

## Appendix A

The progress reports for my placement were given in-person to Dr. Okello at the end of each trial period, as well as weekly check-ins throughout the trials. This was decided to be the most effect form of process reporting. Dr. Irena Creed was given monthly updated via email due to the international nature of the placement.

The following information are copies of the email-updates for Dr. Creed, attachments are not included.

---

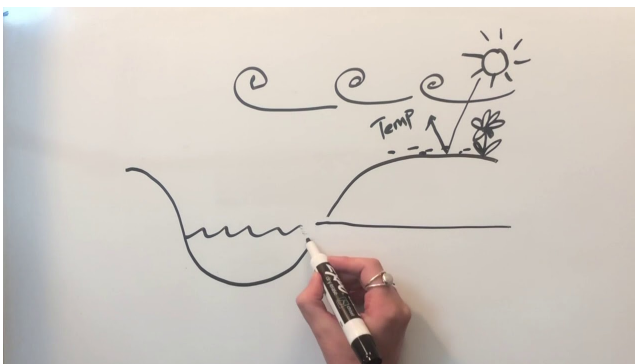
Tuesday 2019-06-25

Hi Irena

I hope all is well back in Saskatoon

I just wanted to check in about the placement. For the case study I was interested in looking at some of the major stressors on water security in the Lake Victoria Basin. I know this is might be a larger case study but I really want to be able to include social and economic factors not just environmental; if I should focus in on a topic I would prefer to look at access to drinking water and sanitation or how algal blooms in Lake Victoria could/do impact drinking water and sanitation for fishing communities. I hope once the community engagement aspect of the placement begins these ideas will begin to flush out for us. Interesting in hearing your thoughts on these potential topics.

I am also interested in creating an art piece to help share our project/findings and experience here as I think art is a key way of sharing knowledge and improving the accessibility of science to everybody. I have attached a whiteboard animation I illustrated regarding wetland drainage and am hoping to create something similar describing our nutrient enrichment experiment and the stressors on Lake Victoria. <https://www.youtube.com/watch?v=KINMGlcYJZ0>



[ENVS\\*T1 - YouTube](https://www.youtube.com/watch?v=KINMGlcYJZ0)

ENVS\*T1 Project:  
wetland drainage in Pond  
109. This video is  
unavailable. Watch  
Queue Queue  
[www.youtube.com](https://www.youtube.com)

Everything is great at NaFIRRI and we hope to begin our second trial later this week

Cheers  
Cosette

---

Monday 2019-07-15

Hi Irena and Eric,

We hope all is well. Here is the brief overview of the project as a whole and how our individual case studies will unfold.

**Overall:** The objective of the QES-Usask and NaFIRRI collaboration is to develop a mesocosm experiment on Lake Victoria to measure the impacts of different forms of nutrients on harmful algal growth and to facilitate a community engagement initiative. Individually, we will explore different case studies regarding planetary health issues within connection to Lake Nyaza (Victoria) Uganda, more specifically those related to Lake Victoria.

**Cosette:** The objective of my individual case study is to understand the potential impacts harmful algal blooms have on the Rock and Masese communities' access to drinking water, health and livelihood and explore these concepts on both a local and global scale.

**Dene:** The purpose of Lake Nyaza's (Victoria) community engagement initiative is to connect Masese and Rock communities' Indigenous knowledge systems to the mesocosm nutrient enrichment experiment in order to implement a framework for future policy change, that is culturally and environmentally appropriate and inclusive. The development of the framework is to help generate collaborative partnerships between Western science and Indigenous science.

**Robin:** In this case I will examine the political ecology of Uganda, specifically regarding fishing communities on Lake Victoria. I intend to discuss outcomes for L. Victoria's communities resulting from policy concerned with industrial development. In brief, I will touch on the effects of colonialism in the mid-twentieth century (ie. fish stocking; Nile perch) which have destabilized existing ecosystem processes in the lake, the effects from heavy handed governance which may push subsistence fishers to black market production, and how industrialization and climate change continue to put this source of Africa's vitality at risk. Through this we can discuss what it could mean for the continued use of these resources and health of surrounding communities.

**Keywords:** [Subsistence fisheries] [The Commons] [Equitable access] [Doughnut economics] [Biodiversity loss] [Environmental degradation] [Coextinction] [Political ecology]

**Outcomes:** The outcomes from the QES-Usask and NaFIRRI collaboration are both quantitative and qualitative data collection, the development of a policy framework and to share our knowledge gained from this experience and partnership through an accessible media form. The experiment and community engagement will lead to further research done by NaFIRRI and

future collaboration with QES-Usask. The individual case studies will represent knowledge from our backgrounds, experiences, experimental results and the community engagement initiative.

Cheers

The NaFIRRI Team

PS. The idea for our presentation is to mainly focus on our research at NaFIRRI (both the experiment and community engagement) and intertwine our individual case studies as we see fit (with your input of course). We are still working out presentation details, understanding we are also presenting to NaFIRRI after our experiment is completed.

---

Monday 2019-07-22

Hello Canada Team

We are just emailing to update you on the progress of the experiment and the data we have collected thus far. I have attached the nutrient analysis excel sheet that we have for Day 0, 3 and 7 as well as the Chl-a RFU measurements for each day of the trial (Day 0-13).

Unfortunately, we have lost a few of the replicates over this period of time and have completely lost the P treatment due to holes and loss of water from the mesocosm bags (regardless of our continuous efforts to save the bags). We just want to check in with each of you and get your opinion on how the data looks and if continuing until Day 21 without the P treatment and the missing replicates will still yield good data.

Cheers

Cosette and the NaFIRRI team

Ps. We had a hail storm the other day (see photos)

---

Monday 2019-07-22

Hi Irena

Thanks for the speedy reply! This trial (3) was made with new plastic that we had a modest degree of confidence would not fail, but unfortunately some of them did. If the experiment is going to continue into the Fall, then yes different plastic/mesocosm bags will be needed.

That said, we don't think we will have enough time to assemble and deploy the bags and run the 21 day trial. We are able to clean up the data we have and could get the potential fall trial ready if you mail or bring different material but we do not think we have room for a fourth 21 day trial during the rest of our stay in Uganda.

We are always available to call if we want to discuss this further or when you arrive in Uganda for the capstone.

Cheers  
Cosette and the NaFIRRI

---

Wednesday 2019-08-07

Hi Irena

I hope all is well and your preparations to travel overseas are going smoothly. I just wanted to confirm a few things about the case study/ MWS report. My outline for the report is an executive summary, introduction, fieldwork, laboratory analysis, community engagement, conclusion and solutions. I want to know how much detail you are looking for in the results sections for the field and laboratory work. We conducted 1 trial (eight treatments) and have measurements for chl-a RFU and concentration as well as 5 individual nutrient analysis for each treatment (lots of graphs). We are producing a technical report for William with a more detailed methodology and I have been referring back to this throughout my case study report as an appendix. Is this fine to do or are you looking for the detailed technical report and ALL graphs presented in my case study ?

Again, I want to confirm that I will be handing in this report for the QES requirement on the 18th as well as for the MWS requirement on the 23rd, and I believe you are marking both.

Looking forward to re-connecting in person

Cheers  
Cosette