**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:** Land Addition to Vermilion River Observatory

**Total Amount Requested from SSC:** 100,000

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

[ ]  Transportation [ ]  Food & Waste

**Applicant Name:** Brian Allan

**Campus Affiliation (Unit/Department or RSO/Organization):** Department of Entomology, School of Integrative Biology, College of Liberal Arts and Sciences

**Email Address:** ballan@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.): Committee on Natural Areas, Office of Vice Chancellor for Research and Innovation

**Project Team Members**

|  |  |  |
| --- | --- | --- |
| **Name** | **Department** | **Email** |
| James Ellis | UI Natural Areas-INHS | jellis@illinois.edu |
| Nathan Hudson | UI Natural Areas-INHS | nhudson@illinois.edu |
| Brian Allan | Entomology-SIB | ballan@illinois.edu |
| Name | Department/Organization | Email Address |

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

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

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

Contact Name: Adam Deany

Unit/Department: Illinois Natural History Survey-Prairie Research Institute

Email Address: adeany@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.*

The University Committee on Natural Areas proposes to purchase one or more parcels of land adjacent to the Vermilion River Observatory (VRO, see attached map). The VRO is a 500 acre property owned by the University of Illinois situated five miles southeast of Danville, Illinois. For over 50 years, it has been utilized for teaching and research in the astronomical, biological, ecological, and other sciences.

The owner of the adjacent land has expressed desire to sell the property by the end of calendar year 2020. They own approximately 219.4 acres in three parcels (93.1, 95.3, 31 acres) to the south and west of the VRO. They have not listed the property with a real estate agent at this time. Purchase of the whole property is desirable, but the project team thinks it most feasible to pursue one parcel (93.1 acres).

Purchase of adjacent property would extend University-owned property to the Vermilion River. This would greatly enhance teaching and research opportunities for University of Illinois students in aquatic ecology as well as creating opportunities in land restoration and carbon sequestration.

• With this project, we hope to add land to the VRO that connects the current University property to the Vermilion River. With this, we will add valuable space for natural areas conservation as well as teaching and research opportunities.

• Money needs to be raised for purchase price and closing costs. Purchase price is unknown at this time. An appraisal has been ordered to provide a benchmark for negotiations.

• The successful purchase of one or more parcels of land adjacent to the VRO is an indicator of success.

• Another indicator of success will be student involvement in the process of managing the newly acquired property. We will solicit student volunteers and researchers to design an ecological restoration project focusing on former agricultural land on the purchased property. Students will participate in all aspects of this project, including developing and enacting a restoration plan.

• An additional benefit of the restoration plan will be a measurable (or calculated) increase in carbon sequestration on University-owned land.

**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 site is adjacent to the Vermilion River Observatory (VRO). The VRO is a 500 acre property owned by the University of Illinois in Vermilion County about five miles to the south and east of Danville. The formal address is 13589 S. Union Rd Danville, IL 61834. It takes about 45 minutes to drive one-way from the Urbana campus to the VRO.**

**The VRO is mostly forested and characterized by ridge and ravine topography with ephemeral streams that drain west to the Vermilion River. There are approximately 100 acres in row crop agriculture leased to a local farmer, approximately 90 acres in grassland (old field) or scrub (areas that were cleared of forest and have regrown with mostly non-native shrubs and early successional tree species), and the remaining acres are forest. The forest is an eastern deciduous type and much more species rich than the other "prairie grove" type woodlands in east-central Illinois. American beech and tulip trees are readily found here. This area has a number of plant, insect, and vertebrate species not found at other University Natural Areas. Much of the area was grazed by livestock in the late 19th into the early 20th centuries, and timber was harvested in the early 1900's. There are several steep north and south facing slopes with at least a half dozen unique wetland seeps in the ravines. There is also access to part of a 15-acre, old oxbow pond that was cutoff from the river many years ago.**

