

# SUSTAINABILITY PLAN

2019-2021

## COLLEGE OF LAKE COUNTY



OCTOBER 23, 2018  
COLLEGE OF LAKE COUNTY

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Solar PV Panels on Science Building



Arbor Day Tree Planting 2018

## Message from the President

*The College of Lake County (CLC) is deeply committed to helping students succeed academically, in the workforce, and as responsible citizens. CLC is also committed to sustainability as it intersects with each of these spheres of student success. CLC has set an ambitious plan to move forward as a leader for sustainability in higher education and “providing students with the knowledge and skills needed to address the critical, systemic challenges faced by the world” (American College and University Presidents’ Climate Commitment).*

*The College of Lake County’s Sustainability Plan unites its commitment to natural resources, learning, and community engagement. The Plan calls for the implementation of new technologies to minimize the impact of college operations on natural resources. The Plan also promotes learning outcomes in the curriculum equipping CLC students to actively engage in today’s green economy. Additionally, the college wholly owns its community responsibility by serving as a “living laboratory” for sustainability with sustainable buildings and operations that in turn provide applied learning opportunities. The Sustainability Plan comprises the priorities and action items for continual improvement and innovation toward a sustainable campus, curriculum, and community.*

*The College of Lake County has many sustainability accomplishments of which to be proud. CLC was rated as number eight among associate’s level colleges by the Association for the Advancement of Sustainability in Higher Education in 2017, based on its Silver Rating (2017) from STARS (Sustainability Tracking, Assessment and Rating System). CLC also received an Emerald Award (2017) from the Illinois Chapter of the USGBC, the Green Genome Award (2016), a Gold level award (2014) from the Illinois Campus Sustainability Compact, and Charter Participation (2015) in the Second Nature Climate Commitment. In spring 2018, CLC also became a member of both Bee Campus USA and Tree Campus USA. Finally, CLC was a founding member and administrative agent of the Illinois Green Economy Network (IGEN), a consortium of Illinois community colleges working together to share resources, common experiences and best practices to help grow the new green economy. IGEN helps colleges such as CLC to improve resource management on campus, develop new green job training and educational programs, and collaborate with partners in the community and across the state. These forms of recognition and engagement at the local, state, and national level position CLC as a sustainability leader in higher education and in the community.*

*CLC will continue to integrate social, economic, and environmental sustainability into its daily operations. To ensure institutional impact, CLC remains committed to dedicating resources its sustainability efforts. By putting its Sustainability Plan into action, CLC will promote sustainable practices and transform the communities it serves.*

*Sincerely,*

*Lori Suddick, Ed.D.  
President*

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## I. Overview

The College of Lake County Sustainability Plan establishes an ambitious agenda for the college to be a leader for sustainability in higher education. The Climate Action Plan sets goals for reducing our carbon emissions on the way to carbon neutrality. This Sustainability Plan combines the aspirations of our Climate Action Plan with the goals for integrating sustainability into the daily operations across the three campuses, throughout curriculum development and across community relations.

The definition of “sustainability” is borrowed from the UN Brundtland Commission: “meet[ing] the needs of the present without compromising the ability of future generations to meet their own needs.” (1987)

Sustainability is referred to an “area of strength” at the College of Lake County in Goal 3 of the Strategic Plan, along with diversity, wellness, and global engagement. At CLC, sustainability supports our mission statement to deliver “high quality, accessible learning opportunities to advance student success and strengthen the diverse communities we serve.” Sustainability translates into student success, by exposing students to state-of-the-art green technologies, engaging students in critical thinking exercises, preparing students for careers in a changing economy. Indeed CLC considers its campus as a living laboratory.

Given that our changing climate is understood to be the greatest challenge of our time, CLC is committed to doing its part to reduce its carbon emissions and prepare for more extreme climate events. Climate action leadership has many other benefits to the institution. CLC signed American College and University Presidents’ Climate Commitment in 2009 and reaffirmed that with the renamed Second Nature Climate Commitment in 2015, “that exerting leadership in addressing climate change will reduce our long-term energy costs and the costs of climate disturbance, increase our quality of life, attract excellent students and faculty, and build the support of alumni and local communities.”

