ANNUAL REPORT

2013—2014 Pilot Year
About the Sustainability Institute

Penn State is a public research university that educates students from Pennsylvania, the nation and the world, and improves the well-being and health of individuals and communities through integrated programs of teaching, research, and service. The University has embraced sustainability as a foundational principle that enriches all of its pursuits and missions, and is committed to advancing the understanding and resolution of sustainability challenges on campus, in our communities and around the world. Because of this need, the Sustainability Institute was created.

Penn State’s Sustainability Institute's mission is to lead and support Penn State in the pursuit of sustainability across all functions: teaching and learning, research and discovery, outreach and engagement, administration and operations. Sustainability is defined as the simultaneous pursuit of human health and happiness, environmental quality, and economic well-being for current and future generations.

This mission can be achieved by developing lifetime competencies for sustainability in our faculty, staff, and students; enabling transformation and alignment of systems, policies, and opportunities around sustainability; inspiring others through the communication of our successes, failures, and learning; and demonstrating the value of this approach at the individual, institutional, and global scales.

Editor ................................................. Elyzabeth Engle, Graduate Assistant
Summary Reports Writer ................. Autumn Stausbaugh, Intern
Mentor ....................................................... Terry Shupp, Former Program Coordinator

Cover Images: WPSU, Courtney Hayden, Autumn Strausbaugh

Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

This publication is available in alternative media on request.

U.Ed. OPP/SI 14-2
# Table of Contents

- Introduction from Nancy Franklin ................................................................. 1
- Introduction from Tom Fountaine .................................................................... 2
- About the Sustainable Communities Collaborative ........................................... 3
- About Our Community Partner ....................................................................... 4
- Fall 2013 Projects ............................................................................................ 5
  - The West End Project ................................................................................... 6
  - Navigating Downtown State College .............................................................. 7
  - Biking in the Region ..................................................................................... 8
  - Storm Water Management ........................................................................... 9
  - Management of Human Capital (Part 1) ....................................................... 10
  - Sustainable Asset Management (Parts 1&2) ................................................. 11
- Spring 2014 Projects ....................................................................................... 12
  - Residential Composting Evaluation ............................................................ 13
  - Live and Work Sustainability of Downtown ................................................ 14
  - Green Power Choice ................................................................................... 15
  - Sustaining Quality Neighborhoods ............................................................... 16
  - Management of Human Capital (Part 2) ....................................................... 17
- Collaboration Celebrations .............................................................................. 18
- SCC in the Media ............................................................................................ 19
- Collaboration Assessment Results ................................................................. 20
- Collaboration Conclusions by Teresa Shupp .................................................... 22
- Student Acknowledgements .......................................................................... 23
- Key Roles ....................................................................................................... 24
Welcome to the first annual report of the Sustainable Communities Collaborative! When the Penn State Sustainability Institute decided to explore the concept of establishing a support system to connect faculty and students to real world community sustainability challenges, we knew we needed to find a community partner with a strategic commitment to sustainability and willingness to experiment with us. In the Borough of State College, we found such a partner. Discussions about a sustainability-focused collaboration began in the Summer of 2012, and by the Fall of 2013 we had identified projects and matched faculty and students to them.

We held a kick-off event in September in conjunction with the Borough’s Light Step Right Step Festival and celebrated the successes of the first semester with a preview of second semester projects at a public Sustainable Communities Collaborative event in January. We finished the year with a set of student presentations in Council chambers to Borough Council and Associations, Boards, and Commissions in late April. Various media organizations have followed and reported on Sustainable Communities activities throughout the year and we have had opportunities to report on the partnership to various groups, including the Penn State Board of Trustees.

Because the goals of the Sustainable Communities Collaborative (SCC) are to positively impact the community, students, and faculty members, we conducted semester-end assessments with each of these stakeholder groups to understand the value of the SCC to those involved as well as to learn from the challenges encountered in the partnership. Students expressed enthusiasm for the opportunities to apply classroom knowledge and benefit the community; faculty members reported on having opportunities to grow as scholars and test theories that they teach in the classroom; and borough staff members unanimously felt the investment in the partnership was worth the time and effort. We also learned about sticking points in the system and were able to make adjustments along the way to make the partnering process easier for all involved.

The 2013-14 pilot Sustainable Communities Collaborative has provided many learning opportunities for all involved, but most importantly, has set the stage for future collaborations. Additional projects targeting the Borough of State College are being planned for the upcoming fall semester. Further, initial work on broader sustainability issues that extend beyond the borough is expected to start in the year ahead.

We are tremendously grateful to the borough for their willingness to experiment with us to develop a novel and exciting town-gown partnership. The year ahead promises to expand SCC in important ways by building on the foundation established during the pilot year. We hope you will take some time to peruse this report to learn more about the projects from this past academic year.
Introduction Letter from Tom Fountaine

Borough Manager
The Borough of State College

The Borough of State College has a long history of working with students, professors and staff from Pennsylvania State University on sustainability issues. Through the Sustainable Communities Collaborative program, the Borough has had the opportunity to expand this collaborating and engage in an extremely intensive, programmatic approach to engaged scholarship and service learning.

The Borough is excited to be participating in a national movement to provide students with opportunities for out-of-the classroom experiences in their local community. Students immediately have the opportunity to use skills learned in the classroom to help make their community a better place to live. These experiences not only create a valuable opportunity for students to work on real-world problems, they help shape the future of their community and reaffirm a sense of civic pride and responsibility in all members of the community.

In the first year of this program, students have already provided valuable insight into complex community issues and helped in the design of new municipal programs. Some of these projects started from scratch with students laying the groundwork for future community initiatives. While others are a continuation of work students have worked on in past semesters. As we move forward with this collaborative effort, we will be developing courses that help the borough answer larger sustainability issues including net zero energy and zero-waste, watershed management, community resiliency and multimodal transportation planning. The program has shown that by breaking these issues down into manageable cross-disciplinary projects, students can play an important role in answering difficult, complex questions that will have a lasting impact on their community.

The Sustainability Community Collaborative is destined to succeed due to the borough and the University’s commitment to sustainability, focus on engaged scholarship, dedication to collaboration and access to a community of diverse and aspiring learners.
About the Sustainable Communities Collaborative

The Sustainable Communities Collaborative (SCC) connects University Park faculty, students, and staff with local communities to address sustainability challenges through an engaged, collaborative effort.

