Lessons Learned / Intern Experience

Water Efficiency, Biodiversity and Landscape Management

Project 1: Water-Efficiency at CSUB
Tracking the previous water-usage and comparing it to current usages and creating a collective list of improvements made on campus to increase CSUB’s water efficiency.

- There are 3 Water-Wise demonstration gardens using xeriscaping on campus.
- CSUB has converted over 63,000 square feet of turf grass to ground coverings, such as mulch, gravel, and drought tolerant native or non-thirsty plants.
- Almost every sink on campus has been converted to an automatic shut-off faucet.
- Urinals around campus located in men’s restrooms have been converted to waterless type.
- Many toilets are low-flush type.
- Smart irrigation system reduces water use by 50% each year by automatically adjusting to changes in weather, soil or notification of broken pipes.

Achievements / Results / Outcomes

Water- Biodiversity- Landscape Management
After collecting data for my STARS reporting fields I realized how much one area effects the other. When improvements are considered on campus consideration need to be given to many other sectors, and the potential resulting effects.

The improvements made on campus has reduced our overall water usage on campus, also reduce our landscaping needs, while still allowing for kitfoxes and other native animals a habitat.

CSUB Water usage compared to 2013
Water saved January – Mid-October 42%
Water saved June – mid October 50%

Recommendations for Improvement / Program Expansion:
1. Longer internship time-line, this would allow for deeper research of the topics. It would also help in the retrieval of information process, since some formation can be time-consuming to collect and organize.
2. Use of a SharePoint system to share data collected, this can save time and so we don’t duplicate information requests.
3. Having preset meeting days and times, for asking questions and checking in with supervisor.

Successful Strategies:
1. Request the information you need, as soon as you know you need it.
2. Start research early in the project, be a self-starter.
3. Ask questions, be open to other perspectives and opinions.

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Future Career in water management and/or sustainability in the future
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Project 2: CSUB’s Contribution to Preserving Biodiversity on Campus
Identification of endangered or vulnerable species, and assessments of environmentally sensitive areas.
CSUB’s Facility for Animal Care and Treatment (FACT) resides within five wooded acres of the 20-acre ESA. CSUB is well known for our kit foxes, and many of them for years have made their home all over the many mature trees here and elsewhere on campus provide shelter for nesting birds of prey, such as red-tailed hawks and barn owls. A few years ago, two juvenile red shouldered hawks were raised in a sycamore in the middle of the residence halls. Last year, a great horned owl raised two owlets in a magnolia tree next to Science III.

Project 3: Landscape Management
Creating a better understanding of CSUB’s managed grounds sustainability, while considering the economic, social, ecological factors to meet campus needs and also to maintain healthy ecological systems.