
INTEROFFICE MEMORANDUM

TO: KRISTEN RADECSKY
FROM: ERIC HERRERA
SUBJECT: ENGINEERING 115
DATE: MAY 2, 2014
CC:

Wastewater Treatment Facility

Purpose:

In the field trip to the Arcata wastewater treatment facility we sought to look at how the different parts of the treatment train worked. The trip was also an excellent opportunity to learn more about the history of the treatment plant and how the plant got to where it is today.

Discussion:

The class was warned that the plant would be “smelly” and indeed it was. At the first stop our tour guide showed us the place where all the solids (toilet paper, garbage and baby wipes) are removed from the wastewater to protect the downstream equipment/technology. Before the wastewater can reach the oxidation ponds or the anaerobic digesters solids of any kind must be removed. There were bar screens and grit chambers to remove solids as mentioned before as well as solids like sand, gravel and dirt. It was interesting to see the water flowing through the chambers of the plant and see the process of the wastewater treatment. We also got to look at the oxidation ponds which are a natural way of cleaning up the ponds by letting the UV light rays breakdown the harmful bacteria. It was nice to see the ponds and walk through the fields as it was very relaxing and informative to hear the tour guide teaching us about the treatment plant. We then went onto look at the anaerobic digester where all the solids are decomposed. The anaerobic digesters can hold up large amounts of solids for months until the solids are decomposed. Often there are chunks of solids that are introduced back into the digester and are held for a couple more months. After the tour was over the professor guided us through the side of the plant to observe the wetlands. It was an enjoyable experience to look around the plant and learn about how our wastewater is treated.

Conclusion:

The most interesting part of the field trip was the history of the treatment plant back when the facility was fighting to build an enhancement wetland against the federal government. It was good to hear that the small town of Arcata won a lawsuit against the federal government to build a wetland for “wetland habitat” and “environmental education.”