

# Ohio Wesleyan University Sustainability Plan

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## Vision Statement

As a liberal arts institution, Ohio Wesleyan University strives to be a leader in the local and global community in progressive sustainability initiatives through educational, technical, and social means. Human welfare relies on a healthy planet, but harmful practices and the depletion of natural resources are having an increasingly detrimental impact on the environment. Through collaboration and outreach, the Sustainability Task Force is committed to the application of environmental theory into practice through a series of goals. Sustainability means a continuous effort to implement environmentally conscious institutional practices and habits in our daily lives. These efforts need to be flexible but persistent throughout OWU's presence in the community. It is important to understand the costs related to sustainability initiatives. However, such investments can be both financially and environmentally sound. The Ohio Wesleyan Sustainability Plan is intended to invigorate and expand a culture of sustainability that strives to be visible, educational, and effective in its positive impact on the environment. [*include reference to OWU Aims?*]

## Contents

1. Energy (Mary, Christian, Jayne)
2. Waste & Grounds (Mary, Christian, Jayne)
3. Water (Ali, Bridget, Ryan)
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5. Transportation (Jeff, Mira, Lili, Jackson)
6. Purchasing (Jeff, Mira, Lili, Jackson)
7. Education & Research (Sarah, Thomas, Cindy)
8. Co-curricular & Community (Sarah, Thomas, Cindy)
9. Funding and Financing
10. Climate: President's Climate Commitment [*currently nothing here*]

At end, comments about a reorganization of content by Emily Hau (Deegan), OWU 2006

# 1. Energy

*For this and every section create a one page overview with major goals. Potentially move goals specific to subsections.*

**Goal:** Document energy (water, elec) usage and issue a quarterly and yearly report with progress on reduction. Clean Air Cool Planet Carbon Calculator or something similar to document an energy usage baseline and track emissions. Outreach and awareness efforts aimed at students, staff, faculty

**Goal:** Reduce overall campus energy usage by 15 percent between 2006 and 2020 (revise).

**Goal:** Dominion Foundation grant for building energy monitors (working on in Geog 499 now)

**Goal:** Create StAP or Legacy internship for Student Energy Coordinator and Educator

**Goal:** Curriculum: Climate, Energy and Sustainability course (revision of Geog 235 Energy Resources) using OWU data and efforts to contribute to Sustainability Plan

**Goal:** Green roof on new Tree House SLU, develop a green roof grant proposal for a small building to evaluate the impacts - \$10-25 per square foot. Potentially bike shelter roofs (like Columbus)

**Goal:** Community: define specific collaborations on energy related issues

**Goal:** Replace lighting with more efficient alternatives (inside and out).

**Goal:** Increase individual control over room climate.

**Goal:** Write a grant (TIPIT? External?) for a smaller solar related project by summer 2016 - parking lot canopy, bike canopy, outdoor lighting etc.

**Goal:** Place Reminders on light switches to remind everyone to conserve energy by turning off the lights; revive Friday Night Lights Out

**Goal:** Create an Energy Star energy-efficient appliance purchasing policy

**Goal:** Establish routine for keeping all public computers on energy saving settings

## ***Energy: Work To Do***

- *We need the help of B&G to document (in categories below, which can be modified)*
  - *completed energy efficiency projects. Sean Kinghorn completed a series of state rebate applications for energy efficiency improvements on campus and we need to document all of those and other projects that took place after him, such as the renovation of Elliott Hall.*
  - *ongoing projects: Gymnasium, Merrick*
  - *planned projects: Residential Halls, ?*
  - *Campus Energy Audit: incorporate here*
  - *Campus ROI assessments (Sean Kinghorn)*
  - *Energy performance contracting - financing options*
- *Document energy efficiency efforts by Information Services (computers, printers, etc.)*
- *Other campus offices responsible for energy related efforts*
- *define goals*

## 1a. Energy Documentation, Monitoring, Analysis, Communication, Education and Community

- Completed:
  - *Alternative Energy Campus Survey (2010)*: The goal of this project was to determine how the campus as a whole felt about utilizing renewable energy, and if it could realistically be done. The students, faculty and staff felt the investment would be worthwhile, but the fact remains that new infrastructure would be needed and the necessary funds have to come from somewhere. The efficiency of some energy sources make them a poor choice to invest in, but there are new technologies that could make renewable energy affordable. [http://go.owu.edu/~jbkrygie/course/OWU\\_Green\\_F2010.pdf](http://go.owu.edu/~jbkrygie/course/OWU_Green_F2010.pdf) RenewableEnergySurvey\_ReportF10.pdf
- In Progress:
  - *Green Week*: establish as an annual event, incorporate energy issues
  - How does B&G document energy data on campus? Excel spreadsheets? How to improve access to that data, communicate and use for energy awareness.
- Proposed:
  - Fix it! system (email, phone number, app) to report energy wastage and other problems (among other resource problems on campus)
  - *Freshman Orientation*: Include energy awareness
  - *Building Energy Monitoring and Analysis (2012)*: The purpose of the Energy Monitoring and Analysis project was to process energy data and create a map showing energy usage and efficiency on the Ohio Wesleyan campus. The map displays energy use and efficiency in relation to building hours, building size, and number of people per building. The data is, then, normalized to take into account important differences from building to building. This map will help raise awareness of the patterns of energy usage on campus for students, faculty, prospective students, and alumni. It would also be of use to school administrators when determining where to focus efforts to improve the school's environmental footprint. [https://environmentalgeography.files.wordpress.com/2012/08/energy\\_owu.pdf](https://environmentalgeography.files.wordpress.com/2012/08/energy_owu.pdf)
  - *Dominion Foundation Grant: Building Energy Monitors as a tool to Encourage Student Energy Efficiency on Campus (in progress, 2015)*. Funds to purchase and install energy monitors in residential campus buildings, Fraternities, SLUs and Delaware City Schools locations. Monitors should be installed so that "natural" groups of students - such as floors in residential halls - can access their collective energy use. Energy data from monitors must be easily accessible, such as on a web page or app. **Develop strategy for energy reduction competition**: compete to see who can drive down energy usage the most (unplug, turn off computers, lights, appliances, etc.) while on campus or over breaks.
  - Make energy sustainability awareness part of new student orientation
  - Make energy sustainability awareness more central to ResLife and RAs
  - Thermal camera for Detecting heat loss:
    - <http://gizmodo.com/seeks-smartphone-thermal-camera-can-now-zoom-in-on-your-1680457406>
    - Seek Thermal. ~\$300. Can detect thermal energy from a distance. Attaches to phone.
    - <http://gizmodo.com/flirs-new-tiny-predator-vision-thermal-camera-now-fits-1677792125>
    - FLIR One. ~\$250. Similar to previous, but for more up-close work.
- Goals:

## 1b. Geothermal

- Completed: Meek (document)
- In progress:
- Proposed:
- Goals:

### 1c. Solar

- Completed:
- In progress:
- Proposed:
  - *Solar Energy at OWU (2012)*: The purpose of this report was to explore the possibility of using solar energy to power buildings on the academic areas of Ohio Wesleyan's campus, obtain ambient light data using a hand-held device to identify the strength of the Ohio sun during different hours of the day, and to find a stationary light monitor that can be put on a building to capture real-time sunlight data for student and faculty use. [https://environmentalgeography.files.wordpress.com/2012/08/solar\\_owu.pdf](https://environmentalgeography.files.wordpress.com/2012/08/solar_owu.pdf)
  - Proposed OWU & City of Delaware Collaborative Solar Array Field (201?): Proposed for a city-owned property, 466 Armstrong Road, south of campus.
  - Solar panels parking shelters in Selby Stadium (or elsewhere); potential to charge for parking permits under the structures.
  - Solar powered outdoor lighting
  - Solar hot water
- **Goals:**

### 1d. Wind Energy

- Completed:
- In progress:
- Proposed:
  - *Wind Energy: An Educational Tool for Ohio Wesleyan? (2011)*: We propose seeking funding for, purchasing, and installing a pedagogically oriented wind turbine on the OWU campus. The turbine would provide real-time data (weather, energy generated, etc.) to be monitored and analyzed by students and faculty. This proposal examines possible locations for a turbine on campus, the environmental impact of a turbine, and sources for funding. [https://environmentalgeography.files.wordpress.com/2012/08/wind\\_owu.pdf](https://environmentalgeography.files.wordpress.com/2012/08/wind_owu.pdf)
  -
- **Goals:**

