



Arbor Day 2020

The EverGREEN Committee For Campus Sustainability *At Jefferson Community College*

2019-2020 Annual Report

9/1/2019 - 8/31/2020

Evergreen Committee Membership 2019- 2020

Bruce Alexander - Director of Facilities (Co-Chair)
 Dr. Chris Ebey - Assistant Professor of Geology (Co-Chair)
 Tina Bartlett-Bearup - Vice President of Administration Designee
 Linda Dittrich - AVP Math/Science Division
 Dr. Monica LeClerc - Professor of Biology
 Dr. Venkat Chebolu - Professor of Chemistry
 Peter Boenning - Associate Professor of Social Sciences
 Mindy Boenning - Empire State College
 Jessica Jones - Typist English Department
 Jessica Jones - Adjunct Instructor Lab Sciences
 Dr. Raymond Petersen - Professor of Political Science
 Michael Avery - Associate Professor of English
 Dr. Christine Grimes - Professor of English
 Julianna Eames - Gardening Volunteer (JCC Retiree)
 Sue Gwise - Cornell Cooperative Extension (at-large)
 Mike Lumbis - Community Forestry Representative (at-large)
 Mike DeMarco - City of Watertown Planner - Certified Arborist (at-large)
 Matt Lambert - Past Chairman (at-large)
 Josie Elie - Student Representative
 Serena Soldani - Student Representative

I EverGREEN Committee Mission

Mission: The EverGREEN Committee was established to provide the campus with programs, resources and information to help raise the awareness of the importance of sustainability in conserving and protecting the natural resources that our lives are dependent upon.

II Report Period Highlights

- JCC celebrated Earth Day and Arbor Day events in virtual format
- JCC also participated in the Daylight Hour and Campus Crunch
- The EverGREEN Committee's annual seedling sale was cancelled due to COVID 19
- The Pollinator Gardens were improved and expanded
- The campus hiking trails were repaired and upgraded (ongoing project)
- The Community Garden again donated over 150 pounds of produce to the Urban Mission
- The Campus Tree Management Plan was implemented - 147 man-hours were logged
- JCC activities were featured in the Winter 2019 Black River Newsletter

III EverGREEN Committee History - The President's Climate Commitment

During the winter of 2008, a JCC student named Rita Wooledge who was President of the ECOS club (Monica LeClerc served as ECOS Club Advisor), made an appointment to meet with President Carole McCoy. At that meeting she asked Dr. McCoy to sign the American College and University President's Climate Commitment.

<http://www.presidentsclimatecommitment.org/html/commitment.php>

Before making a decision about signing an unfamiliar document, President McCoy requested that volunteers from the campus community serve on a new committee tasked with examining the "array of environmental and climate issues important to the campus and community." Dr. McCoy appointed Monica LeClerc (ECOS Club Advisor and Professor of Biology) to be the chairperson, and the committee charge was to make recommendations that would help to shape the College's response to these challenges, to include guidance on signing the Presidents Climate Commitment.

The original committee members were: Mary Lou Bertrand (Business Faculty), Venkat Chebolu (Chemistry Faculty), Deb Felice (Phys. Ed. Faculty), Matt Lambert (Student Life Staff), Monica LeClerc (Biology Faculty), Todd Vincent (Biology Faculty), and Tom Vincent (IT Staff), and Kerry Young (Administrative Assistant to the Dean of Administration)

The following year (2009-10), the EverGREEN Committee forwarded to the President its recommendation to sign the President's Climate Agreement. The logistics pertaining to the personnel and resources necessary for implementation were settled and President McCoy signed the Commitment on January 10, 2012.

American College and University President's Climate Commitment Excerpt:

"... We believe colleges and universities must exercise leadership in their communities and throughout society by modeling ways to minimize global warming emissions, and by providing the knowledge and the educated graduates to achieve climate neutrality. Campuses that address the climate challenge by reducing global warming emissions and by integrating sustainability into their curriculum will better serve their students and meet their social mandate to help create a thriving, ethical and civil society. These colleges and universities will be providing students with the knowledge and skills needed to address the critical, systemic challenges faced by the world in this new century and enable them to benefit from the economic opportunities that will arise as a result of solutions they develop."

