**Purpose:**
The research conducted through this Independent Study reports on current environmentally sustainable practices and future sustainability initiatives. A comprehensive guide was developed using a Geographic Information System (GIS) that visualizes, describes, and locates sustainable practices.

**Introduction:**
Sustainability practices have been implemented throughout SUNY Oneonta’s campus. These practices have positively enhanced the environment for current and future students, faculty, and staff. After reading the Report of the World Commission on Environment and Development: Our Common Future, Sustainable development can be defined as “a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations”. After years of improving sustainable development on campus, SUNY Oneonta has decreased water usage (Figure 2) and electricity usage in dorms, educated students on different sustainable practices through the workshops within dorms, increased local food supplies on campus, and overall provided the campus with a more sustainable environment.

**Research Methods:**
The independent study has been built on the results of Joseph Raguzin (Geography major). The research done in order to gather the information needed was through interviews with various students and faculty members that have contributed to the sustainability related projects on campus. In addition, the data and charts have been provided from the Sustainability Coordinator, Hannah Morgan.

**Conclusion:**
SUNY Oneonta has done an extraordinary job creating a more sustainable campus. Education must play an important role to keep improving our campus for future generations, and help enhance student and faculty engagement. Through many challenges, our campus has improved and is still further developing sustainability has been concluded that without hard work, and dedication among not only faculty and staff but also the community, SUNY Oneonta can become a greener home to many.

**SUNY Oneonta Implements Sustainability Initiatives Campus Wide:**

**Guide and Map**

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**Figure 3: Sustainability Map**

Created by: Kaylie Allen, Alex Robinson, and Alanna Bergstrom

**Figure 4: Electric Charging Station**

**Sustainability Map:**
With the help of Alex Robinson, Alanna Bergstrom, and Dr. Fuller, a Geographic Information System (GIS) map has been created to highlight various sustainability initiatives on campus. The information gathered in this map is intended to help educate students, faculty, incoming or interested students, parents, and the public about the sustainable initiatives around SUNY Oneonta. Use the key provided to view the different initiatives around campus (Figure 3).

The projects include:

- **Waste:** E-waste collection at Hunt Union, the Red Dragon Thrift shop located in the basement of Netter
- **Energy Management:** LED lighting, LEED qualified buildings (Fitzelle and Physical Science), Energy Star Buildings, and the Solar Farm that will start being created in 2017.
- **Dining Services:** Hubert, Mills, and Wilsbach.
  - Wilsbach has the compost facility (located on the map).
  - Each dining hall sends preconsumer food waste to a pig farm. The dining services have also gone tray less in order to decrease water usage.
- **Environmental Impact:** These buildings are part of the storm water initiatives being done on campus to help slow the rate of runoff. This includes retention basins, and retaining walls.
- **Transportation:** Student Association has a bike share program where students can sign out to use quality bikes as an alternative to driving or taking the bus. The campus has also installed electric charging stations in the Alumni Field House parking lot (Figure 4).
- **Education:** There are many workshops being developed to educate students and faculty. There are sustainability coordinators at every residence hall, and a Sustainable Susquehanna Faculty Development Workshop.
- **Wetlands:** The wetlands have been created in order to help reduce water runoff and erosion.

After creating this GIS map, one step was taken further to help educate students. On the map provided on the computer, descriptions and graphs have been added to each building to provide further details of the sustainable practices around campus. The GIS map will potentially be uploaded to the college website in order to provide a virtual tour.

**Figure 1:** Three Pillars of Sustainability
https://www.munplanet.com/questions/153

**Figure 2:** Water Use Data in Residential Halls.

**Figure 3:** Sustainability Map

**Figure 4:** Electric Charging Station