The College of Lake County has worked with institutions such as Second Nature, the Association for the Advancement of Sustainability in Higher Education (AASHE), and the American Association for Community Colleges (AACC) to seek technical assistance in the development of its Sustainability Plan and to facilitate benchmarking of its progress. See Appendix B for more information.

CLC’s mission, areas of excellence and Sustainability Plan each support efforts not only across the state and the US, but also the 17 Sustainable Development Goals (SDGs) of the United Nations. The UN Sustainable Development Goals mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind. While CLC has not formally signed onto the SDG Accord AASHE and other networks have, and the opportunity to do so remains. See Appendix C.

### A. Sustainability in Action

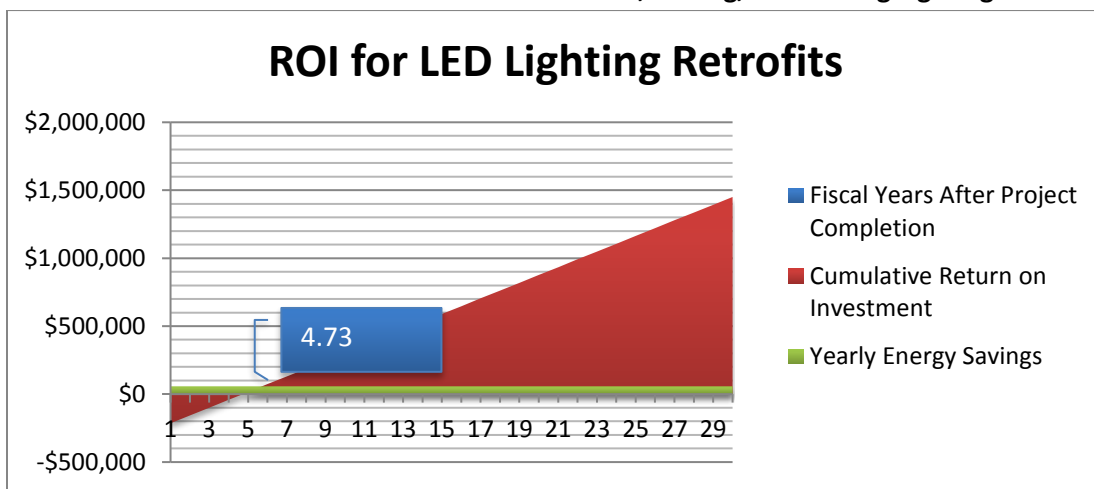
The College of Lake County has made great progress since issuing its first Sustainability Plan and Climate Action Plan in 2012. In the opening message, Dr. Suddick identified the string of awards recognizing the college’s success in implementing the Plan, including our national ranking on the 2017 AASHE Campus Sustainability Index.

Several of the most dramatic achievements are just coming online with the building out of the Sustainable Master Plan. Café Willow and the renovated campus core on the Grayslake Campus opened in 2016, heated and cooled by the geothermal heat exchange system. The newly opened Science Building in the A Wing is designed to USGBC LEED Platinum standards. In 2017, CLC received an Emerald Award from the Illinois Chapter of the USGBC for green building innovation design for the Science Building. The C Wing re-opened in fall 2017 and the L Wing is due to re-open in fall 2018, each with geothermal HVAC systems.

CLC received special recognition in the AASHE Campus Sustainability Index 2017 publication for its Campus Farm. CLC's Campus Farm offers fields for growing vegetables and herbs, two hoopouses for season extension growing, and an apiary with 4-8 beehives. CLC's food service vendor contracts with the campus farm to purchase produce and honey. Honey from CLC's apiary is also available for sale in the Lancer Zone bookstore. Foodscraps and coffee grounds are collected and composted at the farm, reducing waste and recycling nutrients into the farm fields. CLC is closing the loop in the food cycle of production, preparation, consumption, and disposal with the recycling of nutrients.

