

2014

UNIVERSITY of NORTH CAROLINA
PEMBROKE

CAMPUS SUSTAINABILITY REPORT



On the cover: Several UNC Pembroke students, faculty and staff gather at the new Health Sciences Building (HSB) to show their support for sustainability with the phrase: "THE CAPACITY TO ENDURE!" The HSB houses the departments of Nursing and Social Work, has biology labs, a health professions component, and a food service area. It is currently under review by the U.S. Green Building Council for a LEED Gold certification.



University of North Carolina Pembroke

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Acknowledgements

This report was created by the Sustainability Office with contributions and input from many people and departments across campus, reviewed and edited by University Communications and Marketing and approved by the Sustainability Council. The Chancellor and Cabinet endorse this report and appreciate the effort by all involved that made this publication possible.

Note: The Association for the Advancement of Sustainability in Higher Education (AASHE) is to be credited for the category listing layout used in this report which follows the categories listed in the Sustainability Tracking, Assessment and Rating System™ (STARS) framework. These categories enable higher education universities to share their sustainability story in an organized and comprehensive manner.

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Letter from the Chancellor



As sustainability becomes a familiar word in our vocabulary and a common theme on university campuses, I am pleased to share UNC Pembroke's sustainability report. The University of North Carolina at Pembroke made important advances in 2014 toward achieving sustainability. The addition of an energy management director and a sustainability director has positioned the university to begin measuring—and managing—its impact on the environment.

With a new sustainability mindset, UNC Pembroke has begun promoting energy efficiency, shrinking its carbon footprint and increasing its focus on reducing, reusing and recycling on campus. Most importantly, our university is changing its culture to one where sustainability is simply a matter of course. Whether training university employees and students to recycle more mindfully, establishing a student-run organic garden on campus or offering a Sustainable Agriculture track in the Department of Biology, UNC Pembroke is committed to achieving a sustainable future on our campus and beyond.

Thank you for taking the time to learn about UNC Pembroke's efforts to achieve sustainability, and I invite you to join us in becoming responsible stewards of the environment.

Best,

Kyle R. Carter
Chancellor
UNC Pembroke

UNIVERSITY of NORTH CAROLINA
PEMBROKE

Letter from the Chief Sustainability Officer



Welcome to UNC Pembroke's first campus sustainability report:

2014 marked the beginning of a renewed focus on sustainability by the campus. Several "firsts" have happened, I and my eco-partner, Terry Divine, Director of Energy Management were hired and this annual report was published. The campus' guiding sustainability commitments were organized and expanded, concentrating on working towards carbon neutrality, academic and operational integration and outreach. Many other "firsts" will be highlighted in the pages to follow.

The mission of the Sustainability Office and the Sustainability Council is to position UNC Pembroke as a regional sustainability leader in higher education. This shall be done by ensuring sustainability principles and practices are integrated into campus-wide operations, academics and research, capital and infrastructure development and other activities that shall reduce global warming emissions and prepare students to be to be responsible stewards of the world.

As you read through this report, everyone should feel proud about what was accomplished this year and savor these "triple-win" victories. Much was done that concentrated on helping people (social responsibility), our planet (environmental responsibility) and profit (economic responsibility)—aka, the triple bottom line. I am proud of what was achieved during this first year and excited to grow and expand from it in 2015.

So, will you continue to help us "Preserve Pembroke?"

Sincerely,

H. Jay Blausier
Sustainability Director

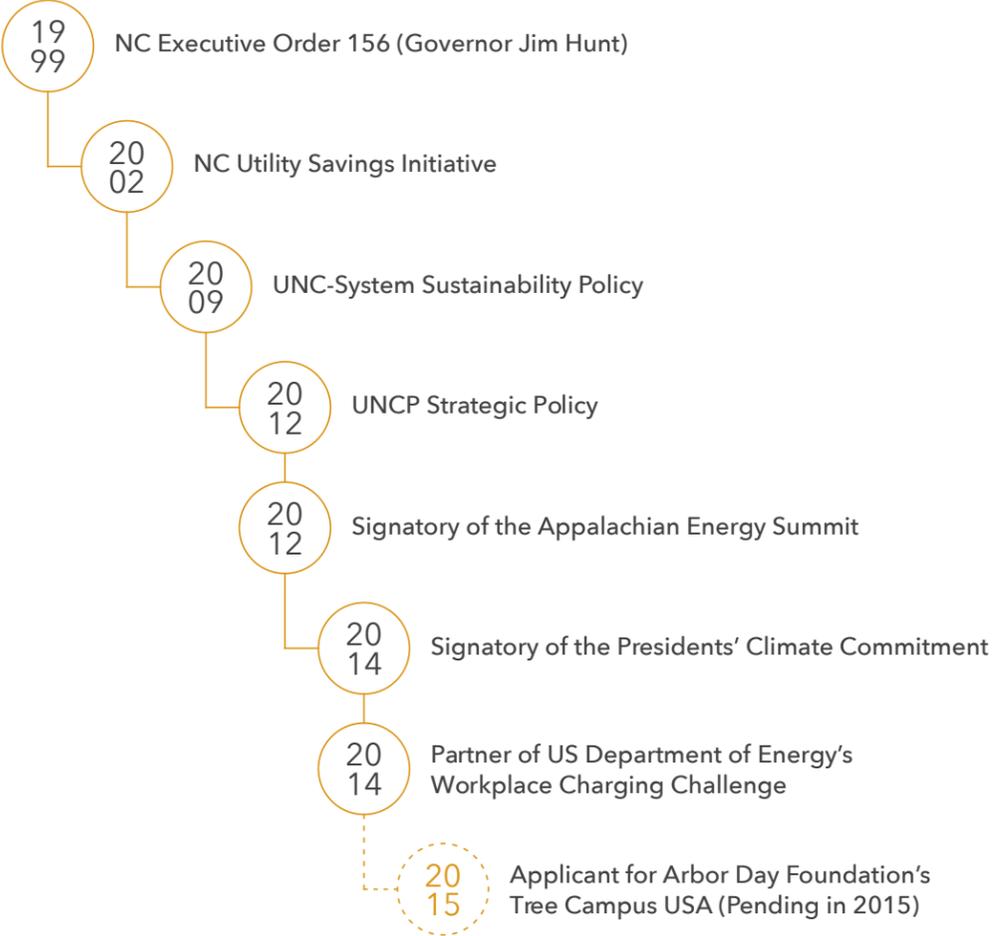




Lowry Bell Tower, behind water feature

GUIDANCE & COMMITMENT

UNC PEMBROKE IS COMMITTED TO BEING A GOOD STEWARD of all assigned natural, human and financial resources. The governing bodies, directives and voluntary commitments towards sustainability below provide the foundation for the campus' sustainability advancement efforts and offer support and direction for mission accomplishment.



HOW DO WE DEFINE SUSTAINABILITY?

SUSTAINABILITY - is the capacity to endure. But more than that, it requires careful consideration and evaluation of all decisions regarding the inter-connectivity and effect that three dimensions, those being people (social), planet (environmental) and profit (financial), have on one another in response to chosen decisions.

This concept is also known as the triple bottom line or TBL. In addition, sustainable development strives for a decent standard of living for everyone today, without compromising the needs of future generations.