### 1e. Biomass

- Completed:
- In progress:
- Proposed:
- **Goals:**

### 1f. HVAC

- Completed:
  - HVAC efficiency projects completed
  - efforts to adjust air conditioning (Science Center) and issues
  - efforts to adjust heating and issues
- In progress:
  - HVAC efficiency projects in progress
- Proposed:
- **Goals:**

## 1g. Buildings, Roofs, Windows, Doors, Insulation

- Completed:
  - Get documentation from B&G. This includes current energy efficiency components of completed campus construction projects: Gymnasium, Merrick Hall, ?
- In progress:
  - Get documentation from B&G. This includes current energy efficiency components of campus construction projects: Gymnasium, Merrick Hall, ?
- Proposed:
  - Incorporating more windows, passive solar
  - Green Roofing?- better insulation and reduces CO2
    - [http://www.quadlock.com/brochures/Quad-Deck\\_Green\\_Roofs.pdf](http://www.quadlock.com/brochures/Quad-Deck_Green_Roofs.pdf)
    - smaller units may work better
  - White roofs reduce need for building cooling by decreasing solar heat gain
- Goals:

## 1h. Lighting: Outdoor

- Completed:
- In progress:
- Proposed:
  - *Incandescent Outdoor Lighting Assessment (2012)*: Assessment of a proposed retrofit of incandescent outdoor lighting on OWU's campus with an assessment of replacement LED lighting and the long term energy savings.  
[https://environmentalgeography.files.wordpress.com/2012/08/outside\\_lighting\\_assessment.pdf](https://environmentalgeography.files.wordpress.com/2012/08/outside_lighting_assessment.pdf)  
Outside\_Lighting\_OWU\_Data1\_S12.xlsx Outside\_Lighting\_OWU\_Data2\_S12.xlsx
  - LED Lighting Report & Presentation LEDatOWU\_ReportF13.pdf LEDatOWU\_PresentationF13.pdf
  - Solar/LED security lights, parking lot lights, lamp posts, and other outdoor lighting fixtures
- Goals:

## 1i. Lighting: Indoor

- Completed:
  - Progress on replacing inside incandescent lighting.
  - Timed light switches: Sean Kinghorn completed some work on this, document where.
- In progress:
  - Inside incandescent lighting on campus. Current plans?
  - Timed light switches: current plans?
- Proposed:
  - *Friday Nights Lights Out (2012)*: A student-driven energy conservation initiative that aims to reduce wasted electricity at Ohio Wesleyan University by engaging student volunteers in turning off unnecessary lights after hours in buildings across campus. Pilot program was tested during the spring of 2012.  
Friday\_Night\_Lights\_Out\_ReportS12.pdf
  -
- Goals:

## 1j. Computers, appliances, machinery, devices

- Completed:
  - Energy Star appliances at OWU <https://greenowu.wordpress.com/2009/03/01/energy-star-appliances-owu/>
  - Energy\_Star\_OWU\_Survey\_2009.pdf
- In progress:
  - Computer power management - put computers to sleep when not in use (can save \$50/computer annually). Information Services
- Proposed:
  - *Phantom Energy at OWU (2012)*: The purpose of the Phantom Energy project was to uncover student's thoughts on and willingness to adapt energy-saving devices into their everyday lives. A survey was randomly administered to students at Ohio Wesleyan University about the use of energy-saving power strips called "Smart Strips." Smart Strips effectively eliminate the effect of 'phantom energy' that emits from appliances and electronic devices when they are shut off but still plugged in. The majority of students either leaves most of their electronic devices and appliance on or at least plugged in all day. This poses the issue of not only using phantom energy, but also blatantly wastes energy, which in turn wastes thousands of the university's dollars. This study focused on collecting information from students about their energy usage so we can better understand how to tackle the problem. PhantomEnergyatOWU\_Report\_F13.pdf  
PhantomEnergyatOWU\_Presentation\_F12.pdf
  - Take the ENERGY STAR Low Carbon IT Power Management Pledge  
[http://www.energystar.gov/index.cfm?c=power\\_mgt.pr\\_power\\_mgt\\_low\\_carbon\\_join](http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_low_carbon_join)
  - Generate energy with spin bikes to promote energy awareness
- Goals:

## 1k. Responsible Persons, Offices, Organizations

- Peter Schantz: Director of Buildings & Grounds ([pschant@owu.edu](mailto:pschant@owu.edu))
- Brian Rellinger: OWU Information Services ([barellin@owu.edu](mailto:barellin@owu.edu))

## 2. Waste & Grounds

**Goal:** Standard recycling bins for each residential hall room.

**Goal:** Create StAP or Legacy internship for Student Waste & Grounds Sustainability Coordinator and Education

**Goal:** Document waste on Campus and have yearly report of progress on reduction

**Goal:** Reestablish composting

**Goal:** Maintain long term commitment to May Move Out

### **Waste & Grounds: Work To Do for Sustainability Plan**

- *review content and incorporate missing information*
- *define goals*

### **2a. Waste & Grounds: Documentation, Monitoring, Analysis, Communication, Education and Community**

- Completed:
  - *Waste Analysis on Campus (2008):* WasteOWU\_PDF\_2008.pdf
- In progress:
  - *Green Week:* establish as an annual event, incorporate waste and grounds issues
  - *Funding of Native Tree and Shrub Planting near Meek Retention Pond (2015):* Friends of the Lower Olentangy Watershed (FLOW)
- Proposed:
  - Fix it! system (email, phone number, app) to report waste problems (among other resource problems on campus)
  - Participating in *Recyclemania: 8 week competition every spring* to see which schools have the best recycling rate. <http://recyclemaniacs.org/about>
  - Explore the idea of a *No Plastic Day* or *No Plastic Week*.
  - *Building Waste Monitoring and Analysis (2012):* The goal of this project was to find an effective way to collect data of the amount of waste produced from every building on campus. Akin to the data on building level utility usage (see Building Energy Monitoring and Analysis report), it is important to monitor, analyze, and map waste to assess problematic buildings (where more waste is generated than expected), document buildings where lower than expected amounts of waste is generated (and figure out why), generate effective plans for garbage and recyclables receptacles, and provide empirical data to assess the impact of waste reduction efforts. Our hypothesis is that students, staff, and faculty will more easily relate to building by building data (they can see how their building compares to others) than to generic numbers for the entire campus. This, in turn, should lead to more effective and more broadly engaged efforts to reduce waste on campus. We define waste as garbage, recyclables, and compostables for this project. Further, we suggest that the normalization method developed for the Building Energy Monitoring and Analysis project be used with waste data on campus, to allow for adequate comparisons between buildings. This building by building approach will help raise awareness of the patterns of waste generation on campus for students, faculty, prospective students, and alumni. It would also be of use to school administrators when determining where to focus efforts to improve the school's environmental footprint. As the project spreads to off-campus buildings, similar impacts can be expected. Students, city employees, and others can experiment with waste reduction strategies and document pre- and post-experiment waste amounts, thus providing significant empirical evidence for evaluation and assessment.  
[https://environmentalgeography.files.wordpress.com/2012/08/waste\\_recycle\\_owu.pdf](https://environmentalgeography.files.wordpress.com/2012/08/waste_recycle_owu.pdf)
  - *Freshman Orientation:* Include recycling and waste awareness
  - Make recycling and waste awareness more central to ResLife and RAs
  - *Floating Wetlands (2012):* Potential for Meek retention pond. FloatingWetlands\_ReportS12.pdf

- *Campus Wildlife Habitats (2010-14)*: Projects to enhance OWU's grounds as wildlife habitats. [Native\\_Pollinators\\_At\\_OWU\\_ReportF11.pdf](#) [Campus\\_Wildlife\\_Habitats\\_ReportF14.pdf](#)
- *Chimney Swift Towers (2011-13)*: Efforts to design and construct chimney swift towers on campus. Funding from alumni Dick Tuttle but having difficulty finding an OWU approved contractor for construction. [Chimney\\_Swift\\_Towers\\_ReportS14.pdf](#)
- *Recycled Recycling Bins (2011-12)*: Project to design and create recycling bins for campus made out of recycled materials for promotion and awareness of recycling. [RecycledRecyclingBins\\_ReportF11.pdf](#) [RecycledRecyclingBins\\_ReportS11.pdf](#)  
[https://environmentalgeography.files.wordpress.com/2012/08/recycled\\_recycling\\_bins\\_owu.pdf](https://environmentalgeography.files.wordpress.com/2012/08/recycled_recycling_bins_owu.pdf)

