



Oregon Applied Sustainability Experience

2019 Host Businesses Project Descriptions

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1. AntFarm; Sandy, OR

How this project supports the industry mission and goals: As a leader in community health, AntFarm has been involved in several initiatives to teach and demonstrate sustainable practices and environmental awareness to youth, families, and community. Our programs have goals in place to recycle, reduce, and reuse. As an organization, we have a passion about becoming more mindful and efficient as well as becoming a local community leader in sustainable practices.

AntFarm has a program focused on teaching young people about recycling and sustainability measures. This program is our Can and Bottle Program. We have also worked with Oregon State Extension, Oregon Food Bank, farmers, and several local partners on the food cycle in relation to our three programs: the AntFarm Learning Garden, the Mount Hood Farmers Market, and the Café and Bakery. Although positive movement and gains have occurred, AntFarm would benefit from focused skill and intervention in helping us develop a Sustainability plan from an informed position.

Project Goals and Outcomes:

The project goals include:

1. Development and administration of a comprehensive environmental and sustainable practices assessment of AntFarm with the outcome of developing an AntFarm Sustainability Plan. The Sustainability Plan objectives include: increasing efficiency in all AntFarm operations, eliminating hazardous wastes, reducing energy consumption, minimizing wastes, and engaging and training, which includes engaging the local community in the process.
2. Utilize the AntFarm assessment process and Sustainability Plan as a Community Demonstration Project.
3. Engage two additional local food or social service businesses in a focused assessment of food waste and identify recommendations for preventing food waste.

Potential OASE Projects:

Project A: Development of a Community Demonstration Project that teaches local businesses how to assess and implement environmental and sustainable practices that will prevent pollution, reduce wastes, and support a stronger sustainable lifestyle. This will be done through the development and administration of a comprehensive environmental and sustainable practices assessment with the outcome of developing an AntFarm Sustainability Plan. Not only will this yield direct and meaningful results for our organization, it will also serve as the demonstration project so that AntFarm can provide local businesses an example of assessment, problem solving, and goal setting based upon results. We aim to develop the sustainability plan with the objectives of increasing efficiency in all operations, eliminating hazardous wastes, reducing energy consumption, minimizing wastes, and engaging and training, which includes engaging the local community in the process.

Project B: Include two area food-related businesses in a focused food life cycle process assessment including growing food, distributing food, using food, and disposing of food wastes. Our goals are to support business partners in reducing food wastes. Our objectives include assisting local businesses to:

1. Improve shopping habits
2. Evaluate food storage
3. Establish efficiencies
4. Utilize expiration dates as guidelines
5. Increase composting

6. Shop smart and realistically
7. Document food wastes

Degree / Skills Identified by Host:

Degree: Environmental Science/Sustainability; Economics/Business

Skills needed for this internship are as follows:

- Analysis of numeric data
- Data collection
- Research and report writing
- Experience using Excel
- Excellent interpersonal skills
- Communicate well verbally and in writing
- Experience assembling and verifying various types of data and information
- Self-directed and independent learner
- Able to work in a fast paced environment
- Have strong interest in sustainability and understand the life cycle assessment of food
- An additional plus is interest in nonprofit business and/or in working with young people

Additional Considerations:

Student housing may be available for students located outside the Portland/Sandy metro area.

2. Grand Central Bakery; Portland, OR

How this project supports the industry mission and goals: Grand Central Bakery has enjoyed steady growth throughout our organization. We have deliberately invested in our employees through improved benefits and compensation and we have deliberately invested in sustainably grown ingredients for our production. We are now increasing our attention on how to control the environmental impacts of our growth, but we are less knowledgeable and comfortable in understanding how to measure and which steps to take first in creating not only improvements but an on-going process of reviewing and auditing our processes for environmental improvement.

One of the five major strategic imperatives for Grand Central Bakery is to improve our environmental impact. To continue to live our mission, we need to figure out how to transition from a small, growing business with good intentions and good hearts, to a knowledgeable organization with the tools and structure to act upon available opportunities.

Project Goals and Outcomes:

The project goals include:

1. Achievement of Zero Waste goals with emphasis on waste prevention over diversion – particularly in the reduction of food waste directed to compost or animal feed use. With the reduction of food waste would be a parallel reduction in water waste (a significant ingredient in all bread production).
2. An overall reduction in energy/fuel use with understandable tools for assessing what energy/fuel is tied to production volumes.