ACADEMICS

CURRICULUM & RESEARCH

Academics are at the core mission of our university, and it is critical to integrate sustainability principles into coursework and research. This is needed to prepare educated graduates to enter the global work force as productive leaders driving the changes needed to achieve climate neutrality.



ACADEMIC GOALS

- » Make climate neutrality and sustainability a part of the curriculum and other educational experiences for all students.
- » Expand research or other efforts necessary to achieve climate neutrality as soon as possible, or by 2050 at the latest.
- » Educate our students to be the leaders of tomorrow through our active and demonstrative pursuit of the campus' sustainability goals.
- » Position UNCP, the University of North Carolina system and our private university colleagues as regional leaders in sustainability education and in reducing reliance on environmentally damaging fossil fuels.



PROGRESS MADE IN 2014

- » A process to inventory all sustainability and related courses at both undergraduate and graduate levels was started to establish a baseline with an ultimate goal of creating an interdisciplinary, academic program in sustainability
- » Signed the American College & University Presidents' Climate Commitment (ACUPCC) on Earth Day
- » Participated in the Appalachian Energy Summit's Working Groups to include Academic Integration
- » The new Sustainable Agriculture and Corporate Social Responsibility courses are growing, and work has begun to develop a new sustainable energy course



Top right photo: Critical Analysis of Scientific Literature Club students

Bottom right photo: Signing the ACUPCC on Earth Day



NATIONAL SUSTAINABILITY FACT

The American College & University Presidents' Climate Commitment (ACUPCC) has helped higher education become the only sector in the U.S. with a critical mass committed to the scientifically necessary goal of climate neutrality. Since its launch in 2007, more than 730 colleges and universities in the U.S. have signed on to the ACUPCC, representing all 50 states, D.C. and every type of public and private institution; UNC Pembroke became a signatory on Earth Day in 2014.

(Source: ACUPCC. (3/2014). Progress Summary. Retrieved from <http://www2.presidentsclimatecommitment.org/ACUPCC-Progress/Summary-March2014.pdf>)



Highlights of Progress Toward Success

MGT 4310: NEW SUSTAINABILITY AND CORPORATE SOCIAL RESPONSIBILITY COURSE

BY: CHRISTOPHER H. ZIEMNOWICZ, PROFESSOR, SCHOOL OF BUSINESS

This course combines two increasingly important streams of management duties in all organizations: sustainability and social responsibility. This class requires students to examine the challenges of implementing sustainability in a variety of contexts: from the perspectives of climate change, energy use, natural resource use, and ecosystems/land use, as well as introduces them to the concepts of corporate social responsibility, which expands the company's focus from simply serving stockholders, to considering the broad impacts of the firm's activities on diverse stakeholders. The objective of this course - beyond providing a basic introduction to sustainable development concepts - is to recognize the challenges of sustainable development, the opportunities and limits of the private sector in meeting these challenges, and to prepare students for the application of these concepts in functional business topics.



NATIONAL SUSTAINABILITY FACT

Of the 680 active ACUPCC signatory institutions, collectively 6,524,901 students are represented—approximately one-third of all college and university students in the U.S. Sustainability is important and matters to today's college students and those at UNC Pembroke. Understanding sustainability is requisite for career preparedness in the 21st century. ACUPCC institutions are employing a range of innovative approaches to ensure that climate and sustainability issues are incorporated into the educational experience of all students. The 364 institutions that submitted a Progress Report on their Climate Action Plan to date have reported that 171,835 graduates are covered by sustainability learning outcomes and 15,527 faculty members are engaged in sustainability research at 198 signatory institutions.

(Source: ACUPCC. (3/2014). Progress Summary. Retrieved from <http://www2.presidentsclimatecommitment.org/ACUPCC-Progress/Summary-March2014.pdf>)

Eco-Leader:



Dr. Hanmer has coordinated the new Sustainable Agriculture track with the Environmental Sciences concentration in the Biology Department. She also serves on the Sustainability Council as Co-chair, Chair of the Campus Garden Committee and faculty advisor for the Greener Coalition student organization. She is now establishing a catalog of courses offered that involve the topic of sustainability, trying to start a campus kitchen to offer cooking lessons, and repurposing leftovers from the school cafeteria to take to local soup kitchens and homeless shelters.

"Students are our hope for the future."

DEBBY HANMER

Deborah Hanmer, Ph.D., Assistant Professor, Biology Department

ANALYZING SCIENTIFIC LITERATURE

BY: CONNER SANDEFUR, VISITING ASSISTANT PROFESSOR, BIOLOGY DEPARTMENT

The C.A.S.L. Club (pronounced 'Castle Club') provides UNCP undergraduate students with training in Critical Analysis of Scientific Literature. During the first half of the semester, the students worked as a group to develop a strategy for critically reviewing a scientific article and practiced on a facilitator-selected paper that introduced the students to the history and environmental impact of mining-related pollution at the Tar Creek Superfund Site in Oklahoma. In the second half of the semester, the students learned how to use electronic databases to search for scientific articles. The students then selected papers related to the Tar Creek disaster to present in small groups.



Front Row: Dr. Claire Gordy, Sarah Ruiz, Marsalis Smith, Christopher Long, Jordan Smink, Dr. Conner Sandefur | Back Row: Carlisha Hall, Caleb Stubbs, Alex Foster, Cary Mundell, Robert Lamb



Guest Environmental Lecturers



TOXIC FOOD LED BY LEVY SCHROEDER

A discussion focused on food safety and health issues associated with the use of pesticides. Levy leads Toxic Free NC's efforts to educate North Carolinians about pesticide hazards and common-sense alternatives to toxic chemicals, to serve as a watchdog to the government agencies that regulate pesticides and toxic chemicals, and to change the way our communities view and use pesticides and toxic chemicals, especially where people are at greatest risk from exposure. Sponsored by a Teaching & Learning Enhancement Award led by Drs. Debby Hanmer (Biology), Michele Fazio (English, Foreign Languages & Theatre), and E. Brooke Kelly (Sociology).



REPATRIATING HEIRLOOM GRAINS IN THE NATIVE SOUTHEAST LED BY GLENN ROBERTS

He discussed the histories of and possibilities for reintroducing heritage rice and grains to farms and tables in the Pembroke area and throughout the Southeast. A founding member of the Fellowship of Farmers, Artisans and Chefs, Roberts is also president of the Carolina Gold Rice Foundation, recipient of the Artisan of the Year Award from Bon Appetite magazine, the Food Arts Silver Spoon Award and the National Pathfinder Award from Chefs Collaborative. Hosted through the Native American Speaker Series, for more information contact Dr. Jane Haladay, Associate Professor, American Indian Studies.



FOOD AND SOCIAL JUSTICE LED BY RAMÓN ZEPEDA

SERIES SPONSORED BY A TEACHING AND LEARNING ENHANCEMENT AWARD BY DRs. DEBBY HANMER (BIOLOGY), MICHELE FAZIO (ENGLISH, FOREIGN LANGUAGES & THEATRE) AND E. BROOKE KELLY (SOCIOLOGY)

Zepeda, Program Director of Student Action with Farmworkers and UNCP alumnus in sociology, addressed the conditions farmworkers face and the experience of organizing to improve working conditions using interactive presentations and discussions. Also, dialogue on how to get involved regarding stories of struggle from workers' rights to environmental justice, was led by Nick Wood, Lead Organizer, NC WARN; Justin Flores, VP of Farm Labor Organizing Committee; Musheerah Ali, United Food and Commercial Workers Union.