Through the SCC, students and professors work directly on priority, sustainability projects of the community partner, ensuring that student ideas and learning are indeed relevant to communities and that real world complexities inform the University’s teaching and research. The overall goals are to: 1) provide students with real-world projects to investigate; 2) apply student and faculty knowledge to community challenges; and 3) provide valuable service and movement to a community ready to transition to a more sustainable future. While the idea is simple, its execution is complex, requiring considerable coordination and internal infrastructure to ensure that students have an enriching educational experience and that community deliverables are of the highest quality and carry the most significant impact.

This is a fairly radical re-conceptualization of the public university to do public good and is working across disciplines in ways that many think should happen, but rarely occurs in practice.

Partnering community leaders will identify a set of projects that contribute to advancing their sustainability goals. These projects must be part of the community’s strategic agenda and are then matched with existing PSU courses that include an experiential learning element. Faculty-led student teams work on the identified projects as part of their coursework. This approach takes advantage of fresh student energy and perspectives in addressing challenging, community issues.

Projects are typically addressed in the time frame of one semester, although some projects may span two semesters and may involve more than one course, particularly if the project is multi-dimensional and would benefit from an interdisciplinary problem solving approach.

The initial community partner for the SCC was the Borough of State College for the 2013-14 pilot program year. During this first SCC academic year, 218 students and seven faculty members from five colleges have contributed to 11 projects with the borough.
About Our Community Partner

The State College Borough is home to more than 42,000 residents. Over 70% of the town’s residents are Penn State students, many of which participate in and volunteer for borough events and organizations. The borough strives to create a community that entices visitors with their many historic, social, and retail attractions – but also a diverse community that can be home to students, young professionals, internationals, and retirees alike. Having committed to a Climate Protection Community in 2007, the borough has also taken many steps to make State College an environmentally-friendly community, like purchasing green energy, installing rain gardens, recycling food waste, and restoring wetlands. Many areas of State College are also bike and pedestrian friendly, with an ever-increasing number of bikeways. As put by the Mayor of State College, “We are committed to a green lifestyle, reducing our energy footprint, and sharing what we have learned with our residents so that the entire State College community can work together to further our broad environmental commitment.” [2011 State College Borough Annual Report]

SCC embarked on a pilot partnership with the State College Borough for the 2013-2014 academic year. This pilot partnership established several collaborations between faculty and students in courses across the University Park campus with members of the borough’s Sustainability Committee. Many of the collaborations contributed to projects identified by borough staff to meet the sustainability goals outlined in State College Borough Resolution 944, adopted in 2007.
“When sitting in the classroom, it’s very easy to forget that the things I’m learning are practical and applicable — that they prepare me for more than the test at the end of the semester. [The] SCC gave me the opportunity to see the things I was learning in action and how they may even apply to my future career. These are real concepts, not just for an assignment, but application of class material in real life.”

- LER 460 student
The West End Project

Environmental Sustainability Challenge:
- Sustainable Air Resource

Collaborators:
- Anne Messner, Senior Planner
- Dr. Mallika Bose, Landscape Architecture
- Students, LARCH 424 Design Theory Seminar
- Students, LARCH 510 Graduate Seminar in Landscape Architecture

Borough’s Objectives:
The borough hoped to meet some of the original goals they had when they created the West End Revitalization Plan; including the reuse of existing buildings, diverse land uses, and the improvement of pedestrian and traffic safety.

Course Objectives:
The course was designed to introduce students to community-based design and planning, develop an understanding of the role of community engagement in landscape architecture, expose students to methodologies for community-based participatory design and planning, and to complete a community-engaged project.

Outcomes:
The students elaborated on many of the suggestions in the Downtown Master Plan, providing specific suggestions for visual and use improvement throughout the West End and along Calder Way.

These students worked with the State College Borough to develop a conceptual design to improve the West End neighborhood. By considering both class goals and the borough’s needs, the three main goals of this project were to develop a circulation system within the West End, develop gateways into the neighborhood, and develop an identity for the West End Neighborhood. The students used The West End Revitalization Plan, Down Town Master Plan, and The Penn State Master Plan as references. The students met twice a week in a classroom setting as well as outside of the designated class time to execute the project. The students also met with the borough twice during the project to discuss preliminary ideas and then to present the completed project.

The West End Neighborhood is a part of the Urban Village Zoning District that was created in 1991. The borough rezoned this area to encourage community development, but little has been done since the area was established. This lack of development has been attributed to the fact that the neighborhood population is 85% students. The West End also suffers from a low visual quality with large vacant lots, pedestrian barriers, and a lack of green space. There is no defined connection between the West End and West Campus, and the paths for pedestrians, bicycles, and vehicles are not clearly defined. Calder Way, specifically, features most of the above issues.

To enhance West Campus Drive, the students suggested the installation of public art in the form of murals, art installations, or constructed elements made by Penn State students. They also proposed the creation of a defined connection for bicyclists to use when crossing Atherton Street through the IST building. Both of these suggestions would help cyclists avoid going through the intersection of West Campus Drive and Atherton Street. For pedestrians, a defined path should be created between West Campus housing and West College Avenue. Finally, a defined connecting point needs to be created for the intersection of North Gill Street with West Campus Drive. In regard to Calder Way, suggested improvements included more trees to hide visual pollutants and create a green pedestrian-friendly environment, as well as integrated fences and signs to provide information about events in the neighborhood. Also, infiltration trenches in the parking lots at the border of Calder Way would define the edge of the alley and provide measurements for storm water management purposes.

In addition to the improvements on West Campus Drive and Calder Way, the students suggested that flowers and shrubs be planted on North Atherton Street as a buffer. An entrance gateway should be created on Atherton Street for the West End with an exit gateway on Buckhout Street. Identification and directional regulatory signs should be placed on Beaver and College Avenue to direct people to the West End. All signs need to be upgraded with the State College Borough logo. In conclusion, the students felt that a phasing plan should be created, and that involving community members in West End improvements could be very beneficial in generating the best ideas.
Navigating Downtown State College

Environmental Sustainability Challenge:
- Sustainable Air Resource

Collaborators:
- Anne Messner, Senior Planner
- Dr. Mallika Bose, Landscape Architecture
- Students, LARCH 424 Design Theory Seminar
- Students, LARCH 510 Graduate Seminar in Landscape Architecture

Borough’s Objectives:
The Borough aimed to implement some of the recommendations made in The Downtown Master Plan (08/19/2013) that is currently set in place for community advancement such as improving wayfinding for both residents and visitors.

Course Objectives:
They aimed to improve students’ overall knowledge about streetscapes and street typologies while making practical and positive suggestions for downtown State College. They focused on downtown parking, wayfinding signs, and prioritizing downtown streets while making Calder Way a shared and walkable space.

