

Rollins College Facilities Management Sustainable Practices

Grounds Sustainability Initiatives – Key Points

In the past 10 years, strategies used have resulted in a 60% reduction in water consumption without compromising on aesthetics. 90% of all water consumed by irrigation now comes from non-potable sources.

Rollins has an irrigation water management plan which includes:

- 90% of irrigation for landscaping utilizing non-potable water
- Simplified plant palette, concentrating on reducing maintenance activities, water consumption, fertilizer, and pesticide use
- Weaning/drought conditioning of landscape plant material and turf
- Rain sensors and full manual shut down when supplemental irrigation is not critical
- All replacement controllers are central control supportive and will allow migration from single site set programming to Centralized Irrigation Management System
- Systematic water efficient upgrade of existing irrigation system/components in conjunction with projects and building renovations
- Implementation of an Integrated Pest Management Program – 50% reduction in chemical use and total elimination of restricted use pesticides. Preferred use of Bio Controls and nurturing of “good bugs” vs. chemical
- Use of non-phosphorus fertilizers for 8 years (ahead of industry norm). Utilization of natural fertilizers vs. chemical

Housekeeping Sustainability Initiatives – Key Points

- Recycling bins are in all residence halls and public areas providing the campus to participate in the single-stream recycling program with America Recycles of Waste Management.
 - Our current diversion rate through single stream recycling is 30%
 - Our current cardboard diversion is 90%; large cardboard pieces are separated, compressed, bailed and sold to cover handling costs
- Shop waste – metals, such as copper, aluminum, stainless steel and steel are recycled
- Kitchen grease is collected and sold to a local bio fuel firm

- The college maintains a program for internal reuse, selling and donating abandoned and surplus property
- Light bulb recycling
- Campus Sustainability Program and Committee on Environmental and Sustainable Initiatives project to reduce recycled plastics by providing water bottle refill stations. Currently there are 35 hydration stations throughout the campus.
- Clean Sweep event held at the end of Spring provides an opportunity for students to donate items they do not want to take home and/or no longer want. Clean Sweep is setup a week after Commencement as a large yard sale, but for free to the Rollins community.\

Maintenance Services Sustainability Initiatives – Key Points

- District Cooling – centrally produced chilled water distribution to the campus through a network of underground piping. This strategic approach to cooling has allowed us to replace multiple antiquated pieces of equipment with one or two modern high-efficiency chillers. This not only allows for more efficient equipment but also allows us to stage equipment in order to avoid the losses associated with low load operation.
- 41 electrical sub-meters have been installed under a grant from the Jesse Ball Dupont Fund. The sub-meters allow Rollins Facilities to track electrical consumption for the metered buildings and for our chilled water plants. This data is vital to metric any changes in equipment or to trend any building user efforts to conserve electrical energy. The sub-meter data is available for anyone to view at envision.rollins.edu/dashboard.
- Waste heat from our chiller located in Ward Hall is utilized to heat domestic water for showers rather than heating cold city water with separate boilers. This process allows us to recover energy that normally would be lost to the atmosphere through our cooling tower located behind the Olin Library.
- Tri-Coils – This is a highly effective means to manage humidity that does not require the introduction of re-heat
- Modernized High Efficiency Equipment – Through the systematic replacement of equipment with more modern high efficiency equivalents significant reduction of energy use can be realized
- Currently 3% of campus square footage resets temperature set points based on occupancy
- Occupancy Sensors are being used in increasing numbers to ensure that lights are only on when needed
- Bush Science Center Solar Project - installation of a 1600 watt photovoltaic panel on the roof. This project was intended to demonstrate the potential of PV in Central Florida as well as provide practical data on system output, while introducing our students to this technology