Eco-Leader:

Dr. Ziemnowicz incorporates sustainability into most of his classes. His incorporation includes at least one assignment in each course that concerns environmental sustainability, regardless if it is mentioned in the textbook or not. His experience and passion led to develop of a new course in sustainability here at UNCP.



"Sustainability is about positive messages, rather than gloom and doom."

**CHRISTOPHER
ZIEMNOWICZ**

Ph.D., Professor, School of Business

ENGAGEMENT

II

CAMPUS ENGAGEMENT & PUBLIC ENGAGEMENT

Sustainability is a journey, and in order to make progress along the journey towards climate neutrality we must continually engage both the campus and local community to rally support, celebrate successes and build momentum for continued progress.



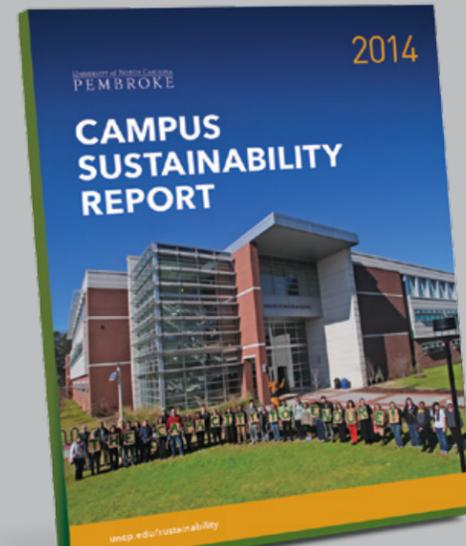
ENGAGEMENT GOALS

- » Routinely interact with the campus community to ensure awareness of the campus' sustainability goals, opportunities for their involvement and progress to date, especially with new students and employees.
- » Create a culture of environmental and economic sustainability on campus and across the UNC system through administrative leadership, student involvement, curricula development, campus operations, and new partnerships between the university, its benefactors, and industry.



PROGRESS MADE IN 2014

- » Published the campus' first annual sustainability report
- » Hosted several outreach events on and off campus
- » Integrated sustainability into new student and new employee orientations and Freshman Seminar Classes
- » Partnered with local businesses that co-sponsored the campus' combined 9/11 Day of Service and Arbor Day tree planting event
- » Created paid part-time internships for five students throughout the year, with new Green Fee
- » Established the campus' Sustainability Office, website and logo
- » Participated in several working groups at the Appalachian Energy Summit



Top right photo: Students participating in World Water Day event

Third photo down: High school students from Purnell Swett at Future Business Leaders Conference, hosted by Finance and Administration, Richard Cosentino, VC (far left), (from right to left) Carlton Spellman, AVC of Admin., Denise Carroll, Director of University Services, Karen Swiney, Bookstore Director, Jenna Freeman, Executive Assistant



Highlights of Progress Toward Success



GRAPEVINE PRUNING

BY: SCOTT BIGELOW, PUBLIC COMMUNICATIONS SPECIALIST

The Sustainable Agriculture Program and NC State's Cooperative Extension Service provided the first event at the new Campus Garden, located at Pine Cottage. The cottage is located on eight newly-acquired acres on the north end of campus. Here, Dr. Sara Spayd discusses pruning of the garden's muscadine grapevines.

Eco-Leader:

Christina Poteet loves her job and strives to teach students to learn to support one another. In 2013 it was discovered that food insecurity was a big problem among the 80% of college students who were surveyed; this spurred the creation of the food pantry which is available to those who need it. The Care Resource Center is comprised of three parts, one of which is the food pantry which individuals can visit twice a month whenever they are in need; the other two parts include the Clothing Closet and Service-Learning Lab.



"Thankful that I am able to support my campus community by providing students with opportunities to be active and engage in our community."

CHRISTIE POTEET

Christina Poteet, Director, Office of Community and Civic Engagement

THE GREENER COALITION

The campus' student club that promotes sustainability is named the **Greener Coalition**. Established in late 2013 and includes both faculty and staff advisors, the club has led and partnered with others on campus hosting education and outreach events such as **World Water Day, Earth Day and Earth Hour, Solar Power Month** and others. The group is also actively involved in the campus' local foods movement –three members also serve as Local Food Ambassadors with the NC 10% Campaign and the Real Food Challenge, which desires to increase the percentage of locally grown and raised foods that are served in the Campus Dining Hall. The group participates and promotes the campus garden, tree planting events and more...

to get involved, visit [BraveConnect](#).



Water-conscious students competing

WORLD WATER DAY MARCH 22ND

BY: JULIE SEM, SUSTAINABILITY INTERN

On Friday, March 21, 2014, UNCP hosted its first annual World Water Day event on the University Center Lawn. This effort's mission was to bring attention to the significance of efficiently managing water resources. Flyers were distributed to approximately 50 students, containing facts that pertain to the university's water consumption and other Water Day-related facts.

A water footprint calculator helped students realize how they are contributing to the depletion of freshwater ecosystems. Students took a pledge to reduce their water footprint, in order to reverse the detrimental impact they have on water resources. Alongside the footprint calculators, a game focused on raising awareness on the amount of water used to carry out simple daily tasks, such as brushing one's teeth. Students were instructed to eat blue icing then brush their teeth, as a partner acted as their "faucet."

After one minute, the water bottle "faucets" were compared to evaluate who used the least amount of water, while efficiently brushing away the blue icing remains; winners received eco-friendly prizes.



ENVIRONMENTAL WEBINAR: FACULTY AND GREEKS PARTNER

BY: SCOTT BIGELOW, PUBLIC COMMUNICATIONS SPECIALIST

Dr. Irene Pittman Aiken presented a webinar for Kappa Delta Pi on March 27. Her presentation, titled "Understanding and Protecting Our Planet and its Resources," was designed to help attendees and their students appreciate the importance of preserving the earth and its shared resources in a world of seven billion people.

Eco-Leader:

Mrs. Smith facilitates all promotional events held by Campus Dining-Sodexo, she also serves as the unit's "sustainability champion." She supervises several student interns working on the Real Food Challenge and NC 10% Campaign and oversees day-to-day operations and marketing of the new food waste bio-digester, which diverts food waste from the landfill. Her latest project is to reduce student hunger via helpstophunger.org



**TWANDA
SMITH**

Twanda Smith, Marketing Director, Sodexo (Campus Dining Services)

"If better is possible, good is no longer an option."



Greener Coalition student members

EARTH HOUR MARCH 29TH

BY: JUSTIN DUNCAN, SUSTAINABILITY INTERN

Earth Hour: Wildlife is a movement for the awareness of a broad range of environmental issues globally. The World Wildlife Fund (WWF) for Nature is the flagship charitable trust for this movement. Events span a wide range of social, environmental, and economic impacts on nature to bring awareness and change to the planet and our local community.