Outcomes:
The “Navigating Downtown State College” project was able to take suggestions already made in the Downtown Master Plan and build more potentially positive advancements for the community through solutions around parking, wayfinding signage, pedestrian areas, and increased ecological functionality.

These students worked with the State College Borough to develop a conceptual design to improve the West End neighborhood. By considering both class goals and the Borough’s needs, the three main goals of this project were to develop a circulation system within the West End, develop gateways into the neighborhood, and develop an identity for the West End Neighborhood. The students used The West End Revitalization Plan, Down Town Master Plan, and The Penn State Master Plan as references. The students met twice a week in a classroom setting as well as outside of the designated class time to execute the project. The students also met with the borough twice during the project to discuss preliminary ideas and then to present the completed project.

The West End Neighborhood is a part of the Urban Village Zoning District that was created in 1991. The borough rezoned this area to encourage community development, but little has been done since the area was established. This lack of development has been attributed to the fact that the neighborhood population is 85% students. The West End also suffers from a low visual quality with large vacant lots, pedestrian barriers, and a lack of green space. There is no defined connection between the West End and West Campus, and the paths for pedestrians, bicycles, and vehicles are not clearly defined. Calder Way, specifically, features most of the above issues.

To enhance West Campus Drive, the students suggested the installation of public art in the form of murals, art installations, or constructed elements made by Penn State students.
Biking in the Region

Cultural Sustainability Challenge:
- Sustainable Living Practices

Collaborators:
- Clay Chiles, AmeriCorps Member
- Professor Lori Francis, Biobehavioral Health
- Students, BBH 416: Health Promotion II
- Corl Street Elementary School
- Friends School League of America Bicyclists
- Kevin Dare Foundation

Borough’s Objectives:
The borough aimed to increase parents’ and children’s awareness of biking by promoting the health benefits as well as increasing the amount of people in the borough biking to school, to work, or to daily activities. The borough hoped to find out what was preventing children from biking to school and to evaluate how much knowledge children in the area had about biking.

Course Objectives:
Through this project the students hoped to increase the number of children biking in the area by educating both the children and parents about bicycle resources and the health benefits of biking. The students saw biking as a medium to promote physical activity and promote healthy lifestyles to decrease rates of childhood obesity.

Outcomes:
The students of BBH 416 worked with the borough to create two promotional events: 1.) a Walk or Bike to School Day at the Corl Street Elementary School to encourage alternative transportation for a day; and 2.), a Bike Rodeo event at the Friends School that included educational activities for both students and parents.

This project was completed by students in Biobehavioral Health 416: Health Promotion II: Planning, Implementation, and Evaluation under the direction of Professor Lori Francis. The students worked closely with the State College Borough, specifically borough representative, Clay Chiles. The goals were to increase the number of children and adults biking in the area by finding out why there were limited numbers and by educating both the children and parents about bicycle resources and the associated health benefits. In addition to having regular meetings with Borough members, students conducted literature reviews, evaluated previous programs, and distributed surveys to State College children’s parents.

The results of the students’ surveys indicated that some of the common concerns parents had about their children riding their bikes included: time involved with biking versus driving, how to bike in winter weather, not knowing about local bike paths, not knowing about youth bike safety programs, children not owning a bike, and an overall feeling that there is a lack of safety involved with their children biking such as not enough bike lanes and crossing major intersections. In addition, the students’ evaluation of past biking programs in the region found that awareness, community support, and convenience contribute heavily to the success or failure of these types of events.

They also proposed the creation of a defined connection for bicyclists to use when crossing Atherton Street through the IST building. Both of these suggestions would help cyclists avoid going through the intersection of West Campus Drive and Atherton Street. For pedestrians, a defined path should be created between West Campus housing and West College Avenue. Finally, a defined connecting point needs to be created for the intersection of North Gill Street with West Campus Drive. In regard to Calder Way, suggested improvements included more trees to hide visual pollutants and create a green pedestrian-friendly environment, as well as integrated fences and signs to provide information about events in the neighborhood. Also, infiltration trenches in the parking lots at the border of Calder Way would define the edge of the alley and provide measurements for storm water management purposes.

In addition to the improvements on West Campus Drive and Calder Way, the students suggested that flowers and shrubs be planted on North Atherton Street as a buffer. An entrance gateway should be created on Atherton Street for the West End with an exit gateway on Buckhout Street. Identification and directional regulatory signs should be placed in the parking lots at the border of Calder Way would define the edge of the alley and provide measurements for storm water management purposes.

In conclusion, the students felt that a phasing plan should be created, and that involving community members in West End improvements could be very beneficial in generating the best ideas.
Storm Water Management

Environmental Sustainability Challenge:
- Sustainable Water Resource

Collaborators:
- Amy Kerner, Borough Engineer
- Dr. Stuart Echols, Landscape Architecture
- Students, LARCH 431: Landscape Architectural Design Implementation III

Borough’s Objectives:
Anticipation of upcoming renovations, the borough hoped to gain insight on ways to design storm water management systems as well as generate ideas and discussion about implementation methods.

Course Objectives:
In order to learn about storm water management and drainage design, each student in the class completed his or her own individual case study of a storm water management opportunity within the State College Borough with the goal of creating a system that was visually pleasing and encouraged active learning.

Outcomes:
The students designed individual storm water management schemes that provided both common solutions for the borough, like rain gardens and raised sidewalks, as well as unique contributions and visual displays.

Storm water affects areas everywhere. When rain hits a surface, it flows on any path with little resistance. Anything along that path will get swept up and will then pollute local bodies of water. The Borough of State College was developed without a storm water management system. There are currently pipes underground that assist with stormwater, but the borough would like to take the system “offline” and incorporate more than just pipes.

The borough provided students with geographic information system (GIS) basemaps of the area to assist with the planning process. Then, each student created his or her own storm water management suggestion, coalescing into several common themes. Many students suggested that rain gardens be used because they are visually pleasing, efficient for storm water management, and introduce the opportunity for applied education. Andrew Polonus, a student in the class, suggested a rain garden be placed outside of Easterly Parkway Elementary School because it would be a great way for storm water management to be introduced into the curriculum for elementary students. Students and their parents would also be able to learn about the garden as a habitat for animals and insects as well as the overall upkeep and responsibility of a garden.

Another common idea was the implementation of a raised boardwalk in the place of the sidewalk in Westerly Parkway. The curb would be lowered to the street, so that water could flow directly off the street and into drains that run underneath the boardwalk. Community members walking across the boardwalk would be able to watch storm water management in action.

Matt Yeager, another student in the class, suggested the boardwalk be widened to allow for a bike path in addition to a pedestrian path.

