

Sustainability Region

Ohio Wesleyan University & City of Delaware, Ohio

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We propose a sustainability region encompassing Ohio Wesleyan University and Delaware, Ohio, arrayed with a system of research action locations linked by a pedagogical green trail. The action locations will consist of environmental data monitoring and research projects (see below), designed to immerse students in the scientific method and investigate real, complex problems with unknown answers, pursued as part of a larger plan to understand the functioning of the region as an urban ecosystem. We will partner with the City of Delaware and the Delaware City Schools to integrate data collected by the City in a central on-line location alongside data from our research action locations. External grant funding is being actively sought for the project.

Sustainability Region Projects

During the academic year of 2011-12 students in John Krygier's Environmental Geography and Geographic Information Systems courses have worked with Ohio Wesleyan Sustainability Coordinator Sean Kinghorn on the following projects related to the Sustainability Region. Many are initially focused on campus, but will be expanded to the entire region in the future.

Anthropogenic Biomes of the Ohio Wesleyan & Delaware Sustainability Region. Julian Kusin, John Reiersen, Laurel Anderson, John Krygier. Development and mapping of a classification of human & natural biomes in the Region.

Sustainability Region Green Business Survey & Monitoring. Amy Carr, Sophie-Helen Kiendl, Sean Kinghorn. Web-based survey, data analysis, and mapping for monitoring and encouraging green practices among businesses in the Region.

OWU Waste Streams & Waste Monitoring. Reed Callahan, Zack Khalifa, Sean Kinghorn. Developing a methodology for monitoring and analyzing and mapping waste and recyclables on a building by building basis on OWU campus and in Delaware municipal buildings.

Sustainability Region Urban Ecology. Christina Fesz & Xandria Titus. Preliminary monitoring projects include water monitoring, bird monitoring (bioacoustic monitors), plant monitoring, air monitoring and the tracking and mapping of feral and abandoned cats.

Building Energy Monitoring, Analysis and Mapping. Silas Joliff, Adam Pinkerton, Jon Rux, Mason Tice, Keegan Varner, Sean Kinghorn. Techniques for monitoring building utility use and development of a method for normalizing utility use data (taking into account different building sizes, uses, etc.) to allow comparison of buildings.

OWU Solar Energy Potential and Monitoring. Sam Newman and Sean Kinghorn. Data for a solar potential map for campus and a proposal for pedagogical solar devices.

OWU Pedagogical Wind Turbine. Jon Rux. Proposal for a pedagogical wind turbine on campus, with monitoring capabilities.

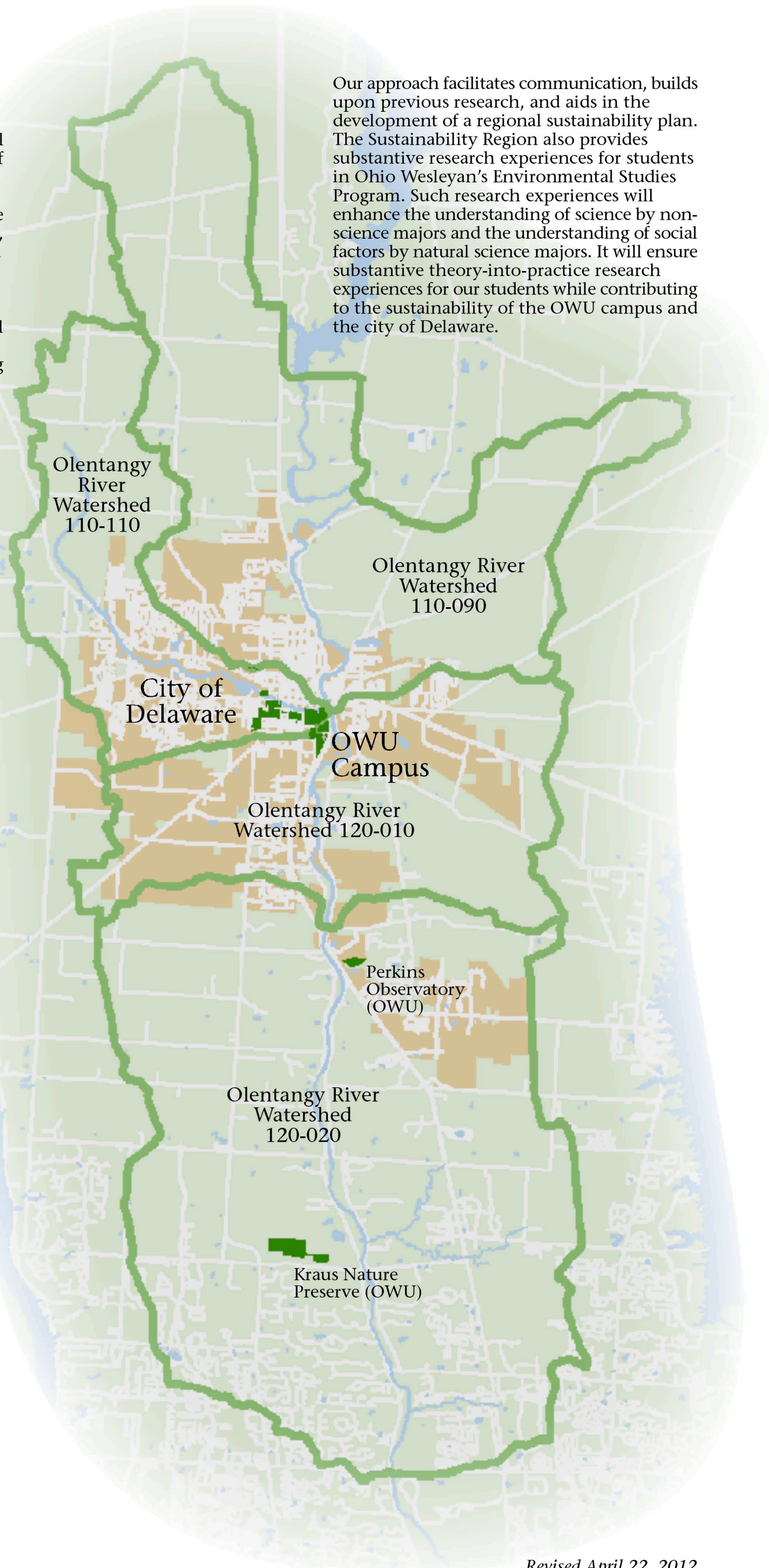
OWU Composting Program. Ethan Perry and Sean Kinghorn. Development of a composting program on campus, focused on food service compostables.

OWU Residential e-Waste Recycling. Chris Demecs, Lydia Hoefel, Sean Kinghorn. Events to help recycle e-waste from the residential side of campus to complement Information Services e-waste recycling on the academic side of campus.

OWU Big Move Out Waste Diversion. Sarah D'Alexander, Sophie Gage, Sean Kinghorn. Coordination of materials left behind by students moving away from campus at the end of the semester. Donations to charities off campus and to OWU's proposed Free Store.

OWU Transportation Survey. Silas Joliff, Sean Kinghorn. Survey and recommendations related to student, staff, and faculty transportation to and on campus (walking, biking, driving). Calculation of carbon footprint of OWU student, staff, and faculty driving.

Our approach facilitates communication, builds upon previous research, and aids in the development of a regional sustainability plan. The Sustainability Region also provides substantive research experiences for students in Ohio Wesleyan's Environmental Studies Program. Such research experiences will enhance the understanding of science by non-science majors and the understanding of social factors by natural science majors. It will ensure substantive theory-into-practice research experiences for our students while contributing to the sustainability of the OWU campus and the city of Delaware.



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