IV Tree Campus USA

JCC was first recognized as a TREE Campus USA in 2012 under the direction of Emeritus Matt Lambert. The EverGREEN Committee members unanimously agreed to add the role of the TREE Campus USA Committee to its existing functions and that role has been maintained to the present time. A Tree Care Plan was developed in accordance with Tree Campus USA guidelines and implemented. The plan was updated in 2017 and again in 2019. The College has worked closely with the City of Watertown, NYSDEC and other area groups involved with preserving local greenspace. The award of a NYSDEC Urban Forestry Grant significantly helped to improve tree management programs on the campus.

V EverGREEN Report 9/1/2019 - 8/31/2020

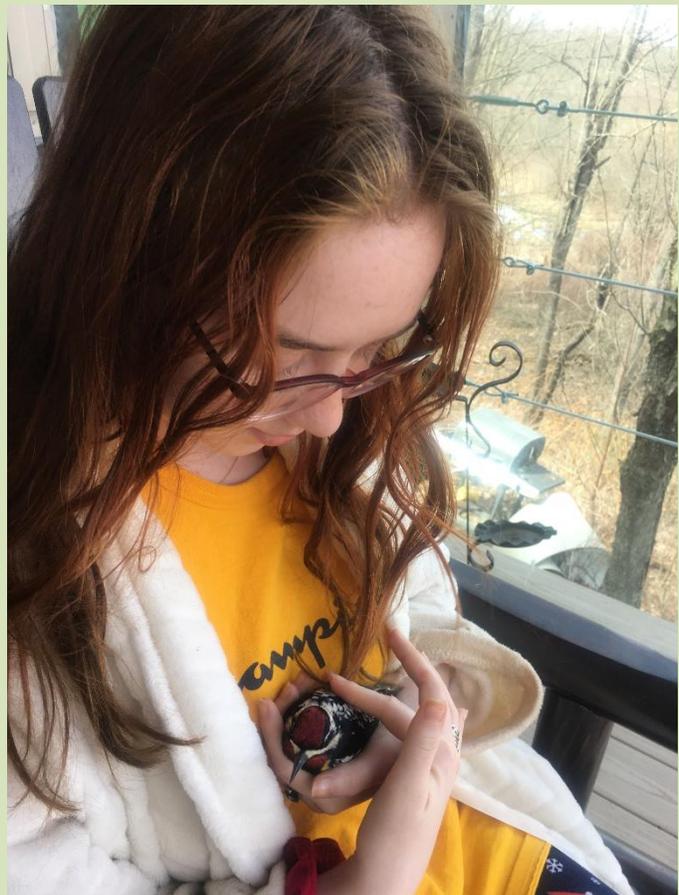
The JCC Evergreen Committee was again busy during the year despite the negative influence of the COVID 19 pandemic. Earth Week and Arbor Day activities were curtailed but the annual trail cleanup and a ceremonial tree planting were performed by Facilities Staff and shared virtually with the campus community. Other activities included improvements to the pollinator gardens, a virtual Campus Crunch, Daylight Hour and harvesting the JCC Community Garden.

