WTD’s Mission: Protect Public Health and Enhance the Environment
Problem

Combined Sewer System
(pre 1950)

Combined Sewer System
Solutions

Storage tank

Wet weather treatment station

Green Stormwater infrastructure
King County
2012 Long-Term Combined Sewer Overflow (CSO) Control Plan
Consent Decree Requirements

Project defined as:
• CSO Treatment and Conveyance – 70 MGD peak
• High rate clarification treatment

Compliance Schedule:
• Submission of Facilities Plan by December 31, 2015
• Completion of Bidding by December 31, 2017
• Construction Completion by December 31, 2022
• Achievement of Performance Standard by December 31, 2024 or two full wet seasons.
Georgetown Wet Weather Treatment Station

Background - Purpose

- Control of Brandon and South Michigan Street CSO Outfalls in accordance with Washington Administrative Code (WAC)
- WAC defines control as “no more than one event per year over a twenty year average” or treatment that is at least equal to primary treatment standards.
- Achieve all consent decree requirements
Brandon St. Outfall
Michigan St. Outfall
System Overview
WWTS Birds Eye View
Typical Ballasted Sedimentation
UV Disinfection
Construct Techniques

• Rigid Inclusion
• Secant Piles
• Tremie Slab – 8,600 CY, 30 FT Deep
• In-Water Work with Fish Window
• Large Diameter Pipe Installation
Project Challenges

- Four construction contracts: Demolition, Treatment Plant, Outfall, and Conveyance
- Constrained site
- Fish Window for in-water work
- Utility conflicts
- Traffic - Night Work
Treatment Plant Site
Rigid Inclusion
Rigid Inclusion
Secant Pile Ring Wall Prep
Secant Pile Ring Wall Prep
Secant Pile Dredging Pump with Jets
Tremie Slab Pour
Liner Wall Demo on a Flexifloat
Large Diameter Pipe – 96” & 60”
Bifurcated Pipe
Outfall Site
Trestle over Outfall Trench
Floating in Outfall Pipe
Questions?