**Funding Criteria**

**A. General Rules**

1. Students, faculty, and staff are encouraged to submit requests for funding. Student-led projects require a faculty or staff sponsor in order to have funds awarded.
2. Funding can only go to university-affiliated projects from students, faculty, staff, and departments.
3. All SSC projects must make a substantial impact on students. This may be a direct impact or an impact through education and engagement. All SSC funding is 100% from student green fees, so the projects funded by the students must benefit them.
4. SSC encourages innovation and new technologies – creative projects are encouraged to apply.
5. Unless a type of expense is specifically listed below as having restrictions, SSC can generally fund it. The items referenced below should not be taken as comprehensive list.

**B. Things SSC Can Fund, On A Case-By-Case Basis**

1. SSC can fund feasibility studies and design work; however, it must work toward ultimately addressing a sustainability need on campus.
2. SSC can fund staff positions that are related to improving campus sustainability. Strong preference will be given to proposals receiving matching funding from departments and/or plans for maintaining continuity of the position after the end of the initial grant.
3. SSC can fund outreach events with a central theme of sustainability, provided their primary audience is the general campus community.
4. SSC discourages funding requests for food and prizes but will consider proposals on a case by case basis that prove significant reasoning.
5. SSC can fund repairs and improvements to existing building systems as long as it works toward the goal of improving campus sustainability; however, a preference is shown to projects utilizing new or innovative ideas.
6. SSC can provide departments with loans for projects with a distinct payback on a case by case base. Loans will require a separate memorandum of understanding between SSC and departmental leadership pledging to repay the award in full and detailing the payback plan.

**C. Things SSC Will Not Fund:**

1. SSC will not fund projects with a primary end goal of generating revenue for non-University entities.
2. SSC will not fund personal lodging, food, beverage, and other travel expenses.
3. SSC will not fund any travel expenses.
4. SSC will not fund tuition or other forms of personal financial assistance for students beyond standard student employee wages.

**Your Step 2 funding application should include this application, the supplemental budget form, and any letters of support.**

*Please submit this completed application and any relevant supporting documentation to* *Sustainability-Committee@Illinois.edu**. The Working Group Chairs will be in contact with you regarding any questions about the application. If you have any questions about the application process, please contact the Student Sustainability Committee at* *sustainability-committee@illinois.edu.*

**General & Contact Information**

**Project Name:**

**Total Amount Requested from SSC:**

**Project Topic Areas:** x[ ]  Land & Water x[ ]  Education [ ]  Energy

[ ]  Transportation [ ]  Food & Waste

**Applicant Name:** Kevin McSweeney

**Campus Affiliation (Unit/Department or RSO/Organization):** Arboretum/Natural Resources & Environmental Sciences

**Email Address:** mcsween@illinois.edu

**Check one:**

 [ ]  This project is solely my own ***OR***

 x[ ]  This project is proposed on behalf of (name of student org., campus dept., etc.):

**Project Team Members**

|  |  |  |
| --- | --- | --- |
| **Name** | **Department** | **Email** |
| Kevin McSweeney | NRES/Arboretum | mcsween@illinois.edu |
| Jacki Rand | Chancellor’s Office/ American Indian Studies | jacki@illinois.edu |
| Michael Ward | NRES/Faculty Advisor Red Bison | mpward@illinois.edu |
| Jamie EllisJoel Armas Vijay Shah  | IL. Nat. Hist. Survey/ Natural Areas Coordinator Red BisonRed Bison | jellis@illinois.eduJoelsa2@illinois.eduVijayms2@illinois.edu |

**Student-Led Projects (Mandatory):**

Name of Faculty or Staff Project Advisor:
Advisor’s Email Address:

**Financial Contact *(Must be a full-time University of Illinois staff member)***

Contact Name: Kelly Sullan

Unit/Department: Natural Resources & Environmental Sciences (NRES)

Email Address: sullan@illinois.edu

**Project Information**

*Please review the proposal materials and online content carefully. It is highly recommended you visit a working group meeting sometime during the proposal submission process.*

