

John Michael McGinn, Marvin Pate, Office of Sustainability, Summer 2012

While Sewanee has been renowned for its academics for some time now, over the past few years we have been working towards becoming known for our sustainability on campus. This summer, I worked with 3 other interns for Marvin Pate, the Director of Sustainability on campus, in order to continue striving towards this goal. Over the summer, we undertook many different projects that covered a variety of fields in order to achieve this.

One of the main projects we got started on and implemented this summer was the new HVAC policy the school has picked up. This policy, which deals with the heating and cooling of buildings around campus, sets and defines temperature limits during occupied and unoccupied times for buildings. The purpose and future goals for this policy are to save Sewanee money while reducing our use of electricity as well as our carbon footprint on campus. In order to properly implement a new heating and cooling policy around campus we first had to understand what is considered a “comfortable” occupancy temperature. From here my fellow interns and I looked at occupancy schedules for each of the buildings that falls under the new policy in order to better understand their occupancy times. This must be done in order to develop building specific “occupied” and unoccupied times, with the final result cutting down on the occupied time in order to cut down on energy use. With all of this knowledge as well as other outside sources the Sustainability Steering Committee was able to come to the conclusion of having the summer set points be a minimum of 76 degrees F and the winter set point being maintained at a maximum of 71 degrees F. Once this policy was implemented we distributed HOBO loggers,

which log the temperature of the room they are in for 5-minute increments, in order to monitor the transition and to fix any hot or cold spots. While this new policy will be one that will take time to perfect, this summer's data has given us a good start to reducing its faults.

Another large project we tackled this summer was de-lamping the older buildings on campus in order to reduce the amount of electricity each room is pumping out. In simple words, de-lamping is just taking light bulbs out of fixtures in over-lit rooms. While it may sound very simple, in order to properly de-lamp we had to know how much light each fixture was putting out. We used nationally recognized foot-candle limits for each room; these would change from room to room whether or not they had computers, a chalkboard or whiteboard. From here we de-lamped the rooms in order to get them to the proper lighting. In order for future students to understand what we had done, we drew up the before and after lighting fixture layouts and how many bulbs were in each fixture. All together this helped save energy, money and headaches from over lit rooms. This de-lamping was done throughout rooms in Woods Lab as well as throughout the whole library. While plans were drawn up for the individual rooms we did not make draw ups for the library because they will permanently stay how they are.

While these were two of the main projects my fellow interns and I took on this summer, there were smaller summer long jobs that we tended to as well. For example, throughout the whole summer we continuously analyzed and entered energy bills into Sewanee's billing database, energy watchdog. These bills covered our payments for gas, electric and water use. While doing this we looked for and

recorded any anomalies for future reference. Also, Caitlin Hanley and I helped out on the new and improved university garden for two days a week throughout the month of July. Some days consisted of pulling weeds, making posts, planting seeds and digging trenches. Gina, the new farm manager, was in charge of us at this time and it was a great pleasure working with her out there. I was also lucky enough to go out the Cheston farm and help Devon McGranahan take some data concerning the steer and their grazing patterns. We wanted to see whether the steer preferred grazing on the recently burned areas versus the untouched areas. These two jobs allowed me to get outside a little bit more than usual and to learn about the agricultural side of sustainability on campus.

During the middle of my internship I took a two week intermission in order to help Rachel Petropolous and be a camp counselor for the SEI camp that comes to Sewanee during the last week of June and first week of July. While I was away from my usual internship, this time provided me new insights not only on sustainability on campus but the many ways Sewanee involves environmental studies in all sorts of fields. We had close to 30 rising seniors in high school on campus for the two week period and they took part in field excursions led by professors from the biology, geology, religion and many other departments. My fellow sustainability interns gave a talk one day about food on campus, which was very enlightening.

Because of this two-week intermission I took, my internship with Marvin did not end until August 16. During these final two weeks, I was the only intern around helping him, but Daniel Church, a Sewanee alum, was starting his new job in the Sustainability Office. During these final two weeks I continued de-lamping around

campus, as well as entering utility bills. But I did get to take part in a few new activities. I sat in on a meeting with an ENERnoc representative, which was very interesting and enlightening on how Sewanee may distribute its energy in the future when TVA needs assistance. Aside from this meeting, I continued to learn about Sewanee's future plans for sustainability and growth on campus. Currently, we are in the process of building a new dorm in order to handle the increase in students attending Sewanee. Along with this, our future plans entail building more dorms as well as remodeling the Sewanee Inn. While these expansions are great for the school, they must be done with sustainability in mind and that's where Marvin and his future interns will step in and help.

Aside from all these jobs we helped with around campus, Marvin had us read "No Impact Man", where the author attempts to live a zero waste life in New York City. Throughout the week, we would constantly read a few chapters and every few days sit down and chat as a group about what we had read. The book was very interesting and enlightening; it covered topics such as energy use, agricultural production, food waste and transportation. And surprisingly the author was able to pull it off; living in NYC with no electricity, only eating local, and basically a very off the grid life.

Overall, I believe this internship helped me in many ways. While, I will admit, it was not exactly what I was expecting I thoroughly enjoyed what I was doing and learned. I came to realize that Sewanee is slowly becoming more sustainable-minded but we still have a very long way to go. We started to make good steps this summer by becoming self-operating in McClurg and by revamping the Sewanee

farm and garden. It also made me realize that I do have a passion for sustainability and sustainable living but it lies more in the agricultural and food areas than in energy conservation. It also gave me a jump-start to what I will be doing this upcoming semester in Australia. Overall I would highly recommend this internship to any student that is interested in not only sustainability but also just environmental studies. It hits on many different topics and is very enlightening and helpful. Working with Marvin is also one of the most enjoyable things in the world; I learned a whole lot from him during and outside work.