During Earth Hour, students were asked to assist in painting a large canvas banner using the least amount of lighting possible. This event was a chance for students to express their concern with energy consumption, light pollution, and limited resources through creativity amidst darkness. Students brought their own paint and headlamps as they attempted to reduce lighting in the University Center Mall. Information pertaining to the WWF, Earth Hour, Greener Coalition, sustainability, light usage, and renewable resources was distributed to students. The banner was then displayed for students in the UC Mall the following day.

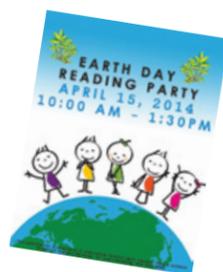


First Graders from Union Chapel Elementary School

EARTH DAY READING PARTY

BY: DALTON HOFFER, ASSISTANT DIRECTOR FOR STUDENT ENGAGEMENT

Did you know, four out of ten adults in Robeson County cannot read, and most students struggle with literacy throughout the county? We aim to make reading fun and enjoyable. This Reading Party was part of a service-learning class lead by two student service leaders, hosted by the Office for Community and Civic Engagement. Together we can make a difference.



From left to right: Joshua Malcolm, John Jones, Sarah Carter, Sandy Briscar, Emily Ashley, Justin Duncan, Kyle Carter (seated), Deborah Hanmer, Alexis Locklear, Jay Blausler, Dan Kenney, Dick Christy, Ken Kitts, Richard Cosentino, Carlton Spellman and Lien Buchanan-Bailey

EARTH DAY APRIL 22ND

BY: JONATHAN MILLER, SUSTAINABILITY INTERN

UNCP's Earth Day celebration took place at the newly unveiled Pine Cottage. It was a day full of festive activities including food and drinks offered by Sodexo. A live jazz band played a variety of soulful sounds while everyone in attendance talked, laughed, and enjoyed the numerous tables hosting different sustainable initiatives and technologies. The remodeling of the Pine Cottage was beautiful as was the new Campus Garden. The day's activities also included a blessing ceremony for the Campus Garden by local Lumbee Indian Tribe members, unveiling of the new Frisbee golf course, announcement of the outdoor social space contest winners. Chancellor Carter signed the American College & University Presidents' Climate Commitment (ACUPCC), which launched the campus' new focus on sustainability. At the very end of the Earth Day event, there was a bio-diesel demonstration conducted in the bio-fuel's trainer.



9/11: STUDENTS ENGAGE IN DAY OF SERVICE

BY: ALEXIS ALEXANDER, ASSISTANT PHOTO EDITOR, THE PINE NEEDLE

The Office for Community and Civic Engagement partnered with the Sustainability Office on September 13 to honor 9/11 victims and celebrate Arbor Day through community service. In total eight trees were planted. Three were planted behind GPAC and five were planted on the UC lawn. The areas were picked because of its high foot traffic and need for more adequate shade on hot days. Students also worked in the Campus Garden, cleaned debris, and pruned around Pine Cottage and the University Center. Sodexo donated the events snacks, beverages, and lunch for the crowd of 100+ student volunteers and Pembroke Hardware donated \$350 towards trees and gardening supplies.

9 TIPS FOR MAKING OUR CAMPUS MORE SUSTAINABLE

01  Turn off lights and computers when not in use

02  Adjust temperature set points

03  Carpool, ride a bike, and walk (another health benefit)

04  Unplug idle phone chargers and other phantom plugs

05  Avoid taking the elevator; use the stairs instead (+ health benefit)

06  Reduce consumption and waste, reuse things, and recycle.

07  Print double-sided (duplex) and reuse single-sided pages

08  Use fuel-efficient and hybrid cars versus gas-guzzlers

09  Use ENERGY STAR & Electronic Product Environmental Assessment Tool (EPEAT) appliances and electronics

To get involved, contact the Sustainability Office at 910.775.4576 or visit www.uncp.edu/sustainability



Student, Layla Locklear, center, holding drum

STUDENT MARCHES IN NYC FOR CLIMATE AWARENESS

BY: JONATHAN BYM, EDITOR, THE PINE NEEDLE

Nearly 400,000 people marched through the streets of New York City on September 21 to raise awareness on climate issues before the United Nations were to meet on September 23 for the Climate Summit. Of those 400,000, one UNCP student brought her unique perspective to the march. Layla Locklear, a senior Environmental Science major, was a part of the march and was part of the group that led the entire march through the streets. "I never experienced anything like that in my life," she said. "To know that we were all there gathered for one purpose to take a stand, use our voice and speak on behalf of protecting our indigenous rights."

Eco-Leader:

Jonathan is a senior earning a BA in Sociology and first became interested in sustainability when he was assisting at the Biology Club's plant sale. There he was surprised to learn that the profits from the sale would not go to benefit the campus due to there being no form of a sustainability club. Miller, co-founded the Greener Coalition student club and is currently president of the organization. To help the campus in "going green," Miller is aiding to bring the Real Food Challenge and NC 10% to campus to hopefully integrate locally grown food into the cafeteria. He also works in the Campus Garden and leads the campus' local food movement.



"It always seems impossible until it is done."

JONATHAN MILLER

Jonathan Miller, Sustainability Intern and President of the Greener Coalition



Student Volunteers: Shyane Stitt (left) and Cierra Harris (right), SGA University and Community Relations Chair

END IT WITH ORANGE STOP HUNGER INITIATIVE AND ICOMMIT

BY: JONATHAN MILLER, SUSTAINABILITY INTERN

Sodexo, the university's dining service, hosted Stop Hunger events to raise awareness that 1-in-5 children in America face hunger, that is more than 16 million children in the United States alone. Food and monetary donations were collected and students rallied behind the cause. FMI or to get involved, visit: www.HelpStopHunger.org



Bookstore staff and student workers

In an effort to get people personally committed to reducing their eco-footprint, the iCommit Sustainability Challenge offers an opportunity to go public with your efforts while challenging others to do the same. Sodexo also met the challenge by dramatically reducing Styrofoam usage by rolling out reusable to-go containers and mugs. The Bookstore introduced reusable tote bags to decrease the numbers of plastic bags used.



HONORING NATIVE FOODWAYS EVENT

The sixth annual event, sponsored by American Indians Studies, Office for Diversity and Inclusion, the Native American Resource Center, the Southeast American Indian Studies Program, and University Center and Programs, took place at Pine Cottage in November. The event's purpose was to give thanks for many foods provided to American Indian Peoples; to learn more about native foodways; and to sample traditional and contemporary Native foods.



NEW SUSTAINABLE CAPS AND GOWNS AVAILABLE

BY: JONATHAN BYM, EDITOR, THE PINE NEEDLE

After many years of working with Jostens, the Bookstore was able to get environmentally friendly regalia as part of Jostens' The Elements Collection. "We are so excited to provide sustainable graduation regalia to our students," Bookstore Director Karen Swiney said. "This is a goal we have been working on for several years but were not able to do so without raising the graduation fee to our students. Finally we were able to partner with Jostens this year to bring quality, earth-friendly regalia to our students with no price increase," she said. The Elements Collection will replace the Best Design Gown that was previously used for all graduation ceremonies. Around 475 students will debut the new look during graduation in December. In a press release from the Bookstore, the new design is proven to decompose in soil in one year. In addition, the Eco-Zip coil zipper tape and teeth are made from 100-percent recycled PET. Students will also have the option to donate a dollar to sustainable projects by following the directions on the tag.