A few students had very unique ideas, such as Aaron Ramos. Aaron suggested a rainwater pergola be installed. The pergola would collect and drain storm water to maintain the surrounding greenery without using the borough’s water supply. The pergola would also have chairs or benches underneath it. Additionally, Devon Beekler had the idea for a covered bus stop area that would assist in storm water management. The slope of the roof would filter rainwater into raindrop shaped water collectors located on the ground. The size of the raindrops would increase in size based on the amount of storm water each one could hold, creating a visual display of rainwater collection.

The students in LARCH 431 were able to learn about storm water management and design through each of their individual projects. They have created many suggestions to share with the State College Borough to help storm water management become a core initiative in the community. The students hope that community members will learn from the introduction of storm water management systems, and that they too will take interest in it.

Sustainable Communities Collaborative
Fall 2013

Images: Penn State
Management of Human Capital: Part 1

Cultural Sustainability Challenge:
- Sustainable Local Government

Collaborators:
- Sustainability Committee, State College Borough
- Dr. Tom Hogan, Human Resource Management
- Students, LER 460: Human Resource Ethics

Borough’s Objectives:
The Borough aimed to improve their methods of recruitment and retention of middle and senior-level employees, advisory board members, and one-time-event volunteers.

Course Objectives:
The course was designed to introduce students to the role of ethical behavior in the Human Resources field through a focus on ethics, social responsibility, and sustainability, as well as methods of evaluating how employers, specifically those of the State College Borough, acquire and retain personnel.

Outcomes:
Students met with the State College Borough’s Sustainability Committee for an initial meeting to gather ideas and information about the borough’s current situation. The class also spent a lot of time exploring the borough’s website as it is many people’s resource for learning about opportunities within the borough. The students’ overall impression of the website was that it was easy to use, but contained little helpful information. The students then conducted individual analyses of middle- and senior-level employees, advisory board members, and one-time-event volunteers online presence. Additionally, the students also attended the “Light Step Right Step Festival,” to evaluate the processes surrounding one-time-event volunteers.

Outcomes:
The students found that the area of the website of interest to the middle and senior-level employees lacked a lot of important information and relied on an outdated application system. There were no job opportunities listed, nor were any benefits of working in State College; and the application posted on the website still must be printed out and mailed to the borough’s Human Resources Department. The section of the website devoted to Advisory Boards had many similar problems to the ones found in the middle and senior-level employees area. It was hard to navigate and determine which board had vacancies, with little description of each position. The one-time-event volunteers section is perhaps the most confusing area of the website, as it was redundant and poorly organized. When a person navigates to the volunteer page, the top half of the page describes volunteering for advisory panels, and one-time-event opportunities are not listed until much further down on the page.

The students used research they found about similarly situated communities to brainstorm ideas. One suggestion for improving the website which pertains to middle- and senior-level employees is to designate an individual or group of employees to acquire and post information about potential mid/senior-level employee positions and the benefits of working for the State College Borough. Students also believed that an online application submission process is critical. The students felt that the number one issue to tackle with the advisory boards is to make the information more accessible, such as a brief description of the board’s purpose, information regarding service term lengths, information about volunteering and application process, a list of vacancies, and any other relevant information.

In regard to one-time-event volunteers, the students felt that one person should have sole responsibility in making progress with obtaining volunteers and answering questions about opportunities. A separate website for volunteering or a website that is attached to the Borough’s sustainability website would also give people accessibility and a definitive place to get volunteering information, and should include a mission statement and a calendar to show upcoming volunteer events. The site must also show how volunteers benefit the community and additionally show how volunteering can benefit individuals. A media gallery should be on the website to showcase pictures and videos from successful past events. Finally, the students suggested a couple ways of attracting more volunteers, like incorporating consistent social or environmental causes into their mission and promoting more opportunities through social media outlets.
Sustainable Asset Management

Cultural Sustainability Challenge:

- Sustainable Local Government

Collaborators:

- Ernest Dabiero, Director of Purchasing and Risk Management
- Dr. John Spychalski, Supply Chain Management
- Jordan Schaeffer, Schreyer Honors College
- The Smeal Sapphires

Borough’s Objectives:

The borough aimed to improve the inventory system for their municipal vehicle repair shop in order to have an idea of what the monetary value of the property and the products in the warehouse is in case of future disaster.

Course Objectives:

Jordan aimed to save the borough money and improve borough staff’s jobs while also having a successful subject for his thesis and learning more about creating and implementing efficient inventory systems.

Outcomes:

Jordan and the Smeal Sapphires developed an inventory system that included cost analysis, item check-out procedures, and employee training on how to use the system.

The idea for this project came when the Director of Purchasing and Risk Management for the State College Borough approached the Sustainability Institute seeking help with the inventory system that was in place at the municipal repair shop warehouse. The warehouse stores items to service fleet vehicles including police cars, snow plows, garbage trucks, ETG, and other maintenance equipment within the borough. The Institute then contacted Professor John Spychalski, who suggested the project to his advisee, Jordan Schaeffer. Jordan led a team of Smeal Sapphires to complete this project as part of his honors thesis project for the Schreyer Honors College. This project was executed during both the fall and spring semesters.

Overall, the borough hoped that Jordan and his team could improve the inventory system for their municipal vehicle repair shop. The borough also hoped that by improving the inventory system, they would develop a better estimate of the monetary value of their inventory in case of an emergency. Jordan aimed to save the Borough money and improve the daily function of the warehouse. Jordan also hoped to have a successful subject for his thesis and to learn more about creating and implementing efficient inventory systems.

Initially, Jordan and his team found in 890 different categories a total of 2909 items in the warehouse. Many of these items were scattered across shelves. Some items were still in boxes, while other items were completely dust covered. The system of checking parts out of the warehouse was also found to be inefficient. Units were being ordered before old units had reached the end of their life cycle.

This lack of inventory knowledge led the borough to have little asset value awareness.

At the request of the Purchasing and Risk Management Director, Jordan created an inventory system through MS Excel that was linked to a barcode system. Jordan and his team compiled a book of barcodes that included a description of all the products in the warehouse. Items could be scanned in and out of the barcode book, so that the borough would have a consistent record of its inventory. They included the cost and life cycle lengths of each product in order to create a cost analysis system, which could alert the administrative assistant when a product was reaching the end of its shelf life. Jordan also created a system implementation package to teach warehouse employees how to use the system.

In addition to the creation of this system, Jordan also had other suggestions to enhance the change. He suggested the warehouse use the oldest products first. He is also suggesting that someone with knowledge of the products go through the warehouse and remove items that can no longer be used. These items could be auctioned off. Finally, Jordan suggested that the Borough continue to update the system as new product information becomes available.