**Much of the adjacent property in this proposal is very similar to the VRO. Over half of the 93.1 acre parcel consists of forest on ridge and ravine topography, and there's about 12 acres of fields that are managed for hay. One differing and desirable feature is about 20 acres of floodplain forest along the Vermilion River, which will provide excellent river access. This parcel is bounded on the west by almost a half-mile of the river. The 95.3 acre parcel is almost all forested except for a few acres kept in lawn around a house and outbuildings. The 31 acre parcel is almost all agriculture field currently managed for hay.**

**The Vermilion River is free flowing with a substrate consisting mostly of sand and gravel. This is characteristically different from silty prairie rivers like the Sangamon and Embarras. The Illinois Department of Natural Resources considers most stretches of the Vermilion River to be biologically significant due to high species richness and the presence of rare or protected species.**

**No specials permissions will be required for this project site.**

**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.*

University of Illinois faculty, staff, students, or affiliates who utilize University Natural Areas for teaching and research will have a stake in this project. In particular personnel and students from the Department of Natural Resources and Environmental Sciences in the college of ACES; the School of Integrative Biology including the departments of Plant Biology, Entomology, and Evolution, Ecology, and Behavior in the college of LAS; the Illinois Natural History Survey in the Prairie Research Institute, Office of Vice Chancellor for Research and Innovation; and the Department of Electrical and Computer Engineering in the Grainger College of Engineering. The student chapter of the Wildlife Society utilizes the VRO for field trips and special events.

The Committee on Natural Areas (CNA) is comprised of University faculty who oversee University of Illinois Natural Areas. Members of the Committee include Brian Allan (chair), Carol Augspurger, George Batzli, May Berenbaum, Steven Franke, Alexandra Harmon-Threatt, Gene Robinson, Eric Schauber, and Robert Schooley. Natural Areas staff include James Ellis, coordinator, and Nathan Hudson, research specialist. The CNA supports pursuing this project.

Funding and support for the project will be sought from the Student Sustainability Committee, the Office of Vice Chancellor for Research and Innovation, and the units mentioned above. In addition, other units that utilize University Natural Areas will be approached including the School of Earth, Society, and Environment, the Department of Geology, the Department of Geography and Geographic Information Systems, and the Department of Civil and Environmental Engineering. In addition, we are approaching the University of Illinois Foundation to inquire if they or any donors they work with might be willing to provide funding.

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

*This includes both direct and indirect impact.*

**Purchase of land adjacent to the VRO will provide direct access to the Vermilion River as well as expand the land and habitat types available for teaching and research, for both undergraduate and graduate students.**

**• There will be opportunities for teaching and research related to river hydrology, riparian zones, and aquatic ecosystems. The Vermilion River is a unique ecosystem and will provide important research and teaching opportunities different from those currently available on University Natural Areas adjacent to the Sangamon and Embarras Rivers.**

**• Students, instructors, and researchers will be able to freely access the Vermilion River from University property rather than trying to gain permission from a private landowner as has been occasionally done in the past.**

**• Over sixty undergraduate and graduate students at the University of Illinois utilized the VRO in 2019 for classes and research projects. This is less than at times in the past due to travel and logistical limitations of some instructors and researchers.**

**• The Committee on Natural Areas members and staff hope and plan to revitalize interest in use of the VRO with the opportunity for river access and long-term plans to create a biological field station for education and research in environmental science.**

**• Ecological restoration projects will create volunteer and research opportunities for students to engage directly in habitat restoration within the highly relevant context of managing former agricultural lands in the Midwest. With acquisition of at least the 93.1 acre parcel, 12 acres of former agricultural land would become available for a student-led habitat restoration project.**

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

The project team will bring awareness to this project through direct methods, indirect methods, and on-site events. Direct methods include email announcements to Natural Area users and letters to supporting units. Inquiries will be made directly to faculty who have an interest in planning and carrying out research and teaching projects related to habitat restoration projects. Indirect methods include announcements on campus unit websites, e-newsletters sent to supporting unit faculty, staff and students, and an announcement sent to the University News Bureau. On-site events will include tours that will be coordinated by Natural Areas staff with support from the Committee on Natural Areas. Tours will likely occur when weather and field conditions are amenable, and there are interesting and unique phenomena to see. The best time will likely be starting in Spring 2021 (late April through May) when visitors will be able to observe spring woodland wildflowers, migratory birds, and with a bit of luck, unique species of salamanders, frogs, and snakes. The team will be especially aware of bringing students to the site. Plans will be made to make sure students can get to the VRO (e.g. coordinate carpools, rent University vans for fieldtrips) for previously arranged tours, class visits, and research. To implement the ecological restoration projects, we will advertise for and organize student volunteers and develop a feasible habitat restoration plan on former agricultural lands.