OPERATIONS

III

AIR & CLIMATE, BUILDINGS, DINING SERVICES, ENERGY, GROUNDS, PURCHASING, TRANSPORTATION, WASTE, WATER

Operations initiatives offer the greatest opportunity for carbon footprint reduction on campus. These opportunities can also pose a strain on our limited financial and human resources if not managed efficiently; therefore, campus-wide participation is key to success.



OPERATIONAL GOALS

- » Initiate the development of a comprehensive plan to achieve climate neutrality as soon as possible, or by 2050 at the latest; measure carbon footprint and create a plan to reduce it, and annually measure and monitor progress.
- » Reduce and stabilize the university's average annual energy expenditures, currently equaling \$1,000 per student. Target costs associated with the university's rising annual \$226 million expenditure on energy. Focus on initiatives that will cumulatively save the university system in excess of \$1 billion over 20 years.
- » Transform and stimulate the North Carolina economy through the support of green energy business.
- » Create a culture of environmental and economic sustainability across the UNC system through administrative leadership, student involvement, curricula development, campus operations, and new partnerships between the university, its benefactors, and industry.
- » Incorporate sustainability into the management and implementation of campus policies; master planning; design and construction; climate change mitigation and renewable energy; transportation; dining services; grounds and landscape; stormwater and potable water; recycling and waste management and purchasing efforts.



PROGRESS MADE IN 2014

- » Became the first school in the state to become a Partner in the US DOE's Workplace Charging Challenge!
- » Completed \$4.5M energy savings performance contract with Siemens and saved \$400K in the first year
- » Saved over \$50K by adjusting HVAC control set points and schedules
- » Reduced total energy consumption per square foot by 34% of 2002 baseline level—4% better than state goal
- » Planning for \$1.3M LED lighting upgrade ESPC with Johnson Controls to begin in 2015
- » Generated over \$80,000 through campus' Surplus Property Program
- » Installed an organic food waste bi-digester in the campus' Dining Hall to divert waste from the landfill
- » Began the process of calculating the campus' baseline greenhouse gas inventory
- » Established a partnership with the Real Food Challenge and NC 10% Campaign for a student-led local foods movement in the campus dining services
- » Reduced Styrofoam usage by introducing reusable to-go containers and mugs for students and employees
- » Signed the American College & University Presidents' Climate Commitment (ACUPCC) on Earth Day
- » Established LEED Silver certification or equivalent as campus' minimum standard for new construction
- » New Health Sciences Building, pending LEED Gold certification through USGBC sustainable rating system
- » Began incorporating ENERGY STAR appliance and many other sustainable standards into campus purchasing policies
- » Launched the campus' first low-emitting and fuel-efficient (LEV/FEV) preferred parking spaces
- » Introduced Zipcars on campus for use by students, employees and local community members
- » Installed more bicycle racks across campus and began the process to increase the number of rental bikes available
- » In FY2013 the campus recycled 115 tons through the single stream program (blue bins) for a recycling rate of 8%
- » New green, specially-labeled recycling bins were introduced at residence halls and the UC to divert personally-owned clothes & shoes, electronics & batteries and CFLs, inkjet cartridges and plastic bags
- » Applied for and received a \$1,500 recycling bin through manufacture's (Max-R) one-day free promotional event
- » Installed first two electric vehicle charging stations with a 2kW solar array to offset consumption

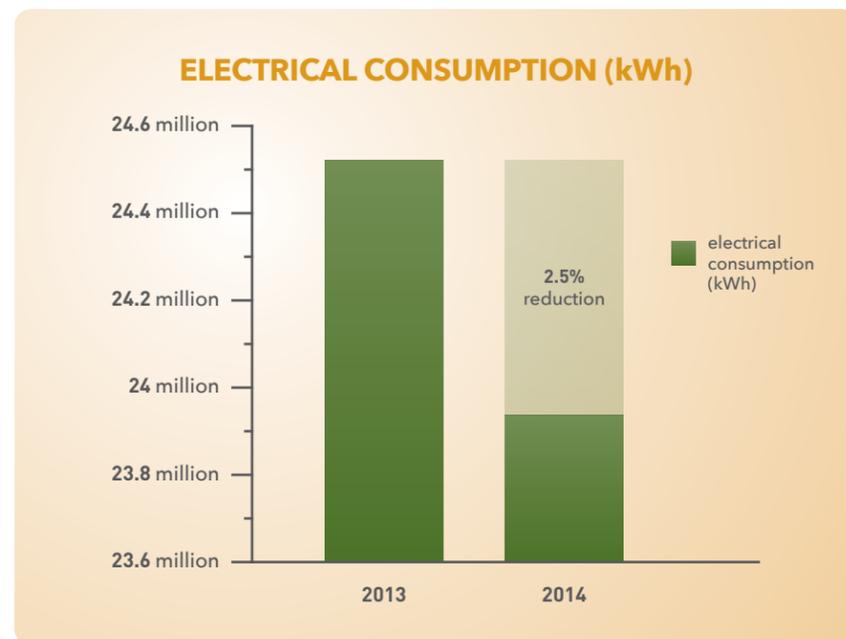


Highlights of Progress Toward Success

ELECTRIC ENERGY

BY: TERRY DIVINE, DIRECTOR OF ENERGY MANAGEMENT

In 2014, total **electrical consumption dropped to 23.9M (kWh) from 24.5M (kWh) in 2013—a 2.5% reduction.** In 2014, we added 16,408 square feet of new space to the campus' footprint (acquired the downtown incubator), which resulted in an electrical intensity level of 13.86 kWh per SF as compared to 14.33 kWh per SF in 2013.



ENERGY STORY

BY: TERRY DIVINE, DIRECTOR OF ENERGY MANAGEMENT

UNC Pembroke has recently hired a Director of Sustainability and a Director of Energy Management. These two new positions will help the university reduce energy usage and our carbon footprint by educating students, staff and faculty in ways that they can contribute to that reduction. We have recently finished our first year of a Performance Contract with Siemens that guarantees UNCP almost \$400,000 in energy savings per year for the next 17 years. This project involved four buildings (Old Main, Oxendine, Livermore Library and Jones Athletics Building). Energy Conservation Measures included lighting, HVAC improvements, boilers, building automation controls improvements and water. As the first year comes to an end, it appears that we have saved a little more than we were guaranteed. We will also be implementing a Performance Contract in 2015 with Johnson Controls for LED Lighting in many of our campus buildings. Other projects currently under consideration include:

- » Implementing Energy Guidelines for our campus
- » Additional solar-powered charging stations for vehicles and for building energy use
- » Geothermal ground source heat pumps in future buildings built on campus
- » New boilers in Lumbee Hall
- » New energy management systems in Lumbee Hall
- » Energy competitions between housing buildings
- » Partnerships between UNCP and privately owned solar fields to increase exposure by students to this technology
- » Consolidating electric meters within buildings
- » Tracking electric demand spikes to reduce peak loads throughout the year

Eco-Leader:

Among several energy reduction efforts, Terry has been diligently working on replacing all light fixtures with more energy-efficient models making them more sustainable, which is saving the university money. By working directly with lighting manufactures, like Cree. Their light-emitting diode (LED) lighting technology has made great strides in ultra-efficient lighting technology. The process of replacing existing campus lighting with this new LED technology is helping the campus reach its goal of becoming carbon neutral by 2050.