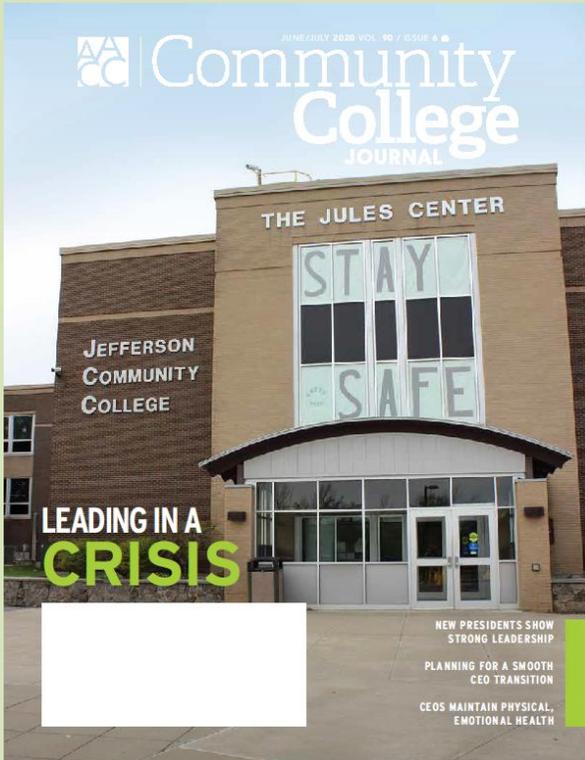
Earth Week 2020

Most 2020 activities had to be cancelled due to the COVID 19 pandemic. A virtual event was held with links to many local and national sites. Students were encouraged to submit their own personal ideas and notes. Rebekah Widrick from Dr. Ebey's Honors course virtually encouraged students and faculty to take some time and purge their closets. "Donating one large bag of clothing has a very positive impact on the environment. Clothing donations reduce the amount of clothes that go to landfills and saves water! Here's an article that explains how!"

<https://www.bankvogue.com/environmental-benefits-donating-clothing-something-good-others-environment/>

Student Megan Payne submitted this photo and description of her Earth Week highlight event. ".... I live deep in the woods so there's always lots of little critters around. This bird was on my porch when I came outside to sit down and he just let me pick him up and sat on my lap for a while, climbed up on my shoulder and then onto the posts before he flew off! (I named him Timothy)...."





Facilities Staff performed the annual campus trail cleanup (above) and planted a tree on Arbor day. (cover photo) The national magazine *Community College Journal* featured JCC's Earth Week message on the cover of the June/July issue. (above)

Urban and Community Forest Grant Update

Jefferson Community College Tree inventory 2019



Work on the Community Forest Grant began in the summer of 2019. A total of 1,497 trees were located, identified, tagged, assessed and inventoried. JCC Facilities Staff assisted the arborist with this work. Over 20 trees classified as immediate hazards were removed by JCC Staff or by outside contractors. In the Spring of 2020 the Campus Tree Management Plan was implemented.

The goal of this project is to provide long term guidance that will foster a safe and beautiful campus for years to come, enhance local greenspaces and align JCC tree management with other area tree management efforts.

During the course of 2019-2020 JCC staff logged 147 man-hours in tree care work. The dollar value of this in-kind service amounted to over \$4,600. (Tree management worklist attached)

Emerald Ash Borer

9-22-20 EverGREEN News

“... The Emerald Ash Borer (EAB) beetle has been found on the JCC Campus. This is an invasive species pest that kills Ash trees once they are infested. The dying trees are a safety hazard when the trunk becomes weakened to so the College has begun removing affected trees in high use areas. Unfortunately, there are 180 Ash trees on our campus that will eventually need to be taken down. The Campus has an Urban Forest Management Plan in place and will be using that document for guidance on removal, treatment and replacement options however current budget constraints will preclude any actions except in-house staff performing removals. JCC is working with NYSDEC, Jefferson County Highway, National Grid and the City of Watertown to coordinate these efforts....”



On the good side the new management plan includes options and cost estimates for JCC to best deal with the impending threat. Affected Ash trees in high risk areas are being removed by the Facilities Department as they are identified. Financial concerns resulting from the current pandemic have limited any other immediate responses but budget planning over the next few years will take this need into consideration.

The Tree Management Plan identifies four options to deal with the EAB problem:

1. Do nothing and let nature take its course: This option would allow the infestation to take hold in the ash trees in the urban forest, killing the majority of them within 2-3 years. This option will result in considerable danger as dead trees become present in the landscape and present safety concerns, leading to possible damages and more difficult removal down the road.
2. Removal of all ash trees: The option to remove and replace all ash trees within campus property would remove all public safety concern regarding the EAB, however this option is the most expensive of the three, and losses to the landscape would take a significant period of time to recover. Removal of all 192 trees would also be a substantial investment in the short term. The total cost of this project is approximated to be \$118,986.00.

3. Treatment of all ash Trees: The treatment of all Ash trees will stabilize trees that are currently in good health, however the treatment of trees with low health condition may yield unsuccessful results. This option is less expensive within the six-year treatment period of this plan, however continued treatment may be required after that time. The cost of treating all Ash trees on campus is approximately \$79,035.00 for six years.

