Statement of Purpose

Growing up in Seattle, where my love for the climate, forests, and mountains was fostered, I've witnessed firsthand the profound impact of climate change on our environment. The consequences extend far beyond environmental shifts; they profoundly affect the fabric of life in the Pacific Northwest. The loss of outdoor recreation opportunities, exacerbated by less snow in the winter and increased smoke in the summer, not only affects personal hobbies but also has tangible economic repercussions. The outdoor recreation economy, which annually generates \$51 billion in consumer spending in the Pacific Northwest and supports 451,000 jobs, faces a serious threat.

Moreover, the ecological ramifications are dire. Ocean acidification and compromised river water quality and volume threaten aquatic species, resulting in a staggering loss of sockeye salmon in the Columbia and Snake river basins. The dwindling snowpack in the Cascades, crucial for drinking water, river temperatures, and wildfire prevention, faces an estimated 80% reduction by 2080, further exacerbating water scarcity issues.

The escalating frequency and severity of wildfires add another layer of complexity. By 2050, the anticipated increase in severe wildfires, driven by longer, hotter, and drier summers, is expected to raise airborne particulate levels by 160%. This not only poses health risks but also disrupts communities and further strains economic resources.

These climatic shifts don't stop at altering outdoor activities and aquatic life. They lead to severe consequences, evident in extreme weather events like the flooding in Washington in December 2022. Such events damage homes, businesses, and critical public utilities, impacting infrastructure and threatening agricultural sustainability. Increasingly frequent and intense rainstorms promise more river and coastal flooding, endangering lives, eroding farmland, and polluting waterways, affecting both the food supply and public health.

The implications stretch beyond immediate physical damage. They extend into public health, disproportionately affecting vulnerable populations such as those who live and work outside. The increased risks of respiratory illnesses, heat-related ailments, and waterborne diseases are just some of the concerns. Moreover, these challenges aren't isolated; they carry substantial economic implications, affecting farming, fishing, infrastructure, healthcare, and ultimately, the overall cost of living and quality of life for the entire region.

These cascading effects underscore the urgent need to address climate change comprehensively. It's not merely an environmental concern but a multidimensional crisis impacting every facet of life in the Pacific Northwest, demanding innovative solutions and concerted efforts at the intersection of environmental science, economics, and policy.

To tackle this challenge, I believe that I need to acquire a solid foundation in environmental studies, as well as a diverse set of skills and perspectives from various disciplines. My educational background has prepared me for this endeavor, as I have pursued a

STEM-focused curriculum throughout my academic journey. I started at Raisbeck Aviation High School, where I developed a passion for science and technology. I then earned an AS in chemistry from South Seattle College, where I gained a deeper understanding of the chemical processes and phenomena that affect our environment. Finally, I completed a BS in chemistry with a minor in software engineering from the University of Washington, where I learned how to apply computational tools and methods to solve scientific problems. My curriculum included quantitative environmental analysis and investigative chemistry courses where I engaged in hands-on research involving environmental sampling, setting the stage for my subsequent three years as a chemical technician at Asko Processing. In this role, I maintained the chemistry of metal finishing solutions and treated wastewater, actively safeguarding the environment from heavy metals, corrosive chemicals, and cyanide. This hands-on experience solidified my commitment to public health by way of protecting the environment. It also highlighted global warming as the most pervasive threat. I worked at Asko during the deadly heat wave of 2021 and the winter storms of 2021 and 2022, and saw firsthand how these temperature extremes endanger blue collar workers. I witnessed the harmful effects of climate change on myself, my coworkers, and people around the globe. This further inspired me to join the fight against it. To do so, I need to gain the knowledge and skills that will allow me to pursue this as a career. I think that Evergreen College's Master of Environmental Studies can offer me that opportunity.

The MES program at Evergreen College stands out for its intersectional approach to environmental studies, with publications by faculty members like John Withey, Kathleen Saul, and others reflecting a commitment to addressing critical issues like energy education, land use, and cost-effective conservation planning. This interdisciplinary nature resonates with my goal of bridging the gap between climate science and business. My vision extends beyond academic pursuits, emphasizing practical solutions for businesses through an all-encompassing carbon budgeting service. This service, grounded in a scientific approach, aims to thoroughly track the climate impact of businesses, enabling precise insights into their carbon footprints. Moreover, I aspire to integrate a heightened ecological responsibility into the carbon budgeting process, emphasizing carbon sequestration through reforestation initiatives. Driven by the conviction that profitability and environmental responsibility can coexist, I aspire to question prevailing assumptions about the lack of economic viability in reducing CO2 emissions. This paradigm shift, I believe, holds the potential to cultivate a sustainable future where ecological and economic considerations reinforce each other. My commitment lies in the seamless integration of scientific rigor with environmental mindfulness, contributing to a transformative evolution in business practices.

In conclusion, my journey from the Pacific Northwest's pristine landscapes to my role as a chemical technician has fueled a passion for addressing the urgent challenges posed by climate change. Evergreen College's MES program stands out as the ideal platform to further my education, providing a holistic and interdisciplinary approach that aligns seamlessly with my aspirations. Armed with a robust educational background, GIS certification, and a commitment to merging environmental science with business, I am poised to contribute meaningfully to the urgent cause of combating climate change and fostering sustainability.