Through the creation of this system, Jordan and his team hope that the State College Borough is able to operate more efficiently by updating its inventory process and maintaining its knowledge of product quantity, cost, and life cycles.
“I think what made this class different is that it had the large experiential part... We’ve already gone through a lot of our information-based learning, and now it’s: ‘how do we apply it?’”

- CED 475 student
Residential Composting Evaluation

Cultural Sustainability Challenge:
- Sustainable Living Practices

Collaborators:
- Courtney Hayden, Grants & Communication Coordinator
- Dr. Timothy Kelsey, Agricultural Economics
- Ashley Citarella, CED, Co-Instructor
- Students, CED 475: CED Integrated Capstone

Borough’s Objectives:
The borough aimed to evaluate their residential composting program.

Course Objectives:
The students hoped to help State College Borough enhance their residential composting program through learning how the program impacted household waste-management habits, what its problems and successes were, and what the participants learned about composting.

Outcomes:
They found that many residents are satisfied overall with the composting program, but a few minor modifications to bin size, odor and pest issues, and website navigation could make the program even better.

The State College Borough established the Organics Collection Program on April 1, 2013. Since its implementation, it has been relatively successful and adopted by many community members. The students gathered the borough residents’ feedback on the program by mailing out a postcard with a link to an online survey. The postcard was mailed to 1,400 State College Borough residents, and the students received 554 responses to the survey. In addition, the students evaluated the State College Borough website and researched other communities with similar programs.

The students’ survey reported that more than 70% of respondents participate in the compost program by placing their carts with organic material outside for collection at least once every two weeks. Generally, most of these respondents also reported that they were satisfied with the program overall and that they felt well informed about how to use it. For residents seeking more information, the borough has information on their website about composting in general and specifically about the cart process used in the program. The website, however, can be hard to navigate, and it is not always easy for site visitors to find the information they need. Respondents identified odor, pests, and size of the collection cart as negative issues within the composting program.

Using survey responses and research of communities with similar composting programs, the students generated some possible improvements for the State College Borough’s composting program.

The students recommended sending out a flyer with tips for composting, which could include information about reducing odor and pests and how to line the cart in order to avoid material freezing to the cart in the winter.

The borough should also include this information in newsletters to residents and on the borough website. They also suggested that the borough share information about the success and progress of the program to generate interest.

To address the size of the bins, the students suggested that the borough establish a few community bins where people can bring excess waste during the summer or allow households with more waste to purchase and use more than one bin. In winter months when there is less waste, neighbors could share bins. Finally, the Borough should let residents know via flyers, newsletters, and the website that they can switch carts for a different size for free at any time. Many residents are not aware of this option, and it could essentially eliminate bin size issues altogether.

In addition, the students recommended that the borough make a few adjustments to their website in regard to the composting program. This area of the website has a lot of information about the program as a whole, but it is not located under the “Reuse & Recycling” tab which is where the rest of the site’s information about recycling composting procedures are kept. Since this makes information hard to find, the borough could reorganize the website layout to make the connections clearer.

Finally, the students suggested the possible creation of a hotline to give residents fast and easy access to the composting information.
Live & Work Sustainability of Downtown

Cultural Sustainability Challenge:
- Sustainable Community Development

Collaborators:
- Anne Messner, Senior Planner
- Dr. Timothy Kelsey, Agricultural Economics
- Ashley Citarella, CED, Co-Instructor
- Students, CED 475: CED Integrated Capstone Experience

Borough’s Objectives:
The borough hoped to gain more information on why most students choose to leave State College after they graduate and identifying potential strategies to attract and/or retain young professionals.

Course Objectives:
As upcoming graduates themselves, the students saw this to be a relatable subject and were interested in researching the different variables that affect Penn State students in their decision to remain in State College after graduation.

Outcomes:
The students found that many students do not know about the available opportunities for jobs or affordable housing within State College, and therefore suggested more informative communication and further research about other student perceptions and towns that are tackling similar issues.

After attending a Gateway Group meeting, the students found that many conversations surrounding graduate retention were already circulating in the Gateway Group as well as in the State College Young Professionals organization. The students decided it would be most beneficial to conduct a ten-question survey of current Penn State students in order to gain their perspective to add to these discussions. The students distributed the survey through Facebook and various other forms of social media. They were received 70 responses, representing primarily seniors in various majors.

Eighty-three percent of the respondents were from outside of State College with most of the respondents being from large city areas.

Respondents reported that affordable housing and safety were most important to them, while nightlife, food, and shopping opportunities ranked relatively low. Students reported that one of their main reasons for leaving was a lack of job opportunities in State College. Sixty-seven percent of respondents reported being unaware of State College work opportunities, and 60% reported they were not likely to apply for jobs in State College. Students also reported the “college town” atmosphere and a lack of big companies to be part of the reason 77% of them reported being unlikely to stay in the area.

Respondents said that the only things that would make them interested in staying in State College is increased opportunities or presence of a significant other.

The CED 475 students saw a lack of communication between students and State College officials to be the main cause of students’ misguided perceptions of living in State College.

Many of the respondents reported that a lack of job opportunities is the most pressing reason to leave State College. In many cases, it is not that there are no opportunities in State College, but rather that students don’t know about them. Some small businesses in the area offer internship opportunities to students, and students participating in these internships will frequently find the full-time opportunities within that business and then continue to work there. It could be more informative to hold a job fair that features local businesses looking to hire recent college graduates.

Many students were also not aware of housing available outside of the immediate downtown area. Housing outside of the downtown area is typically more affordable. It is also farther away from the “college atmosphere” that respondents reported as a reason to leave State College after graduation. In addition, the Borough could move some of the business district from the central downtown location to other parts of town.

Finally, the CED 475 students suggest that the borough study other college towns to compare State College’s strengths and weaknesses. Most important, the students stressed that the Borough inform students about opportunities as early as possible. If students know as freshmen that State College is a potential location for them to reside after college, they may plan accordingly to do so.
Green Power Choice

Cultural Sustainability Challenge:
- Sustainable Living Practices

Collaborators:
- Courtney Hayden, Grants & Communication Coordinator
- Dr. Janet Swim, Psychology
- Students, PSYCH 490: Senior Seminar in Psychology

Borough’s Objectives:
The borough hoped to learn more about State College Borough residents’ decisions surrounding renewable energy and why they may or may not be choosing to participate.

Course Objectives:
Students work on a semester-long project with a specific focus in order to apply different skills and knowledge acquired throughout their academic career; specifically, this class chose to focus on the encouragement of State College Borough residents to choose renewable energy suppliers for their homes.