4. Combination Approach: This option allows for a combination of management practices to be utilized in preparing for and dealing with EAB. This approach attempts to strike a balance between cost, workload, and forest cover / Tree benefits. Trees of low condition and small size are marked for removal due to uncertainty in treatment successfulness. Mature and healthy Ash trees (Excellent or Good condition) were selected from within the Main campus and Campus Drive strata to serve as the population best suited from continual pesticide treatment. 61 trees were selected for this group, leaving 131 Ash trees that would be marked for removal. The cost of this measure is estimated at \$105,603.00. (From JCC Management Plan 11-22-2019)

Community Garden

In 2020 faculty and staff planted and maintained the JCC Community Garden. It was a great growing season with over 150 pounds of produce again donated to the local Urban Mission. A special thanks to Julianna Eames, Joel McCune and Rich Peebles for their work on this project.



Urban Mission Donations 2020

Community Garden with Pollinator Friendly Border



Pollinator Gardens

JCC now has a total of seven pollinator gardens. These were improved during the year and informational signage was installed. A species plan map was installed at the central garden to show the various plant species and to be used as an interactive learning station. The campus "Pollinator Pathway" is slowly being built. The GIGP project will include additional pollinator friendly plantings along the roadways and in the new bio-swales. JCC Pollinator Gardens were featured in the Cornell Cooperative Extension Horticultural Newsletter of March/April 2020.



New Signage at the Central Pollinator Garden featuring detailed information on the Native Plant Species

New Signage at the Building 5 Pollinator Garden



Trash Bash 2020

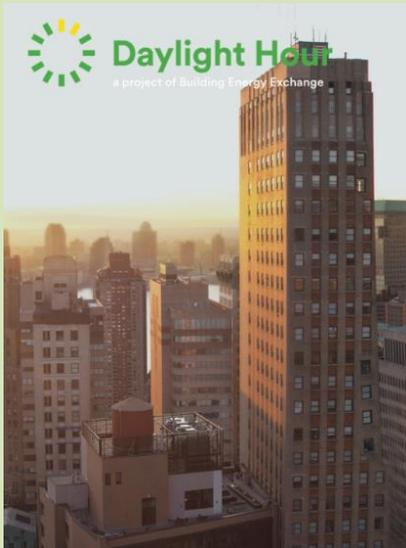
The 2020 Black River Trash Bash cleanup was cancelled due to COVID 19. Teaching is mainly on-line so student participation was not possible.

Campus Crunch 2020

The 2020 Campus Crunch was cancelled due to COVID 19 health and safety concerns. JCC participated in a “virtual” Campus Crunch with SUNY Albany on October 23rd 2020.

Solar Power for JCC - 2020 Update

In 2015 JCC entered into a consortium agreement through Jefferson-Lewis BOCES to purchase solar energy. The ground-breaking for the first array took place in 2016 and construction started in October of 2017. This was a significant step for the College with potential to save on energy costs and, just as important, help reduce the campus’ overall carbon footprint. In 2019-2020 JCC’s share of the solar power was 232,681 KW or approximately 7.0% of use on the main campus, an improvement over last year. Further arrays are in the planning process. This is a significant step for JCC towards meeting SUNY Energy reduction goals.



Daylight Hour 2020

On June 22 2020 JCC again participated in the annual “Daylight Hour. City and State offices as well as private sector offices around the globe participate by turning the lights off in their day-lit offices and posting pictures of the spaces to social media.

Reducing the lighting load during peak periods significantly reduces carbon emissions. At the same time, day-lit spaces are often the most pleasant to spend time in, and studies suggest these spaces promote our health and wellbeing, improve productivity and reduce absenteeism.

The global social media campaign by the Building Energy Exchange to promote the energy, cost and health benefits of using daylight instead of electric lighting in commercial office spaces is the type of activity that fits well with the EverGREEN Committee’s mission.

REV Energy Grant Update

In 2017 JCC was awarded a grant from NYSERDA as part of Governor Cuomo’s “Reforming the Energy Vision” (REV) Campus Challenge program. This is a strategy to build a clean, resilient, and affordable energy system for all New Yorkers. The REV Campus Challenge recognizes achievements among institutions of higher education and enables exchange of best practices and lessons learned. The REV Campus Challenge aims to help colleges and universities meet their financial, environmental, academic, and community goals through clean energy solutions that also help scale up total clean energy use in New York State. JCC received \$52,528.00 to provide the campus with technical assistance. The final report was submitted to NYSERDA in May of 2019. Many items were identified on campus that will help provide energy cost-reduction measures in the future. These were used as the basis for a subsequent grant to hire an “On-site Energy Manager” (OSEM) from NYSERDA.

