Town of Discovery Bay

Effluent Filtration Project

HERWIT
Engineering

Why Are We Building It?

- RWQCB Renews Town's NPDES Permit Every 5 Years
- New Permit Adopted June, 2014.
- Permit Changed Effluent Turbidity Limits
  - 2 NTU daily average
  - 5 NTU 5% of the time
  - Not to exceed 10 NTU at any time.
- New Limits Effective December 31, 2017
- Compliance Requires Addition of Filtration
- Anticipated in WW Master Plan

Why This Particular Filter?

- Selected Filter – Parkson Dynasand
- Selected as Best Option in 2013 Wastewater Master Plan
  - It fit in the site space available.
  - It has high success prior to UV disinfection
  - Proven track record
  - Title 22 compliant
- On-Site Pilot Test Prior to Design Gave Good Results

Filter Capacity

- Sized To Accommodate 2.37 million gallons per day (mgd) Average Annual Flow per WW Master Plan
  - Accommodates build out of Discovery Bay
- Handles Peak Flow Hour Flow at Build Out (4.0 mgd.)
- Current Plant Flow Has Fallen From 1.8 mgd at Time of Master Plan to 1.3 mgd

What Can We use the Water For?

- New System will be Title 22 Capable, but not "Certified"
- Until Certified, Uses Limited to Those for Normal Secondary Effluent the Plant Already Makes
  - No public contact
  - Farm irrigation of Non-Food Crops
- Once Certified,
  - Limited public contact allowed
  - Irrigation within the community allowed
  - Can give away to the public (draught)

Budget Status

- Construction Cost: $6,401,300
- Change Order Contingency in Contract: $200,000 (3.1%)
- Change Orders to Date: $15,000 (0.23%)
- Normal Change Order Range: 3% to 5%
- Engineering Services
  - To Date: 3.0%
  - Anticipated total: 3.9%
  - Normal range: 4% to 5%
- Construction Management & Inspection Services
  - To Date: 1.1%
  - Anticipated Total: 2.3%
  - Normal Range for Third Party CM: 8%-10%

Construction Status

- Began Construction June 2016
- Schedule Completion Date September/October 2017
- 61% Complete at End of March

Construction Photos

Construction Photos

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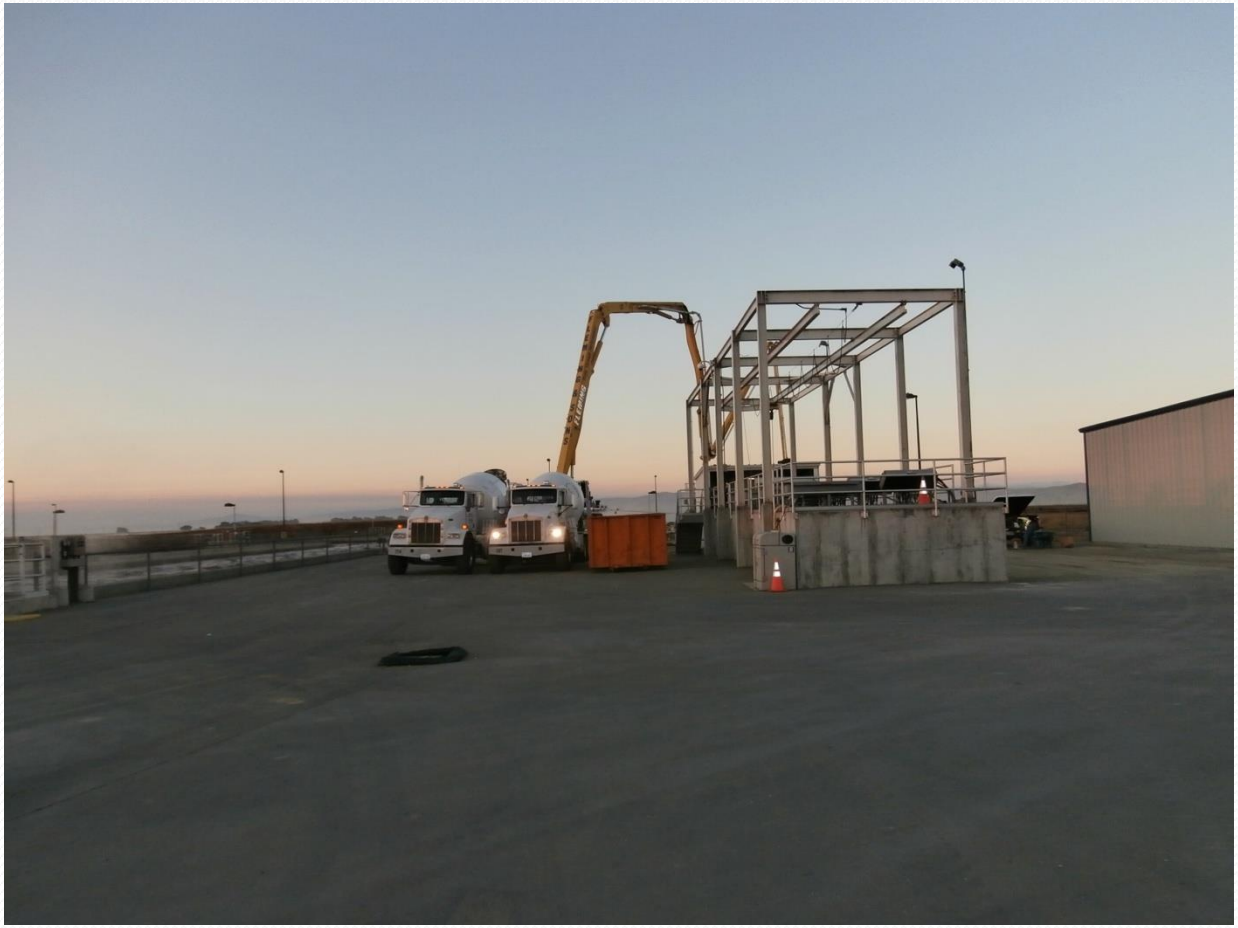

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Questions?

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