- Goals:

## 2b. Reduce

- Completed:

- *Paperless Classroom Survey and Efforts (2008-2012)*: Surveys and ideas for paper reduction in courses at OWU. The idea for this project came from the Fall 2008 project by David Ebenhoh. For our project we focus on paper reduction within the classrooms on campus. To get a feel for what faculty and students thought about the idea about a paperless classroom we gave out to separate, but similar surveys. The primary goal of this project is to see if opinions differ between faculty and students regarding the reduction of paper usage on campus. [Paperless\\_Classroom\\_ReportS09.pdf](#) [Geography\\_Assess\\_paperless\\_data.pdf](#)
- *Print Green Initiative (Information Services) (2010)*: [PrintGreen\\_Report\\_F10.pdf](#)

- In progress:

- Use of Recycled Paper on Campus: Document efforts to use recycled paper on campus and current status

- Proposed:

- *Ban the Bottle (2015)*: Effort to educate students about the problems of disposable plastic water bottles, reduce demand, and potentially ban the bottle from campus.
- *Reduce or remove plastic bags from campus (2015)*: Chartwells, Bookstore
- *Box Sale*: A reuse strategy that many schools have employed is to collect cardboard boxes being recycled by local businesses and students, and store them for use by dorm residents when it comes time to move out for the summer.
- *Reduce Junk Mail*: Raise awareness on campus; contacting the top sources of campus junk mail and asking them to stop; "opt-out" mail registry

- **Goals**: Ban the Bottle on campus by Spring of 2016 by identifying large purchasers of bottled water and installing hydration stations in those locations

## 2c. Recycling/Reuse

- Completed:

- Document previous work on recycling on campus, including the student run recycling that was originally started when Dr. Hickcox was Director of Environmental Studies. Also the recycling coordinator positions.
- Document past and present e-waste efforts on campus: Information Services
- Document efforts to reuse computers and other electronic equipment on campus: Information Services
- Document OWU Free Store effort and problems
- *Outdoor Recycling (2011)*: Assessment of the impact of outdoor recycling bins on campus for reducing recyclables in the waste stream. Proposal which led to funding for outside recycling bins. [https://environmentalgeography.files.wordpress.com/2009/01/outside\\_recycling\\_bins.pdf](https://environmentalgeography.files.wordpress.com/2009/01/outside_recycling_bins.pdf)
- *Cell Phone Recycling (2010)*: Ohio Wesleyan lacks a student-focused e-waste recycling program. Ohio Wesleyan currently recycles electronic waste including computers, televisions, printers, etc. While this program has recycled roughly three tons of e-waste in the last year, it has no provision for collecting e-waste



from students. E-waste generated by students ends up in the trash, or students must seek an off-campus e-waste recycling option. Since most Ohio Wesleyan students live on-campus, few students have the option to utilize off-campus e-waste recycling options. Their e-waste ends up in the wastebasket. During the fall of 2010, senior Timothy Schmidt organized a “test” e-waste drive on campus. Analysis of the collected materials revealed that the largest category of e-waste created at OWU is cell phones. In a one-day e-waste drive he collected 34 cell phones and 18 computers. Based on these results, we propose a cell phone-recycling program at OWU – OWU CPR – with lockable receptacles strategically placed across the residential side of campus. [https://environmentalgeography.files.wordpress.com/2009/01/cell\\_phone\\_recycling.pdf](https://environmentalgeography.files.wordpress.com/2009/01/cell_phone_recycling.pdf)

- *E-Waste Recycling Event (2012)*: The motivation of this electronic waste recycling project originated from a desire to not only continue a former student’s efforts to recycle cellular phones, but enhance and instill a permanent electronic waste recycling presence on the campus of Ohio Wesleyan University. This report documents an electronic waste recycling drive on the Ohio Wesleyan campus on April 20th, 2012. [https://environmentalgeography.files.wordpress.com/2012/08/e-waste\\_recycling\\_event\\_owu.pdf](https://environmentalgeography.files.wordpress.com/2012/08/e-waste_recycling_event_owu.pdf)
- In progress:
  - *May Move Out (2012-present)*: Effort to divert end of semester move out waste generated by students to be recycled or reused. 2012 and 2013 efforts diverted a significant amount of waste. An alternative approach with less labor was instituted in 2014 (Pack it in, Pack it up, Pack it out) but led to more waste being left behind. A grant (spring 2015) will fund an alternative approach using Pods and student diversion consultants, in collaboration with Goodwill, for the spring of 2015 move out. <http://blog.owu.edu/sustainability/?p=260> <http://blog.owu.edu/sustainability/?p=423>
- Proposed:
  - Document locations of and increase number of outside recycling bins on campus.
    - make sure a recycling and garbage cans are placed right next to each other
    - labeling of these needs to be better (maybe make the recycling cans green?). Labels should not be on top - students should know if a can is for recycling or for trash from a distance
    - make sure students know that recycling is for “dry” recycling (plastics, metals, glass)
  - Document recycling options in fraternities and SLUs and add recycling if lacking or missing
  - Increase number of trash and recycle collection times in Residential Hall trash rooms to reduce amount of waste in any given room at a time; People care less about sorting if the room/receptacles are full or cluttered
  - Closer relationship with recycling efforts in Delaware area. <http://www.delawareohio.net/UserUploads/Refuse%20and%20Recycling.pdf>
  - Provide each dorm room with its own paper and “mixed” recycling bins. Denison designates them as “wet” and “dry.”
  - Post informative posters around trash and recycling receptacles so that all students, faculty, and visitors are aware of how we are supposed to dispose of our waste. Reduce trash can labels. Currently in Stuy they are labeled “plastics” “waste” and “Paper” these labels are confusing and misleading (not all plastics are recyclable in Delaware)
  - Incentives for students so they dispose of waste properly: Recycling vs. Trash competition
  - Revive e-waste / cell phone recycling on campus. Find out if we still have cell phone recycling receptacles
- Goals:

## 2d. Grounds

- Completed:
  - Nature Preserve Projects to 2005: [Nature\\_Preserve\\_Projects\\_OWU\\_asof2005.pdf](#)
  - Document birds projects (bird trail, bird campus habitat, bird feeders, bird map, cards)
- In progress:

- Document the campus Jane Decker Arboretum (history and goals)
- Document efforts to plant native species on campus (Wilmer Ditch, Delaware Run, ?)
- Document spreading of leaves by Delaware Run to reduce campus yard waste
- Document efforts to assess and work with “Salamander Swamp” behind OWU tennis courts
- Proposed:
  - Analyze landscaping schedules to reduce energy use and maximize efficiency
  - Document current use of chemical fertilizers and pesticides on campus and explore alternatives
  - Look into “no mow” grass options
    - grass varieties can be planted on existing lawns
    - wastes less energy for cutting
    - reduces noise pollution
  - Increase native plant growth- plant less annual plants and flowers that require more attention and fertilizers
    - <https://uswildflowers.com/wfquery.php?State=OH>
    - Establish a policy regarding the use of natives in landscaping
  - Document proposed restoration of Delaware Run between Sandusky St. and the Olentangy River
  - Explore options for PeeCycling on campus PeeCycling1&2.pdf
- Goals:

**2e. Responsible Persons, Offices, Organizations**

- Peter Schantz: Director of Buildings & Grounds ([pschant@owu.edu](mailto:pschant@owu.edu))
- Gene Castelli: Chartwells ([gjcastel@owu.edu](mailto:gjcastel@owu.edu))

### 3. Water

**Goal:** Reduce overall campus water usage by 25 percent between 2006 and 2020.

**Goal:** One Hydration station in each residential hall and athletic facility by Spring 2016

**Goal:** Low flow shower heads installed on campus by Spring of 2015

**Goal:** 50% Dual flush toilets on campus (25% residential and 25% academic) by 2020.

**Goal:** Restore Delaware Run by 2018

**Goal:** Implement a rainwater retention system by the OWU greenhouse by 2019

**Goal:** Faculty, staff or student group commits to running Water Week annually (potentially in collaboration with Delaware Watershed Coordinator) by spring 2018

