Refuse and Recycling

HPL/CA's recycling and waste minimization program currently includes all mixed office paper, cardboard, paperboard, magazines, toner cartridges, plastics #1 & #2, batteries (alkaline and rechargeable), CPUs, cell phones, monitors, printers, mixed metals and used motor oil. Center Administration paper purchases for all copiers and printers currently are 100% post-consumer recycled. CA is in the process of replacing all paper products used in the break-rooms and kitchens with 100% compostable products such as stalk plates, glasses and cups and utensils.

4.3 Sustainable Actions

UMCES Horn Point Laboratory has and will continue to implement strategies that reduce and lessen its potential climate footprint. Primary targets will begin with addressing the emissions from the buildings and working outward. Below is a list of current and planned courses of action for reductions. These are defined in greater detail in the Climate Action Plan with strategies and suggested policies to implement them.

Capital Projects

Coastal Dynamics Laboratory linking AREL and Coastal Science Lab:

- Set higher than conventional LEED certification goals, (LEED Gold minimum).
- Set ambitious energy efficiency targets, (40% savings over a similar energy code compliant building).
- Seek all passive and renewable energy savings through the design and configuration of the building envelope itself.
- Design a building that relies on daylight to save energy.

Since the facility will be a major draw for the rest of the Horn Point campus, the facility should seek to make sustainable systems "transparent" and visible to the day-to-day users of the facility. Use them as an opportunity to teach occupants and users about the energy efficient strategies at work in the facility.

1. Small scale wind turbine

Morris Marine Renovation and the Coastal Science Lab:

- Set aggressive LEED certification goals, minimum LEED Platinum, since this will be a complete renovation of the building which will provide an opportunity to substantially improve the energy performance of the building exterior and replace all mechanical systems within the building.

- Use the building to provide renewable energy systems as an integral part of the building. Some possible renewable energy systems to help achieve this are photovoltaic, solar hot water, small-scale wind power. The large pitched roof of both of the existing buildings provides a good surface for the installation of either PV or solar hot water panels.

Facilities Operations

- Improvement of existing facilities according to the Energy Performance Contract (EPC) recommendations by Constallation Energy.

- Reduction of building energy use by programming heating and cooling thermostats.

- Strict recycling and waste minimization programs.

- Replacement of non-energy efficient equipment with Energy Star models.

- Administrative use purchases give priority to recycled products.

- The Interactive Video Network (IVN) is used to minimize vehicle miles traveled.

- Power-down policy for Computers and Lab Equipment.

Facility Renewal Projects

- Installation of a renewable energy source; photovoltaic, solar hot water, geothermal, small scale wind power. There is an opportunity to place a large solar array on the ground on a number of locations on the site. See Illustration 4.5_01 for Solar Fields Location Options.

- Renewal Energy Certificates (REC) related to any new renewable energy sources added to the site.

- Increased building insulation and air tightness through re-caulking and sealing of building exteriors, windows and doorways to increase overall energy efficiency all year round.

- Gray water and/or barrel collection systems for rainwater.

- Window replacements to increase energy efficiency through thermal break frames, higher insulation values on glass and special coatings to further reduce energy use.

- Carbon Offset Projects.

- Installation of living shoreline areas where feasible.

We have identified two possible locations for photovoltaic field to be located on the Horn Point campus site. The areas we have identified are already provide open meadows, so as to not affect any of the wooded areas.

Field location 1 is near the Environmental Education Activity Building and so would be a good location in terms of the public outreach and educational programs that UMCES holds there. The field could provide power to help enclose the open dorms which are also located in this area.

Field location 2 is in the area of the airstrips in the southwest corner of the site and would provide good visibility for the solar voltaic field along Horn Point Road as well as being close to the main entry gate for the campus. It is also in an area where the solar field could be expanded over time. This location would need to be studied more carefully in terms of how it could be tied into the campus or utility power grid.

There are other locations that should also be considered along the main entry drive just south of the Coastal Science Building. This location also provides good visibility and would be close enough to existing structures to connect them to the power generated by these panels.

Illustration 4.1
Solar Field Location Options

NOT TO SCALE

NORTH

Facilities Master Plan Process

The University of Maryland Center for Environmental Science involved and obtained feedback from all stakeholder groups in our community. A Facilities Master Plan Task Force coordinated the overall process. With the support of the Laboratory Directors, Town Hall meetings were held at each of the three campuses covered within this Plan. These meetings were open to all employees providing a chance to express their vision for our future. The Sustainability Committee members were involved during these meetings and provided invaluable insight. Drafts were reviewed by each of the three campuses in this FMP as well as the Sustainability Committee and all helped mold the final product.

Facilities Master Plan Task Force:
Erica Kropp, Vice President for Administration
Nancy Jones, Director of Facilities
Barbara Jenkins, AL ORAA Proposal & Facilities Coordinator
Heather Johnson, AL Assistant Director
Stacy Maffei, CBL Associate Director for Administration
Paul Perunko, HPL Assistant Director for Facilities

Sustainability Committee Chair:
Larry Sanford, Horn Point Laboratory

UMCES Leadership

President
Donald F. Boesch

Vice President Institutional Advancement
David A. Balcom

Vice President for Science Applications
William C. Dennison

Vice President Administration
Erica H. Kropp

Appalachian Laboratory Director (Interim)
Raymond P. Morgan

Chesapeake Biological Laboratory Director
Thomas J. Miller

Horn Point Laboratory Director
Michael R. Roman

Maryland Sea Grant College Director (Interim)
Fredrika C. Moser

Institute Of Marine Environmental Technology Director
Russell T. Hill

Assoc. Vice President External Affairs
David A. Nemazie