January 10, 2020

MES Thesis Fund Committee

The Evergreen State College

Olympia, WA 98505

To the MES Thesis Fund Committee,

Please accept the attached materials as my application for a MES Thesis Fund award for 2019. I

received credit for Case Studies and Thesis Design in Fall 2019. I have already started collecting

data for the thesis work described in my thesis prospectus, and I expect to graduate in Spring

2020.

The goal of my thesis is to look for correlations between physical measurements that can be taken during a rapid assessment and the barrier status of engineer reviewed intertidal culverts. These correlations will be assessed in hopes of finding an easier and faster method for intertidal culvert assessments, leading to fish passage and habitat restoration. I am collecting data on culverts this winter, and am planning on being done collecting data in March, 2020.

About 20 intertidal culverts will be selected for analysis in my study. I will take physical measurements on culverts and relate them to engineer reviewed culverts. All of these variables are going to be compared against each other and against culverts already assessed by engineers to find any correlations between measurements and known structure passability. I could also be taking physical measurements of the habitat as response variables around a culvert in response to the independent culvert size/gradient/relation to mean high water/ variables.

 Intertidal culverts are the first possible barrier that salmon encounter as they migrate back from the ocean, or the last point at which juveniles rest before they move into the ocean. My work could help resource managers prioritize intertidal culverts, by being able to inventory culverts quicker and less costly than previous methods.

I am requesting $115 to cover mileage expenses and supplies used in the field during data

collection, as listed in the attached budget. Thank you for considering my application.

Yours,

Portia Leigh

MES Student, The Evergreen State College