**Goal:** Find Fraternities and SLUs that purchase large cases of water

**Goal:** Implement Water Wars Fall 2015

#### **Water: Work To Do for Sustainability Plan**

- review content and incorporate missing information
- define goals

#### **3a. Water: Documentation, Monitoring, Analysis, Communication, Education and Community**

- Completed:
  - *Water Course Connection: Water: Rights and Rites (2011-present)* provides a multidisciplinary approach to addressing how water (including but not limited to its availability, safety, and symbolism) affects societies and cultures worldwide. This network features classes from Politics and Government, Sociology/Anthropology, Botany/Microbiology, Zoology, Religion, Spanish, Art, and Chinese.  
<http://courseconnections.owu.edu/water.php>
  - *Water Week Fall 2014:* Document and establish routine for future  
<https://environmentalgeography.wordpress.com/2014/12/08/final-water-week-outline-2/>
- In progress:
  - *Green Week:* establish as an annual event, incorporate water issues
  - Delaware Run and Olentangy River cleanups:
    - Document cleanups and procedures in past
    - Have a regular cleanup a few times a year (in the warmer weather)
    - Create a collaboration between student water focused organization on campus and Kristin Piper
- Proposed:
  - Fix it! system (email, phone number, app) to report water wastage problems (among other resource problems on campus)
  - *Freshman Orientation:* Include water awareness; include “I Banned the Bottle” reusable water bottle (with locations of hydration stations).
  - *Building Water Monitors as a tool to Encourage Student Water Efficiency on Campus.* Funds to purchase and install water monitors in residential campus buildings, Fraternities, SLUs and Delaware City Schools locations. Monitors should be installed so that “natural” groups of students - such as floors in residential halls - can access their collective water use. Water data from monitors must be easily accessible, such as on a web page or app. **Develop strategy for water reduction competition:** compete to see who can drive down water usage the most: *Water Wars*.
  - Develop a program similar to UC Santa Cruz’s Drop Your Own Drip to promote water conservation awareness on campus (hydration stations, water usage, etc.).
    - <http://sec.enviroslug.org/drop-your-own-drip.html>
  - Monitoring of water saving toilets, sinks, showers, washing machines, etc. to assess functionality and propose new locations

- Goals:
- Water usage awareness
  - reminders on residential hall sink mirrors
  - reminders in laundry facilities

### 3b. Water Conservation: Plumbing

- Completed:
  - Toilets with dual flush capabilities
    - Locations: Hamilton-Williams Student Center, Science Center, Corns
    - Document additional locations
  - Sinks with automatic on/off faucets
    - Locations: Hamilton-Williams Student Center, Science Center, Corns
    - Document additional locations
  - Low Flow Showers
    - Residential Halls: Document locations
    - Athletic Facilities: Document locations
  - Energy Efficient Washing Machines (Energy Star)
    - Document locations
- In progress:
- Proposed:
  - Showers with timers
  - Water free urinals in new buildings or renovations
  - Dual flush toilets in new buildings or renovations
  - Low flow sinks in new buildings or renovations
  - Installation of low-flow aerators on all kitchen, dining and restroom water sources
  - Check plumbing fixtures -- shower and faucet water pressure
  - Residential hall floor by floor Water Monitors
- Goals:

### 3c. Water Conservation: Human Consumption

- Completed:
  - Hydration Stations:
    - Locations: Branch Rickey (2), Hamilton-Williams Student Center (1), Welch (1), Science (1), Library (1), document additional locations
- In progress:
- Proposed:
  - *Ban the Bottle (2015)*: Effort to educate students about the problems of disposable plastic water bottles, reduce demand, and potentially ban the bottle from campus.
  - Develop long term plan for additional hydration stations in locations where bottled water is in higher demand on campus: fraternities, SLUs (?), athletic facilities.
- Goals:

### 3d. Water Conservation: Grounds & Region

- Completed:
  - Meek Retention Pond
  - *Olentangy River Expedition and Map (2011)*: Expedition in a canoe down the Olentangy River, spring 2011, after the removal of most of the low-head dams. Two sided map. Explore this idea in tandem with current developments (*Delaware to improve boat access to Olentangy River*: <http://blog.owu.edu/sustainability/?p=397>) as a potential water trail with pedagogical and recreational potential. [OlentangyExpedition\\_2011.pdf](#)
  - *Storm Sewer Mapping of Campus (2012)*: Maps of storm drains and where they drain (Delaware Run, Olentangy River). [Storm\\_Drain\\_Maps\\_OWU.pdf](#)
- In progress:
  - *Delaware Run Restoration on Campus (2012-present)*: Delaware Run (on the north side of the old campus) and the unnamed stream between the Science Center and new Aquatic Center are two waterways worthy of ecological restoration. Evaluate options for these waterways, potential for restoration, funding, etc. Preliminary proposals from Fall 2011. Delaware Run restoration has potential for stream banking credits (Kristin Piper, contact).
    - [DelawareRunAssessment\\_Sp12.pdf](#) [DelawareRunRestoration\\_Sp14.pdf](#)
    - <http://blog.owu.edu/delawarerun/>
- Proposed:
  - *Rainwater Harvesting and Reuse (2008-11)*: Mapping of data on rainwater harvesting and reuse on the OWU campus. [RainwaterReuse\\_Report\\_2008-10.pdf](#) [Rain\\_Water\\_Recycling\\_ReportF11.pdf](#)
  - *Floating Wetlands (2012)*: Using floating mats with aquatic plants that remove impurities from water on Meek retention pond. [FloatingWetlands\\_ReportS12.pdf](#)
  - *Wildlife and Water Monitoring at Delaware County's Retention Ponds (2012)*: Long-term studies are important in assessing how ecosystems change over time, are affected by changes, and how they are impacted by human decisions. One of the biggest obstacles in these types of ecological studies is the continuation of commitment to the project. Setting up the study as an integrated part of a university program or course is a solution to this concern. Thus, I propose that Ohio Wesleyan University set up a group of smaller-scale ecological studies around Delaware County. Monitoring and collection of data related to wildlife and water can be undertaken by classes or by individual students as part of a research project. In this manner, students will gain experience in field research and data collection and be part of a larger study, which will continue on for years.  
[https://environmentalgeography.files.wordpress.com/2012/08/wildlife\\_\\_water\\_monitoring\\_delaware.pdf](https://environmentalgeography.files.wordpress.com/2012/08/wildlife__water_monitoring_delaware.pdf)
  - Document use of water for irrigation and watering and explore reduction or alternatives (rainwater recycling)
  - Meek Retention Pond: potential use as source for irrigation & watering on campus?
  - Create a relationship with Delaware County Water Treatment Plant: education, outreach (quality of Delaware tap water), etc. <http://www.delcowater.com>
  - Rain Gardens in order to decrease runoff on campus  
<https://greenowu.wordpress.com/2009/03/01/rainwater-recovery-rain-gardens-owu/>
  - Xeriscaping: [http://eartheasy.com/grow\\_xeriscape.html](http://eartheasy.com/grow_xeriscape.html)
  - Use rainwater in OWU greenhouse
- Goals:

### 3e. Responsible Persons, Offices, Organizations

- B & G Supervisor: Jay Blankenship [kjblanke@owu.edu](mailto:kjblanke@owu.edu)
- Delaware Watershed Coordinator: Kristin Piper [kpiper@delawareohio.net](mailto:kpiper@delawareohio.net)

