

# Duke Carbon Offsets Initiative

## 2019 Annual Report



Offset Network workshop

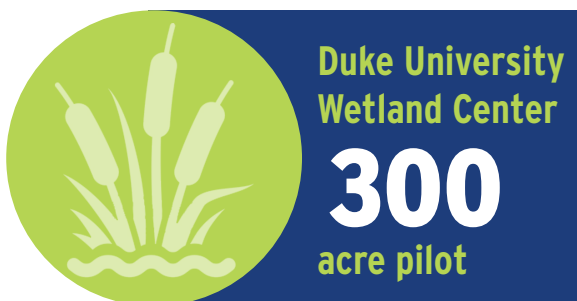
## Background

### History

In 2007, Duke University set a target of achieving climate neutrality by 2024. Even after being aggressive with reducing emissions on campus, Duke is expected to have to offset an estimated 73,000 metric tons per year of carbon dioxide in 2024. The Duke Carbon Offsets Initiative (DCOI) was created to help Duke University reach its climate neutrality goal. Since its beginning in 2009, it has developed a variety of innovative carbon offset programs in swine waste-to-energy, energy efficiency, solar, and urban forestry.

### Mission

- To develop and implement the University's strategy for identifying, creating, and purchasing carbon offsets.
- To implement the strategy in a way that provides educational opportunities for students and faculty.
- To prioritize local and regional offsets that provide significant environmental, economic, and societal benefits beyond the benefits of greenhouse gas reduction.
- To facilitate and catalyze high-integrity, unique offset projects by serving as a resource for other institutions.



and graduate students. The project looks at regenerative grazing as a carbon sequestration technique, minimizing agricultural emissions from cattle, and the students analyze the viability of implementing both policy and programmatic solutions.

#### ■ Avoided Conversion

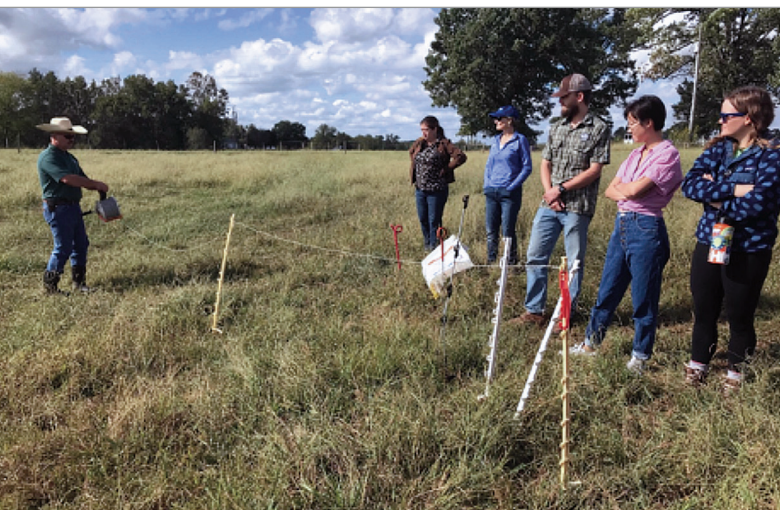
- DCOI served as the client to a Masters Project for three MEM/MF students at Duke's Nicholas School of the Environment. With staff guidance, the students created an interactive GIS tool to aid DCOI in finding and ranking land parcels for avoided conversion projects. DCOI is now using the tool to target parcels to develop an avoided conversion carbon offset project.

#### ■ Pocosin Restoration

- DCOI, along with the Duke University Wetland Center, began developing a pilot project to restore a large area of former pocosin wetland in eastern North Carolina. The project will begin as a 300-acre pilot with the possibility to scale up to a 10,000-acre project. Pocosins naturally act as carbon sinks, so by restoring wetlands this project will sequester carbon while also improving ecosystem services.

## Projects to Highlight

- Bass Connections Regenerative Grazing
  - DCOI staff teamed up with the Duke Campus Farm and Duke Law faculty to lead a year-long Bass Connections project with undergraduate



A North Carolina rancher teaches Bass Connections students how to install temporary cattle fencing

## Presentations

- National Forum for Black Public Administrators Executive Leadership Institute – Feb. 1
  - Presented to rising stars in the public administration field about the basics of carbon offsets and DCOI's role within the university.
- Second Nature Summit – Feb. 11-13
  - DCOI's shared its approach to carbon offsets and gave specific information about projects DCOI has developed, and the office's efforts to have them peer-reviewed through the Offset Network platform.
- 2019 Energy Week – Nov. 4-7
  - DCOI retired 140 carbon offsets to make 2019 Energy Week carbon neutral, tabled at the 2019 Energy Week Expo and engaged with a wide audience interested in carbon offsets.