The graph below displays one of the most dramatic financial returns on investment for a sustainability initiative that reduces energy use and saves operating expenses. The combined initial cost of current and planned exterior, L-Wing and E-Wing LED lighting retrofit projects is approximately \$271,661.14. These new LED fixtures would provide a total yearly energy cost savings of \$57,402.95. Assuming all projects were completed at the same time, the time until the energy savings pay off the initial investment would be 4.7 years. At the end of a 30-year time frame, these projects would provide an estimated return of \$1,450,000 the form of energy savings.

**Figure 1.1: 30-Year Return on Investment for LED Exterior, L-Wing, and E-Wing Lighting Retrofits**



The 2012 Sustainable Master Plan provides a construction plan to renovate and expand facilities on the three campuses through 2018. The Master Plan is currently being updated to set future goals to continue improvements to infrastructure and operations. These improvements will address many of the priorities and action items identified in the Sustainability Plan such as building energy efficiency, renewable energy systems, landscaping and ecological management of natural areas.



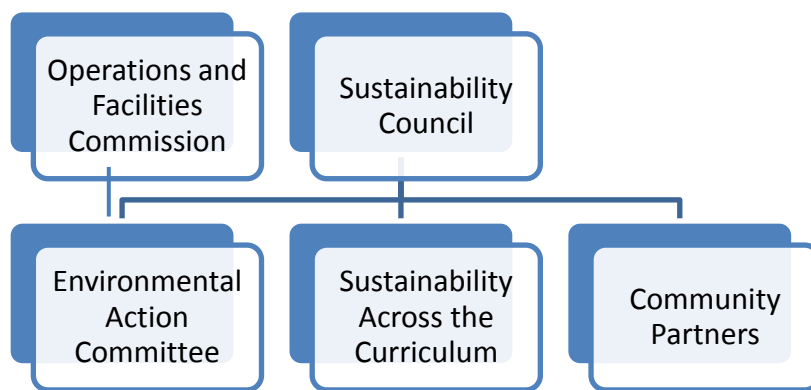
Savings from infrastructure improvements and efficiencies are being captured in CLC’s Green Fund. The Green Fund was established by the Board of Trustees in the fall 2018. The Green Fund captures not only energy savings with lower utility bills, but also rebates, grants, and monies from recycled metal materials. At the end of the 2017 calendar year, the Green Fund accumulated about \$650,000.

## B. Governance and Campus Culture

The college’s shared governance structure ensures that the perspectives of faculty, staff and students are represented in the development of initiatives that affect stakeholders in college community. The College of Lake County restructured its governance to include advisory councils which review initiatives in light of the college areas of excellence, including sustainability, diversity, and health and wellness. This integration of these areas of excellence into governance helps to keep sustainability as an important part of the college’s campus culture. A diagram of the entire governance structure is included in the appendix.

The Sustainability Council is responsible for guiding sustainability initiatives across the college, including monitoring the activities of the Environmental Activities Committee, the Sustainability Across the Curriculum work group and the Community Partners. These three groups are tasked with helping the college to pursue goals in the Greening our Campus, Greening our Curriculum, and Greening our Community sections of the Sustainability Plan.

**Figure 1.2: Sustainability within CLC’s Governance System**



The Environmental Action Committee (EAC) reports both to the Sustainability Council and the Operations and Facilities Commission (OFC). Any projects which impact the campus buildings or grounds must be approved by the OFC.

The Sustainability Across the Curriculum group provides training and resources for faculty to incorporate sustainability into different disciplines, across various departments. Sustainability Across the Curriculum reports to the Sustainability Council. See the section below for more information.

The Community Partners for Sustainability in Lake County meets four times a year at the College of Lake County to network and to collaborate in developing regional sustainability and resilience initiatives. Community Partners reports updates to the Sustainability Council.

### C. Sustainability in the Curriculum

The College of Lake County is committed to providing its students with exceptional learning experiences that prepare them for a successful future. Sustainability on campus and in the curriculum helps prepare students to be adaptive and find productive careers in a changing world.