## 4. Dining, Food & Health

**Goal:** Find an off-campus composting company by Summer of 2015

**Goal:** Evaluate kitchens in all dorms in 2016; by 2019 redo Kitchens that are not up to date

**Goal:** Compostable dining ware in Hamilton-Williams Center and bakeries by 2016

**Goal:** Increase seasonal consumption of local foods by 10% annually on campus

**Goal:** Have a section in Hamilton Williams Campus Center dedicated to local foods by 2016

**Goal:** Annual farmers market on the Jay (Bring on campus 2 times in the fall semester) by fall 2015;

**Goal:** Campus presence for Delaware Community market by spring 2016

**Goal:** Have a staff person in charge of composting on campus by 2020

**Goal:** Have a devoted campus composter by 2025

**Goal:** Have a campus gardening intern position that counts as a 0.25 credit by Spring 2016

**Goal:** By spring 2016 have a campus gardening intern position that counts as a 0.25 credit

**Goal:** Create better marketing plan for Food connections course annually

**Goal:** Remove science center food cart when Merrick Hall is established to reduce food waste

**Goal:** 10% less food waste annually

**Goal:** Implement meatless Mondays by fall 2015 (1 Monday out of the month). Mystery Monday...

**Goal:** 50% less food waste by 2024

### ***Dining, Food & Health: Work To Do for Sustainability Plan: Meeting Week of April 6***

- *review content and incorporate missing information*
- *define goals*

### **4a. Dining, Food & Health: Documentation, Monitoring, Analysis, Communication, Education and Community**

- Completed:
  - *Food Course Connection: Food: How Production and Consumption Shape Our Bodies, Our Cultures, and Our Environment (2011-present):* examines the importance of food as biological fuel, a natural resource, a part of many celebratory events, an expression of cultures, a massive industry, and an important part of the global environment. This network comprises classes from Botany-Microbiology, English, Health and Human Kinetics, Psychology, and Zoology. <http://courseconnections.owu.edu/food.php>
  - *PHAT (Pure Health Advocate Team) Club:* focused on the promotion of healthy habits here on campus, from creating the "Toilet Talks" that are conveniently located in the bathroom stalls with small facts about how to stay healthy, to the annual P.H.A.T dinner which offers students a delicious, nutritious meal with the recommended serving sizes.
  - *Healthy Bishop Blog and Initiative:* Our campus has recently been bitten by the health and wellness bug (pun intended). This can be seen in a variety of initiatives encouraging the evaluation of current health and wellness services (the Healthy Bishops Initiative), the creation of a healthy campus environment (Healthy Campus Environment Acts) and the revamping of the OWU Intramural Program (Spring 2011 Intramural Offerings), with the overarching goal of assisting students, faculty and staff in making choices that support a healthy lifestyle. <http://blog.owu.edu/healthybishopblog/>
- In progress:
  - *Green Week:* establish as an annual event, incorporate dining, food and health issues
  - *Proposed Legacy Internship focused on Food Sustainability on Campus (2015):* The Food Sustainability Coordinator internship will help coordinate and initiate a diverse array of food sustainability projects and events on campus. Food related sustainability issues are of growing importance and interest on campus, among students, faculty and staff. Coordination, promotion and a coherent plan forward for OWU and Delaware will ensure that food sustainability efforts are themselves sustainable long into the future. Work

related to sustainable food is part of our OWU Campus Sustainability Plan (guided by the Sustainability Task Force), student projects (Tree House, Environment and Wildlife Club, courses such as Geography 360 Environmental Geography), efforts by Chartwells, the Food Course Connection, the OWU office of Community Service Learning, and Dr. Chris Fink's (Human Health and Kinetics) work with Cooking Matters, and our student run OWU Community Garden. Community efforts include the Delaware Farmer's Market, Delaware Community Market, and Stratford Ecological Center.

- Proposed:
  - Create and maintain a resource of sustainable food options on and around OWU's campus. Out of date resource part of DIY Cooking Workshop (2012) [diy\\_cooking\\_booklet.pdf](#)
  - Explore participation in *Food Day* on October 24th. <http://www.foodday.org/>
  - *Food Week*: explore the possibility of an annual Food Week to raise awareness. Potentially in collaboration with the Food Course Connection, Chartwells. Include cooking, tours of community garden, etc.
- Goals:

#### 4b. Food and Food Related Waste

- Completed:
  - Document Chartwells past efforts to reduce food waste
  - Operation Clean Plate: raising awareness about how much food students take in Smith Dining Hall.
  - Compostable disposable diningware: assess efforts and evaluate vs. washable and non-compostable diningware.
  - Student project on OWU and Food Waste (2008) [Food\\_Waste\\_OWU\\_2008.pdf](#)
  - Previous projects on composting on campus. [Composting\\_OWU\\_report\\_2012a.pdf](#)  
[Composting\\_OWU\\_report\\_2012b.pdf](#)
- In progress:
  - Document Chartwells current efforts to reduce food waste
  - Document current composting efforts and problems (Spring 2015 project)
  - Document Chartwells edible food waste diversion efforts in collaboration with the Delaware Common Ground Free Store. <http://www.commongroundfoundation.org/>
    - More ideas: Food Recovery Network: <http://www.foodrecoverynetwork.org/>
- Proposed:
  - Reusable diningware
    - *Reusable Sporks (Spring 2015)*: Tentative approval by Delaware Health Department.
    - *Reusable Food Containers (Spring 2015)*: Issues with dish washer in Hamilton Williams Campus Center. Previous proposal to WSA regarding reusable food containers by Chartwells. Examples of reusable containers at Wooster, Colorado College, University of Vermont
  - Private Composting facility (Kenyon, Denison)
    - Invest in food pulpers for more efficient composting: makes waste 1/8 its original volume
    - Document Matthew Jordan's composter proposal
  - Food packaging reduction: Switch to recyclable food packaging for food items on campus- We cannot recycle 6 plastics which is what all of our coffee lid and cold beverage cups are made of. If we had composting- switch these to compostable plastics.
  - Explore the potential to reduce food and other waste by reducing the number of Chartwell outlets on campus

- Explore the potential to reduce food waste by modifying “All You Care To Eat” options on campus
- Goals:

#### 4c. Eating Sustainable Food on Campus: Chartwells

- Completed:
  - Chartwells: document past efforts to incorporate sustainable, organic, regional food
- In progress:
  - Chartwells: document current efforts to incorporate sustainable, organic, regional food
- Proposed:
  - Sustainable Food Options: document and propose more on campus
    - Cage-free eggs
    - Fair Trade Coffee options
    - Produce purchased from local growers (Find out who?) student community garden - awareness
    - RBGH free milk
    - Trans-fat free oils
    - Free range chicken and pork
    - Only serve seafood off of the Monterey Bay Seafood’s safe list  
<http://www.seafoodwatch.org/>
    - Recycle french fry oil
  - Develop a Food Miles Program to encourage sustainable eating: <http://www.foodmiles.com>
  - Freezer Facility to have more local produce year round
  - Document and outreach to sustainable food vendors in Ohio, potentially through the Delaware Community Market.
- Goals:

#### 4d. Growing & Preparing Sustainable Food on Campus

- Completed:
  - *DIY Cooking Workshop (2012)*: Making and eating food is one of the most socially and biologically important human activities. Making healthy food is much easier, and more fun, than most students think. In order to encourage social DIY cooking on campus, with an emphasis on healthy eating, we propose a DIY Food Workshop. The workshop covers basic cooking skills and healthy DIY food options, with an emphasis on interaction and engagement. The event will end with a meal, consisting of foods prepared during the workshop. <http://blog.owu.edu/sustainability/?p=172>
- In progress:
  - *Cooking Matters at OWU (2013-present)*: Dr. Chris Fink, in the Department of Health and Human Kinetics (HHK), heads up the Cooking Matters program at Ohio Wesleyan. A team of OWU students, trained as nutrition and/or culinary educators, teach a course for adults in the city of Delaware who are at risk for food insecurity. The participants enroll in a 6-week course led by the students, highlighting nutritional, budgeting/shopping, and food preparation tips and tricks: all to help participants find ways to more effectively feed their family healthful meals on a budget. <http://blog.owu.edu/sustainability/?p=316>
  - Cooking Classes in Residential Halls: get information
  - *OWU Community Garden (2010-present)*: Develop a long term plan to sustain the campus community garden. Faculty or Staff advisor, links to Chartwells.  
<https://www.facebook.com/OhioWesleyanCommunityGarden> <http://blog.owu.edu/sustainability/?p=347>
- Proposed:
  - Document, evaluate and stock campus student kitchens with basic cooking utensils.
  - Guerilla Gardening (planting produce around various places on campus)
  - Ally with city of Delaware sponsored community garden in Blue Limestone



- Goals:

#### **4e. Sustainable Food in the Community**

- Completed:
- In progress:
- Proposed:
  - *Delaware Farmers Market*: how to better promote and incorporate on campus
  - *Delaware Community Market*: how to better promote and make accessible to students on campus. <http://www.dccmc.com/>
  - *Local Matters*: how to better promote and make programs accessible to students on campus: <http://www.local-matters.org/fresh-connect>
  - *Stratford Ecological Center*: how to better promote and make programs accessible to students on campus: <http://www.stratfordecologicalcenter.org>
  - Funding internship (StAP, Legacy) with organizations above
- Goals:
  - Explore collaboration with Stratford Ecological Center as the location of a SLU (Tree House). Sustainable food and agriculture with ecology focus.