Outcomes:
They found that many residents are satisfied overall with the composting program, but a few minor modifications to bin size, odor and pest issues, and website navigation could make the program even better.

To establish the existing conditions of borough residents’ attitudes towards renewable energy, the students assessed residents’ motivation, ability, and triggers for purchasing energy from renewable energy suppliers. They accomplished this by randomly distributing a survey to State College homeowners. The students received 534 responses, approximately a 40% response rate. From the survey, the PSYCH 490 students were able to gather information to make predictions about people’s opinions on signing up for renewable energy. The majority of respondents reported that they had already considered signing up for renewable energy before the survey, and over 80% responded that they were interested to some extent in signing up for renewable energy.

The students also evaluated State College Borough residents’ knowledge surrounding renewable energy as it may be affecting their decision to sign up for a renewable energy supplier. Seventy-nine percent of respondents claimed to know the difference between renewable and non-renewable resources and 68% knew the difference between electric suppliers and electric distributors. However, while Borough residents have knowledge about the sources, the students found that 77% of respondents do not know a specific web page to shop for electric suppliers that use renewable energy, nor did they know how to sign up for renewable energy.

Finally, the students asked Borough residents about what factors may be deterring people from signing up for renewable energy. Only 8% of respondents reported that they would definitely pay more for renewable energy; while 21% reported that they might pay more for renewable energy. Another large concern was time, as most respondents reported that they thought signing up would take too much time.

The PSYCH 490 students observed that there is interest in signing up for renewable energy among State College Borough residents, but students feel that residents are choosing not to participate due to a general confusion with signing up and the increased cost. Based on their survey, the students found that residents find mailings and flyers to be the most effective means of communication. With this information, the students feel that an informative flyer about renewable energy sources and signing up would be highly effective. The flyer should then be mailed to all State College Borough residents.

In the students flyer design, they directly addressed borough residents’ top concerns. The flyer included information about why renewable energy costs more and why it is beneficial to sign up for renewable energy despite the increased cost. The students also included step-by-step instructions for how to sign up including the Internet links where residents can sign up. Finally, the flyer had the contact information for the State College Borough, so that if residents still had questions or needed assistance, they had somewhere to turn. The students hoped that with a little information addressing cost concerns and steps on how to sign up, many residents would take action towards signing up for renewable energy.
Sustaining Quality Neighborhoods

Cultural Sustainability Challenge:
- Sustainable Community Development

Collaborators:
- Megan Tuttle, Planner
- Dr. Ed Coulson, Liberal Arts
- Students, RM 450: Contemporary Issues in Real Estate

Borough’s Objectives:
This project was proposed to contribute usable information to the decision makers of the borough’s Homestead Investment Program, which is interested in stabilizing its single-family neighborhoods and sustaining their livability adjacent to the PSU campus.

Course Objectives:
This project intended to give the students real-world experience context in which to apply their curriculum, which focused on historical performance, land-use issues, market valuation, real estate development, and public policy issues.

Outcomes:
The students concluded that the tipping point for rent versus home ownership in the borough is 55%, meaning that if more than 55% of the houses in the borough are up for rent, the market will tip in the direction of renter occupation rather than home owner occupation.

With the topics of the course and the borough’s need in mind, the class was challenged to find out what the borough of State College’s rental “tipping point” is. The students gathered information by researching current and past conditions of the State College housing market. They also compared State College to similarly situated college communities and market trends. The Borough was interested in finding out at what point the percentage of rentals will cause owned properties to tip toward being rentals. This is known as the tipping theory and can be a concern for many college towns in relation to real estate stability.

The students were able to conclude that State College’s tipping point is 55% renters. If the market is below 55% renters, owner occupation will increase very slightly. If the market is above 55% renters, tipping occurs. Through their research of the State College housing market as well as comparisons to similarly situated communities, the students believe that the State College Borough should execute the original plan of action to avoid tipping.

The borough currently has a plan in action to avoid tipping, however they were unsure of what that point is and when it is necessary to take action. The Borough felt that once the market had reached its tipping point, it would be in the best interest of the community for the borough to buy any homes sitting stagnantly on the market before a rental company buys them. The borough would use grant money to buy the homes, and then, they would sell the homes to individual families. This would prevent the market from tipping even more and from the area becoming completely rental dominated.

Below 55% renters, owner-occupation increases (very slightly) over the next 10 years, above 55%, tipping occurs.

Images: Penn State, Autumn Strausbaugh
In order to evaluate the current conditions surrounding volunteering in State College, the students held a meeting for a volunteer focus group. The group consisted of student clubs, organizations, and community members. Those in the focus group looking for volunteers expressed that finding people to volunteer for both long-term and one day events tends to be challenging. Ironically, many of the participants in the focus group also expressed that it was hard to find opportunities to participate in volunteer events. Finally, the participants stated that there was lack of a connection between students and community members.

The students also conducted a survey, through which they found that being a part of a service club or organization, social media, word of mouth, and bulletin boards at school and workplaces are the most popular ways that borough members learn about volunteer opportunities. The students made sure to take this information into account when brainstorming ideas for informing people about volunteering since it was distributed to both Penn State students and permanent residents of State College.

The students’ leading suggestion for the borough was to create an online database where prospective volunteers find and sign up for volunteer opportunities. The database should have opportunities arranged into different categories for ease of navigation. The students also proposed the creation of a searchable, online calendar of volunteer events, that includes opportunity descriptions. It would be helpful if each opportunity listed how many people had already signed up to volunteer for that specific event and how many more volunteers were still needed. Students also suggested the potential volunteers fill out an interest survey in order to be matched with the best fitting volunteer opportunities.

Another suggestion the students had was for the Borough to hold a volunteer fair where businesses and organizations seeking volunteers could set up booths to attract potential volunteers. This is a great way for people to learn about volunteer opportunities while interacting with other people who are also interested in volunteering. The event would also serve as an opportunity to let people know about the online volunteering database. The event should be held on a date that many State College residents and Penn State students could attend, like a Saturday in the fall that is not during a home football game.

Finally, the students felt that it would be in the borough’s best interest to create a weekly volunteer opportunity newsletter that could be mailed out to interested subscribers. This newsletter could benefit people with busier schedules that are looking for last minute volunteer opportunities. This would also serve as a way to reach out to people who may not be as internet savvy and would rather not use the online database. The students feel that the newsletter would serve as a complimentary item to their other suggestions but should not be considered a stand-alone option.

