Water



Current Targets



Reduce potable water usage and its associated emissions from a fiscal year 2008 baseline:

- 20 percent by 2015
- 30 percent by 2020
- 40 percent by 2025.

Current targets are meaningful and feasible.

Revised Targets

Targets should not only address campus as a whole, but also for its constituent parts. The following should be <u>added</u> to existing targets.

- Normalized levels of 20,000 gallons per weighted campus user in 2020 and 16500 gallons per weighted campus user by 2025.
- Normalized levels of 46 gallons per total buildings sq. ft) by 2020 and 39 gallons per sq. ft. in 2025.
- Increase storm water capture by 25% by 2020, of which 50% will be re-used on campus and 50% will contribute to infiltration and recharge.



Current Strategies

- Commission an internal, student-assisted study to determine a detailed water use baseline, the "true cost of water," and the related emissions.
- Include "true cost of water" charges with the energy billing program.
- Begin utilizing non-potable water, including untreated raw water, sump pump discharge, cooling wastewater, stormwater and graywater.
- Connect the raw water system by 2020.

Current iCAP strategies are signals for more comprehensive water use measures .

Strategies for the long term:

- Undertake a bottoms-up approach to estimate consumption by enduse using best practices to determine reductions achievable by water conservation alone.
- Plan for water reuse to be a major strategy for reducing campus fresh water demand in the present and beyond 2025
- Integrate the physical and natural elements of campus topography to reduce water demand on campus and facilitate reuse

Strategies for the short term:

Data collection and Monitoring

- Make available water quantity and quality data on a publicly accessible site to encourage transparency, instructional use, and campus-wide participation in conservation activities. The site interface may be most effective if modeled after the energy dashboard and could be used in tandem with the energy dashboard.
- Establish/publicize anticipatory yearly goals for achieving water reduction



Strategies for the short term:



Utility and Building Operations

- Begin utilizing non-potable water, including untreated raw water, sump pump discharge, cooling wastewater, storm water and gray water.
- Require a review of the water impact of all new construction, modifications, or expansion across all campus units including auxiliaries.
- Implement recommendations in the SSC sponsored project on water conservation in cooling tower operations

Strategies for the <u>short term</u>:



Landscape Design

- Take inventory of current landscape performance relative to existing pavement and landscape surfaces and features, against the long-term transition toward a water-positive campus environment.
- Calculate the true cost/benefit of the traditional versus sustainable campus landscape maintenance and operations.

Strategies for the short term:

Landscape Design Cont.

- Integrate rainwater capture strategies with other physical campus commitments and objectives such as carbon sequestration.
- Utilize the Sustainable Sites Initiative (SITES) as a rating systems for all projects on campus, to promote education and assist coordination in developing high-performing sustainable landscape practices
- Maintain that the campus landscape preserves regional identity by avoiding "off-the-shelf" materials in favor of regionally specific ones.

Strategies for the short term:

Education

- Partner with campus units such as PRI and outside agencies such as Alliance for Water Efficiency, WateReuse Foundation, AWWA etc to promote water conservation efforts.
- Provide classroom opportunities to develop water use reduction projects on campus.
- Require orientation for sustainable water use in dormitories, potentially alongside implementation of more water efficient installations.



Keith Erickson Utility Distribution, Facilities & Services

Lance Langer Undergraduate, Civil & Environmental Engineering

Amy Liu Undergraduate, Urban & Regional Planning

Mary Pat Mattson Department of Landscape Architecture

Kishore Rajagopalan Illinois Sustainable Technology Center

Lance Schideman Department of Agricultural and Biological Engineering