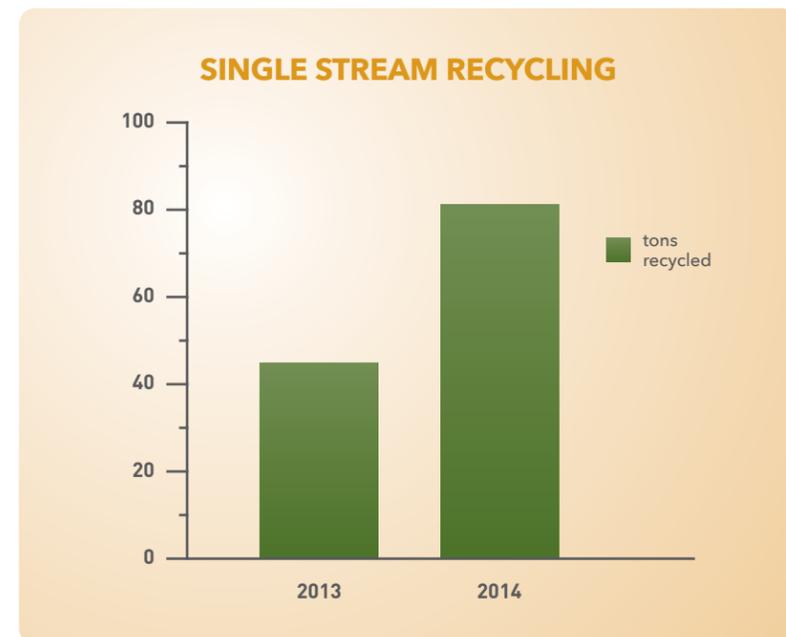
"UNC Pembroke has the opportunity to be leader in the fields of Energy Management and Sustainability in North Carolina; the time to act is NOW!"

TERRY DIVINE

Terry Divine, Director of Energy Management, Facilities Management

RECYCLING EFFORTS

In 2014, **single stream recycling efforts to divert recyclables from the landfill increased to 81 tons from 45 tons in 2013—almost doubled.** Acceptable items in the blue bins include: plastic and glass bottles, aluminum and steel cans, paper and flattened cardboard.



NEW WASTE STREAMS FOR PERSONAL ITEMS

New green bins, each labeled, have been introduced to divert the following personally owned items from the landfill: clothes and shoes; electronics and batteries; CFLs, inkjet cartridges and plastic bags. Students empty and collect the items from these bins, and monies generated come back to the Greener Coalition for campus sustainability projects. Any university or state-owned items must be recycled through the campus' Surplus Property Office.



Antonio Robinson, Food Service Worker

FOOD WASTE BIO-DIGESTOR UNVEILED

BY: JONATHAN MILLER, SUSTAINABILITY INTERN

Eugene Green! – Is a new program that educates students about the need and importance of reducing and diverting food waste by tracking and communicating our waste tonnages. On the operational end of the program is a food waste bio-digester that was unveiled to campus on Earth Day 2014. The digester has an operating capacity up to 900 pounds of food waste per day and weighs about 1,100 pounds. How it works: Upon leaving the dining hall, patrons separate recyclables and other non-organic food waste items from their plates. Then the food scraps are left on the plate, where food service staff then separate food waste for bio-digester bins. The bio-digester breaks down the food waste and turns it in to gray water after about 24 hours, which improves sanitary conditions. The bio-digester also reduces landfill tonnage, which reduces tipping fees and lowers our carbon footprint.



NATIONAL SUSTAINABILITY FACT

ACUPCC institutions have invested in improving campus infrastructure and reducing energy consumption and associated GHG emissions. As a result, they are realizing cost-savings and securing funding from outside sources that better enable them to reduce tuition costs and increase access to education. 72% of signatories submitting a Progress Report to date affirmed that their energy reduction and carbon footprint reduction efforts have saved their institution money. Of the 364 institutions that submitted Progress Reports, 200 listed savings from implemented projects totaling \$168 million. 72 institutions list savings exceeding \$500,000. UNC Pembroke saved \$450K in 2014 through energy savings performance contract upgrades and other energy reduction efforts.

(Source: ACUPCC. (3/2014). Progress Summary. Retrieved from <http://www2.presidentsclimatecommitment.org/ACUPCC-Progress/Summary-March2014.pdf>)

\$450k
saved in
2014



FREE BIN FRIDAY

The Sustainability Office took full advantage of Max-R's one-day event on August 8, 2014 that gave customers who called in and referenced "Free bin Friday" the opportunity to place an order for a customized recycling or waste receptacle for free. This was a total value of \$1,500 that was saved by the campus and helps to expand recycling efforts. Look for the new bin next time you visit Chavis University Center. Since 1997, Max-R has been a sustainable manufacturer of indoor and outdoor furnishings that are made from recycled plastic milk jugs!

LEED SILVER OR EQUIVALENT ADOPTED AS CAMPUS' MINIMUM STANDARD

The campus has potentially "one-upped" its minimum standard by submitting the new Health Science Building (pictured on front cover) for a LEED Gold rating, which is under review by the GBCI. The new sustainable facility houses the Nursing and Social Work programs and has labs and dining available. If you have not yet toured the building, please do so and take in the brief video and signage throughout that speak about the building's many sustainable features as part of its Green Building Education Program.



PREFERRED PARKING PROGRAM FOR EFFICIENT AUTOS BEGINS

BY: SCOTT BIGELOW, PUBLIC COMMUNICATIONS SPECIALIST

To support UNC Pembroke's sustainability goals and offer an incentive to reduce the campus' carbon footprint, owners of qualifying low-emission (LEV), fuel-efficient and alternative-fuel vehicles will be allowed to park in specially marked spaces near the entrance of some buildings on campus, according to the Sustainability Office. The initiative was introduced at the Health Sciences Building, the campus' first Leadership in Energy and Environmental Design (LEED) Gold Certified Building. To park in a preferred space, a UNCP LEV decal is required, and the program is available to all parking permit holders - faculty, staff and students. There is no additional fee for the LEV decal.

To obtain a preferred permit, faculty, staff and students must have already purchased a current UNCP parking permit. Bring proof of vehicle registration, type of transmission (automatic or manual) and size of engine of your vehicle to verify qualification and receive your free LEV decal. Parking in one of these spaces without the decal will result in a ticket. To learn if a vehicle qualifies, students and employees may visit Police and Public Safety's Parking/Traffic Control website or the Sustainability Office's website. There are more than 700 makes and models of efficient autos on the list. Vehicles with a green rating score of 45 or higher, per the latest LEED standard, will qualify.

Eco-Leader:

Mark is a hands-on leader for facilities and manages several campus improvement projects at any given time, such as, the upgrading of energy-efficient lighting and collecting rainwater to irrigate landscape. One of his latest projects includes the installation of two plug-in electric vehicle charging stations combined with a 2 kilowatt solar photovoltaic array in Parking Lot 17, near Dial and Lumbee halls. Mark implements his own ideas that save energy and cut costs whenever possible to make the campus a better place and improve students' and employees' experience.



"Why waste today that which may not be here tomorrow?"

