

Sewer Authority Mid-Coastside
SAM

Chemical Area Work

Summary

Board Meeting
August 13, 2018

Replacement Plan



Required to replace existing

- Sodium hypochlorite pumps
- Sodium bisulfite pumps
- Ferric Chloride pumps
- RAS Sodium hypochlorite
- Carrier water distribution system



Reason for Replacement



- Existing pumps were very old
- Could not communicate with PLC
- Heavy corrosion as these are outdoors and exposed to severe weather conditions
- Frequent and lengthy repair cycles
- Pulsating flow due to the nature of pumps
- Machine downtime was large
- Spare parts not available
- Pump lubrication required



Requirements



- Chemical pump installations to be done one chemical delivery at a time because of the critical nature of the process.
- Required to install bypass to ensure proper transition as any stoppage could lead to permit violations.



Improvements with New System

- More automatic control – offsite and remote
- Magnetic coupled gear pumps ensuring smooth constant delivery
- Manifold built with less footprint
- Saves chemicals by not under and over reacting due to time delays
- Less amount of hypochlorite being used with an estimated saving of approximate \$10,000 per year



Chemical Area Electrical Panels: Before and After

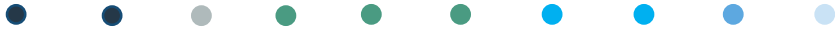


BEFORE



AFTER

Sodium Hypochlorite Pumps: Before and After



BEFORE



AFTER



BEFORE



AFTER

Sodium Bisulfite Pumps: Before and After



BEFORE



AFTER

Sodium Bisulfite System: Electrical Work

-
-
-
-
-
-
-
-
-
-