Potential OASE Projects:

Project A: Receive assistance in reaching a goal of Zero Waste and more importantly, a decrease in the overall volume of solid waste produced. Our hope would be that we can gain clarity in assessing the processes/ decision-criteria that result in waste in our food production facilities (two production facilities in Portland- a wholesale bread baking facilities in NW Portland and a commissary pastry production facility in the Mississippi district) and in the very different, customer-facing environment of our seven retail cafe facilities in the greater Portland area.

Project B: The intern would create an energy audit or checklist specific to the processes and production facilities. The goal is to conduct a pollution prevention analysis at our two production facilities, including an energy fuel efficiency assessment for all onsite steps of the process.

Degree / Skills Identified by Host:

Degree: Environmental Engineering/Sustainability; Economics/Business

Skills needed for this internship are as follows:

- Ability to analyze numerical data
- Capable of accurate data collection
- Experience conducting research and writing reports
- Experience using Excel
- Excellent interpersonal skills
- Communicate well verbally and in writing
- Self-directed and independent learner
- Able to work in a fast paced environment
- Have strong interest in sustainability and environmental protection
- Interest in preventing food waste
- Understand concepts of preventing waste (pollution prevention/source reduction)

3. Stumptown Coffee Roasters; Portland, OR

How this project supports the industry mission and goals: Stumptown has company-wide goals to reduce energy use (electricity and gas), reduce water use, and reduce waste - especially non-recyclable waste. However, we have struggled to find the resources and support to develop and document how best to do this - so that every employee has the information at their fingertips.

This project will give Stumptown the structure we need to develop and track progress we're making toward our goals, and an organized way to test different strategies. It also gives us an opportunity to share these findings with the broader Oregon coffee community, for the benefit of everyone in the community.

Sustainability is at the heart of Stumptown's long-held values. Employees in all parts of the company *really* want to reduce waste and contribute positively to the environment. In addition, we want to have operations become more efficient, save money by reducing waste, and accomplish this by viewing what we do every day through the lens of sustainability.

Project Goals and Outcomes:

Goals are precisely in line with the development of a final Sustainable Cafe Guide: to provide clear, well-researched and "field tested" recommendations to reduce environmental impact of our cafes and company operations. We would like to see a measurable decrease in our energy consumption, water consumption, and resource consumption/waste generation.

Potential OASE Projects:

Nossa Familia Coffee and the Oregon Coffee Board created a Cafe Guide to review the best management practices to reduce waste and a pollution prevention checklist for post-roasting operations.

Project A: The intern would build on the work already done by fellow B Corporation Nossa Familia Coffee to test and implement the recommendations in the Cafe Guide as a pilot program. The intern would generate a final Cafe Best Practices guide and develop Measurable Goals in an easily useable format. (In Stumptown vernacular, we would be creating Sustainability Standard Operating Procedures - "Sustainability SOPs" - for our cafes). Our final recommendations will be linked to Measurable Goals applicable to, and useful for, a variety of cafe settings. The intern will need to work with Stumptown sustainability leadership and retail/cafe staff to investigate, through observation and discussion, what works and doesn't work with each recommendation, and then create written documentation of suggested improvements and additional/alternate ideas, where applicable. The student will also investigate and document feasible Measurable Goals related to the recommendations.

Project B: The intern would use the same format as Project A and apply it to post-roasting operations: production (coffee bagging), shipping, ordering of supplies and materials, and general company operations to finalize a pollution prevention assessment checklist. The intention is to create test recommendations from the pollution prevention assessment used at Nossa Familia, document what works/doesn't work, identify suggested improvements, and link all recommendations to Measurable Goals. In this scenario, we anticipate a focus on looking upstream to reduce the amount of potential waste entering into our facilities, and also standard practices such as pallet wrapping that can be optimized or eliminated to reduce waste.

Degree / Skills Identified by Host:

Degree: Environmental Science/Sustainability; Economics/Business

Skills needed for this internship are as follows:

- Good people skills
- Ability to collaborate with teams

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- Capable of accurate data collection
- Experience using Excel
- Capable of analyzing numeric data
- Experience conducting research and writing reports
- Ability to observe and understand new processes in detail
- Good writing skills
- Strong attention to detail
- Interest in sustainability and environmental work
- Understand concepts of preventing waste (pollution prevention/source reduction)

Additional Considerations:

Student housing may be available for students located outside the Portland metro area.

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4. East West Tea Company, LLC (Yogi); Eugene, OR

How this project supports the industry mission and goals: As a B Corporation certified business, we continue to strive to do more to use our business as a force for good. We have identified sustainability and our impact on our planet as a key area of opportunity. It is not only important to our facility, it is important to the ownership, the executive team, the local community where we do business, our employees and our consumers. Our products are focused on health and wellness for mind, body and spirit. We have the opportunity to continue to improve through understanding our overall impact and using our business growth and purpose to do better to our environment and planet.

