

I. Summary

In 2008, the Student Sustainability Committee awarded us \$3,200 to produce a “green map” of Champaign-Urbana. This map was to be modeled after once from Athens, OH, and Boise, ID, as university towns. The goals were to inform the university community and the greater Champaign-Urbana community of “green” businesses and organizations in the Champaign-Urbana area and to provide a service-based learning opportunity for the Introduction to GIS (Geographic Information Systems) course offered by the Department of Geography. As the project progressed, we were able to integrate better with the business community than expected but did not get the classroom experience we had planned. Nevertheless, we have produced a map that will be updated as necessary and provided a valuable learning experience for our undergraduate RA.

II. Project execution

The project was carried out from January 2010 to May 2010. There were two main components to the project and two main uses of the funding.

1) The original plan was to use the ten GPS (global positioning units) funded by the SSC to involve students in an Introduction to GIS course, Geog 379, in a service-learning project putting together the map. However, the project PI did not teach the course as scheduled in Fall 2009.

Instead, we implemented the project in a different course: Geog 105, The Digital Earth. Because this was a 100-level class and involved a smaller laboratory component than 379, we were not able to produce the map to the level of detail that we had expected. Instead, we used the website [opengreenmap.com](http://www.opengreenmap.com) and started a green map for Champaign-Urbana focusing on campus and the immediate vicinity.

After some discussion of what a “green map” meant and what elements that might include, students started with the list on the Open Green Map website and brainstormed the elements they wanted to include. They then used the GPS units during lab time to walk around campus and record instances of the elements chosen. Some areas of campus were walked by more than one lab section to ensure accuracy. The students then inputted their results, and the final product can be seen here: <http://www.opengreenmap.org/greenmap/champaign-urbana-green-map>

2) Because we were not able to carry out the project within the class as planned, more work fell on the undergraduate RA. Andrea Hail, a senior geography major, worked from January 2010 to May 2010 to gather additional sites to add to the Open Green Map beyond what the students were able to gather on campus. She also produced the paper green map that is being distributed within the community. This included, again, defining the kinds of sites we wanted to list on a “green map”. We came up with twelve categories:

- Eco-agriculture (organic producers)
- Eco-certification (organizations involved in green certification)
- Environmental education
- Farmers' markets
- Green building (as certified by the US Green Building Council)
- Transportation (sites for non-car transportation)
- Green enterprise (in cooperation with the Illinois Green Business Association; more on this below)
- Organic/food (retail outlets)
- Recycling (sites that accept batteries and compact fluorescent light bulbs)
- Car sharing
- Research (sites where environmental research is done)
- Reuse shops

After identifying the organizations that fit these categories, Andrea used ArcMap to produce the map shown in the brochure, geocoding the organizations by address. Because we intended to print the map in black and white, we used different symbols for the different categories, leading to a very long map legend! The brochure also includes a definition of what a green map and a sustainable city are and why they are important concepts to know. A digital copy of the brochure is attached.

As she investigated sites to include on the map, Andrea came across the newly-formed Illinois Green Business Association, headquartered in Champaign and expanding across the state. They were eager to work with us on the map, and many of the places included are thanks to them. They have also agreed to permanently host the map in PDF form on their website and to distribute copies of the final product.

Andrea also took charge of finding an establishment to print the brochures. Thanks to an ad in the Daily Illini, we found that Insty-Prints had soy-based ink and recycled paper available, so we chose to print 1000 copies of the map with them.

III. Budget

<i>Purpose</i>	<i>Cost</i>
Starting amount	\$3,200.00
Undergraduate TA (Jan-May 2010; pay and benefits)	\$1,267.75
GPS units (Feb. 2010; 10 Garmin units)	\$1,305.79
Printing costs (June 2010)	\$239.49
Total returned to SSC	\$386.97

IV. Ongoing project elements

The digital version of the green map is being hosted by the Illinois Green Business Association (www.greencu.com). The PI has agreed to work with the IGBA to update the map yearly based on information they give us with regards to new green businesses in C-U; other sites will be done on our own. This work will be carried out by the PI or by undergraduate RAs hired within the Department of Geography.

V. Lessons learned

- While having the class brainstorm items to be included on the maps was good as a learning experience, it would have been better to spend more time on this part of the process and start with fewer options. It would also have been good to do a trial run before collecting the data; we did practice using the GPS units, but making sure everyone was being equally thorough and consistent in their data-gathering would have ensured a better product.
- The printed green map should include addresses of the establishments involved and not simply place them on the map. Future versions of the map will do so.