

# WARREN WILSON COLLEGE'S COMMITMENT TO ENVIRONMENTAL SUSTAINABILITY *2017-2018 REPORT*



Over the 125-year history of Warren Wilson College, there have been many changes—but what remains the steadfastly true is the firm belief in doing things that make a meaningful, sustainable difference in the world. Today more than ever, we need to find ways to live and thrive in the physical world without leaving huge problems and scarcity for future generations to deal with. Warren Wilson faculty, students, and staff are working to find that balance and share what we've learned with the local community, the Appalachian region, the nation, and the world.

## ***Organizational Alignment and Strengthening***

Under President Lynn Morton's leadership, Warren Wilson is preparing for growth, especially in the area of environmental leadership.

- College leadership launched an energetic strategic planning process, with the goal of completing the new plan for Board approval in the Fall of 2018. Among the strategic imperatives is the commitment to make the College's land "a regional model for integrative land stewardship based on innovation, conservation and outreach."
- Dr. Dave Ellum, Professor of Ecological Forestry, has accepted the position of Dean of Land Resources. Dr. Ellum has a strong background in land management deriving from his PhD in Silviculture and Forest Ecology and his M.F. in Professional Forest Management. He has also had an active research agenda in conservation and cultivation. A passionate defender of our land resources and a strong strategic thinker, Dr. Ellum is well positioned to help chart our course in the Strategic Plan refresh towards integrated land management
- Dr. Paul Bartels accepted the post of interim Vice President for Academic Affairs. Dr. Bartels brings to the position a long history of service to the College and a biophilic perspective rooted in the natural sciences. In 2017, he was awarded the coveted Fulbright Fellowship to carry out a field study in Costa Rica.

- The Environmental Studies major will benefit from the addition of 2 new faculty hires, announced in May 2018. Dr. Kirk Adams accepted a joint appointment in the departments of Biology and Environmental Studies, to teach animal science and agriculture starting in Fall 2018. Dr. Kim Borges, who most recently taught at the University of Maine-Fort Kent, will be leading biochemistry studies and student research at Warren Wilson. Dr. Borge's particular interests are water quality and food security.
- Under the leadership of Dr. Mary Bulan, Director of Sustainable Agriculture Programs, staffing and oversight of the college farm was significantly strengthened: 2 interim farm managers became permanent hires. In line with Warren Wilson's tradition of shared governance, the agricultural programs are guided by a diverse committee of faculty, staff, and students.
- In June 2018, the College hired Dave Merchan, P.E., LEED AP, as Facilities Director. His expertise and keen interest in energy efficiency and green technology will undoubtedly advance the College's goals for sustainability and using the campus as a classroom.

### ***Sustainability on Campus***

The College has kept up the momentum from previous years, achieving a number of important benchmarks for sustainability.

- The campus-wide Zero Waste Initiative resulted in 61 tons of usable compost and 120 tons of other usable materials collected by the Recycling Crew, for a total of over 180 tons of material diverted from public landfills in 2017. A related goal is the reduction of waste generated. This past academic year, *the total amount of waste produced was down to 320 tons, a 24% decrease over 4 years.* This achievement can be credited to the incredible energy and dedication of the student work crews, inspiring positive changes in behavior across campus.
- Last year saw the completed installation of geothermal wells that support heating and cooling in both the Laursen and Jensen buildings. The geothermal systems have been in operation for over 12 months, making it possible to report out a full year of data on energy savings.
- A major earthwork and landscaping project, protecting the Swannanoa River from runoff from campus roads, is now in the completion stage. The project was led by Dr. Robert Hastings. Students in environmental engineering and hydrology classes were part of the installation team for this major stormwater interception system, which includes industry standard earth structures and techniques as well as groundwater monitoring. In addition to enhancing the College's excellent stewardship of the river frontage on campus, the stormwater systems provide ongoing learning opportunities for students in several different fields.

## ***Turning Assets into Opportunities: Coursework, Research, and Community Outreach***

Warren Wilson is known for excellent research and community outreach projects available to undergraduates. With each passing year we see more high-quality projects that transform academic experience into real world problem solving.