Energy CAP

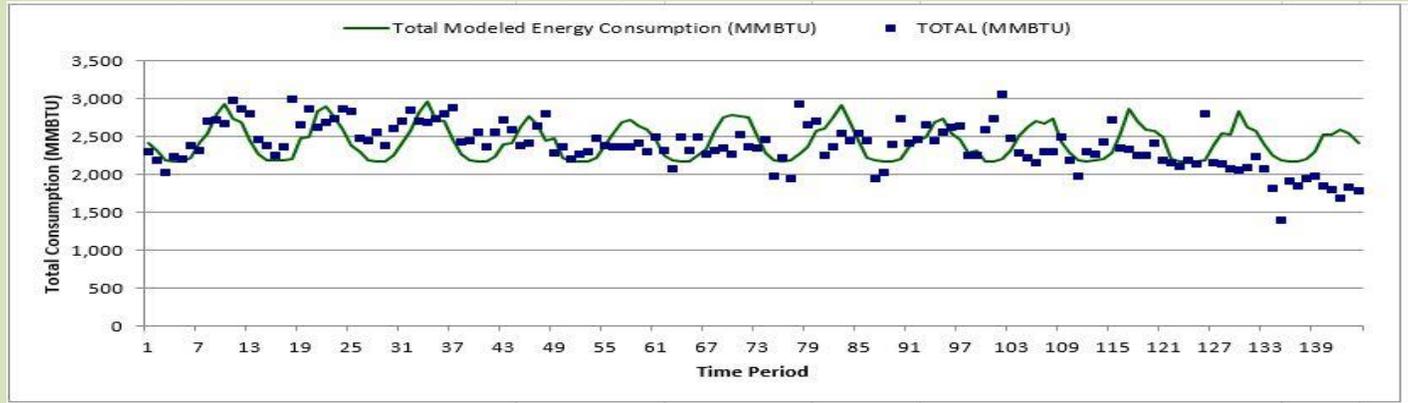
In 2019 JCC began participating in the SUNY Energy CAP program. This program recently became available to Community Colleges and JCC is one of the first to subscribe. This became possible when the SUNY Chancellor requested the Energy Office to provide usage and cost statistics for Community Colleges. EnergyCAP software was already utilized by the State Operated Campus’ for cost/use tracking and there were no additional costs \$\$ to Community Colleges to take advantage of all the features within EnergyCAP. JCC provides monthly total commodity usage and cost data to the Energy Office. EnergyCAP serves as the hub for Campus vendor, utility, and facility data and JCC now has the benefit of a new software with powerful analysis and reporting functions that benefit building operations, energy management and sustainability, as well as accounting. The program is currently up and running with all JCC utilities being tracked on a monthly basis.

NYSERDA On-site Energy Manager Program

In January of 2019 JCC received a NYSERDA grant for an On-site Energy Manager (OsEM) program. This project was initiated to continue the work started in the NYSERDA REV Grant that provided an energy study of campus facilities. JCC does not currently have a dedicated energy manager position and uses outside consultants, Trane Inc. and A&E firms to provide guidance on energy savings projects. The college does has a service contract with Trane and relies on their technicians to monitor and provide general oversight as to how the systems are running. Due to staffing and budgetary realities there has been a lack of time to drill down to the micro-level in running the building systems at JCC. The

Energy Savings Results

The energy use data from the project was evaluated by the Trane Energy Group. The results from FY 18-19 vs. FY19-20 showed an overall (electric and natural gas) improvement of 14.81% using the ENPI EXCEL application for utility regression analysis. This is twice the original project goal of a 7% reduction.



Greenhouse Gas Mitigation

JCC is a signatory of the American College and University Presidents Climate Commitment and has a goal of eventually achieving a “net-zero” campus. CO₂ emissions are tracked annually. In 2018 Scope 1 Emissions (Natural Gas) were 658 MTCO₂e and Scope 2 Emissions (Electricity) were 483 MTCO₂e for a total of 1,173 MTCO₂e. This project mitigated 271 MTCO₂e, a 23% reduction for Scopes 1 and 2.

