



Water Efficiency Internship

California State University Bakersfield

Energize
Colleges

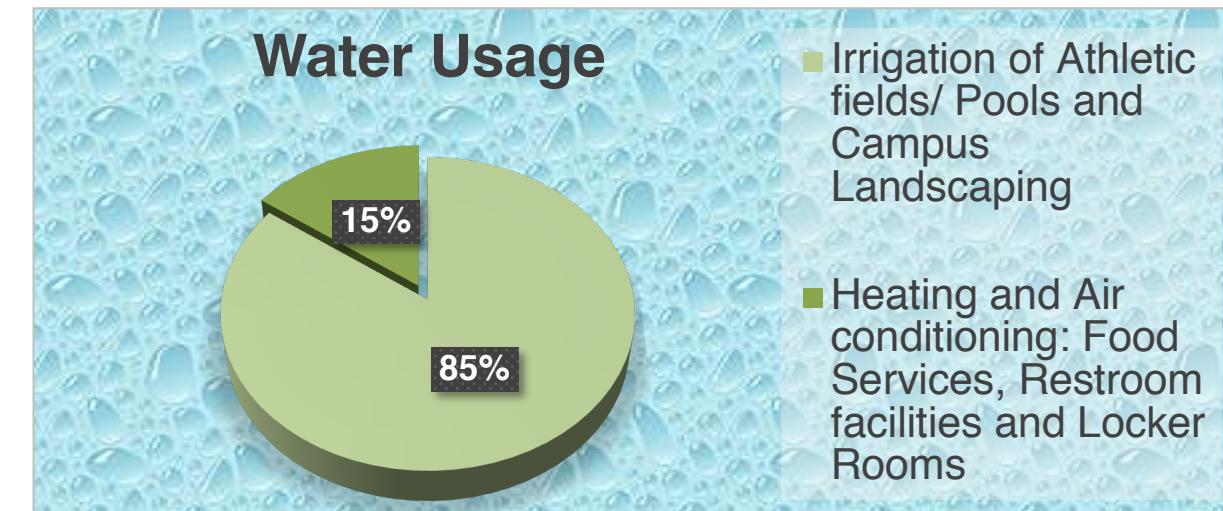
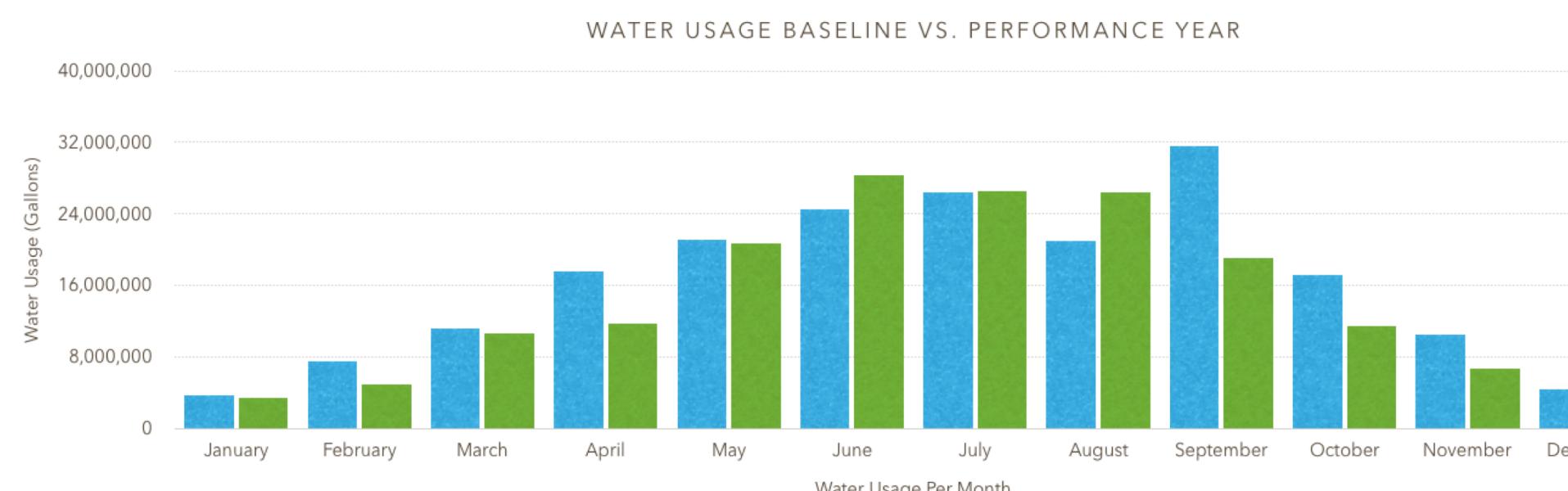


Water Efficiency, Biodiversity and Landscape Management



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.



Where is all of the water on CSUB going?

Water Efficient Changes on Campus

- ★ 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 shutoff faucet.
- ★ Urinals around campus located in men's restrooms have been converted to waterless system
- ★ Many toilets are low-flush to
- ★ Smart irrigation system reduces water use by 50% each year by automatically adjusting to changes weather, soil or notification of broken pipes.

Project 2: CSUB's Contribution to Preserving Biodiversity on Campus

I 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 n 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.



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%

Before



After



Lessons Learned / Intern Experience

Over the course of my Water-Efficiency Internship with Energize Colleges I have learned that it is important to set up personal deadlines for parts of the project, keeping detailed records of contacts and information received. It is also important to ask questions, and involve to your supervisor to for brainstorming and collecting data from different departments.

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 perspective and opinions.

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.

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Future Career in water management and/or sustainability in the future

Currently employed at the California Well Sample Repository

CSUB main campus

Acknowledgements:

Site Supervisor: Jennifer Sanchez

Energize Colleges

Strategic Energy Innovations

