Sustainability Implementation Plan Progress Report
September 2015
Cuyahoga Community College
The work described in this progress report highlights some of the efforts that have helped Tri-C make progress toward the goals from our Sustainability Plan through strategies identified in our Sustainability Implementation Plan of 2014 (SIP).

The SIP identifies 55 strategies, and as of the end of the 2015 fiscal year, progress has been made on 51 of these 55 strategies, with 35 of the 55 having made substantial progress or reached completion. At the start of the 2015 fiscal year, 37 strategies had made some progress and 24 had made substantial progress, so Tri-C is moving toward the Sustainability Plan’s goals by utilizing the strategies identified in the SIP.

Progress is broken out by goal category from Tri-C’s Sustainability Plan.
Colloquium Session
In January 2015, five professors participated in a panel discussion describing how they have incorporated sustainability in their curricula with over 20 other Tri-C faculty in attendance. The examples shared how sustainability was addressed in English, Mathematics, Visual Communication and Design, and Speech Communications and demonstrated that a subject does not need to have an obvious or scientific connection to sustainability to work effectively in a classroom. Several important connections between faculty were made as a result of the session.

Earth Day Events & Student Involvement
Events and presentations took place at several campuses in April in celebration of Earth Day. Honors Speech Communications students performed a reading of a sustainability-themed play written by a local playwright, Statistics students presented research projects on environmental statistics, a class played “Earth Day Jeopardy,” and several groups of students performed waste sorts to analyze waste that had been thrown in the trash to suggest ways to reduce waste and improve waste diversion.

In addition to student projects, presentations on the Sustainable Cleveland initiative, urban farming, and the environmental and health benefits of a vegetarian diet were brought to classes, and an Earth Day concert was held at the Western Campus.

Sustainability in Teaching Award
In partnership with Tri-C’s Leadership, Enrichment, and Development (LEAD) department, Tri-C Sustainability has created the Faculty Leadership in Sustainability Award, which is expected to be given out for the first time at the end of the spring semester in 2016. The Award will recognize Tri-C faculty (full time or part time) who have demonstrated leadership by incorporating sustainability in their curriculum and have helped Tri-C move toward achieving the College’s long-term academic and workforce training goals:

- Tri-C faculty and instructors will infuse sustainability literacy throughout the curriculum.
- Tri-C students will recognize and understand the basic concepts of sustainability and effectively communicate those concepts to others in the community.

The award will recognize and share faculty success in incorporating sustainability both within the Tri-C community and externally.
The Beneficial Impacts of RTA U-Pass on Student Commuting

Tri-C’s free RTA U-Pass program for paid, credit students resulted in significant positive impacts on how students commuted to Tri-C and on the environmental effects of these commutes in FY15. Results of a student commuting survey administered in fall 2014 compared to a similar survey in fall 2013 (before the RTA U-Pass program began) showed a substantial shift in results:

- 9% increase in the percentage of students responding that their primary mode of commuting was public transit.
- 1% increase in the percentage of students carpooling.
- 10% decrease in the percentage of students responding that they primarily drive to campus alone.

2013 Student Commuting Survey Results:
- 1,354 respondents:
  - Drive alone: 72%
  - Public transit: 18%
  - Carpool: 9%
  - Walk/Bike/Motorcycle: 1%

2014 Student Commuting Survey Results:
- 1,671 respondents:
  - Drive alone: 62%
  - Public transit: 27%
  - Carpool: 10%
  - Walk/Bike/Motorcycle: 1%

These changes result in an estimated annual total increase of student public transit ridership of over 3,000,000 passenger miles, meaningfully improving student accessibility to Tri-C by removing a financial barrier, and also significantly reducing environmental impacts of student commuting. Student commuting surveys will continue annually in fall semesters to provide ongoing data on student commuting preferences.
Greenhouse Gas Reduction
Cuyahoga Community College has been tracking annual greenhouse gas (GHG) emissions since the 2011 fiscal year to estimate and assess our College-wide operational impacts on the environment. Tri-C uses the Campus Carbon Calculator spreadsheet (a widely-used tool for colleges and universities) to estimate GHG generation based on inputs including: energy use; student, faculty, and staff commuting; solid waste generation; and paper purchasing, among others. GHG emissions are measured in “metric tons of carbon dioxide equivalent” (MTCO2e), the international standard for such measurements. Based on the time it takes to collect the data needed to calculate GHG emissions, the reporting time lags by several months after the fiscal year has ended and the information below is about FY14 GHG emissions.