#### **4f. Dining, Food & Health: Responsible Persons, Offices, Organizations**

- Chartwells: Gene Castelli: 740 368-3461 | [gjcastel@owu.edu](mailto:gjcastel@owu.edu)

## 5. Transportation

**Goal:** Decrease the amount of cars brought to campus by students by 20% by 2020.

**Goal:** Decrease on campus driving (staff, students, faculty) by 20% by 2016

**Goal:** Replace university vehicles with hybrid / natural gas / green vehicles when the old ones die.

**Goal:** Better promote bike share program.

**Goal:** Create a campus wide carpool program for breaks.

### ***Transportation: Work To Do for Sustainability Plan***

- *Need to review, summarize and incorporate transportation related projects in \*Transportation folder in Info: More Past Student Projects folder in shared Geog 499 folder.*
- *Need to review, summarize and incorporate carbon transportation related projects in OWU Travel Carbon Offset folder in Info: More Past Student Projects folder in shared Geog 499 folder.*
- *review content and incorporate missing information*
- *define goals*

### **5a. Transportation: Documentation, Monitoring, Analysis, Communication, Education and Community**

- Completed:
- In progress:
- Proposed:
  - Create an app for students to rideshare (home, to Columbus, Airport, etc.)
  - Document parking on campus: spaces, cost, regulations, violations
  - Promote bike trails (map, app) in Delaware, events, awareness
- Goals:

### **5b. Student Transportation on and around Campus**

- Completed:
  - Student study of calories burned and impact of driving, biking, walking (find files).
- In progress:
  - *OWU Bike Share Program (2012-present):* document and evaluate this program and assess its effectiveness. Suggest modifications and means of promoting the program. Frequent biker program with benefits.
- Proposed:
  - Explore potential for off campus student rideshare program
  - Encourage the use of the Enterprise Car Program to help reduce the amount of cars kept on campus but still allow students access to a car Offer incentives for using the car share program.
  - Offer incentives for students who do not bring their car to campus
  - Assess bike parking situation on campus and suggest improvements
  - *Solar Panel Covered Bike Parking Areas:* to promote both solar energy and bikes on campus
  - Calculate impact of student driving on campus (CO<sub>2</sub>) for awareness
  - Meters on campus to reduce student driving on campus
- Goals:

### **5c. University Sponsored Transportation (faculty, students, staff)**

- Completed:
- In progress:
  - Review, summarize and incorporate transportation related projects in *\*Transportation* folder in *Info: More Past Student Projects* folder in shared *Geog 499* folder. Linked to President's Climate Commitment
- Proposed: Implement a ride share program around campus for students to cutdown on driving individual cars.
- Goals:

### **5d. University Staff and Faculty Transportation**

- Completed:
- In progress:
- Proposed:
  - Explore potential for faculty and staff rideshare program
  - Charge faculty and staff for parking on campus (based on distance and vehicle - in essence a carbon tax).
- Goals:

### **5e. University Fleet Transportation**

- Completed:
- In progress:
- Proposed:
  - Reduce vehicle idling through encouragement and awareness of the harmful effects of transportation-related emissions
  - Switch to alternative fuel vehicles that are either hybrids, electric, biofuel or solar powered. Explore options with Honda (natural gas, electric vehicles).
- Goals:

### **5f. Transportation: Responsible Persons, Offices, Organizations**

- Public Safety contact
- Bike Share Program contact

## 6. Purchasing

**Goal:** 25% of cleaning products be green / eco-friendly.

**Goal:** Create a monthly purchasing schedule for faculty and staff to order necessary supplies all in one large order rather than multiple small ones

### ***Purchasing: Work To Do for Sustainability Plan***

- *Review purchasing policy examples to expand this section:*
  - *American University:* <http://www.american.edu/loader.cfm?csModule=security/getfile&pageid=2010993>
  - *Gonzaga University:* [http://www.gonzaga.edu/Campus-Resources/sustainability/sustainability\\_initiatives/SustainableDesignPolicy.asp](http://www.gonzaga.edu/Campus-Resources/sustainability/sustainability_initiatives/SustainableDesignPolicy.asp)
  - *Boston University:* <http://www.bu.edu/sustainability/what-were-doing/green-purchasing/>
  - *Colgate:* <http://www.colgate.edu/offices-and-services/purchasing/procurement-sustainability>

### **6a. Purchasing: Documentation, Monitoring, Analysis, Communication, Education and Community**

- Completed:
- In progress:
- Proposed:
  - Document current purchasing procedures on campus (Purchasing office, but other offices responsible for purchasing) and explore potential to improve options for buying sustainable products
- Goals:

### **6b. Purchasing Procedures on Campus**

- Completed:
- In progress:
- Proposed:
  - Explore options and develop campus-wide guidelines for sustainable purchasing
  - Implement \$50 minimum purchasing order to reduce deliveries and shipping.
  - Talk to Aramark about purchasing green cleaning products.
  - Guidelines for purchasing Energy Efficient appliances and equipment
  - Duplicating: recycled paper status
- Goals:

### **6c. Purchasing: Responsible Persons, Offices, Organizations**

- Melanie Kalb: Purchasing

## 7. Education & Research

**Goal:** Create additional courses that are specifically categorized as Environmental Studies courses (ENVS or ES) i.e. cross list all required courses and create ENVS 499: Seminar (Topics) in Environmental Studies

**Goal:** Establish a program budget for the Environmental Studies Program to fund student projects, future speakers, a visiting scholar program, a summer workshop, departmental scholarships, and development of future courses.

**Goal:** Evaluate and implement Open (Digital) Badges for Sustainability Work (in progress, Geog 499)

**Goal:** Create and teach a sustainability themed version of UC160 each year

**Goal:** Coordinate ES Travel-Learning Courses

**Goal:** Sustainability certificate by end of academic year 15-16

**Goal:** NSF Proposal (third round) in 2016

**Goal:** Centralize and document planting or maintenance of the Monnett Memorial Garden with student groups (short-term)

**Goal:** expand community garden with portable greenhouse. This could change the garden into a 4 season production (short-term)

**Goal:** create stone walking paths or put in benches to attract students to the greenhouse (short-term)

**Goal:** put in bird, butterfly, or bee feeders near the garden to promote pollination or bird watching (short-term)

**Goal:** Establish the OWU Center for the Environment with designated space for research, speakers and more by 2017

### ***Education & Research: Work To Do for Sustainability Plan***

- *review content and incorporate missing information*
- *define goals*

### **7a. Education & Research: Documentation, Monitoring, Analysis, Communication, Education and Community**

- Completed:
  - *Sustainability at OWU Blog (2011-14):* Document the old blog by Sean Kinghorn.
  - *OWU: Special Report on OWU Sustainability (2014):*  
<https://owusustainabilityspecialreport.wordpress.com>
- In progress:
  - *Sustainability Task Force Facebook Page (2010-present):* For communication and promotion of sustainability and environmental activities, events, projects, etc. <https://www.facebook.com/pages/Sustainability-Task-Force-at-OWU/151903861498191?sk=timeline>
  - *Sustainability & Environment @ OWU Blog (2014-present):* For communication and promotion of sustainability and environmental activities, events, projects, etc. <http://blog.owu.edu/sustainability/>
  - *Environment & Sustainability LinkedIn Page (2015-present).* Details.
- Proposed:
  - Yearly State of Sustainability Report with progress, updates, news (STF?)
  - Database of projects, data, etc. related to environment and sustainability accessible to all students, staff, faculty. Part of NSF proposal (Krygier, Anderson).
  - Sustainability and environment focus or information at Freshman Orientation and/or UC160
  - Document funds available for sustainability and environmental projects on campus.

- Re-establish Green Bishop award
- Work with Woltemade Center & OWU Marketing Group on marketing of OWU Sustainability and Environment program and efforts. Social media, magazines, website.
- Goals:

## 7b. Programs of Study & Courses

- Completed:
  - In progress:
    - *Environmental Studies Program (1979-present)*: Ohio Wesleyan has the oldest interdisciplinary program in the state of Ohio.
      - Description of major, minor, courses, faculty: <http://environmentalstudies.owu.edu/>
    - *Geography 355: Geographic Information Systems (2000-present)*: sustainability and environmental projects. <https://gisci.wordpress.com>
    - *Geography 360: Environmental Geography (2000-present)*: sustainability and environmental projects. <https://environmentalgeography.wordpress.com>
    - *Geography 499: Sustainability Practicum (2015)*: Development of draft sustainability plan for campus. <http://blog.owu.edu/sustainability-workblog/>
    - Document additional courses with sustainability and environmental content
    - *OWU Course Connections: Food, Water and American Landscapes*.
    - *OWU Summer Science Research Program (date?-present)*. Description with list of sustainability and environmental topics. <http://ssrp.owu.edu>
    - *OWU EREN – Ecological Research as Education Network*: <http://erenweb.org/eren-leadership-team-and-eren-founders/>
    - *OWU Connection: Travel Learning and Theory into Practice (2012-present)*: Document examples with sustainability and environmental focus. <http://owuconnection.owu.edu>
    - Independent Study with Environmental Studies faculty
  - Proposed:
    - *Development of Environmental Studies Program (2013-present)*: OWU Center for the Environment..
    - Database of Sustainability & Environmental Internships
    - Database of Sustainability & Environmental Projects on Campus
    - Create a sustainability interdisciplinary minor based on theory into practice projects.
    - Create an Environmental Studies faculty position focused on sustainability
    - More faculty in areas of sustainability and environment. Urge Departments on campus to consider sustainability and environment focus when hiring faculty.
    - More travel learning courses focused on sustainability and environment
- Goals:

