

Sustainable Green Space Management

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Abstract: To increase on campus carbon sequestration, reduce on-campus fuel consumption, build healthier soil structures, and reduce facilities labor costs, this project aims to explore alternative management practices for green spaces on campus. Green space will refer to areas on campus that are covered primarily by grass. The goal of this project is to identify and implement green space management practices that consider carbon sequestration, fuel and water consumption, long term soil impact, and maintenance costs.

1. Project Description:

Humboldt State University is well known for its commitment to be a leader in sustainability. Driving through campus one may see reduced irrigation efforts, efficient lighting upgrades, and solar installations. HSU still has areas on campus that are predominantly covered in grass, that may need irrigation, and requires regular maintenance. Fuel load from mowing as well as transporting the material must be considered when considering the costs and benefits of the utilization of the space. This project will explore, identify, and implement sustainable management practices for green spaces on campus. Some potential alternatives include using cover crops such as peas, clover, beans, or sunflowers; on campus food production; native plant gardens; or sheet mulching.

2. Need Statement:

This project will achieve HEIF's goal of reducing environmental impact of energy use at HSU, by promoting and demonstrating sustainable management practices for green spaces on campus. Energy is currently going into maintaining these spaces on campus, and the campus uses energy in food acquisition. This project is student initiated, and can be student driven, maintained, and monitored. The project provides the opportunity for quantitative and qualitative results. This project will show how green spaces could be used as a productive beneficial space that will sequester carbon, reduce water and fuel consumption, and maintenance. This project could be closely connected with the Rangeland Resource Science, and Natural Resources departments. The project would meet department goals of "generating a greater understanding of the ecology and management of forests, rangelands, and the soils and watersheds that support them.", and "environmental analysis and land use planning, recreational uses of natural resources, interpretation of natural resources, and application of GIS technology". The project will provide public outreach and publicity opportunities for HEIF and for HSU.

3. Outcome:

With the help of students, HSU will adopt better management practices for green spaces on campus that will consider and address carbon sequestration, fuel and water consumption, long term soil impact, and maintenance costs.

4. Partners:

Although these entities have not been solicited for support yet, it is anticipated there would be support for this project from the Environmental Science and Management, Rangeland Resources, Natural Resources, and Environmental Resources Engineering departments; the Campus Center for Appropriate Technology, Green Campus, the Sustainability branch of Facilities Management, the Greenhouse Club, and the Mycology Club. Last spring, over 300 student signatures were gathered in two days, in support of additional on campus gardening opportunities.