

November 24, 2010

To: Student Sustainability Committee
From: Institute of Natural Resource Sustainability (INRS), Dr. William Shilts,
Executive Director
INRS: Gary Miller, associate Executive Director, INRS, 217.333.8942;
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Subject: Letter of Inquiry Proposal: NRB Native Prairie Plant Production and Pilot Garden
Relevance: Sustainability Fee (grant)

A well planned and well maintained native prairie plant garden is needed near central campus and in an area of high visibility to visitors.

The Institute of Natural Resource Sustainability proposes to use its greenhouses adjacent to the Natural Resources Building (NRB) near the intersection of Pennsylvania and 6th Street, to begin growing sustainable, native plants for use on campus. This effort would be undertaken by staff in INRS with extensive expertise, including some recent retirees, and with the assistance of students enrolled in Landscape Architecture. The plants grown in these greenhouses would be used to supply material for existing landscapes on campus as well as new ones planned for the near future. Besides the educational value, plants grown in these greenhouses will be available at a much lower cost than commercial suppliers. The scale of greenhouse operations proposed is for plant material needs around the NRB, some additional plants to supply existing native plant gardens including near the Presidents house, and some new gardens. In the future there is room to expand production if there is demand. During the next year students in Landscape Architecture will be given hands-on experience growing these plants. They do not get this practical experience in their current coursework. This will enhance their educational experience and make them better prepared graduates.

A significant barrier to acceptance of native plant gardens on campus is lack of documentation of their maintenance and value. A written and video instructional manual will be produced as a learning tool as an important element of this project. This manual will be for use of students in Landscape Architecture, staff in Facilities and Services, and volunteers in INRS.

This proposal also includes installation of native plantings around the Natural Resources Building. Specifically, a pilot prairie garden (approximately 200 feet by 100 feet) will be planted along Pennsylvania Avenue. This garden will be highly visible to visitors to the Campus Bike Project, visitors to football games, students, staff and the general public. It could be expanded in the future. Also, shade tolerant woodland plants are envisioned for the north side of the NRB. This would serve as a demonstration of this type of planting on campus. The possible types of plants to be included, depending on design approval, are native species of blue bells, May apple, bloodroot, wild geranium, celandine poppy, wild ginger and Solomon's seal.

Educational signage will also be made for a permanent display within these plantings. The purpose of the signage will be for a permanent exhibit. The signs will identify the plants and explain their value and care. This permanent exhibit will be maintained by INRS staff and will be used during our annual Naturally Illinois Expo. There are about 2,000 visitors to the Expo

each year. This will also be available to faculty in their teaching and research as well as to school groups.

In the introduction to the UIUC Climate Action Plan, Interim Chancellor Easter says: “Our intentions are clear and our goal remains ambitious: to be the model of sustainability for all universities in the nation.” The University of Illinois made a commitment to sustainable landscapes in the Climate Action Plan and landscape spaces with native plants should increasingly be part of that strategy. Conversion of lawn to low-maintenance perennial plants results in a reduction in the need to mow and apply lawn chemicals. Plants native to Illinois are well adapted to local climate and soils. These species are part of our ecological heritage. Our goal is to provide a local, accessible space that increases educational opportunities for students in natural resources, biological sciences, and landscape architecture. A native plant garden will provide habitat for native insects like bees which are important pollinators of plants including economically viable crops (e.g. fruit trees). Deep-rooted prairie plants have been shown to sequester carbon. This small space will likely contribute negligibly small amounts of carbon sequestration but the opportunity to demonstrate this to students and the public is valuable. A garden space is more beautiful than mowed lawn. Changes in color and texture through the seasons of a well planned and botanically diverse native plant garden could bring that beauty to many spaces in the south campus area.

This can be the start of a larger, comprehensive planning effort for the south campus area. We will work with Facilities and Services to consider storm water management, building expansion, connecting buildings and spaces with landscape design, and to resolve maintenance and upkeep issues.

Draft Budget:

Prairie plant material (400 plants @\$2 ea.)	\$	800
Seeds (40 species @ \$2/packet)		80
Greenhouse charges (\$0.30/ft ² /week for 200 ft ² for 12 weeks)		720
Plastic flats and pots		175
Potting soil		200
Shade-tolerant woodland plants		4,000
Mulch (2 cubic yards @\$20/yd)		80
Herbicide application (if needed)		100
Auger for planting		45
Drill rental (for auger)		100
Rakes and shovels (for mulch)		100
Refreshments for student volunteers		75
Educational Signs		1,275
Staff time to document and prepare signage		6,000
Photo and video documentation		5,500
Total Estimated Costs	\$	20,000