For the proposed projects, our ultimate goal is to reduce our carbon footprint impact while making our facilities more energy efficient and saving money in the daily operations of our facilities. Electric and gas use reduction targets will be determined after the facilities audit, but we aspire for a high impact in our facilities. Overall our goals are to do good throughout our supply chain and minimizing our impact.

Project Goals and Outcomes:

Research opportunities and develop strategies to reduce carbon footprint, prevent/reduce waste to landfill from manufacturing process and improve energy efficiency of our Leadership in Energy and Environmental Design (LEED) certified facility. All of these activities will also contribute to a higher B Corporation rating.

- Deep understanding of our carbon footprint from farm to table. Solutions identified with costs to reduce the impact and create positive results for our planet.
- Comprehensive overview of all the materials we consume and the waste generated from our manufacturing process. Solutions identified to create standards for the vendors in what they deliver and programs in place to maximize waste prevention and recycling opportunities.
- Training and programming of our LEED certified energy inputs to reduce our consumption. Ensuring the smart energy systems are activated and programmed to operate as designed. Baselines established and goals set to manage and reduce consumption of energy and water.

Potential OASE Projects:

Project A: Reduce carbon footprint of material from source through receipt by consumer

Project B: Maximize energy management controls at manufacturing center (HVAC, lighting, water)

Project C: Reduce landfill waste and work towards zero waste initiatives

Degree / Skills Identified by Host:

Environmental Engineering; Environmental Science/Sustainability; Business/Economics

Skills, experience and knowledge needed for this internship are as follows:

- Adept at research and able to compile meaningful reports
- Ability to prepare and present business case
- Ability to research and understand budgets, costs, and benefits for program implementation
- Ability to work independently on projects with somewhat minimal supervision
- Ability to collaborate with teams and comfortable presenting in front of management
- Experience using Excel
- Knowledge of B Corporation and LEED certification criteria
- Interest in sustainability and environmental work
- Understand concepts of preventing waste (pollution prevention/source reduction)
- Ability to observe and understand new processes in detail
- Detailed-oriented and thorough with regards to data gathering
- Keen investigation skills

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5. Green Hammer; Portland, OR

How this project supports the industry mission and goals: It is Green Hammer's mission to reduce the environmental impact of all aspects of its buildings. Even though Green Hammer has a rigorous approach to reduce operational energy – down to zero net energy – the impact of other phases, i.e. material sourcing, construction and end of life are not well understood. This project will greatly increase Green Hammer's understanding and enable permanent improvements to its building practices.

Zero Energy projects are critical to reducing the energy use and associated environmental impact of our building stock. However, successful strategies or tools to achieve the Zero Energy goal (e.g. high-performing glazing, equipment and insulation) often are not manufactured in the US or North America.

Project Goals and Outcomes:

The goal of improving our understanding of the life cycle impact of Green Hammer's current design and construction approach is to optimize all aspects of a building's environmental impact, including and beyond operational energy use. Ultimately, the goal is to adjust current practices and assemblies to further reduce said impact.

The project goals include:

1. Perpetual reduction of environmental impacts of the built environment, including a documented process and reproducible strategies.

Potential OASE Projects:

Life Cycle Analysis: Implement Life Cycle Assessment process and analyze realized Zero Net Energy (ZNE) building approaches, propose improvements and test viability in a team review.

Degree / Skills Identified by Host:

Degree: Engineering; Environmental Science/Sustainability; Physical Science; Economics/Business; Architecture/Construction Management

Skills needed for this internship are as follows:

- Computer literacy, specifically MS office experience is required
- Experience with built-environment LCA tools, such as Tally or Athena Impact Estimator
- Familiarity with architectural CAD software, such as Revit or AutoCAD
- Knowledge of CSI MasterFormat list and divisions
- Capable of data analysis and processing
- Comfortable with unit conversion
- Familiarity with international standards for life cycle assessment -- general (ISO 14040/14044) and built environment (ISO 21930)
- Knowledge of B Corporation, Green Building/Zero Energy concepts and LEED certification criteria
- Capable of visualizing data analysis results in charts
- Basic understanding of building material assemblies (walls, roof, floor)
- Interest in Passive House operational energy standard
- Interest in low impact building materials
- Comfortable speaking with architects and builders

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6. RiverBend Materials; Salem, OR

How this project supports the industry mission and goals:

