
MEMORANDUM

TO: Eileen Cashman
FROM: ENGR 115 STUDENT (Uthman)
SUBJECT: Arcata Marsh Trip Memo
DATE: OCTOBER 7, 2016

Purpose

The goal of this memorandum is to report what I have learned from Arcata Marsh Trip. And how Arcata Wastewater Treatment Facility works.

Discussion

First of all, wastewater treatment is an important part of keeping a community safe and healthy. Currently, almost 35% of the world's population does not have access to sanitation services¹. Also, 1.1 billion people around the world do not have access to clean drinking water². As a result of these two conditions over 4,800 people die everyday due to waterborne illnesses³.

In The City of Arcata, they care about the 17,700 people live in Arcata because of that they made a unique wastewater treatment facility. They treat our wastewater through five steps:

Influent - Many constituents in wastewater must be removed

Primary Treatment - Removes suspended solids in the wastewater

Secondary Treatment - Removes the organic components in the wastewater

Tertiary Treatment - Removes nutrients that can negatively impact the water body where the wastewater is discharged

Effluent - Discharged wastewater must meet regulated levels for contaminants

Secondly, they are developing their system also they are trying to be friendlier to the environment by using fewer chemicals. I also saw a new technology called Blue Frogs, and I learned that Blue Frog is a system that reduces the use of chemicals by utilizing natural biological processes, promoting environmental stewardship⁴.

For me as an international student, I love the cooperation between universities and companies to give us an opportunity to feel the field work. For me, it was incredible to know there some student trying to figure out if the Blue Frogs system is going to work or no.

¹ "Global WASH Fast Facts | Global Water, Sanitation and Hygiene - CDC." 2009. 19 Nov. 2016
<http://www.cdc.gov/healthywater/global/wash_statistics.html>

² "World Water Council - Water Supply & Sanitation." 2013. 19 Nov. 2016
<<http://www.worldwatercouncil.org/library/archives/water-supply-sanitation/>>

³ "For much of the world, drinking a glass of water is not as easy as filling ..." 2010. 19 Nov. 2016
<http://images.nationalgeographic.com/wpf/media-live/richmediaitems/0/item_177.xml>

⁴ "Blue Frog System." 2006. 19 Nov. 2016 <<http://www.bluefrogsystem.com/>>

Conclusions

Wastewater treatment is matter of life, City of Arcata has a unique wastewater treatment, and also they are developing their system to help the environment now they are testing Blue Frog system and they are using students to help them.