The College of Lake County completed two Academic Quality Improvement Projects (AQIPs) to study and encourage the infusion of sustainability into the curriculum. The 2016 AQIP evaluated existing elements of sustainability in the curriculum, as understood by faculty. The 2017 project evaluated opportunities to infuse sustainability further across the curriculum. Beginning in the 2018 academic year, the college is providing training opportunities for faculty to expand curricula to include sustainability concepts. Training, support and resources are being made available on an ongoing basis.

**Figure 1.3: Definitions for Courses with Sustainability Content and Focus**

<p><b>Courses with Sustainability Content</b></p>	<p>Courses which address topics related to the triple bottom line of environmental quality, social justice, and/or economic responsibility within the contest of that academic discipline</p>
<p><b>Courses with Sustainability Focus</b></p>	<p>Courses in which sustainability is a major theme of the course and involve an evaluation of various applications of the triple bottom line of environmental quality, social justice, and/or economic responsibility within that discipline</p>

Through participation in the Sustainability Tracking, Assessment and Rating System (STARS), CLC has identified courses with sustainability content and sustainability focus. Courses with sustainability content incorporate sustainability as a distinct component or module, or concentrate on a single sustainability principle or issue. Sustainability is a major theme of courses with sustainability focus, as they involve an evaluation of various applications of the triple bottom line of environmental quality, social justice, and/or economic responsibility within that discipline.

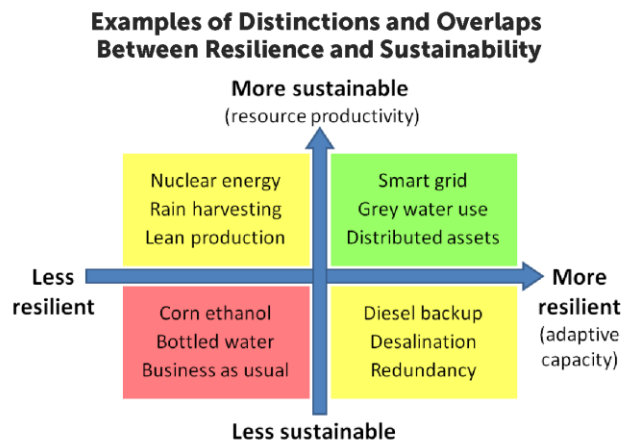
### D. The Living Laboratory

By integrating sustainability into the campus operations and the curriculum, the college becomes a living laboratory for sustainability. CLC is working to identify sustainable technology features and natural areas on campus with elements of wellness and link them together in a Living Lab Trail. The Trail will incorporate campus experiences into learning opportunities that support education, career development and benefit the community. The Living Lab Trail also provides an opportunity for CLC to demonstrate its areas of excellence, not only for current students, but also for younger students and community members. See Appendix D for a draft site map of the Living Lab Trail.

## E. Resilience

Having signed onto the Second Nature Climate Commitment in 2015, CLC has committed itself not only to reducing its carbon emissions but also to assessing and building resilience. The college is looking ahead, beyond reducing practices that contribute to a less prosperous future, on to increasing our capacity to operate in the face of a changing future. Second Nature describes resilience as “the ability of a system or community to survive disruption and to anticipate, adapt, and flourish in the face of change.” Resilience combines the efforts to mitigate our contributions to climate change with efforts to adapt and manage the consequences of our changing world.

**Figure 1.4 Resilience and Sustainability**



Reference:  
Fiksel, J Goodman I and Hecht, A. (2014) Resilience: Navigating Towards a Sustainable Future. Solutions, Vol 5, No 5, pp38-47

Resilience planning expands the scope beyond the campus and into the community, as the ability of a campus to adapt to disruption greatly depends on surrounding risks and resources in the community. Resilience planning involves assessments of strengths and weaknesses, anticipated future scenarios, and anticipation of future vulnerabilities, and pathways toward preferred scenarios. Goal 14 Resilience Planning falls within the Greening our Community section of goals within the Sustainability Plan.

## F. Planning Process

The Sustainability Plan and the Climate Action Plan were originally drafted separately in the 2012 academic year. The Sustainability Plan was renewed and implemented for the 2015-18 academic years. The Climate Action Plan is now being incorporated into the Sustainability Plan and the Annual Performance Reports, identifying strategies for and tracking progress in reducing greenhouse gas emissions.

