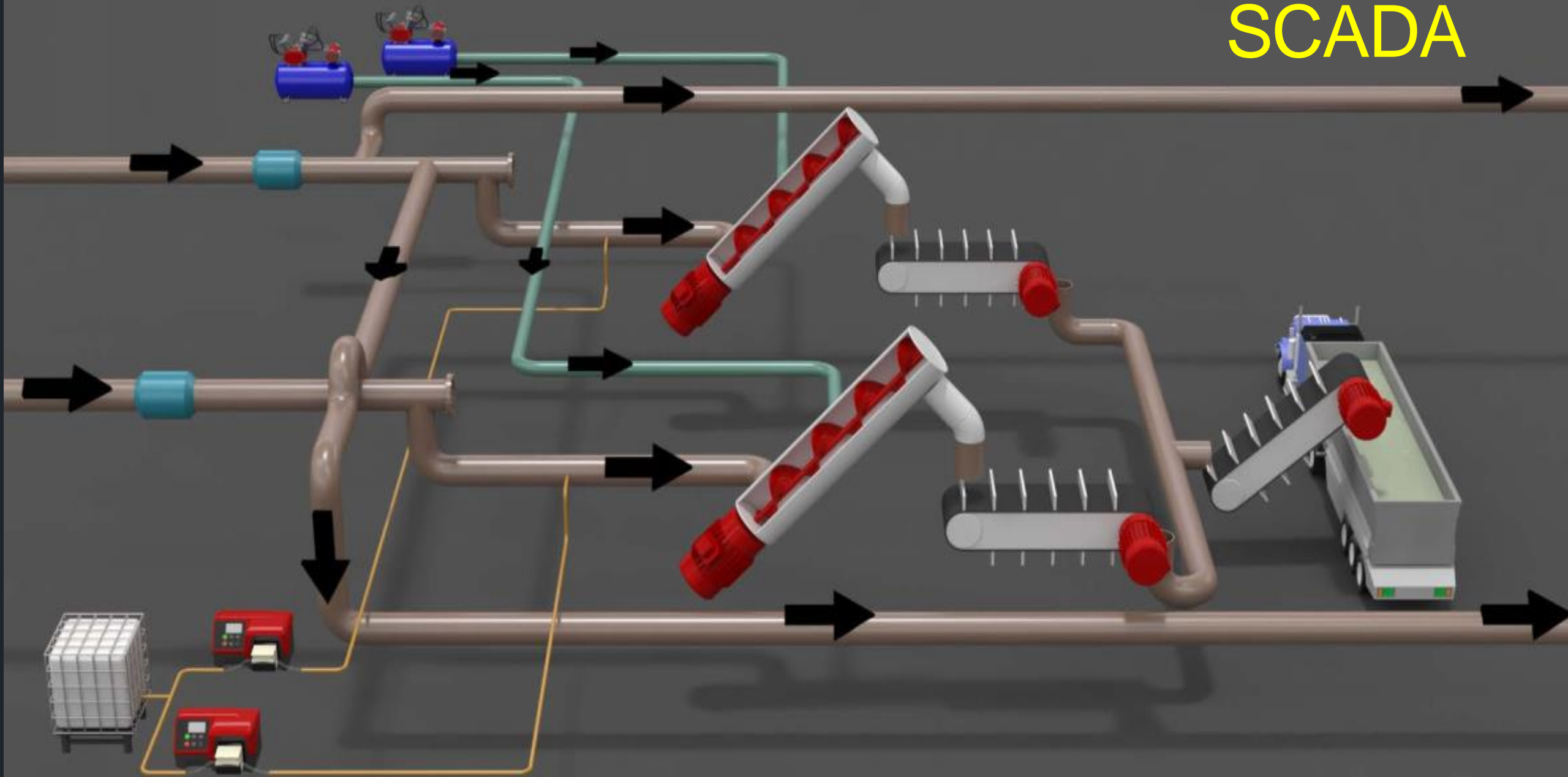


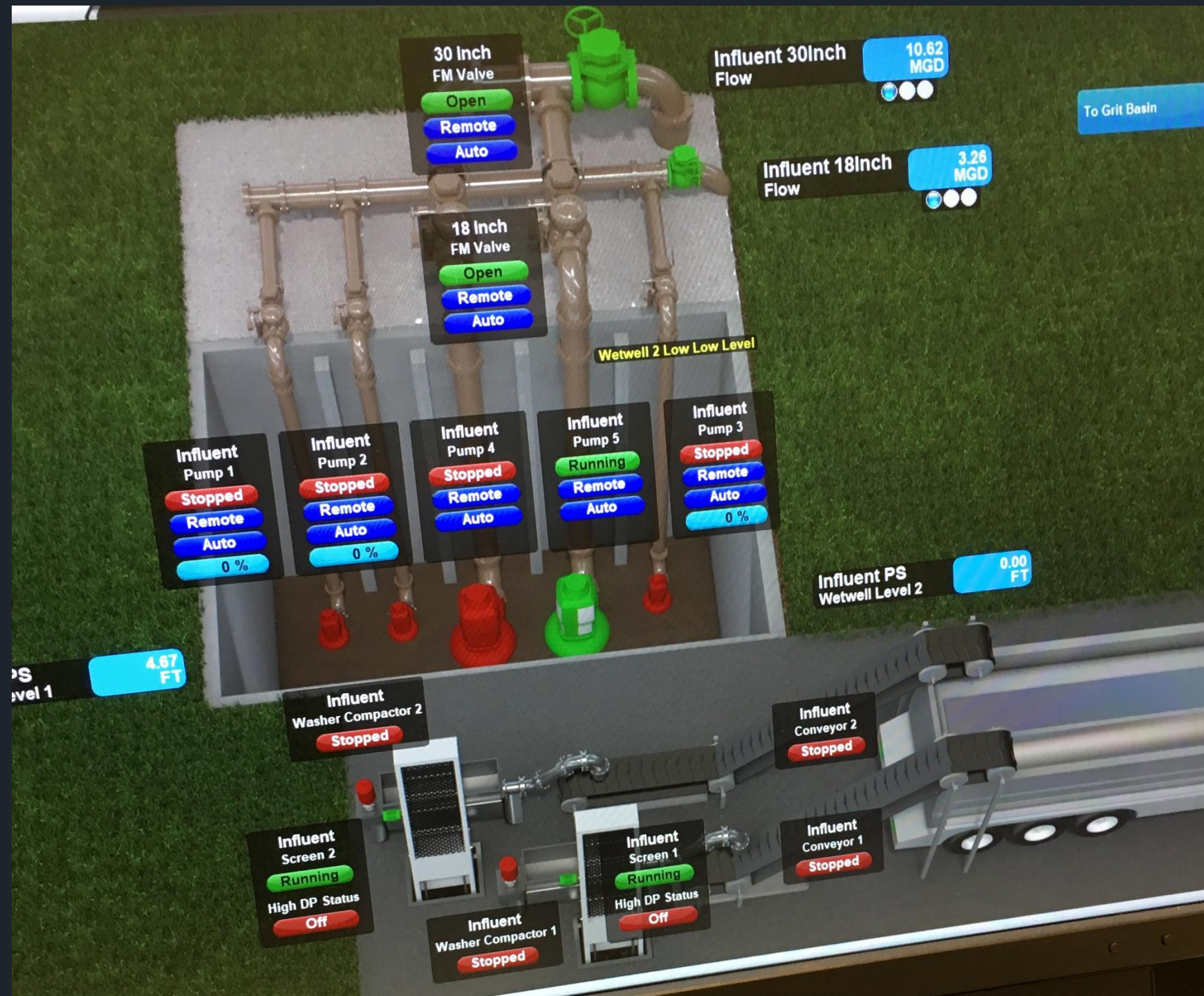






SCADA

















EXISTING CLARIFIERS



RAS/WAS









