

# WARREN WILSON COLLEGE'S COMMITMENT TO ENVIRONMENTAL SUSTAINABILITY

## 2016-2017 REPORT



Sustainability is woven into the fabric of Warren Wilson College. It is grounded in our rich history of place and purpose, embedded by generations of community members who have modeled our fundamental commitment to connect values to action. The practice of sustainability flows from the College mission, which serves as our compass for responsible citizenship, and from our unique liberal arts model of engaged learning.

### **INSTITUTIONAL ACCOMPLISHMENTS AND ACCOLADES**

**DIVESTMENT:** In 2015, Warren Wilson College became one of the roughly 25 U.S. colleges and universities, including Georgetown University and Stanford University, to pledge, in full or in part, to divest totally from fossil fuels within five years. In just two years since making this pledge, the College has divested 84% of its portfolio. As Warren Wilson College divests, new investments will be made in companies that demonstrate commitment to environmental sustainability; community and economic development; social diversity in hiring; and transparency and accountability in corporate governance, among other traits.

### **NATIONAL RANKINGS AND CERTIFICATIONS:**

- Warren Wilson College was once again named #1 Best College Farm by Best College Reviews. Ranking criteria include farm size, integration with the campus, sustainability, courses taught, students using the farm and integration with the larger community.
- In 2017, Warren Wilson became the 22nd Certified “Bee Campus” in the United States. The Bee Campus USA program endorses a set of commitments for creating sustainable habitats for pollinators, which are vital to feeding the planet.
- Warren Wilson is one of only 254 college campuses across the country recognized again in 2017 as a “Tree Campus USA” by The Arbor Day Foundation. First received in 2015, the designation honors the College for its commitment to effective urban forest management on central campus while engaging staff

and students in conservation goals. The College's central campus, considered an urban environment due to the population density, is home to nearly 10,000 trees.

- In 2016, Sierra Magazine ranked Warren Wilson College No. 42 of 201 "Cool Schools," which is an indication of the institution's "greenness." The College has been named a "Cool School" nine consecutive times mirroring the total number of lists published since rankings began in 2007.
- Warren Wilson College's central campus has been named a National Wildlife Federation Certified Wildlife Habitat, a North Carolina Native Plant Sanctuary, and a certified Monarch Butterfly Waystation through Monarch Watch.
- Warren Wilson has been named No. 36 of the top 50 most environmentally responsible colleges in the U.S., according to "The Princeton Review Guide to 361 Green Colleges." The Princeton Review calls Warren Wilson College "a unique place to learn about sustainable decision-making" and points to the Environmental Studies major, which is the most popular major, as proof. The College's "commitment to using green building standards for all new construction and retrofits" with "12% of campus heating and cooling energy demand [being] met with geothermal and solar thermal resources" is also given high marks.
- Warren Wilson College is No. 13 on Backpacker Magazine's "20 Best Colleges for Hikers" list, and one of only two ranked schools in the Southeast.

#### NEW BUILDINGS AND FACILITIES IMPROVEMENTS:

- A new academic building broke ground on April 29, 2017 and will overlook the farm and gardens from its foundation next to the Spidel Memorial Building. The structure will feature six meeting spaces - ranging from 15-person seminar rooms to a 40-person flex classroom - and 19 faculty offices. The facility will cover 15,000 square feet and be built to Leadership in Energy and Environmental Design (LEED) Gold standard. The building is the latest in a 15-month long facility improvement project on the campus.
- Fourteen geothermal wells have been added to the Jensen Humanities and Social Science Center and two more were added to the Bernhard and Katherine Laursen Administration Building, which are now using 100% geothermal energy for heating and cooling. Geothermal wells connect with integrated heating and cooling systems, circulating warm water through a building in the winter to warm it up and cool water in the summer to cool it down.
- A new solar structure for the pool is being built to replace the old enclosure. During demolition, the roof beams and cross beams from the pool renovation site were reclaimed. A structural engineer evaluated the beams and calculated their strength, which determined that the materials can be reused in another campus project. All of the other materials from the demolition are also being recycled to help avoid sending construction waste to a landfill.

**PATAGONIA WORN WEAR TOUR:** Warren Wilson College was selected as one of only 21 colleges across the country for Patagonia's Worn Wear Campaign in February 2017. During this tour, Patagonia drove a solar-paneled truck across the country to schools like Warren Wilson that demonstrate outstanding sustainability practices. The event included lessons about clothing repair, upcycling tutorials, crew sales and demonstrations, a documentary screening, and a recycled fashion and arts show.

**ZERO WASTE INITIATIVE:** In February 2017, the Zero Waste dinner launched a discussion about the future of Zero Waste at Warren Wilson. Professor Amy Knisley, alum Ben Paulson '17, and Chief Financial Officer Scott McKinney formalized the Zero Waste Initiative for the College. The goal is to divert 90% of all waste from the landfill by 2032, with additional efforts to reach 100% initiated as technology becomes available.