## 7c. Facilities

- Completed: Basic ES Program Budget (Fall 2015)
- In progress:
  - *OWU Community Garden*: see food section
  - *Jane Decker Arboretum (date?-present)*: Description. <http://arboretum.owu.edu>
  - *Kraus Nature Preserve (date?-present)*: Description. <http://naturepreserves.owu.edu/krausNaturePreserveOverview.php>
  - *Bohannon Nature Preserve (date?-present)*: Description. <http://naturepreserves.owu.edu/bohannonNaturePreserveOverview.php>
  - *Moore Greenhouse*: <http://botany.owu.edu/mooreGreenhouse.html>
  - *Jason Swallen Herbarium*: <http://botany.owu.edu/jasonSwallenHerbarium.html>

- *Monnett Memorial Garden*: <http://blog.owu.edu/monnettgarden/>
- Proposed:
  - *Meek Retention Pond (2010-present)*: Potential for ecological enhancement; native species, floating wetlands, use as source of water for campus grounds. See Water section for proposed project.
  - Develop additional natural and wildlife habitat on campus. Salamander Swamp, Delaware Run, more ideas. Delaware Run naturalization project.
  - Green Trail on and around Campus: linking sustainability and environmental locations, research projects, etc.
- **Goals:**

#### 7d. Organizations

- Completed:
  - *Sustainability Coordinator (dates)*: Sean Kinghorn. Details
- In progress:
  - *Sustainability Task Force*: Details
  - Environmental Studies Steering Committee: (2008 - present) established to review the President's Climate Commitment at President Rock Jones's request. The Task Force currently promotes sustainability on campus and the communication of various environmental groups on and near campus. Open to all faculty, staff, and students. Responsible offices: Laurie Anderson (chair)
  - *Tree House & Tree House Projects*: Document and propose that projects correlate with Sustainability Plan and related project, better documentation of projects.
    - Sponsored speakers
    - Develop environmentally and sustainable campus initiatives.
    - Campus and park clean ups
    - The environmental library
  - *Environment and Wildlife Club*: Details
    - Members host educational programs and speakers.
    - Community involvement and writing advocacy letters to local organizations.
    - The club's major event Green Week, a campus-wide environmental awareness week around Earth Day.
  - *Wesleyan Council on Student Affairs - Sustainability*:  
<http://wesleyancouncilonstudentaffairs.weebly.com/sustainability.html>
  - *Veg Club*: a student organization for vegetarians and vegans promoting health and sustainable eating practices.
  - *Wilderness Trek*: details: <http://wilderness.owu.edu/wildernessTrek.html>
  - *Pet Pals*: Promotes animal awareness, animal advocacy, and volunteers for the local no-kill humane society.
  - *Women in Science*: details
  - *Community and Service Learning*: details
  - *Environmental Health and Safety*: The Office of Environmental Health and Safety provides training and consultative services on safety issues and deals with hazardous waste disposal and universal waste disposal The current director, as of February 2015, is Barbara Wiehe.
- Proposed:
  - Sustainability Coordinator

- **Goal:** Create a detailed database of Tree House Projects including names of coordinators, project description, guidelines to repeat project, and date. (short and long term)
- **Goal:** Veg Club and Chartwells work together to create a more (short and long term) vegan/vegetarian friendly menu
- **Goal:** Environmental Studies Joint Faculty Appointment (add the details of what that means)
- **Goal:** Environmental Studies Student Research Coordinator (add the details of what that means)
- **Goal:** Funded New Faculty Position in Environmental Studies (Chair or someone to cover Environmental Studies specific courses beginner and advance)
- **Goal:** Student sustainability STAP position to enhance campus communication, Advertise on a larger scale to incorporate more of the community, update information and current projects on a web page. (Can start soon - short term)

## 7e. Events

- Completed:
- In progress:
  - *Green Week (2013-present)*: an environmentally focused week in the spring that unites sustainable education with activities. Responsible offices: Environment and Wildlife Club, Tree House, WCSA
  - *Sagan National Colloquium (date?-present)*: Document past SNC with sustainability & environmental topics. <http://snc.owu.edu>
  - *Environmental and Natural Resources Symposium (Woltemade Center) (date?-present)*: Description. <http://wcebe.owu.edu/environmental-symposium/>
    - 2015: "A Tax on Carbon: Would it work for Business, Customers, and the Environment?"
    - 2014: "Environmental Issues of the Developing World"
    - 2013: "Water: Science, Economics, and Policy"
    - 2012: "Current Issues and Recent Innovations in Conventional and Alternative Sources of Energy"
  - *FreshX Wilderness Experience*. Details.
- Proposed:
  - Sustainability and Environment talks and events on campus
- **Goal:** Encourage students to attend Sagan by incorporating related classes (offer extra credit, writing paper option, attendance credit, etc.) (short and long term)
- **Goal:** Incorporate an environmental educational or service component into FreshX Wilderness Experience. (short and long term) This could include Leave No Trace teachings, trail maintenance, or litter cleanup.
- **Goal:** Organize a student run Environmental Sagan or Symposium either branching off or independent of the previous Sagan or Symposium (short term)
- **Goal:** Continue Green Week with a narrower focus to highlight certain sustainability issues on campus. Green Week funding for continuous projects on campus, such as expanding Bishop Bikes, recycling, or composting. (long term)

## 7f. Education & Research: Responsible Persons, Offices, Organizations

- Sustainability Task Force: Laurie Anderson
- Future Sustainability Coordinator (would act as a liaison for environmental organizations and projects on and around campus)
- John Krygier: current liaison for environmental organizations and projects on and around campus



## 8. Co-curricular & Community

**Goal:** Social Media and Web marketing Plan using Ohio Wesleyan Marketing Group. This would cost a fee and take about 3 months to complete.

**Goal:** After accepting and implementing the plan, a Sustainability intern needs to maintain it. STAP intern during the school year? Would be long term.

**Goal:** Get Admissions office to update their list of ES Alumni to be more current. This can be done immediately based off of LinkedIn group info. can be a short term

**Goal:** Maintain Alumni relationships continuously year round, LinkedIn group

**Goal:** Establish times to network with alumni to learn about their experiences and find avenues for jobs and interviews. 2 or 3 opportunities should be available annually.

### **Co-curricular & Community: Work To Do for Sustainability Plan**

- review content and incorporate missing information
- define goals

### **8a. Co-curricular & Community: Documentation, Monitoring, Analysis, Communication, Education and Community**

- Completed:
- In progress:
- Proposed:
  - Review external reviews of OWU's sustainability effort and coordinate with STF to supply future information, including:
    - College Sustainability Report Card: <http://www.greenreportcard.org/report-card-2011/schools/ohio-wesleyan-university.html>
    - Princeton Review Green Colleges: <http://www.princetonreview.com/green-guide.aspx>
  - National and International Organizations
    - Association for the Advancement of Sustainability in Higher Education: <http://www.aashe.org>
    - *Sustainable Endowments Institute*: <http://www.endowmentinstitute.org>
  - Citizen's Climate Lobby: <http://citizensclimatelobby.org>
  - Regional Sustainability Plans and Efforts
    - City of Columbus: <http://columbus.gov/Templates/Detail.aspx?id=75138>
    - Denison University: <http://denison.edu/campus/green>
    - Earlham University: <http://www.earlham.edu/sustainability/>
- Goal:

### **8b. Alumni**

- Completed:
- In progress:
  - Develop relationships with OWU Alumni
    - Reed Callahan - Resource One (zero waste with Honda)
    - Carl Musseden - Ohio EPA
    - John Romano - UN Sustainability
  - *LinkedIn Environment Subgroup*: many alumni, especially from recent grads. <https://www.linkedin.com/groups?home=&gid=8225030>
- Proposed:
- Goal:

