**The Hidden Truth: An Investigative Analysis of Water Contamination and Environmental Resilience on Long Island, New York**

My project will explore the significant yet severely overlooked 1,4 dioxane crisis that has long plagued Long Island's water supply. Extending just southeast of New York City, Long Island has the most contaminated water supply in the state and one of the highest levels of 1,4 dioxane in the entire country. A likely carcinogen, 1,4 dioxane has been strongly linked to tumors of the liver, kidneys, and nasal cavity. Additionally, of the more than 500 water systems on Long Island, 176 of them have detected at least one contaminant in their water supply.

Compounding larger issues of nitrogen pollution and algal bloom, 1,4 dioxane poses one of the greatest threats to environmental sustainability on Long Island. Yet, buried by large manufacturers, bureaucratic red tape, and profit-driven water districts, it remains one of the least reported topics by news reporters and television stations alike. Hence, my project attempts to boldly bridge this information gap; I wish to *uncover* an objective narrative and accurate timeline of the 1,4 dioxane crisis, *investigate* the extent to which it has impacted Long Island residents, and *question* how Long Island can best overcome this environmental challenge, drawing upon key concepts in my fields of study including environmental justice, urban policy, land use planning, and sustainable economic development.

My project will involve learning about Long Island's industrial history through online searches, analysis of *Newsday* articles, speaking to officials at Northrop Grumman, and working with the Long Island Historical Society. Additionally, I plan to interview members of the Long Island Water District and survey (through Qualtrics) Long Island residents to (1) determine their overall awareness of the situation, and (2) obtain testimonials from those who have been directly impacted by the crisis. I will then use Geographic Information Systems (GIS) to spatially map/analyze this data across Long Island. Despite the passage of certain legislation, low-income communities of color across Long Island have been disproportionately burdened by 1,4 dioxane contamination. Hence, not only do I want to humanize this matter, but I also want to highlight its overlap with Long Island's larger issues of environmental racism.

I will further my research through discussions with faculty at the Long Island-based Consortium for Interdisciplinary Environmental Research (CIDER). CIDER's faculty includes specialists in public health, geosciences, and economics with a deep understanding of Long Island history, which could prove to be an invaluable resource for my research. Furthermore, I plan to attend virtual committee meetings of the Nassau County Legislature, interview local policymakers, and consult with public health officials to determine the environmental needs of Long Island and craft appropriate policy recommendations.

Lastly, I will research similar environmental challenges across the United States and draw upon relevant literature in urban planning, community-centered organizing, and environmental conservation to synthesize my conclusions. Professor Stein has already been helpful in sharing such resources, including the "West Philadelphia Landscape Project" and the book *Preserving and Enhancing Communities: A Guide for Citizens, Planners, and Policymakers* by Elizabeth Hamin. I am confident that my project will result in a research paper that offers a coherent narrative for the 1,4 dioxane crisis on Long Island, providing sorely needed answers and detailing critical solutions for environmental resilience.

I believe that the vast knowledge I have accrued of Long Island—whether it be interning at the county legislature or taking a routine trip to the beaches of the South Shore—has prepared me for this "place-based perceptual" method of creating change. Through such an experience, I hope to learn more about Long Island, the place I have called my home for nearly twenty years, and forge a greater connection with its diverse population, tumultuous history, and rich landscapes. As Professor Stein teaches, landscape literacy is a crucial skill; one that I hope to sharpen throughout this experience. In the words of architect Anne Whiston Spirn, the ability to read landscapes and the stories they tell is a "cornerstone of community development and of urban planning and design." Learning to read Long Island's landscapes will not only connect me with its natural environment, but will also connect me with the imperfect stories of its past.

In all, I wish to bring issues of environmental justice to the forefront of Long Island's policy agenda and raise public awareness of this dangerously underreported crisis. Long Island residents deserve to know that their drinking water is safe and local officials, members of the water district, and industrial corporations must be held accountable.