MEMORANDUM

TO: DR. EILEEN CASHMAN
FROM: KADEN LAW
SUBJECT: ARCATA MARSH AND WASTEWATER TREATMENT PLANT TRIP
DATE: OCTOBER 7, 2016

Purpose

The purpose of this report is to briefly overview the field trip that the Engineering 115 students took to the Arcata Wastewater Treatment Plant. This trip was on Friday, September 30, 2016.

Discussion

On the trip to the Arcata Marsh and Wastewater Treatment Plant, students were provided with an abstract map of the plant. The trip began with arrival to the Wastewater Treatment Plant at 8:40 am and departure was at 10:35 am.

A Plant Operator led the trip for the Friday Morning Lab section; she gave the students a tour of the facilities and explained how most of the plant actually operates; coming from a hands-on, personal role.

The trip began with a brief history of the plant. Students then received some insight on how the plant works prior to seeing the actual machinery. They then went to the Headworks and Primary Clarifier, up close. Followed by visiting the Oxidation Ponds and some of Treatment Wetlands.

The students received some background of what enters into the plant--that shouldn't be entering in the plant (i.e. tennis ball). Statements were made of the lack of dedication that the general public has to proper disposal of waste.

The Arcata Wastewater Treatment Plant only has a capacity of 2.3 million gallons. The plant receives approximately 1.1 million gallons every day when college students are present and when there's little to no rain. Normally, the plant intakes around 5 million gallons per day during the wet season, but storms have caused influxes upwards of 14 million gallons, daily. Excess water that exceeds 2.3 million gallons is directed straight to oxidation ponds.

The plant has underwent construction to minimize potential problems from striking. However, the repairs haven't completely and permanently resolved potential issues.

Conclusion

If a large storm were to sweep the northern coast of California, more specifically, Arcata; the Arcata Wastewater Treatment Plant would not be adequate to hold and treat the water in an effective manner. The plant needs to either be renovated or moved to a better area to better suit the potentiality of a storm.