- Ensure that our employees and contractors respect environmental responsibilities
- Proactively address the challenges and opportunities of climate change
- Comply, at a minimum, with all applicable environmental legislation and continually improve our environmental stewardship
- Optimize our use of energy and resources through efficiency gains and recycling
- Promote environmentally driven product and process innovation and new business opportunities
- Be good neighbors in the many communities in which we operate

Project Goals and Outcomes:

Project A Goals:

- Have our select group of concrete and asphalt mixes documented and entered into the Environmental Product Declarations (EPD) tool
- Submit the EPDs for verification
- Obtain verification and publish EPDs

Outcomes: This task will require a basic understanding of life cycle assessment principles and attention to details during the data collection and entry tasks. Student will gather energy, fuel, and water data from each plant and track the supply chain transportation impacts for all raw materials. At the completion of the project, student will have a solid understanding of EPDs and the process used to create EPDs. Student will also be knowledgeable about which materials and processes contribute most to the environmental impacts of concrete mixes.

Project B Goals:

- Site facility LED lighting retrofit, research state incentives and develop Return on Investment (ROI) model
- Energy efficiency study on our dewatering activities in Salem and Eugene (3 sites)

Outcomes: Identify potential environmental and economic savings related to LED retrofits and energy efficiency studies.

Potential OASE Projects:

This project will allow RiverBend Materials to respond to the EPD requests made through Leadership in Energy and Environmental Design (LEEDv4) and also allow our clients to choose lower environmental impact mixes with the help of EPDs. Additional goals allow us create energy efficiencies as well as cost savings.

Project A: This project will focus on developing EPDs at three ready mix concrete plants and two asphalt plants (Salem, Corvallis and Eugene) in the Willamette Valley. EPDs are environmental labels that are 3rd party verified and disclose a selection of the environmental impacts for each concrete mix; EPDs are mix and plant specific. The measurement and disclosure of the concrete mix impacts will help the concrete producer prioritize environmental improvement and help the consumers of concrete select lower impact mixes. EPDs are critical to providing quantitative measurements of improvements in both producing and consuming concrete.

The new LEEDv4 rating system, which is widely used in public and private construction projects, is now awarding points for EPDs in construction projects. This is a major market driver in larger towns and cities around Oregon. This project will allow RiverBend Materials to respond to the EPD requests made through LEEDv4 and also allow their clients to choose lower impact mixes with the help of EPDs.

Project B: (time permitting) This project works to reduce energy use connected with lighting and dewatering activities at RiverBend Materials facilities. Both environmental and economic savings will be examined.

Degree / Skills Identified by Host:

Degree: Environmental Engineering; Environmental Science/Sustainability

- Project planning
- Good communication skills
- Adept at research and ability to compile meaningful reports
- Experience assembling and verifying various types of data and information
- Capable of data analysis and processing
- Knowledge of Environmental Product Declarations
- Knowledge of LEED certification criteria
- Understand concepts of preventing waste (pollution prevention/source reduction)
- Concrete industry experience or education would be welcomed

Additional Considerations:

Required Personal Protective Equipment (PPE) is provided except for hard toe boots for which will be reimbursed by RiverBend. The student should arrive on site with boots and receipt, if they have to purchase hard toe boots.

7. Stoller Wine Group; Dayton, OR

How this project supports the industry mission and goals: Stoller Wine Group works hard toward sustainability in our farming and production practices, but waste production has been a challenge. We would like to reduce the waste we add to landfills. As a B Corporation certified organization, it is important to us that we are continuously striving to improve our impact on the environment.

Project Goals and Outcomes:

- Implementation of a robust recycling program, both internally and consumer facing
- Reduction of waste going to landfills
- Reduction of single use consumables

Potential Projects:

Design a zero waste study for tasting rooms and production facilities.

- Identify available recycling programs in our rural areas; create recycling guidelines for on property
- Evaluate consumption of single use products
- Evaluate areas of waste in the service areas of the tasting room

Degree / Skills Identified by Host:

Degree: Environmental Science/Sustainability; Economics/Business

Skills needed for this internship are as follows:

- Ideas for marketing changes to employees and to guests
- Ability to convey information through written storytelling
- Knowledge of B Corporation certification criteria
- Understand environmental impact measurement
- Detailed-oriented and thorough with regards to data gathering
- Experience in collecting and organizing data for analysis
- Experience preparing written reports
- Keen investigations skills

Additional Considerations:

Students located outside the Dayton area may be able to arrange flexible work-site arrangements. Some work will be required onsite in Dayton, Oregon.

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