Climate Action Plan goals for reducing greenhouse gas emissions (GHGs) are identified in Section II, while goals and action items for building and grounds operations and transportation that contribute to greenhouse gasses are developed under Section III. Sustainability Plan goals and action items are tracked annually in the Annual Performance Report.

The Sustainability Plan is revisited every three years by the staff, faculty, and students of the Environmental Action Committee (EAC) and the Sustainability Council. Goals from the Strategic Plan, Master Plan, and Climate Action Plan help to guide the development of the Sustainability Plan. CLC also seeks the input from the Community Partners for Sustainability, including local governmental, business, community, and educational leaders. After presentation to the President's Council, the Sustainability Plan and Performance reports are approved by the Board of Trustees.

The Annual Performance Report tracks progress being made for Section II and Section III goals and action items, with performance metrics results and additional narrative data. The results of the Performance Report are shared with the Sustainability Council, EAC, and the Operations and Facilities Commission (OFC), and Community Partners for Sustainability.

## II. Climate Action Plan

The College of Lake County (CLC) signed the American College and University Presidents' Climate Commitment (ACUPCC) in 2009, demonstrating CLC's commitment to reduce its carbon emissions. This commitment involves developing this Climate Action Plan (CAP) to layout action items leading toward climate neutrality. The College of Lake County's Climate Action Plan was first adopted on in spring 2012.

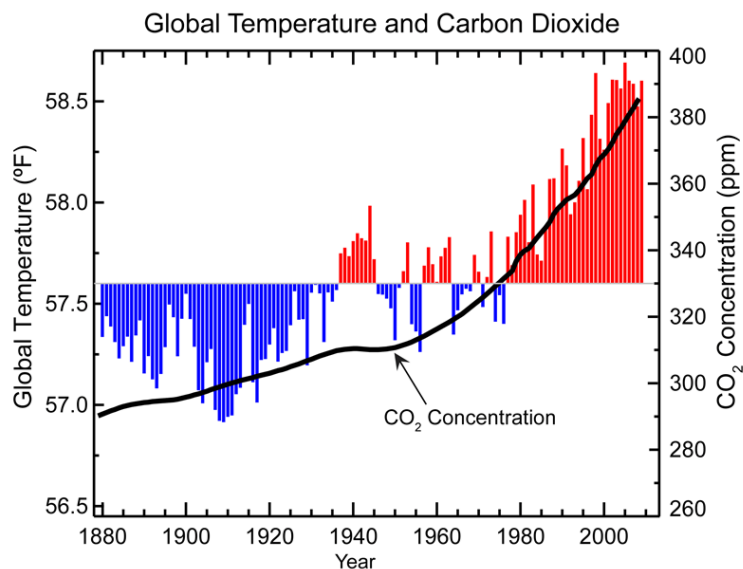
CLC's Climate Action Plan establishes intermediate goals reducing carbon emissions on the way to the ultimate goal of carbon neutrality by the year 2042. Section III: Sustainability Goals and Action Items identifies operational goals for reducing carbon emissions and increasing resilience to anticipated changes to climate. Section IV: Evaluation and Tracking sets the format measuring progress as reported in the Annual Performance Report.

### Climate Action

The need for climate action has become more apparent over the past decade. In the nine years since CLC has signed the ACUPCC, every year but one has ranked among the top ten hottest years on record.

In December 2016, the United States joined 197 nations in signing the Paris Agreement to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels. While the United States may withdraw from this agreement, American cities, states, and educational institutions continue working together to reduce carbon emissions.

**Figure 2.1: Global Temperatures and Atmospheric Carbon Dioxide Levels**



<https://www.ncdc.noaa.gov/monitoring-references/faq/indicators.php>

## Greenhouse Gas Inventory (GHG)

A greenhouse gas (GHG) inventory measures the amount of greenhouse (carbon) gases being released into the atmosphere as a result of the construction and operations of an institution. The most commonly measured greenhouse gases are carbon dioxide, methane, nitrous oxide and water vapor. GHG emissions are measured in three scopes, based on emission source, and then converted to metric tons of carbon dioxide equivalent (CO<sub>2</sub>e). The three scopes of greenhouse emissions identify the sources of the carbon emissions: first, those generated onsite; second, those generated offsite for use on campus; and third, those produced indirectly by those commuting to or from campus.