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A Duke student learns about forestry management practices in Oaxaca

## ■ Offset Network Workshop – April 2

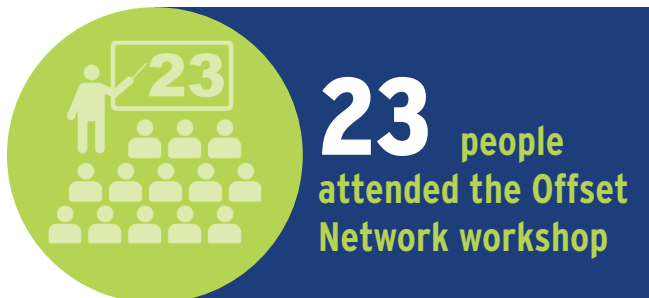
- DCOI coordinated and hosted an Offset Network Workshop that saw subject matter experts present material on the peer verification university-created of offset projects.

## ■ Oaxaca carbon offset presentation – April 10

- DCOI and Dr. Liz Shapiro-Garza presented the purchase of carbon offsets from projects managed by indigenous communities in Oaxaca, Mexico to university administrators.

## ■ Rally 2019 – Oct. 18

- DCOI gave a talk titled “Avoiding Development through Carbon Offset Projects” at the annual Land Trust Alliance Conference along with Duke graduate students and partners at Thousand Islands Land Trust and Clarkson University.

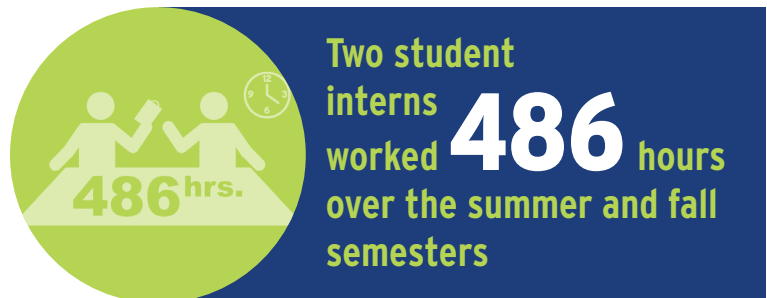


## ■ Association for the Advancement of Sustainability in Higher Education – Oct. 28

- Discussed the Offset Network, a platform for colleges and universities to share resources and verify projects from peer institutions.

## ■ Carolina Farm Stewardship Association Presentation – Nov. 2

- Students from the Bass Connections class “Regenerative Grazing to Mitigate Climate Change” --co-taught by DCOI-- presented to agricultural practitioners and policymakers.



## Other Events

### ■ Michigan State University Loyd Ray Farm Verification – April 15

- A faculty-led student team from MSU traveled to North Carolina to perform offset project verification of DCOI's Loyd Ray Farm project. In addition to verifying the project, the MSU team also developed guidance materials enabling future members of the Offset Network to verify anaerobic digestion projects.



The peer verification team from Michigan State University stands atop a methane bubble contained in the Loyd Ray Farm anaerobic digester

### ■ New DCOI Program Coordinator Hired – Sept. 20

- Emma Fulop graduated from Duke's Nicholas School of the Environment with her Masters in Environmental Management in May 2019. She worked for the Office of Environmental Education and Public Affairs for the NC Department of Environmental Quality before joining DCOI as a Program Coordinator in September.

### ■ Home Energy Efficiency Workshop – May 24

- 16 attendees learned how to make their homes more energy efficient at a DCOI-hosted workshop presented by an energy efficiency expert from the NC Building Professional Association.

### ■ Staff Retreat – Oct. 21 & 22

- The Office of Sustainability gathered for a two-day intensive retreat to focus on its collective mission and goals. The staff left the retreat energized and with many new ideas that they are excited to implement.



**Duke Carbon  
Offsets Initiative**  
DUKE UNIVERSITY

For more information, visit  
[sustainability.duke.edu/carbon\\_offsets](https://sustainability.duke.edu/carbon_offsets)