## **EFFICIENCY, PROTECTION, AND LEADERSHIP AT WARREN WILSON COLLEGE**

### **RESOURCE EFFICIENCY AND CLEAN ENERGY:**

- Warren Wilson College was the first college in the Southeast to sign onto the Real Food Challenge, run by a national nonprofit of the same name that strives to move away from purchasing industrial food and support investment in "real" food instead. "Real" food is considered that which truly nourishes producers, consumers, communities, and the earth. It is a food system - from seed to plate - that fundamentally respects human dignity and health, animal welfare, social justice, and environmental sustainability. Warren Wilson College currently buys 30% "real food" annually with shifts planned to meet their goal of 40% by 2020.
- In the past year alone, nearly 400 tons of campus waste materials (including recyclable items, organic matter, and electronic recycling) were diverted from the landfill, and 150 tons of nutrient-rich compost were produced for use on the College Farm. The College's compost system is considered a "closed-loop:" the farm and garden produce food that goes to the dining hall; food waste is then brought to the Recycling Center and turned into compost; then that compost is applied back to the land to enrich the soil for more food production. The Recycling Crew takes all the food waste from the cafeterias, dorms, office buildings, academic buildings, faculty and staff housing, and a few community partners, including the Western North Carolina Farmer's Market and the Verner Center for Early Learning, and processes it in this system.

### **LAND AND WATER PROTECTION:**

- This year, additional stormwater detention areas have been planned on campus to prevent flooding as part of Professors Robert Hastings and Mark Brenner's StormWater Management Project. Students in the Environmental Engineering class created, refined and implemented a design for managing stormwater flow using constructed wetlands, and once built, these facilities will be utilized by both Environmental Studies and Biology classes for educational purposes. "Stormwater management is the next step in ensuring surface water quality," said Robert Hastings. "In the past, we worried about chemical pollutants. Now we are focusing on sediment. Most sediment enters rivers through stormwater." While improving stormwater quality, these new wetland areas will also create different kinds of habitats, from constantly wet to intermittently wet. Working with several work crews, including Landscaping and Plumbing Arts, construction of these wetland areas will start in the coming months. Two wetlands have already been built on campus, one on Jones Mountain and one behind the campus composting facility.
- The Landscaping Crew has continued to maintain habitats for insects, birds, and small mammals as part of Warren Wilson's various and continued natural habitat certifications. These efforts build on previous work which converted several turf grass areas to include native grasses and wildflowers and contributed to the natural aesthetic of the campus.

## LEADING A SUSTAINABILITY MOVEMENT THROUGH ADVOCACY, SERVICE, AND RESEARCH FROM FACULTY, STUDENTS, AND ALUMNI:

- Chloe Moore, a student on the Garden Crew, has set up an aquaponics system on campus where fish are kept in an in-ground reservoir and their waste is used to grow edible plants.
- With the Garden Crew's permission, Erin Moore, Tim Prokesch, and Elliott Siegreest-Jones have taken campus paper towel and coffee ground waste to grow oyster mushrooms, which can potentially reduce waste while also producing food for the cafeteria.
- Hayden Holbert, a student on the Farm Crew, is exploring the possibility of growing black soldier fly larva in garbage, manure, or food scraps, in order to use them as a food source for campus farm animals, like pigs and chickens.
- Students in environmental education courses engage with local stakeholders in education and outreach focused on sustainability. In 2016-2017, our students taught lessons about wildlife and habitats to 120 second and third-grade students; designed wellness workshops for 25 low-income senior citizens; led field experiences for 25 at-risk high school students and 80 first-graders; and co-taught a one-week program on growing and cooking healthy food to 80 first graders in collaboration with 12 high schoolers.
- Retired ranger Dave Walker trains dozens of people yearly for North Carolina Forest Service fire crews. Many of those new crewmembers are Warren Wilson College students. "For more than 50 years, students at Warren Wilson College have been working for the North Carolina Forest Service in fire control," Walker said. "Over the years, I have seen many students develop into experienced, highly skilled firefighters. Because of their enthusiasm, motivation and attitude, Warren Wilson students are popular because they work hard, are willing to learn and can handle the physical pressures of the job." Once certified, trained students are considered to be on-call for the North Carolina Forest Service.
- Along with Facilities and Maintenance Services Senior Supervisor Jes Foster, Ben Paulson '17 is teaching a pilot work-and-academics integrated class focused on composting practices. This pilot class is structured around readings, discussions, and small assignments that culminate in a final project. This course is offered to students that have been on the Recycling Crew for at least one semester, and similar classes are planned for the Farm and Garden Crews as well.
- Conservation efforts in a mountain wetland area near the North Carolina Arboretum are getting a boost thanks to research from Warren Wilson College Professor Amy Boyd and 2015 graduate Adele Preusser. The pair collected and cataloged more than 300 species of plants in the Sandy Bottom Wetland Preserve. In their recently published research, the scientists say their work will "inform future conservation management efforts on the property."

Warren Wilson College remains committed to environmental sustainability, and our trustees, administration, faculty, staff, students, and alumni embody this ideology. Our accomplishments this year should be celebrated as they reflect our efforts in environmental stewardship, but also as they lay the foundation for future work and challenge us to strive for a greater understanding of Warren Wilson's role toward a sustainable future.