**Please provide a brief background of the project, its goals, and the desired outcomes:**

*You may copy and paste your Step 1 application answer if nothing has changed.*

Restoration of the Southern Arboretum Woodlands (SAW) has benefitted from two previous SSC grants. The initial grant provided funding for removal of a dense understory of honeysuckle and other invasive species. The current grant focused on selective harvesting of trees, some of which are being milled to produce various lumber grade products. Along the way, prairie patches and understory native shrubs are being established and work continues on suppression of invasive species. This project is designed to build upon the current state of the SAW restoration and introduce elements of Indigenous gardens within the SAW and other selected locations within the Arboretum. Tribal partners will provide advice and guidance through all phases of the project. Vice Chancellor Rand will serve as the liaison with Tribal partners. The plant assemblages will include exemplars of those traditionally used by Indigenous people for food, fibre, fuel, construction, and medicinal purposes. The assemblages will be located to match soil hydrology which trends from moderately well- to poorly-drained from east to west across the site and shade tolerance as influenced by canopy light penetration, which is patchy. Education/Outreach/Research is an important element of the project and will showcase Indigenous gardening as a model for sustainable land management. Providing a service to Tribal partners in the recovery, preservation, and production of Native Knowledges related to plants, language, and cultural practices is a central project goal. We are optimistic that this initiative will build bridges between campus and Native communities and foster opportunities for other ventures that respect and learn from Indigenous knowledge.

**Where will the project be located? Are special permissions required for this project site?**

*If special permission is required for this location, please explain, and submit any relevant letters of support with the application.*

The project will be located within the grounds of the Arboretum. The Southern Arboretum Woodlands will be the principal focus. Other locations such as the Hartley Collections Garden will be considered for Indigenous demonstration gardens featuring native plant assemblages for outreach programs. Kevin McSweeney is the Arboretum Director and responsible for activities on site. He will consult as needed with campus, F&S and ACES colleagues, Ameren, and City of Urbana as specific needs arise. For example, Ameren has already been consulted about tree trimming along their utility right-of-way.

**Other than the project team, who will have a stake in the project? Please list other individuals, groups, or departments affiliated directly or indirectly by the project. This includes any entity providing funding (immediate, future, ongoing, matching, in-kind, etc.) and any entities that benefit from this project.**

*Please attach letters of commitment or support at the end of the application.*

The Prairie Band Potawatomi, as represented by council member Raphael Wahwassuk, and Associate Vice Chancellor Jacki Rand have reached a tentative agreement to create a partnership around the Indigenous Garden project. They are planning meetings for summer 2023 to introduce the project to the Tribal government and their specialists and to work out the parameters of the project. We anticipate that other Tribal entities will become engaged in the project as the initiative gathers momentum.

Faculty and students in a variety of departments have already expressed interest in the project including those in American Indian Studies, History, Natural Resources and Environmental Sciences along with colleagues in the Illinois Natural History Survey. We anticipate that broader campus engagement will ensue as the project matures.

The Arboretum staff operates a large chipper and chain saws (purchased from funds provided by The Departments of NRES and Crop Sciences) during volunteer work-days.  UIUC South Farms and the Turf Research Center provide additional support in terms of expertise and short-term equipment loans (grain trucks for hauling wood chips etc.). The Arboretum purchased with funds ($65,000) from the Offices of the Provost and the ACES Dean, an Avant Loader, which is an articulated vehicle designed to work with a variety of specialized attachments (*e.g.*, forks, bucket, tree shear, winch). This vehicle with appropriate attachments will be a key tool for thinning of the woodlands, which is an important component of the proposed project. A private donor has provided funds for purchase of a log grabber ($10,000) for the Avant loader which will appreciably improve the efficiency and safety of tree felling operations and transportation/storage of logs. The donor also provided funds ($20,000) for purchase of a small utility vehicle that is dedicated for work in the SAW.

