

## COA's water conservation, efficiency, and management

### Background:

We are fortunate to have an abundance of water available to the college and its farms. However, water conservation, efficiency, and management are still issues of great importance both to minimize our impact on the planet and to educate students who will likely be working and living in areas impacted by water shortages in the future.

### Irrigation:

*We do not irrigate any of our main campus landscape.*

Since its founding, COA has used mostly native species and some long-naturalized plants for its landscaping to minimize maintenance requirements. We never water the campus landscape except when watering in new plantings. We depend on natural precipitation. Plantings are mulched to conserve water.

*We use drip irrigation for vegetable crops when the need arises at Beech Hill Farm.*

We recently converted to primarily drip irrigation at the farm. The farm's water source consists of three high-volume, deep wells which offer an abundance of water. Drip irrigation reduces evaporation and therefore allows more water to be returned to the water table.

### Fixtures and indoor water use:

*All new and replacement fixtures are high efficiency/low flow.*

Whenever old plumbing units are removed they are replaced with new low-flow plumbing fixtures. It is understood that the college will use the most energy and water saving options currently available for all renovation and new construction.

The Kathryn W. Davis (KWD) Student Residential Village is comprised of three separate duplex units each with three levels, with each duplex sharing a central common space. In each duplex, grey water from showers preheats incoming cold water to reduce the amount of hot water needed to take a comfortable shower thus saving on energy use.

The 51 bed KWD Residential Village has composting toilets on all second and third floor levels of each duplex. The Deering Common Campus Center uses composting toilets as well as low-flow water fixtures and waterless urinals.

We no longer use trays in the cafeteria to reduce hot water use.

### Low Impact Development practices and Rainwater Management:

Parking areas are graveled to allow water infiltration; driveways are paved to facilitate snow removal.

Parking is concentrated along Route 3 rather than throughout campus to avoid new parking lot construction. The interior of campus is pedestrian- and bike-friendly.

The college employs a landscape architect as needed to design plantings, lawns, and walkways to include natural materials and avoid impervious surfaces.

The college retained a small wetland area to serve as a storm water runoff holding area.

The college maintains a wide undisturbed vegetative buffer along our ocean frontage as required by the State of Maine/Town of Bar Harbor Shoreland Zoning ordinance. This helps filter runoff from nearby lawns.

The college maintains natural undisturbed forested areas on campus for storm water control, wildlife, and aesthetic benefits. Over 30 acres of our 38 acre campus are covered by grass, trees, and other landscape plantings.