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October 11, 2019

Dr. Linda Hardison, Dr. Gerrad Jones
Oregon State University
Corvallis, OR, 97330

Greetings Dr. Hardison and Dr. Jones,

We are pleased to reach out to you this week with an overview of the beginning stages of our project. We want to thank you for your time during our first meeting held on Monday; the information shared with us was insightful and helped focus our efforts.

Our team is excited to begin work on research and development for building our hydrologic and hydraulic models. Since our meeting, we have started gathering necessary data for building the model of the stream under current conditions. Looking ahead to the next two weeks, our team plans to complete in-depth literature reviews and individual reports on pertinent project topics.

The attached memo provides a closer look at our current progress, goals for the next two weeks, and specific needs about what our team will require from the client. You will also find our calendar detailing project deliverables and associated deadlines. Please contact us with any questions, suggestions, or resources related to the project at any time.

Thank you again for your time and the opportunity to get involved in such an exciting project. We are eager to contribute towards the ongoing restoration efforts at Lamprey Creek.

Cheers,

Derec Chumley

Project Lead

MEMO

To: Dr. Linda Hardison, Dr. Gerrad Jones
From: Derec Chumley
Subject: Progress update for project start
Date: 11 October 2019
CC: Brooke Bennett *(Communications Lead)*, Anna Burton *(Organizational Lead)*, Dr. John Selker *(Professor)*

Progress Update:
The project team spent Weeks 1 and 2 establishing project scope, scheduling deadlines, and implementing effective team roles. We are ready to begin in-depth research and data collection for the models. The team has already sourced multiple publications regarding river geomorphology and wetland restoration, and LiDAR data for Lamprey Creek has been acquired to create terrain for the model. Flow data will be the more difficult to procure, and may require estimation using several hydrological analysis techniques. We will likely use basin scaling, USGS StreamStats, and the climate observation tool *PRISM.* Once all data has been compiled, we will begin building and calibrating the model.

Commitments for the Next Two Weeks:
Our team will focus on estimating the streamflow conditions and gathering land use data of the surrounding areas to model the catchment. This will allow us to see the housing development's effects on runoff flow. Team members are also prepared to complete individual literature reviews on pertinent subjects by October 18, 2019. The final individual subject reports will be delivered by October 25, 2019. Project lead Derec will oversee research of hydrologic and hydraulic modeling, including required data input and proper calibration. Communications lead Brooke will research case studies regarding similar land management practices and ecosystems. Organizational lead Anna will be responsible for all research related to environmental sensing and installing gauges to collect flow data at Lamprey Creek.

Needs from Client:
The team will rely on Dr. Hardison for her familiarity with the Lamprey Creek project including her priorities, previously identified project constraints, and contacts involved in the project design. The team will rely on Dr. Jones as a resource for answering questions related to fulfilling senior design requirements and understanding project aspects involving engineering design.