The Red Bison student organization is the core of the volunteer effort and has a shed installed on the project site. The shed will be used for storing their equipment and serve as a gathering space for volunteer work parties. Other campus organizations and several classes have participated in work-days at the SAW.  Numerous community members join the students on work-days.  For example, the Master Naturalist Program members receive volunteer credit for helping with campus native planting projects.

**How will this project involve and/or benefit students?**

*This includes both direct and indirect impact.*

We plan to involve students in all phases and elements of the project. Red Bison has its storage shed and gathering space at the SAW. Red Bison have been a key partner with the Arboretum since work commenced at the SAW over 6 years ago and will continue to work with us on this project. Student hourlies will be hired to assist with all aspects of field work including logging, planting, invasive species management, mulching and monitoring of project objectives. Interested students will have the opportunity to obtain certification in chain saw safety and pesticide application, which are valuable ‘resume-builders’ for students focused on natural resource management. Students will learn about Indigenous knowledge through our collaboration with Tribal partners and campus faculty. The project will improve the utility of the SAW as an outdoor laboratory and provide a portal for illustrating application of Indigenous knowledge and a deeper appreciation about Land Acknowledgement. The SAW has seen an increase in use for UIUC classes in soil science, wildlife ecology, dendrology, and plant ecology, as well as for K-12 Summer programs in the last several years. The annual NRES Freshman Field Day is hosted at the SAW.

**How will you bring awareness and publicize the project on campus? In addition to SSC, where will information about this project be reported?**

The Arboretum periodically works with local news organizations including the News Gazette and local TV stations to feature stories about the Arboretum and we anticipate that this initiative will be of great interest to local media. Campus outlets that have a history of reporting on Arboretum news and public interest stories include ACES Marketing and Communications, the Daily Illini, Institute for Sustainability, Energy & Environment, Chancellor’s Office Public Affairs, University of Illinois Extension Marketing & Communications, Japan House, and various departmental newsletters/websites.

# Financial Information

*In addition to the below questions, please submit the supplemental budget spreadsheet available on the Student Sustainability Committee* [*website*](http://ssc.sustainability.illinois.edu/?page_id=2087)*. Submission of both documents by the submission deadline is required for consideration of your project.*

**Have you applied for funding from SSC before? If so, for what project?**

Enhancing Ecosystem Services in the Southern Arboretum Woodlands: Habitat Improvement and Reusing Lumber. 2020.

**If this project is implemented, will you require any ongoing funding required? What is the strategy for supporting the project in order to cover replacement, operation, or renewal costs?***Please note that SSC provides funding on a case by case basis annually and should not be considered as an ongoing source of funding.*

We anticipate that volunteer efforts along with class related projects will assist Arboretum staff in long term management of the area. In addition, we will aggressively seek grants and private funding to enhance the utility of the area for education/outreach, and applied research. We are working with Patrick Gavin (ACES, Director of Development) to secure private funds for support of the project (plant material, intern support, travel etc.).

**Please include any other obtained sources of funding. Have you applied for funding elsewhere?**

*Please attach any relevant letters of support as needed in a separate document.*

We anticipate that once the collaborators have established the scope and vision for the project, we will be in a strong position to seek other sources of funding.

# Environmental, Economic, and Awareness Impacts

**How will the project improve environmental sustainability at the Urbana-Champaign campus? If applicable, how does this project fit within any of the** [**Illinois Climate Action Plan**](https://icap.sustainability.illinois.edu/) **(iCAP) goals?**

On-going partial capture of carbon stored in a 55+ year-old wooded area via salvage and reuse of lumber for sustainable building projects. Reuse of other woody debris for mulch. Establishment of new plantings to enhance biomass and soil capture of carbon dioxide. Improved and diversified ecosystem services via new plantings creating multistoried canopy architecture with expectation of improved habitat for animal, plant, and microbial communities. Anticipated enhancement of ecosystem services includes improved landscape hydrology, soil structure and reduction in soil erosion; more diverse, seasonally varied, and abundant food sources (fruits and berries) and pollen sources (flowering trees and shrubs) for fauna; richer and more diverse substrates/habitats for microorganisms, insects and small mammals and reptiles. Aesthetic improvement of the project area through transformation of the area towards a deciduous woodland with savanna openings and imbedded Indigenous gardens. It is anticipated that through documentation of the transformation process, lessons will be learnt that will serve as guide and a stimulus for improving ecosystem services in similar degraded woodlands in other urban and suburban areas of east central Illinois.