# 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?**

Yes. James Ellis has assisted on past projects funded by SSC. These include the Vet-Med Tallgrass Prairie Garden (2008-09), Florida/Orchard Prairie (2009-10), Student-Led Census at Trelease Woods (2017-18), and Census of Trelease Woods, Phase 2 (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.*

The ongoing management of the newly acquired property likely can be sustained by the existing budget and staff resources of the Committee on Natural Areas as provided by the Office of Vice Chancellor for Research and Innovation. Electrical and Computer Engineering is the responsible unit for the Vermilion River Observatory, and they receive income from the lease of the agricultural fields on-site. Natural Areas receives a portion of this income for maintenance and management of the VRO.

**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.*

Funding and support is being sought from other campus units with an interest and stake in utilizing the VRO for teaching and research. In addition, inquiries are being made with the University of Illinois Foundation. Their staff might be able to connect us with interested donors. The Office of Vice Chancellor for Research and Innovation has agreed to cover the cost of an appraisal. As of this writing, no commitments have been formally made, and commitment of funds from multiple supporting units will be required to complete the purchase. In the event that sufficient funds cannot be raised, or the purchase cannot otherwise be completed, SSC funds committed for this land purchase will be returned.

# 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?**

Field space for research on natural habitats provides an invaluable learning experience for students in the sciences and other disciplines.

• Currently, the Committee on Natural Areas stewards about 1000 acres of land at ten sites set aside for teaching and research. These mostly forested properties are managed to conserve natural resources contained therein as well as to try and maintain natural ecological functions.

• Maintaining trees and a forested landscape on University property will be of value to the overall carbon footprint of the University of Illinois. If not the University or another conservation-minded entity, future owners might choose to engage in intensive land uses (e.g. timber harvest, row-crop agriculture) that would be a detriment to the ecological integrity of the VRO, the Vermilion River, and the landscape of Vermilion County.

• In the 2015 iCAP, the Agriculture, Land Use, Food, and Sequestration SWATeam (now Land and Water SWAT) recommended increasing carbon sequestration in campus soil. This property is off the main campus, but there will be opportunities to restore natural habitats in areas of purchased property used for agriculture. Planting trees and other vegetation will sequester carbon, build habitat, and provide further teaching and research opportunities in ecosystem restoration and management.

**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.*

**The purchase of one or more parcels of land adjacent to the Vermilion River Observatory (VRO) will be an indicator of success. Planning and implementation of ecological restoration projects will be another indicator of progress. Data collected and research outcomes will depend upon specific teaching and research objectives from the campus community. Carbon sequestration could be estimated from the number of trees planted or other vegetation restored to the agricultural fields. Acres of habitat created (e.g. planting trees) or restored (e.g. removal of invasive plant species) for particular species will be directly measured. Monitoring projects for specific taxa could be developed and measured over time.**

**In the short-term, purchase of one or more parcels will assure that the land between the VRO and the Vermilion River will remain natural. In the long-term, restoration and management projects will help to create and improve forest habitat, sequester carbon, and contribute to the health of the Vermilion River.**

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

**Outreach goals for this project will specifically include: raising awareness about the Vermilion River Observatory as a resource for teaching and research; informing the University community about the preservation of additional natural areas; and enhancing student use of and engagement with the University Natural Areas through guided tours, visiting classes, and participation in a restoration project.**

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

**The project team is not sure how this project will directly impact environmental or social injustice, but we look forward to discussions on how to best incorporate that facet into this project.**