The students hoped that their focus group, survey, and extra research on volunteer operating models and other communities’ volunteer strategies would help give the borough the tools and practices to make their volunteer opportunities more successful.
Collaboration Celebrations

Fall 2013 SCC Pilot Community: State College Borough Kick-Off Event

The SCC Pilot Community: State College Borough Kick-Off Event was held in September 2013 as part of the State College Borough’s Light Step Right Step Festival in the Fall of 2013. The SCC Coordinator and SI Director of Programs staffed a booth at the Festival. Students from Larch 424, class were on hand to administer a community survey for their collaboration as well as assist in tending the SCC booth. A lunch-time public ceremony was held by the Borough and PSU officials announcing the Kick-Off of Sustainable Communities Collaborative Pilot with State College Borough.

Spring 2013 SCC Spring Announcements/Fall Posters Celebration Event

SCC Spring Announcements/Fall Posters Celebration Event was held January 22, 2014, in the lobby of the State College Municipal Building. This was a publicly-advertised celebration event that was emceed by Alan Sam, Borough Sustainability Coordinator, who introduced the guest speakers: Tom Fountaine (borough manager), Denice Wardrop (SI director), Nick Jones (PSU provost). Project overviews for both the Fall and Spring semester collaborations were presented by various collaborator roles including students, faculty and borough staff. An informal poster display session allowed for questions and answers about student work. Light refreshments and snacks were provided by SCC for collaborators and community members.

Spring 2014 SCC Final Presentations to Borough Council and ABC’s Event

SCC Final Presentations to borough council and ABC’s Event was held March 27, 2014 in council chambers. This event was organized by the borough as a specially called meeting of council and the borough’s Authorities, Boards and Commissions (ABC’s). Student presentations for all six of the Spring collaborations were made to the mayor, borough staff, PSU officials, community members and invited guests.

Images, Top to Bottom: WPSU, Courtney Hayden, Autumn Strausbaugh
SCC in the Media: Highlights

Sustainable Communities Collaborative will bring green town-gown initiatives

Penn State News (9/23/2013)

The Sustainable Communities Collaborative announces a partnership with the State College Borough that will engage students at University Park with the community in a pilot program that links community-based sustainability projects with existing courses across the University. Six projects will be addressed through five Collaboration Teams in this fall’s pilot; connecting a variety of government services with academic disciplines campus wide.

Penn State students offer ideas for revitalization of State College West End

Centre Daily Times (10/17/2013)

Penn State students are taking a crack at ideas to improve the West End, something the borough has discussed for decades. Students in a university course are researching and developing ideas for the area between South Atherton and South Buckhout streets as part of a new partnership between State College and Penn State. The borough has identified sustainability projects to meet its goals, and Penn State students will be a resource to plan and complete them.

Engaged scholarship course works with community towards volunteer model

The Daily Collegian (2/6/2014)

Members of the community discussed volunteerism Tuesday night at a focus group at the State College Municipal Building, and a group of students present were paying particular attention. Members of Tom Hogan’s human resources ethics class acted as facilitators and took notes during the discussion. The course is a part of the Sustainable Communities Collaborative, a partnership that links courses at Penn State with the State College borough, Hogan said.

Penn State students help State College Borough go green

WJAC (4/30/2014)

State College Borough celebrated with Penn State students Tuesday after students shared a semester's worth of work on how the Borough can go a little greener. In the beginning of the semester, the Borough came to the university with its needs, which included evaluating the Borough's residential composting program and sustaining quality neighborhoods. The students presented their findings tonight.

For more SCC in the Media, visit: sustainability.psu.edu/sustainable-communities#SCC-in-the-media.
Survey Response rate:
Borough members: 8 out of 8
Faculty: 4 out of 7
Students: 39 out of 218

**Student learning outcomes: Applied learning and changing attitudes**

According to the student survey results, students reported an increase in understanding how course material connects with real-world and leadership skill development. Only two students had taken a course with a community-engagement project prior to this course and more than half would recommend this project experience to a friend.

Community projects also caused 90% of the students surveyed to consider how to use more equitable or fair practices in their own professions. Students reported that the projects illustrated how the knowledge and skills of the community members are valuable to their learning. All of the borough members surveyed agreed that the projects contributed to the goals of faculty and students. Examples included changing student attitudes toward sustainability and the borough providing local expertise to students.

**Community outcomes: Moving projects forward and building relationships**

Borough representatives reported several positive outcomes from student projects including: an increase in completed tasks and grant opportunities, expansion of project capacity, advancement in strategic priorities and students providing momentum to move dormant projects forward. All of those surveyed agreed that students shared new ideas. For instance, “I continue to see great value in working with students in terms of discovering new ideas and pushing forward projects that we have placed on the back burner due to lack of staff time.” Another reported: “I think the borough can achieve much more with the students help than not. I am also amazed at the good ideas that come from the students on otherwise routine projects.”

All of the borough members surveyed agreed that the time and energy invested in this collaboration with Penn State was worth the outcomes and 100% felt valued by the members of the university. Eighty percent also agreed that the partnership strengthened relationships between the university and community. For example, “staff at the borough continue to find value in the partnership, especially the help in setting up and developing new relationships with faculty.” All of the Borough members surveyed agreed that the students conducted themselves responsibly when working in the community and one commented that they were “very professional.” Finally, perceptions about how sustainability may be addressed in student curriculum changed: “It broadened my view of what kinds of courses could focus on sustainability. Now I believe that there could be sustainability aspects in all colleges and departments.”
Collaborative Assessment Results:
Fall 2013—Spring 2014

Jessica Arends, PhD
May 19, 2014

continued

Faculty outcomes: Increased research opportunities

Faculty reported several positive outcomes, such as opportunities for increasing student leadership, exposing students to sustainability issues, and applied learning. For example, the projects provided a “[g]reat opportunity to test theories, principles and concepts that I’m teaching in the classroom.” One unexpected learning outcome reported was the “importance of students being flexible when consulting with a client.”

Borough members also reported that projects helped to change faculty attitudes concerning sustainability. When asked if this partnership benefited faculty research goals, one faculty member responded yes by “networking with community members/partners.”

