

MEMORANDUM

TO: EILEEN CASHMAN
FROM: CYNTHIA STROUSE
SUBJECT: ARCATA MARSH AND WASTEWATER TREATMENT PLANT FIELD TRIP
DATE: OCTOBER 7, 2016

Purpose

The purpose of this memo is to review the tour of Arcata's Wastewater Treatment Plant. An overview of the tour and Arcata's wastewater treatment train are included.

Discussion

On the tour of Arcata's Marsh, the tour guide went through each part of the treatment plant and described each station's purpose, how they are supposed to work, and how Arcata's system is currently working. The tour started with an overview of Arcata's treatment plant as a whole, where they stand in comparison to other treatment plants, and how we should treat the wastewater in our home so as to make less trash show up in the wastewater they treat. Our tour guide included information about the standards their treatment plant must meet.

The tour guide took us over and explained the first process of their treatment plant, the pre-treatment, which was the headworks. In this section there were the digesters, drying beds, and a clarifier. The tour guide explained how Arcata manages their sludge and what process it goes through and where it ends up. Information about the amount of wastewater that the treatment plant receives a day and seasonally was given. She expressed how the students in Arcata are a major role in the amount of wastewater received.

The tour then moved over to Marsh 4, which was the very first marsh that tested this type of treatment system. This marsh is not being used in today's treatment. The tour guide talked in this location for a while about how the marshes and oxidation ponds work. She also mentioned how Arcata's system has sludge built up at the bottom of these 2 systems from all the years of use and treatment. Much more information about the history of marsh 4 and the startup of the treatment plant was included. The group then walked past the 2 oxidation ponds the tour guide was just talking about and ended up in the treatment wetlands.

In this location, information about the wetlands was given as well as information about the faults of these particular wetlands. The tour guide explained the multiple remediation plans thought up through the years. She then took us over to the wetlands with the remediation plan that was put to use, the blue frogs, which is a biological digester. The tour guide gave information about how they work and the ways they have helped. The operators at the plant attempted to turn the blue frogs on, but because of the power outage at the time they were not able to.

Our group moved to the disinfection part of the plant. They used the process of chlorination and dechlorination. Information about this specific process was given and the tour ended with the treated water outlet to the Humboldt Bay.

Conclusion

The tour of Arcata's wastewater treatment plant gave an inside look to how these processes work and the main design of this kind of treatment plant.