### 8c. Organizations

- Completed:
- In progress: Develop plans for closer relationships, collaborations, etc. Some of these can be incorporated in appropriate sections above.
  - *Sustainable Delaware*: <http://sustainabledelawareohio.org>
  - *Delaware Watershed Coordinator*: Kristin Piper: internships, collaborative projects: [http://www.delawareohio.net/departments/Public\\_Uilities/utilities\\_watershed.aspx](http://www.delawareohio.net/departments/Public_Uilities/utilities_watershed.aspx)
  - *Friends of the Lower Olentangy Watershed*: <http://www.olentangywatershed.org>
  - *Olentangy Watershed Alliance*: <https://sites.google.com/site/olentangywatershedalliance/home>
  - *Delaware Soil & Water Conservation District*: <http://www.delawareswcd.org>
  - *Delaware Community Market*: <http://www.dccmc.com/page.aspx?pageid=1>
  - *Delaware County Friends of the Trail*: <http://www.dcf.typepad.com>
  - *Global Village Collection*: <http://thegvc.org>
  - *Waste Not Center*: <http://www.wastenotcenter.org>
  - *Green Energy Ohio*: <http://www.greenenergyohio.org>
  - *Habitat for Humanity Restore*: <http://beta.habitatdelawareco.org>
  - *Price Farms Organic*: <http://www.pricefarms.org>
  - *Mid Ohio Regional Planning Commission*: <http://www.morpc.org>
  - *Simply Living*: <http://www.simplyliving.org>
  - *Ohio Ecological and Farm Network*: <http://www.oeffa.org>
  - *Preservation Parks of Delaware*: <http://www.preservationparks.com>
  - *Methodist Theological Seminary*
  - *Highbanks Metropark*: <http://www.metroparks.net/parks-and-trails/highbanks/>
  - *The Friends of Big Walnut Creek*: <http://www.friendsofbigwalnutcreek.com>
- Proposed:
- Goals:

### 8d. Events

- Completed: Sagan National Colloquium (20??-2014) - <http://snc.owu.edu/historyOfTheColloquium.php>
- In progress: Sagan National Colloquium (2015-16) - list theme
- Proposed:
- Goals:

### 8e. Facilities

- Completed:
- In progress: Develop collaborations:
  - *Stratford Ecological Center*.
  - *Columbus Zoo and Aquarium*.
  - Delaware State Park: <http://parks.ohiodnr.gov/delaware>
- Proposed:
- Goals:

### 8c. Co-curricular & Community: Responsible Persons, Offices, Organizations

## 9. Funding and Financing:

### 6a. Funding and Financing: Documentation, Monitoring, Analysis, Communication, Education and Community

- Completed:
- In progress:
- Proposed:
  - Revolving Green Fund (dig up old proposal)
  - Return on Investment information (dig up old information)
- Goals:

### 6b. Funding and Financing: Responsible Persons, Offices, Organizations

- Melanie Kalb: Purchasing

## 10. Climate: President's Climate Commitment: <http://blog.owu.edu/sustainability-workblog/99-2/>

## Suggestions From Emily Hau (Deegan): OWU 2006

The Sustainability Plan should, in my opinion, be named the Sustainability Strategic Plan, and should have a specific yet limited date range attached (2015-2020, for example). Goals and responsibilities are assigned to various units within OWU, but the Plan also calls for full cooperation from the entire OWU community. All goals should be specific and measurable. The “measurable” piece is what is most lacking.

I think you should group the contents differently:

1. Introduction (vision statement, although I hate the words “vision statement” - can’t you just call it introduction? Maybe say something like: Creating a sustainable campus to educate the leaders of tomorrow requires the flexibility to practice new behaviors, enable innovative strategies, embrace promising new technologies, and continuously seek new solutions over time. Success depends on the active contribution of every member of the OWU community.)
2. Campus Systems
  1. Campus Planning, Building Design, and Construction (not currently listed) - OWU will make a commitment to make sustainability a focus for every new construction and renovation project. To do so will require attention in the design stage to reductions in greenhouse gas emissions, water use and discharge, and construction and demolition debris.
    1. Suggested goal: All new building construction will be, and comprehensive renovation projects will generally be, designed to LEED standards of at least Gold rating or above.
  2. Waste Management (#2 in current plan)
    1. Suggested goal: decrease OWU’s solid waste (specific %)
    2. Suggested goal: Increase OWU’s recycling rate (specific %)
    3. Suggested goal: Increase the amount of bulky waste diverted from municipal solid waste street for subsequent “reuse” (specific %)
  3. Land Management (#2 in current plan, listed as “grounds”) OWU functions within a suburban landscape and in turn shapes the downtown community of the city of Delaware. OWU’s land use and management of these areas impact the local ecosystem through its use of water, landscaping applications such as pesticides and fertilizers, campus planning and construction, and stormwater management. OWU recognizes the need to maintain a healthy relationship between its vibrant campus and the natural ecosystem within which it exists—taking into account the wastewater it discharges, the resources it uses, and the species that co-inhabit the land.
  4. Transportation (#5 in current plan) - I got nothing.
  5. Food and Dining (#4 in current plan)
    1. Suggested goal: Establish criteria in food sourcing (other universities have done this. Suggest: Local, Eco-sensitive, Humane, Fair).

2. Suggested goal: Ensure that 40% of total food purchases meet at least one of four sustainability criteria.
6. Cleaning and Maintenance (not included in current plan) Traditional cleaning processes expose students, faculty, staff, and visitors to chemical pollutants, impact the natural environment through the use of hazardous chemicals, consume energy and water, and contribute to the waste stream.
  1. Suggested goal: Establish a green cleaning program which incorporates environmentally benign cleaning products with appropriate equipment, tools, and procedures that limit environmental and human health impacts.
  2. Suggested goal: In maintaining OWU's buildings, adhere to the OWU Green Cleaning standards where available so that green cleaning products are used in all OWU-owned and -occupied buildings. Reduce to the extent possible the use of chemicals in the cleaning maintenance process.
3. Earth Systems
  1. Energy and Greenhouse Gas Emissions (#1 in current plan)
    1. Suggested project: Establish an aggressive outreach program to raise awareness and promote energy conservation via educational programming and building specific training programs. Develop access to real-time energy performance data. Explore behavior- change strategies and energy-use feedback systems to enhance energy reduction.
  2. Water Use (#3 in current plan) - I like the Fix It! system a lot. Don't think an app is necessary, but maybe a basic online form on the OWU website. How many gallons of potable water does OWU consume annually? Perhaps the goal should be to focus on the water inputs and internal uses, a measure by which to reduce the quantity and increase the quality of water output into sewers/groundwater, etc. That will provide OWU with the OPPORTUNITY to be a model for efficient water use by developing a strategy for sustainable water use and planning into all areas of OWU's operations. Also gives you data to make goals specific and measurable.
    1. Suggested project: Phase in installation of meters so that by 201?, 100% of OWU's buildings have up-to-date water meters that enable accurate monitoring of building water usage.
    2. Suggested project: Expand and further develop water indicators to track and measure data on an annual basis by June 201? (i.e., measuring water use by type, such as landscaping, irrigation, residential use, dining, administrative, etc.).
4. Administrative Systems
  1. Finance and Business Operations (not listed in current plan)
    1. Suggested goal: Ensure that sustainability is a mandatory and measurable element in the planning and execution of Finance and Business Operations by June 30, 20??
    2. Suggested goal: Achieve a 25% reduction in the purchase of copy paper for printing and copying by June 201?. (one way to do that is to forbid employees to have office printers in individual offices.

2. Procurement (#6 in current plan, listed as purchasing) OWU can improve efficiency and opt to procure fewer goods while adopting sustainable procurement practices that reduce the University's overall environmental impact—from production to disposal. Smart consumption and deliberate disposal will lead to greater efficiency and cost savings.
  1. Suggested goal: Finalize a set of University-wide Sustainable Procurement Standards for common-use commodities by September 2017?

5. Education and Engagement

1. Educating and Engaging the OWU Community (#7 on current plan)
  1. Suggested goal: Pilot an OWU Green Workplace certification program by September 2015 whereby individual departments can get recognition for their program in meeting sustainability goals. Make the certification program available to all units by January 2016.
  2. Suggested goal: Introduce a Microloan fund of \$50,000 so that departments/campus organizations can request small funds for sustainability projects that will have a positive return on that investment within three years.
  3. Suggested goal: Develop and implement behavior change strategies as they relate to goals throughout the Sustainability Strategic Plan.

6. Appendix: Sustainability Task Force Members (authors)