The project is not designed as a classic restoration in which an attempt is made to recreate a representation of a prior native ecosystem. The site history and modifications to the surrounding landscape (*e.g.* drainage, urbanization) frustrate an attempt to recreate a wet grading to mesic prairie, the likely precursor native ecosystem to its subsequent tile drained modification for agriculture. The site’s more recent history as a site for experimental research forestry plots adds further complexity to conceiving what might be a ‘native’ ecosystem. Our approach is to remodel the landscape through removal of undesirable species, protection of desirable species and introduction of management practices and new species that will enhance biodiversity and other ecosystem services. As such our project is a novel experiment in landscape remodeling that will test the feasibility of improving important ecosystem services and functions including pollinator habitat and services; habitat for other insects, fungi, lichen, birds, small mammals, *etc.*; soil and biomass carbon storage; and optimal water infiltration and storage.

We anticipate that volunteer efforts along with class related projects will assist Arboretum staff in long term management of the area. In addition, we will aggressively seek grants and private funding to enhance the utility of the area for education/outreach, applied research and recreation.

**How will you monitor and evaluate the project’s progress and environmental outcomes? What short-term and long-term environmental impacts do you expect?**

*Some examples include carbon emissions, water conservation, green behavior, and reduced landfill waste.*

Imagery from low-level drone flights will be used to monitor extent/success of invasive species removal. A series of student-centered research projects will be developed to collect baseline and ongoing data on soil organic carbon storage, avian, mammal and insect ecology along with extensive surveys of plants including mosses, lichens, and liverworts. Phenological observations will be recorded.

**What are your specific outreach goals? How will this project inspire change at UIUC?**

See below.

**If applicable, how does this project impact environmental injustice or social injustice?**

Preliminary discussions with two potential Tribal partners to identify areas of interest relative to the garden project are underway. It will take some months to bring representatives to campus to visit the garden, meet with potential campus partners, and further sketch out specific projects. Associate Vice Chancellor Jacki Rand has taken the lead in pursuing these discussions while keeping Director McSweeney in the loop as they progress. Given the history of the University, Rand is taking a measured pace in order to clearly understand Tribal priorities, to avoid any hint of overpromising, to share information about the breadth of campus partners, to explore the possibilities for primary and applied research, and to identify potential areas of conflict between university and Tribal priorities.

The potential of the garden run in a variety of directions. Rand, who begins teaching in Fall 2023, plans to develop a course centered on the Indigenous Garden which will explore the history of the Indigenous Midwest, environmental studies of pre- and post-contact Illinois, Miami/Peoria and Potawatomi language studies, the history of Indian Removal, Native revitalization, and ethnobotanical studies. These same themes will be the subject of other UIUC faculty course offerings, student research and coursework, and faculty research and publication. The garden will play a role in the revitalization of Indigenous knowledge about plants, their uses, connections to cultural practices, and will possibly extend to preservation of Tribally preserved plant species. This project will fold into Tribal initiatives around knowledge preservation, recovery, and production. It will contribute to reversing more than a century of erasure of Native history and the presence and roles of Native peoples in the Midwest.

Tribal connections must be rooted in action that reflects their interest and addresses their needs. The Tribes are very clear about their desire to see campuses where their students can see themselves, that facilitate the recovery and production of knowledge, and contribute to their well-being. The Indigenous Garden project is one where Tribes and University partners, including students, faculty, staff, and administrators, and focus their energies on a shared mission that will potentially benefit many parties.