Tri-C’s FY14 GHG total was 65,770 MTCO2e, down 1% from FY13 and down nearly 7% from the original FY11 total of 70,578 MTCO2e. This decrease in GHG output keeps the College on pace for meeting our long term goal of becoming carbon neutral by 2050. The most significant change leading to the FY14 reduction was the result of the RTA U-Pass program and the shift in student commuting from students driving to campus alone to using public transit more frequently, but the U-Pass program started in the Spring semester of 2014, so only part of the school year was affected. The GHG reduction from the RTA U-Pass was partially offset by a slight increase in energy use due in large part to the polar vortex and very cold winter of 2014.

Tri-C will continue to inventory GHG emissions annually to track our progress toward the carbon neutrality goal of 2050. The College recognizes that reaching true carbon neutrality will be a challenge, if not impossible given current technologies. However, we will continue to improve efficiencies and monitor ways to reduce environmental impacts while knowing some larger-scope societal changes will be a critical factor in allowing us to reach carbon neutrality.
Energy-Saving Upgrades Continue
Building on the success of Tri-C’s existing energy savings program, which has saved over $30 million in utility costs since 2000, the College entered into an agreement in FY15 to continue improving energy efficiency through additional lighting retrofits, building controls improvements, and building envelope repairs. Tri-C’s $7.6 million investment in additional energy control measures was financed at a low interest rate for 15 years, allowing the program to be cashflow positive starting in the first year and result in payback in less than 9 years. These efficiency improvements are expected to result in net energy savings of over $4 million over 15 years and significant reduction in electricity and natural gas use, which will also result in decreased GHG emissions.

Plant Operations staff work to ensure Tri-C’s facilities operate efficiently.

The solar electricity array at the Advanced Automotive Technology Center produces electricity and helps students connect with new technologies.

Information Technology Services has upgraded computer network equipment and improved energy efficiency.

The unique climate control system in Tri-C’s main data center takes advantage of outdoor air temperatures to improve energy efficiency and reduce cooling costs.
Recycling and Waste Reduction

**Improved Waste and Recycling Measurement and Diversion**
Data reporting from the College’s waste and recycling hauler (Kimble) has allowed Tri-C to save money by optimizing pickup schedules and has improved the ability to measure the amount of trash and recycling generated. Compared to the annual cost of the prior hauling contract, Tri-C was able to save over $15,000 in FY15 through improved waste diversion, fewer pickups, and by using more appropriately-sized dumpsters. Tri-C’s overall waste diversion rate increased to nearly 35% in FY15 from 31% in FY14. Two noteworthy successes for FY15 are highlighted below.

- Paper shredding and records recycling increased significantly. Tri-C shredded and recycled 145 tons of paper in FY15, a significant increase over the 75 – 80 tons that had been shredded and recycled annually in recent years.

- Food waste composting expanded to more locations through a new community partnership and a student-led effort. The Hospitality Management Center at Public Square is now composting food waste in partnership with Groundz Recycling, a non-profit organization that brings food waste producers and community gardens together for mutual benefit. Additionally, some composting is now taking place from the Western Campus Cafeteria kitchen as a result of a student project as part of the Robert L. Lewis Academy of Scholars. These new composting efforts build on the success of the Eastern Campus Hospitality Management and Plant Science and Landscape Technology composting partnership, and on the collection of prep waste from the Metro Campus cafeteria for composting with the Rid-All Green Partnership, an urban farm near the Metro Campus.
Ionized Water Cleaning Systems
Tri-C installed water ionizing systems at several campuses to replace a variety of cleaning products with solutions that clean and disinfect and only require water, salt, and electricity. Water electrolysis creates a cleaning solution and a one-step cleaner-disinfectant which can then be used for a variety of cleaning tasks. These solutions displace more traditional cleaning products and save money and reduce exposure to chemicals and fragrances found in some cleaning products. The shift to ionized water for cleaning builds on Tri-C’s commitment to move toward more environmentally healthy cleaning products that can clean as well as (or better than) the products they are replacing.