Financial Savings Results

A straight line comparison shows an estimated overall yearly savings of \$68,782.42 from FY 18-19 to FY 19-20. This is a 28 % reduction in direct operating expense. The cost/payback analysis showed that the \$58,948 OsEM cost measured against the savings achieved resulted in a ten-month payback.

Summary

The NYSERDA OsEM Grant for Jefferson Community College was an unqualified success from energy reduction, greenhouse gas mitigation and cost savings standpoints. Over 1,300 man-hours were invested over the 1-year course of the project. The overall results exceeded project goals. The results are easily measurable, verifiable and the methodology used is easily transferrable to other institutions. All reports and supporting data are available to the public upon request. Funding from NYSERDA and technical input from Trane Energy were critical to this project’s success.

Greenhouse Gas Reporting

JCC reached a significant milestone in greenhouse gas emissions reduction during 2019-2020. The College reduced its measurable (Scopes 1 and 2) GHG discharges by 41%, and estimated (scope 3) by 31% for a total net reduction of 22%. This exceeds the goal 14% five years sooner than anticipated! The summary information from the 2019 American College and University Presidents Climate Commitment (ACUPCC) report is shown below.

Percent Change in Greenhouse Gas Emissions 2019 vs. Baseline 2011 and Emission Reduction Target Goals

	TOTAL SCOPE 1	TOTAL SCOPE 2	TOTAL SCOPE 3	TOTAL SCOPE 1 & 2	TOTAL SCOPE 1, 2, & 3	TOTAL NET
CHANGE IN EMISSIONS PER 1,000 SQ. FT.	↓ 21.46%	↓ 64.68%	↓ 26.30%	↓ 41.26%	↓ 31.52%	↓ 22.08%
PER FULLTIME ENROLLMENT	↓ 0.11%	↓ 55.08%	↓ 6.26%	↓ 25.29%	↓ 12.90%	↓ 22.26%

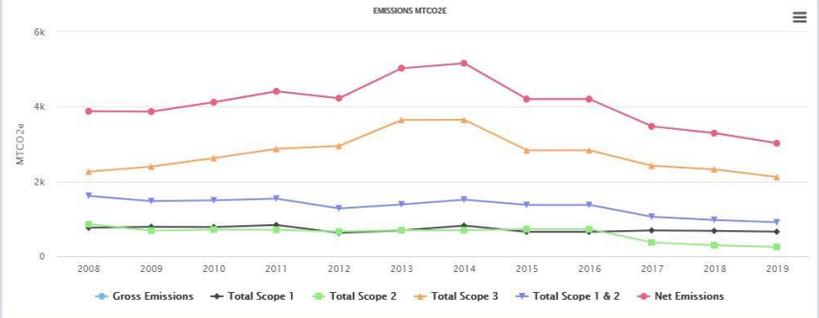
EMISSION REDUCTION TARGETS 14% by 2025

Institutional Information

SIGN DATE
Jan 12, 2012
PRESIDENT
Ty A Stone
IMPLEMENTATION LIAISON
Daniel Dupee
SUSTAINABILITY WEBSITE
[Link](#)



Emissions over Time



Select Data Series: Emissions MTCO2e LINE/BAR

Membership - Ratings

STARS RATING GRITS SEED

Dues

Reports

This result was “... achieved by improved energy management strategies, participating in the BOCES solar consortium, buying renewable energy credits through the SUNY Energy Buying Group, NYSERDA Grants, education and outreach, capital projects and the work of the JCC EverGREEN committee!”**

“I am so proud of this College for achieving a steep reduction in the College’s carbon footprint,” says Ty A. Stone, President. “When we work together to achieve a common goal, we all learn along the way and we all win.” **

** Quotes excerpted from a JCC News Release of June 16, 2020

Institutional Support

It should again be noted that College Administration continues to be very supportive of the EverGREEN activities and the Tree Campus program. As with many institutions, JCC is experiencing budget concerns due to decreased enrollment and the COVID 19 Pandemic. Finding funds remove and replant trees and continue to upgrade campus green space will again be challenging in the upcoming year.

Respectfully Submitted:
Bruce Alexander - EverGREEN Committee Co-Chair
Chris Ebey - EverGREEN Committee Co-Chair
11/02/2020