- The farm and garden work spaces continue to grow in their importance to the academic curriculum of the college. In 2017, agricultural land on campus was utilized for site demonstrations or data collection in 11 courses across the curriculum. The working land is especially important for Environmental Studies majors, who make up more than half of the total student crew on the land.
- Undergraduate research is thriving at Warren Wilson. Students continue to demonstrate their remarkable capabilities in scientific research, in particular ecological applications. These students are building connections with important institutions and networks, such as the North Carolina Academy of Sciences, NASA's and NOAA's climate science programs, and the U.S. Department of Agriculture.
- In the Spring of 2018 Warren Wilson was co-awarded a prestigious National Science Foundation grant for research and development of a new livestock feed from brewery waste products. The new feed has the potential of boosting animal nutrition and reducing greenhouse gas emissions. This type of project is the perfect example of how the college's laboratories, farm, and institutional partners all connect to produce research outcomes with potential well beyond the confines of the College.
- Warren Wilson students continue to show their skills as effective communicators of environmental science and stewardship. Some recent examples are the interactions of ENS majors working with Buncombe County public school students in the college garden and 4 Warren Wilson senior documentaries screened in May, focused on composting, food security, and agricultural heritage.
- The complexity of the social and economic dimensions of land management is always present at Warren Wilson. Some examples of how this is presented: in March, the Chair of Natural Sciences, Dr. Amy Knisley, hosted a forum on race, class, and agriculture, "Farms & Food For All?;" also in March the Environmental and Social Justice Crew hosted "The Thoughtful Coal Miner," an evening with Nick Mullins, a fifth generation coal miner. The discussion underlined the importance of looking at contentious issues from the perspective of those who have a long history in the region.
- The Environmental and Social Justice Crew hosted meetings of the Asheville chapter of Beyond the Bomb, a coalition of local communities working to reduce and eliminate nuclear arms and radioactive waste. The crew also attended the Appalachian Public Interest Environmental Law Conference, hosted by the University of Tennessee Law School in Knoxville.

### ***What's ahead in 2018-2019...***

- Warren Wilson's new strategic plan, under the direction of President Lynn Morton, is nearing completion. Working groups focused on diversity and inclusion, environmentalism, and other top priorities, will complete their tasks in Summer 2018 and present a new Plan for the consideration of the Trustees at their Fall meeting.
- New research projects are in development in agriculture and eco-forestry. These fields of research and extension are at the forefront of their disciplines and will attract long-term funding. Dr. Mary Bulan is developing plans for research and demonstration projects that show how different tillage practices help restore soil ecology and give higher crop yields. On the forestry side, Dr. Dave Ellum is preparing to implement the first phase of an outreach program to area landowners. The college will partner with extension workers in our area to train landowners the production of non-timber forest products. These products can significantly augment the income of woodlot owners and conserve forest species.
- Building on the College's reputation for excellent natural habitat, the Landscape Crew has garnered several grants to carry out a comprehensive restoration of hillside habitat using regional plants below Orr Cottage. This is an excellent demonstration of how Warren Wilson connects academics, student work, and research aims—attracting the attention and support of significant institutional partners.
- Natural Sciences Meeting & Media Space: Nearly 100 incoming freshmen (August 2018) come to Warren Wilson with an interest in majoring in Biology or Environmental Studies. In response, the College is organizing additional resources to ensure these students thrive. Space has been cleared on the 3rd Floor of the Morse Science Building to serve as space for BIO/ENS tutoring, private study rooms, and an office for the Environmental and Social Justice Crew. Two rooms will also be dedicated to Science Communication and Media, as we begin to build some programming around the subject.
- Academic programs in the disciplines of environmental studies, agricultural and forestry will be closely coordinated with the new Center for Integrated Advising and Career Development, housed in the Jensen Building. Center staff are already working with faculty to develop programs for students.
- Beginning in November 2018, *The Power of Place* will be the theme of a year-long retrospective of the College's history, connecting the physical environment of the Swannanoa Valley with its rich cultural heritage. It is fitting that this collective reflection on Warren Wilson's past will occur as the College begins to implement the new Strategic Plan as well as when it begins its 125 year. The unique value, as well as the responsibility, that stem from the land will underscore future plans for academics and service to the community. All that we do goes to preparing Warren Wilson students to be agents of change in the world.