Building Services worker Cornell Murray with the ionized water treatment system at the Eastern Campus

A stormwater infiltration basin outside the Advanced Technology Training Center at Metro Campus allows rain water and melting snow to flow directly into the ground rather than burdening the sewer system. This is one example of many ways Tri-C handles stormwater on site at our campuses.

A rain garden outside the East Health Careers and Technology building is another example of on-site stormwater management.
Sustainable Procurement

Duplex Printing Results in Significant Savings of Paper (and Money)
Tri-C’s partnership with Xerox collects information on the number of pages printed or copied double-sided at central print/scan/fax stations. In FY15, over 5.5 million pages were printed double-sided, saving the same number of sheets of paper from being used if this printing had only been single sided. This represents an increase of the number of pages printed or copied double-sided of 28% over FY14, and equates to an avoided cost of over $43,000 for paper that did not need to be purchased.

In addition to monetary savings, there are significant resource savings resulting from using less paper. See the graphic below for resources saved as a result of this paper use reduction (resource savings calculated using the Environmental Paper Network’s Paper Calculator).

Overall Reduction in Paper Use in Fiscal Year 2015
As Cuyahoga Community College has rolled out an increasing number of tools and procedures to reduce printing, the quantity of paper ordered in FY15 fell by 16% compared to what was ordered in FY14 (over 3 million sheets of paper). Increased use of available technology by faculty, students, and staff has reduced the need for printing, and the previously mentioned increase in double-sided printing and copying has helped significantly reduce paper use as well.

In addition to Tri-C’s Information Technology Services department providing the means to save and distribute files electronically rather than through hard copies, several operational changes have contributed to the reduction in paper ordering. *My Tri-C Buy*, the College’s electronic procurement system, has shifted all purchasing approvals from paper to electronic, and invoices are now received and processed electronically rather than on paper. Adjunct faculty contracts are now all handled electronically rather than through multiple paper copies, and numerous other departments have found ways to reduce paper use. These changes, along with more academic resources going online have all contributed to Tri-C’s reduction in paper purchasing.
Communications and Community

Sustainability Outreach
With the help of Tri-C’s Integrated Communications department, a sustainability outreach campaign was created to recognize the work of departments and individuals helping move Tri-C toward our shared sustainability goals. The “I am Sustainable, Tri-C” campaign uses a template created as part of the City of Cleveland’s Sustainable Cleveland initiative and demonstrates how the College’s sustainability efforts are part of a larger citywide and regional push toward sustainability. Each poster includes a photo of an individual or group and describes how their actions are contributing to making the College and community more sustainable.

Tri-C has also produced a short video showing examples of sustainability efforts at Tri-C, including the people and departments behind these efforts, and why the work is important in helping Tri-C achieve its mission. The video will help introduce what sustainability means for Tri-C and give tangible examples of how work taking place in support of sustainability is helping Cuyahoga Community College continuously improve. Additionally, it is hoped the video will encourage more people from the Tri-C community to get involved in sustainability endeavors.
Sustainable Cleveland Involvement

Tri-C remains an active supporter of and participant in the City of Cleveland’s Sustainable Cleveland 2019 initiative. In the last year, the Mayor’s Office of Sustainability partnered with Tri-C’s Sustainability and Health and Wellness departments to present an overview of the Sustainable Cleveland initiative at all campuses, and Tri-C remained active in the Mayor’s Stewardship Council, on the Cleveland Climate Action Advisory Committee, and at the Sustainable Cleveland Summit. These connections help both Tri-C and the City of Cleveland work toward common sustainability goals and support each other’s unique programs.

A reading of a sustainability-themed play by Honors Speech Communications students from the Metro Campus in celebration of Earth Day 2015 was featured in a video produced by the Mayor’s Office of Sustainability highlighting how performing arts can contribute to sustainability. The playwright serves as the Arts and Culture Coordinator for the City of Cleveland, and the play featured information about sustainability work being done both at Tri-C and in the City of Cleveland.