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The Fierce Green Fire

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# The Fierce Green Fire: Vol. 3 Issue 19

Wofford College Environmental Studies Program

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# The Fierce Green Fire

A Newsletter of the Wofford College Environmental Studies Program



ENVS Senior Alex Dunmire tests his hydroelectric generator with the help of Steve Patton.

Volume 3, Issue 19

*Tuesday, March 26<sup>th</sup>*

*Santee Cooper Lecture Series on  
Sustainability & Energy Issues*

*Presents*

*“Sustainability & Liberal Arts  
Symposium*

*Lecture by Susan Kidd*

*“Living and Learning Sustainably:  
A Liberal Arts Approach”*

*11:00am-noon*

*Leonard Auditorium*

*Informal Conversation with Susan  
Kidd and Jack Byrne*

*2:30pm-3:30pm*

*Leonard Auditorium*

## *Pico-Hydroelectric Generator at Glendale Shoals*

*By Alex Dunmire '13*

I started playing with the idea to try to put a small hydroelectric generator at the Glendale dam midway through the fall 2012 semester for my capstone project. Initially I wasn't convinced that building or operating a hydroelectric generator was a project that one student should try to do. However, as I researched I found that many people were building their own small hydroelectric generators as hobbies to power LED lights and charge cell phones.

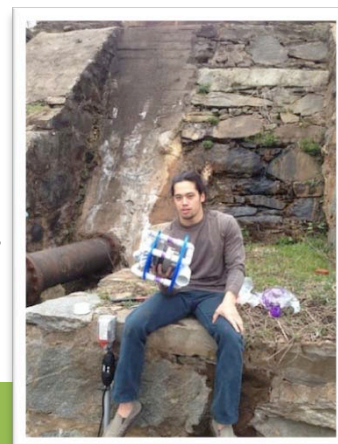
The research that convinced me that designing a hydroelectric generator was possible was a micro hydroelectric generator project designed by engineer Sam Redfield for a small Guatemalan village. I think it was the idea that Sam is an engineer, versus a guy on YouTube, which convinced me. Also, his design used inexpensive materials and was built for locals to maintain. So, I downloaded his build manual and built it.

The process of acquiring the materials, building, and testing took the rest of the fall semester and visits to seemingly every parts supply store and machine shop in Spartanburg. This semester I have teamed up with Steve Patton at Glendale to attach the generator to the dam. My goal is to have a new penstock extended towards the amphitheater and powering LEDs.

Next year I will be attending the LEAP (“Late Entry Accelerated Program”) at Boston University which will lead to a Masters of Science in Electrical Engineering.



*ENVS 101 students help plant lettuce at Mountain View Berry Farms, owned by Joyce and Joe Cunningham.*



*Dunmire with the hydroelectric generator he built as part of his senior capstone project.*



## Upcoming Events and Opportunities

Each Wednesday in  
March

**Sustainability Cups are Still for Sale:** Support our Fierce Green Fire Student group by purchasing the cup for \$20 (*cash or Terrier Bucks with W#*). Students will be selling at Burwell and Zach's, 11:30am-1:30pm. Use your cup at many of the dining facilities on campus for free soft drinks!

March 23<sup>rd</sup>

**Spartanburg County Household Waste Collection Day:** Spartanburg County Administrative Building, 9:00am-2:00pm; Free, safe disposal of aerosols, cleaners, fluorescent bulbs, fertilizers, propane gas cylinders, pesticides, and more ([www.spartanburgcounty.org](http://www.spartanburgcounty.org)). Open to Spartanburg County residents only. Bring in your old gasoline-powered lawn mower and purchase on-site a battery-operated model at a special event-only price. Rain Barrels will be available for purchase. Volunteers are also needed!

March 23<sup>rd</sup>

**Tyger River Sweep:** Volunteers need to help clean up the Middle Tyger River. 9:00am-noon, meet at Middle Tyger River SJWD Water Treatment Plant. Contact Ben Palmer at (864) 804-5504 or [ben.palmer@spartanburgparks.org](mailto:ben.palmer@spartanburgparks.org) to register. Free t-shirt and lunch provided.

March 23<sup>rd</sup>

**Easter Egg Hunt in Glendale:** Bring the kids to Glendale Shoals for an Easter Egg Hunt in the Garden. 2:00pm (*weather permitting*). Sponsored by the *Thinking Like A River Initiative*.

March 25<sup>th</sup>

**Organic Farming Presentation:** Benefit from Tracy Priest's presentation on supporting organic, local, and slow food systems, natural health, "real food" nutrition, and environmental sustainability. 6:00pm at Cleveland Park Event Center.

March 25<sup>th</sup>

**Fierce Green Fire Meeting:** Next meeting in BSA 1 at 8:30pm.

March 26<sup>th</sup>

**ENVS Hosts Sustainability Conference:** *Santee Cooper Lecture Series on Sustainability and Energy* is sponsoring a talk in Leonard at 11:00am with guest speaker Susan Kidd, Director of Sustainability at Agnes Scott College. An informal conversation will begin at 2:30pm in Leonard with Kidd and Jack Byrne, Director of the Sustainability Integration Office at Middlebury College.

March 28<sup>th</sup>

**Goodall Environmental Studies Center:** At 4:00pm, please join us for a presentation on nonprofit careers in environmental fields by the Turner Foundation, followed by storytelling with naturalist Doug Elliott and his animals. Elliott will also show the animals at Players Corner during lunchtime.

April 1<sup>st</sup>

**Deadline for Colorado Ecosystem Field Studies:** This program is now accepting applications for 2 summer sessions, June 18-July 4 or July 30-August 15 (*20 students/session*). Earn 3 undergraduate transfer credits while hiking and camping in the foothills of the Rocky Mountains. Visit [www.ecofs.org](http://www.ecofs.org) for more information.

## PROFILE OF THE WEEK:

### *University of Texas – Austin – Energy and Earth Resources*

The Jackson School of Geosciences at the University of Texas at Austin offers the Master of Arts in Energy and Earth Resources (MAEER) and the Master of Science in Energy and Earth Resources (MSEER), as well as dual degrees with the LBJ School of Public Affairs and the Red McCombs School of Business.

The EER program is nationally recognized in the area of oil and natural gas. In addition to these areas, the EER program offers the opportunity for coursework and research in alternative energy resources, mineral resources, and water similarly tied

to relevant courses in business, finance, economics, law, policy, and the environment.

"UT Austin is one of the world's great research universities, and is also a network for creative thinkers, entrepreneurs, and pioneers. And the City of Austin offers a fantastic setting for education, discovery, and professional development."

Enrollment is limited to approximately 50 students. Visit their website at <http://www.jsg.utexas.edu/eer/>.