MARK VESELY

Mark Vesely, Facilities Superintendent,
Facilities Operations



Ribbon-cutting for solar car charging stations. From left to right, front row center: Sarah Carter (First Lady), Kyle Carter (Chancellor), Biruk Kassaw (SGA Pres.) and Richard Cosentino (VC of Finance & Administration).

UNCP RAMPS UP SUSTAINABILITY PROGRAMS WITH CAR CHARGING STATIONS AND ZIPCARS

BY: SCOTT BIGELOW, PUBLIC COMMUNICATIONS SPECIALIST

UNC Pembroke—the first college in North Carolina to become a partner with the U.S. Department of Energy's Workplace Charging Challenge.

The plug-in vehicle charging stations are free of charge to all patrons. A two kilowatt (kW) solar photovoltaic (PV) system was also installed to offset energy consumption. The PV array stands tall outside of Lumbee Hall as the campus' new "sustainability flag." It is the first of a series of moves to position the university to be carbon neutral by 2050.



Students, faculty, staff and local residents may also sign up for Zipcar, which provides access to cars by the hour or by the day. Two Zipcars (Ford Focus and Toyota Prius) are parked in Parking Lot 17, in front of Dial Humanities and Lumbee Hall. Studies show each car shared takes approximately 15 privately owned vehicles off the road, helping the campus to reduce its overall carbon footprint and impact on the environment while giving students access to fuel-efficient vehicles in an affordable and convenient way. You can join for an initial fee of \$25, with rates for using the Zipcar vehicles starting as low as \$7.50 per hour and \$69 per day. After the first year, members will pay an annual membership fee of \$35. Gas, insurance, a reserved parking spot and up to 180 miles of driving per day are included in Zipcar rates, and cars can be reserved for as little as an hour or for multiple days.



Bicycle rental and shuttle van programs are also available. Bike use on campus has soared as the university has grown. The shuttle will help freshmen and other students without cars to get needed food and supplies.



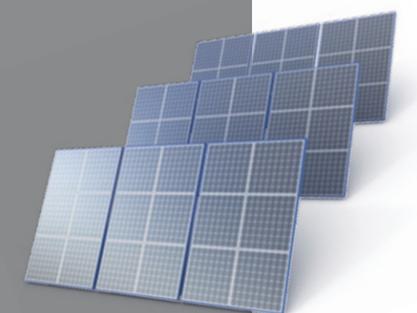
US DOE's EV Everywhere - 2014 Progress Update; NC PEV Taskforce Newsletter, July 2014 and Carolina Country Magazine, November 2014



NATIONAL SUSTAINABILITY FACT

510 institutions have submitted more than one greenhouse gas (GHG) inventory. On balance, ACUPCC institutions have reduced cumulative CO2e emissions by 1,991,091 metric tons! Renewable Energy on ACUPCC campuses: ACUPCC signatories produce 507,751,335 kWh of renewable energy annually. This is the equivalent of powering 31,932 American households annually. UNC Pembroke began the process of calculating a baseline GHG inventory and installed the campus' first 2kW solar PV array in 2014.

Sources: ACUPCC. (3/2014). Progress Summary. Retrieved from <http://www2.presidentsclimatecommitment.org/ACUPCC-Progress/Summary-March2014.pdf>. Laurinburg Exchange, December 17, 2014.



PLANNING & ADMINISTRATION

COORDINATION, PLANNING AND GOVERNANCE, DIVERSITY AND AFFORDABILITY, HEALTH, WELL-BEING AND WORK, INVESTMENT

Sustainability—being inter-disciplinary by its very nature—requires communication, coordination and commitment across the entire organization in order to succeed. This requires a holistic approach with all stakeholders and members contributing, providing input and sharing in the effort, operating as one integrated and unified team.



PLANNING AND ADMINISTRATIVE GOALS

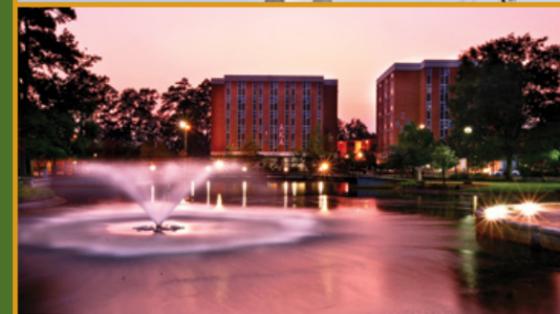
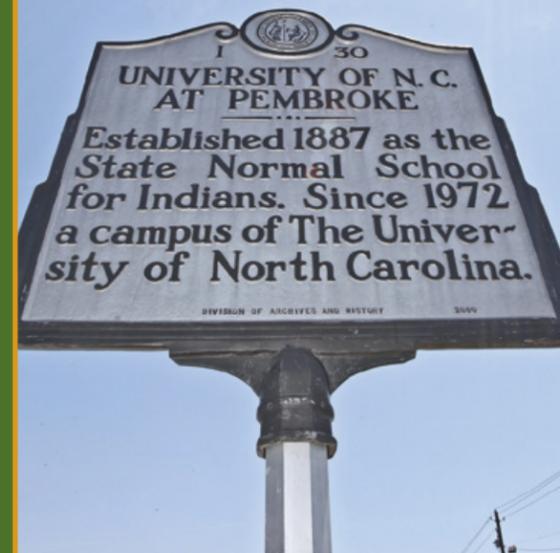
- » Create institutional structures to guide sustainability progress and implement mechanisms for tracking and communicating progress.
- » Ensure equal availability of opportunity by all, while promoting social and environmental justice.
- » Manage workplace health and wellness opportunities; ensure workplace and campus safety for employees and students.
- » Make investment decisions that promote sustainability.



PROGRESS MADE IN 2014

- » Established the campus' first Sustainability Council with campus-wide representation
- » Student green fee (\$5 per semester) established and used to fund a portion of several sustainability projects and programs: 2kW solar array, PEV charging stations, purchase of trees, student intern positions and recycling bins
- » Campus' first two Directors of Sustainability and Energy Management positions established and filled
- » Social justice training workshops offered to students and employees

Top right photo: Incoming SGA President Biruk Kissaw (second from left) with outgoing SGA President, Emily Ashley; (far left) Tanner O'Quinn, SGA Vice-President, (center) Chancellor Carter, (far right) John Jones, VC of Student Affairs



Highlights of Progress Toward Success



UNCP SUSTAINABILITY COUNCIL ESTABLISHED IN 2014

CO-CHAIRS: JAY BLAUSER AND DEBORAH HANMER

Purpose and scope: to position UNC Pembroke as a regional sustainability leader in higher education. This can be done by ensuring sustainability principles and practices are integrated into campus-wide operations, academics and research, capital and infrastructure development and other activities that reduce global warming emissions and prepare students to be responsible stewards of the world. The Council will also develop recommendations to ensure compliance with all governing sustainability laws, regulations, policies and signatory commitments.



HUNGER BANQUET

Hosted by the Office for Community and Civic Engagement, the Hunger Banquet gave participants the opportunity to experience what poverty and hunger feel like. Participants drew social-economic class rankings and were treated to a meal within their chosen budget. The purpose of the event was to raise awareness of food insecurity and encourage participants to do something positive about it.



