Master's of Environmental Studies Application:
Statement of Purpose

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I was privileged to grow up in the middle of the Salish Sea, on the Kitsap peninsula, surrounded by rocky beaches and nestled between mountain ranges. My adolescent years were punctuated with orca and salmon sightings, which led to a lifelong respect and admiration for those seminal species. These icons have, for me and many others, become symbols of hope which relentlessly ignite a sense of urgency surrounding environmental action. My commitment to taking part in environment solutions remains firm, and has repeatedly pointed to the question of where, and how to take part. This has led me to participate in various projects that focused on different aspects of the environment, and continue to direct me towards further education.

My involvement in environmental issues began in high school, where I was part of the Environmental Club - a group which focused on improving recycling systems and reducing paper waste. We held lofty ideals about saving the environment with our individual practices. It wasn't until after my year-long involvement with the non-profit, Amigos de las Américas, that the reality of the complicated nature of environmental issues sank in. With this organization, I spent two months in Paraguay working with local and indigenous communities to support improved sanitation systems and education on environmental health. Poverty and lack of access to institutional resources were greater barriers to community implementation of water-safe practices than innate desire or know-how.

Around the same time, I was convinced that I was 'bad at science'. I dropped out of my high school chemistry class, and focused mostly on social science and language classes to satisfy requirements through the Running Start program at Olympic College. Service industry jobs served me well as I navigated the uncertain terrain of early adulthood, and stayed with me when I decided to pursue a bachelor's degree at The Evergreen State College. In three short years, I transformed into a science student. My focus became Environmental Chemistry and Science Communication, with an emphasis on toxin and nutrient transport. Thanks to the encouragement of my faculty, I aced most of my exams and tutored my classmates. I participated in an Evergreen fellowship supporting research on biogeochemical cycling of phosphorus in forest soils. Through this fellowship and throughout my time at Evergreen, I gained instrumentation experience with the ICP-MS and Mercury Analyzer, as well as several others on campus. My 'capstone' research, through the Environmental Analysis program, centered around transport of Mercury from marine to stream ecosystems by way of salmon.

Upon graduation, I was again faced with a complicated reality. My job prospects were primarily manual labor field or lab work at an unlivable wage. As a first generation college student, I had worked as a server throughout school to pay for classes and bills. This didn't allow me the time to participate in more than one fellowship or internship to gain the needed

experience to qualify for better jobs. I remained in the service industry until a pandemic-prodded career shift into mushroom farming. My disillusionment didn't last, however, as the publication of the findings on the culprit tire-derived chemical which has been causing pre-spawn mortality syndrome in Coho salmon for decades ignited my drive to pursue environmental protection further.

Wielding my background in scientific research, I formed a small local group to see if we could experiment with mycofiltration as a means for treating 6PPD-quinone, the toxin. I got up to date on stormwater treatment research which had been underway in the region since the phenomenon was first discovered. It quickly became clear that we needed organizational structure in order to fund our experiment and gain community support, so together a friend and I co-founded Metamimicry to pursue this research. Our initial experiments were limited by funding, despite receiving a few small grants, lab donations, and generous community support. Our results did not support continuing to pursue mycoremediation as a solution for the toxin, and researchers at state agencies and universities with greater access to funding and institutional resources continue to explore bioretention experiments.

After a few starts and stops with other grassroots mycoremediation projects, it became more clear that we simply did not have access to the needed resources to pursue bioremediation experiments or monitor installations for effectiveness. Our angle as an organization shifted more towards increasing access to mushroom cultivation for food, medicine, and land healing, especially within indigenous communities. The primary program that I oversee within Metamimicry is a project in partnership with the Squaxin Island Tribe, called the SPoRE: Salish Place of Remediation Education. I have written and received several grants for this project, which allow us to build a robust mushroom program as an extension of the Salish Roots Farm, without pulling from the farm budget, and ensure that program is sustained by the Tribe. My responsibilities for this project include monthly mushroom workshops, mushroom lab work and cultivation, substrate experiments, grant writing and reporting, writing lab protocols and instructions, as well as training farm staff and Tribal members to operate the program independently.

Ideally, the Salish Roots Farm becomes a regional tribal hub for mushroom cultivation, and the team there can continue sharing their knowledge with other tribes. I see a natural end within this work as we achieve our goal of creating a sustainable farm program. Throughout my time working with the Squaxin Island community, people of the water, I have continued to dream of ways to support improved water quality in the region.

I am pursuing the Master's of Environmental Studies program as a means of achieving a public sector environmental career supporting water quality. I am ready to expand from my background navigating the non-profit sector. My experiences facing lack of institutional resources and funding have shed light on the value of working within state agencies. Furthermore, they provide broader reaching impact so that incremental changes to water quality

health might ripple further to protect iconic salmon and orcas in the region. Further education in environmental studies would best prepare me for pursuing these goals.