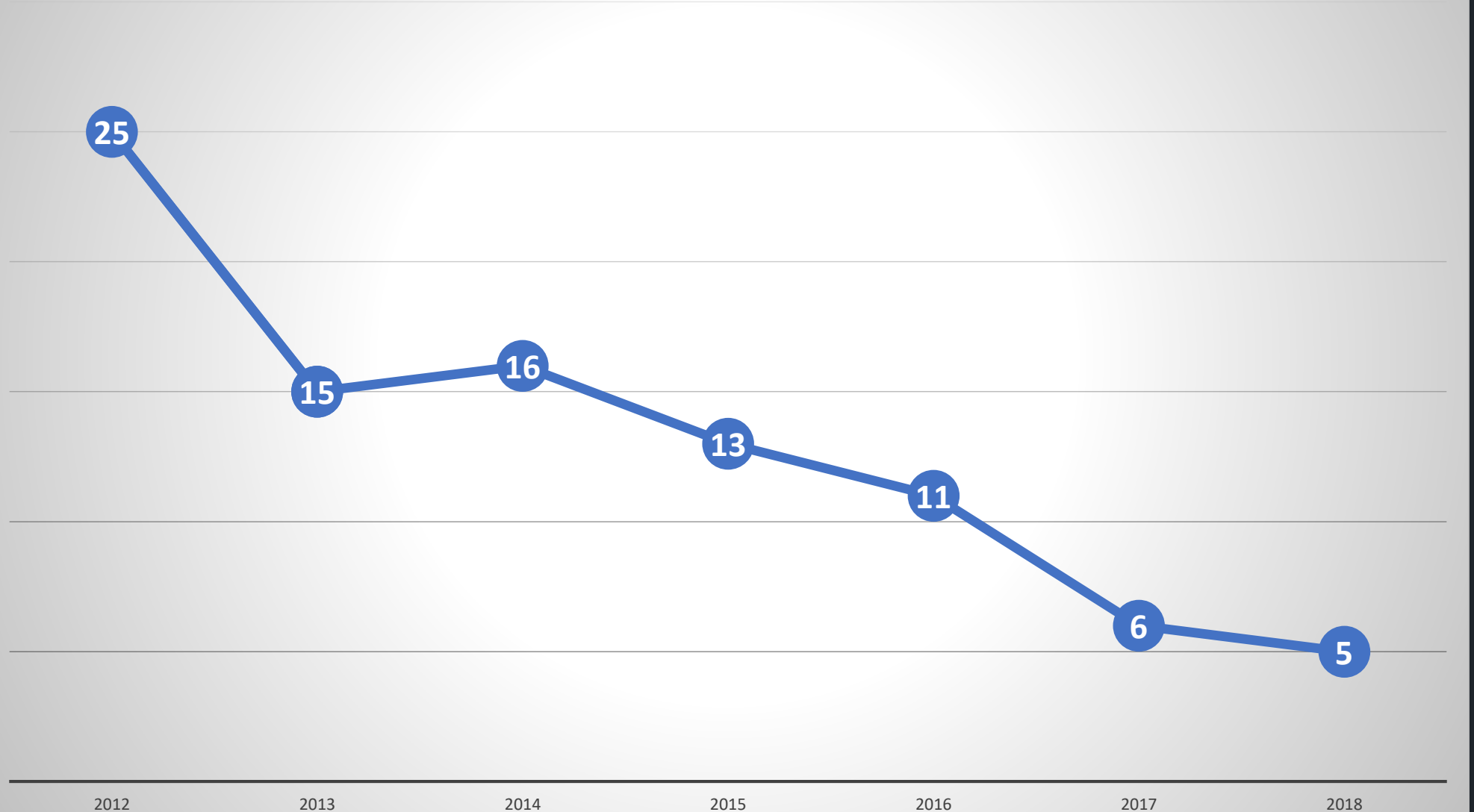
UV DISINFECTION







Grease Related SSOs





Lessons Learned



- Geotech
 - Dewatering-Underdrains
 - Testing Allowance
- Hydraulic Forecasts
 - Conservative vs TOC
 - IPS Control Narrative
- Construction Schedule
 - Critical Path Management
 - Submittal Review and Delivery Times





Questions?