INTEROFFICE MEMORANDUM

TO: PROFESSOR LANG
FROM: RICHARD THOMAS
SUBJECT: ARCATA WASTE WATER TREATMENT FACILITY
DATE: OCTOBER 30, 2016

Purpose: The purpose of this memo is to illustrate my trip to the Arcata Waste Water Treatment Facility. This will include what I observed from the facility and what I saw as well as what I learned while on my trip.

Discussion: My trip started out at 9:00 on Friday September 30th with my fellow classmates where we arrived to what appeared to an abandoned facility. The first thing that I noticed was that there was nobody there. All that I could hear was the hum of the machinery and the sound of the freeway. Our tour started promptly where we met an employee that has worked at the facility for nearly 30 years.

She began with explaining the process of the waste plant from the headworks to the primary clarifier, explaining that only one Archimedes screw pump is on at the moment and explained the rates of flow that both are able to produce. This was all done away from the headworks because the machines are very loud. We were advised by Prof. Lang to not touch anything while we were walking through because of the amount of contamination. After we walked through the headworks she began to explain the primary clarifier in more depth.

After the primary clarifier we walked over to the first two of the three oxidation ponds, where our tour guide explained to us the problems with oxidation ponds regarding vegetation growth and the accumulation of sediment on the bottom of the basin.

At the end of our tour we joined up with Dr. Cashman and she took us to visit a couple of grad students working on research in an enhancement wetland working with a machine called a blue frog. The blue frog stirs up the water creating a flow pattern and their project is to see how this machine benefits the environment.

Conclusion: In conclusion, this trip to the Arcata Waste Water Treatment Facility was beneficial in learning about a treatment facility in how it works and with recommendations from an experienced employee gives me advice on how to properly design a facility for efficiency.