

Memo

To: Prof. Radecsky
From: Miquan Johnson
Subject: Tour of the Arcata Wastewater Treatment Facility
Date: 5/2/14

Purpose

The purpose of this trip was to further our understanding of wastewater treatment. Seeing it in person and having a guide educate us during the tour definitely increased my understanding.

Discussion

The group was told this facility treats about 2.3 MGD of water. Our first step of the tour was the headworks. This is where all the bigger objects get taken out. In some cases objects get caught in the machine; two or three times a week these things are cleaned out. We walked upstairs through the headworks to the clarifier and oxidation ponds. There was lots of sludge collecting. At this point, we were told treatment is done with anaerobic techniques. The sludge is collected and the water is further cleaned in two separate oxidation ponds. After that, we walked a trail through the treatment wetlands. I also heard it referred to as the marsh. The water is further treated and at this location there is a duck hunting issue. This area has very little living organisms within it. Next we checked out the last station of the treatment process, disinfection. Chlorine is used to treat the almost-clean water. Before leaving the site water has to be 85% BOD-free, then it can be released into the bay. Speaking of bay, that was our last stop to view. The treated water releases here and takes less than a day.

Conclusion

To be completely honest, even with the walking, this tour was interesting. It gave me more insight on how the water we bathe in and drink is cleaned. It is a pretty reliable and consistent treatment process. The most interesting part was the overall evolution of this treatment plant. Water was nowhere near as clean in the 1930's, even the 1960's for that matter. Certain parts, like oxidation ponds, had to be added after the monitoring of the disgusting water.