Areas of improvement:

Students asked that communications be strengthened with the borough in order to know more specific guidelines of the project. Students also wanted more timely feedback from the borough once work was produced. The most common suggestion for improvement from the borough was program expansion. One borough member commented: “The Penn State Sustainability Institute is a great group of people to work with. However, I would like to see more effort from the folks at the top and department heads help in finding projects. The number of projects is still far below the goals we have set.” Two borough members suggested developing projects to engage student more directly with community members. For example: “One major shortcoming of the program is that students can only partner with the Borough for a project. There are many ideas floating around the community that could be unlocked with the help of the SCC. However, because partnerships are only approved with the borough, if the borough does not have the capacity/place a priority on a community idea, it cannot be pursued through the partnership. Other ideas included expanding projects to include more faculty by having SCC “brought to the faculty senate to better find candidates.” Also, while 100% of the Borough members surveyed would choose to work with SCC again and 80% of Borough representatives recommended sister communities should be involved with SCC, one did comment that the “bugs still need to be worked out.”
Collaboration Conclusions

By Teresa Shupp
Former SCC Program Coordinator

The Sustainable Communities Collaborative (SCC) is an initiative of Penn State’s Sustainability Institute to facilitate sustainability-focused experiential learning opportunities for students in ways that create a win-win opportunity with community partners.

Our intention in the 2013-14 academic year was to identify a set of discreet projects each semester that could be addressed by students in conjunction with their coursework. We learned that, in addition to finding a second set of standalone projects for the second semester, we were able to build on several projects in the first semester through follow-on projects in the second semester. Another outcome from the pilot with the State College Borough has been the opening of a broader working relationship between the community and university. Conversations were convened this spring around deeper, longer-term questions, for example – “What does it take for our community to become “energy neutral”? What are the issues and opportunities to divert more of our waste from the landfills?” These deeper questions have opened the door for collaborations that involve multiple community partners and campus operations.

The State College Borough – Sustainable Communities Collaborative is a relationship that both partners are interested in continuing past the pilot year’s partnership. This desire to continue has led to an agreement to extend the partnership into the 2014-15 academic year, while exploring how to include a broader geographic representation in collaborations addressing larger regional issues.

Image: WPSU
Student Acknowledgements

LER 460 (Fall)
Tara Bendler
Matthew Body
Christopher Bowes
Tessa Capperella
Jessica Cooperstein-Kristen Cretella
Jesse Della Valle
Jaclyn Fiorelli
Bernard Heffern
Stacey Kim
Gregory LaFayette
Jamie Light
Melissa Lloyd
Emma Rung
Jazzmyne Sangster
Autumn Strausbaugh
Alan Swann
Emma Tabenkin
Christen Thomas
Jordan Thompson
Chelsea Varney
Jennifer Vieth
Olivia Washington
Hannah Zimmerman

Sustainable Asset Management
Jordan Schaeffer
Jacob Hauptman
Marc Elie-Louis
Yue (Karen) Mao
Siqin (Amy) Zhou

LARCH 431 (Fall)
Li Bai
Devon Beekler
Emily Carlson
Nicole Carros
LeQuan Clinton
Tyler Cromleigh
Erin Derocini
Jessica Fegly
Matthew Fichter
Eric Gabriel
Lacey Goldberg
Leah Grosso
Benjamin Johnson
Amanda Jones
Samuel Kim
Thomas Knab
Katie Kovalchik
Eric Lyons
Andrew Madl
Benjamin Mayer
Tara Mazurczyk
Colin Nahil
Patrick Nelligan
Katie O’Malley
Andrew Polonus
Emma Pritchet
Aaron Ramos
Vanessa Trovato
Boxia Wang
Jeffrey Wyman
Kyrie Yaccarino
Matt Yeager

LER 460 (Spring)
Megha Agrawal
Kelsey Aubert
Jeffrey Bonavita
Ashantiana Bowers
Walter Detreux
Megan Flaherty
Andrew Frankle
Kaylee Gangaware
James Gaughan
Craig Hennessey
Vladimir Khin
Porche Maloney
Rachel Martin
Victoria Maseda
Cecilia Morse
Hee Sung Park
Kelsey Reynolds
Thomas Rhattigan
Elyse Rider
Andrew Saba
Brandon Saunders
Mackenzie Scheier
Christen Sheroff
Corey Strouse
Kelsey Wetzel
Kaitlin Zeik

LARCH 424/LARCH 531 (Fall)
Moti Gurung
Amelia Whiting
Na Yang

CED 475 (Spring)
(Composting)
Bernadette Brogden
Ray Chappetta
Ana Maria
Greenberger
Cole Hepper
Nick Smith

LARCH 424/LARCH 513 (Fall)
(West End)
Jessica Lock
Lauren Stokes
Nasatran Tebyanian

BBH 416 (Fall)
Chelsey DuBois
Denise Hulefeld
Abraham Lee
Angela Vitelli
Kyla Wentz

CED 475 (Spring)
(Live & Work)
Danielle Brant
Rich Caprio
Emily Ishler
Dan Mount

PSYCH 490 (Spring)
Gabriell Abrams
Brandon Basile
James Brown
Brittany Corprew
Keef Davidson
Alexis Deminico
Jenna Ebert
Mohammed El-Farhan
Naomi Engelken
James Figas
Teri Herrig
Richard Holler
Glynn Hornberger
Seo Ra Kim
Kaitlyn Krysiak
Diana Langburd
Morgan Lingle
Jonathan Lorenzo
Margalini Meco
Sarah Miller
Vivek Mohan
Ah Hyun Moon
Silvia Oriani
Daniela Pazmino
Courtney Perloff
Jessica Ryan
Gamliel Sassoon
Lucia Sofo
Alexander Terenzi
Ilesha Torres
Key Roles

**Sustainability Collaborative Officials**
- Sustainability Institute Official: Denice Wardrop, Director
- Community Official: Thomas J. Fountaine, Borough Manager

**Collaborative Coordinators**
- Sustainability Communities Collaborative: Teresa Shupp, Program Coordinator
- Sustainability Communities Collaborative: Nancy Franklin, Community Engagement Scholar-in-Residence
- Community Sustainability Coordinator: Mr. Alan Sam, Environmental Coordinator/Arborist

**Collaborators**
- Community Collaborators
  - Clay Chiles, Americorps Volunteer
  - Ernest Dabiero, Director and Purchasing and Risk Management
  - Courney Hayden, Grants & Communication Coordinator
  - Amy Kerner, Borough Engineer
  - Anne Messner, Planner
  - Lauren Muther, Americorps Volunteer
  - Megan Tuttle, Planner
- Faculty Collaborators
  - Dr. Mallika Bose, LARCH 424 & LARCH 510
  - Ashley Citarella, CED 475
  - Dr. Ed Coulson, RM 450
  - Dr. Stuart Echols
  - Dr. Lori Francis, BBH 416
  - Dr. Tim Kelsey, CED 475
  - Dr. Tom Hogan, LER 460
  - Dr. John Spychalski
  - Dr. Janet Swim, PSYCH 490

Image: WPSU