SUSTAINABLE, LOCAL AND HEALTHY FOODS

The NC 10% Campaign and The Real Food Challenge proposed a partnership to advance the efforts of sustainable and local food procurement within NC universities. These two organizations have piloted the partnership through a collaborative program at UNCP for the 2014-2015 school year. Through the partnership, training was provided to students who were also provided paid intern opportunities, on calculating the amount of sustainable and local foods that the campus dining services are currently procuring, identifying items that could be sourced locally and sustainably and farmers/vendors that could supply those items, and educating the campus body on the health and economic benefits of a strong local and sustainable food system. These skills will provide an advantage to students that will soon enter the workplace. Training and support is also being provided for dining services staff with the NC Cooperative Extension Services.

Eco-Leader:

Mark Anderson is a retired veteran who has a passion for sustainable agriculture. He is driven to educate and empower his fellow students to understand the value and importance of sustainable agricultural practices within the university system. By introducing hands-on education, Mark has demonstrated concepts, such as growing seasonal crops, and teaching the value of hard work. Currently, he is working on getting the campus garden organically certified.



MARK ANDERSON

Campus Garden Student Leader,
Major - Environmental Science

"There will come a time when you believe everything is finished; that will be the beginning."



SOCIAL JUSTICE: JUSTICE FOR ALL

BY: ROBERT CANIDA, DIRECTOR OF THE MULTICULTURAL CENTER AND OFFICE OF DIVERSITY AND INCLUSION

As a prelude to UNCP's 7th Annual Social Justice Symposium, the Office for Diversity and Inclusion in partnership with the offices of Community and Civic Engagement, Student Involvement and Leadership, and Counseling and Psychological Services, provided a dynamic Social Justice Advocacy education session on September 9th to staff and faculty. The Reverend Sam Offer, Vice President of the Washington Consulting Group, gave an engaging and thought-provoking presentation to approximately 18 employees. His program addressed how to effectively foster positive social change, how to impact conversations about and across differences, and finally how to gain skills and tools that would continue to develop critical consciousness in order to advocate for justice and equity for all.

Eco-Leader:

Chief Cummings has incorporated sustainable practices into the Campus Police operations. To highlight a few of his efforts: bicycle and Segway use. In addition to being easy to get around campus Segway use has saved fuel costs and increased efficiency. Typically, it takes two police officers three hours to check all of the buildings on campus, but when using the Segway it only takes one officer an hour and a half to check the buildings. Recycling old or outdated parking permits is another way he helps the department to operate more sustainably. Solar powered emergency call stations are another good fit and help to reduce energy consumption.



**McDUFFIE
CUMMINGS**

Chief of Police and Public Safety

"UNCP police [are] doing their part in energy conservation."



UNIVERSITY HIRES ITS FIRST ENERGY MANAGER

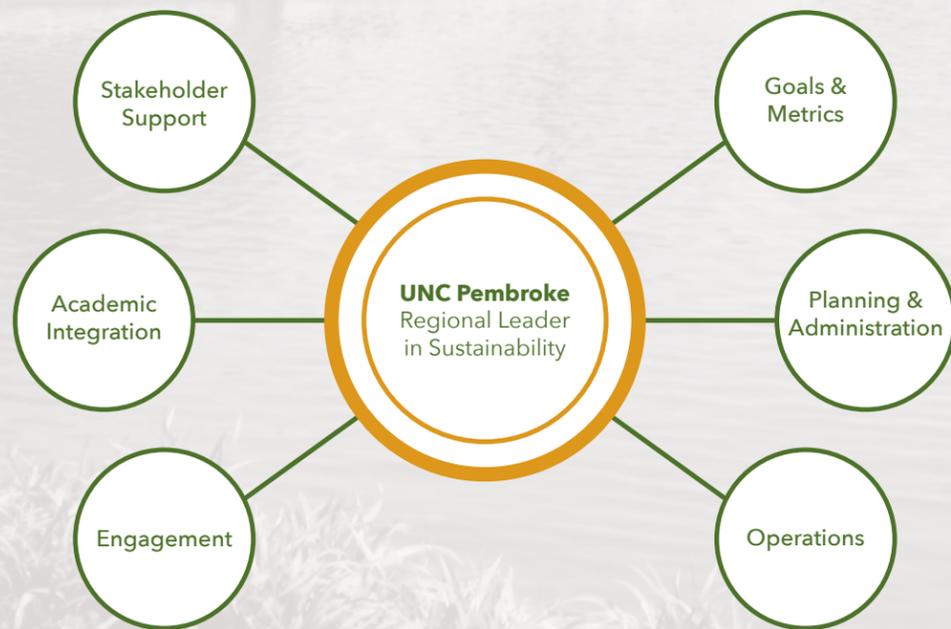
BY: SCOTT BIGELOW, PUBLIC COMMUNICATIONS SPECIALIST

Terry Divine joined the university in January as its first Director of Energy Management. He is a veteran of 18 years in the energy service business, including several stops in higher education. He reports to Steve Martin (Facilities Management). "My job is to look for ideas that can pay for themselves," Divine said. "This program is a great thing for school districts and universities. The savings achieved pay the salaries of people like me many times over," he said.

With a comprehensive and well-planned energy management program, campuses and school districts can achieve 20-30% savings on electricity, water and other energy resources. Divine will follow up on the savings program started by Siemens Corp. that provides savings through investment in boilers, motion-activated lighting, low-flow water fixtures and more. Starting as a high school biology teacher in Kansas, Divine was hired by his school district to be its energy manager. He's been doing it ever since, including stops at the University of Kansas, Pittsburg State (his alma mater) and Greenville (S.C.) Schools. He also worked for several large energy service companies as well as consulted.

WHAT'S NEXT FOR UNCP?

- » Continue working toward climate neutrality and making progress with ongoing efforts.
- » Keep everyone informed on progress made and opportunities for involvement.
- » Strengthen partnerships and increase participation both on and off campus.
- » Develop the campus' Sustainability Plan with input from the campus community and other stakeholders, which should include the major components as diagramed below:



Look for future projects and programs across campus to incorporate MORE:

- Solar power
- Electric vehicle charging
- Inter-disciplinary academic minor in sustainability
- Bike rental and bike racks
- LEV parking
- Stormwater management
- Rainwater reuse
- Green roofs and rooftop gardens
- Carpooling
- Recycling options
- Composting
- More locally-grown food served by Dining Services
- Tree planting and Tree Campus USA participation
- Electric and alternatively fueled fleet vehicles
- Recycled-content paper and products
- Eco-labeled products
- Locally sourced products and services
- AASHE STARS participation
- Opportunities to get involved and integrate these sustainability principles into students' academic experiences



LESS: waste and unsustainable products and practices.

UNIVERSITY of NORTH CAROLINA
PEMBROKE

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“WE DO NOT
INHERIT THE LAND
FROM OUR FATHERS.
We borrow it from our children.”

– *Native American Proverb*

For more information about
the contents of this report,
visit www.uncp.edu/sustainability

UNC Pembroke was founded in 1887 as the Croatan Normal School to educate the American Indians of Robeson County and to prepare teachers for the public schools. From 1939 to 1953, it was the only state-supported, four-year college for American Indians in the nation. Now one of the most diverse universities in the U.S., UNCP enrolls more than 6,250 students and offers 41 undergraduate majors and 17 master's degree programs.



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