**Figure 2.2: Scopes of Greenhouse Gas Emissions**

Fiscal Year	Scope 1	Scope 2	Scope 3
Definition	Emissions generated on-site by burning of fossil fuels and use of chemicals	Emissions generated off-site and purchased for use by the college	Emissions generated by individuals commuting to and from campus
CLC Sources Measured	<ul style="list-style-type: none"> <li>• Natural gas</li> <li>• Gas &amp; diesel fleet</li> <li>• Refrigerants</li> <li>• Fertilizers</li> </ul>	<ul style="list-style-type: none"> <li>• Electricity</li> <li>• Paper purchased</li> </ul>	<ul style="list-style-type: none"> <li>• Full and part time faculty, staff, &amp; student commuting</li> </ul>
Method	<ul style="list-style-type: none"> <li>➤ Facilities metering</li> <li>➤ Natural gas budget</li> </ul>	<ul style="list-style-type: none"> <li>➤ Facilities metering</li> <li>➤ Purchasing bills and receipts</li> </ul>	<ul style="list-style-type: none"> <li>➤ Mass Transit Survey, Fall '09</li> <li>➤ IEPR survey '15</li> </ul>

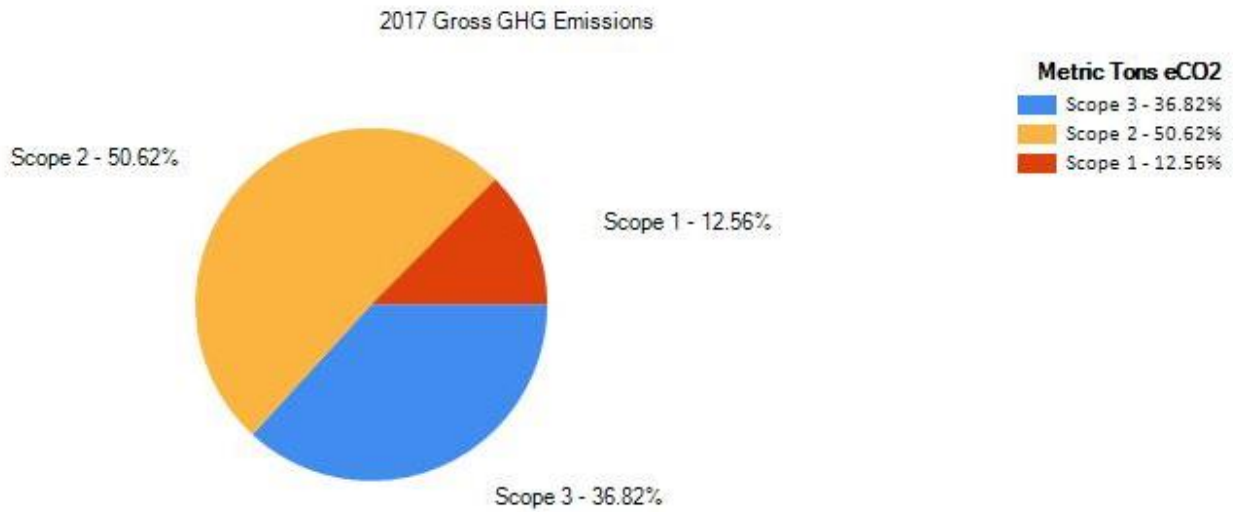
## Inventory of Greenhouse Gases

CLC develops its calculations using the Carbon Management and Analysis Platform (CarbonMAP) and previously the Clean Air–Cool Planet Campus Carbon Calculator. The six greenhouse gases specified by the Kyoto Protocol (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC and PFC, and SF<sub>6</sub>) are included in the assessment. The database was originally developed from the Intergovernmental Panel on Climate Change (IPCC, [www.ipcc.ch](http://www.ipcc.ch)) for national-level inventories and adapted the data for use at institutions of higher education.

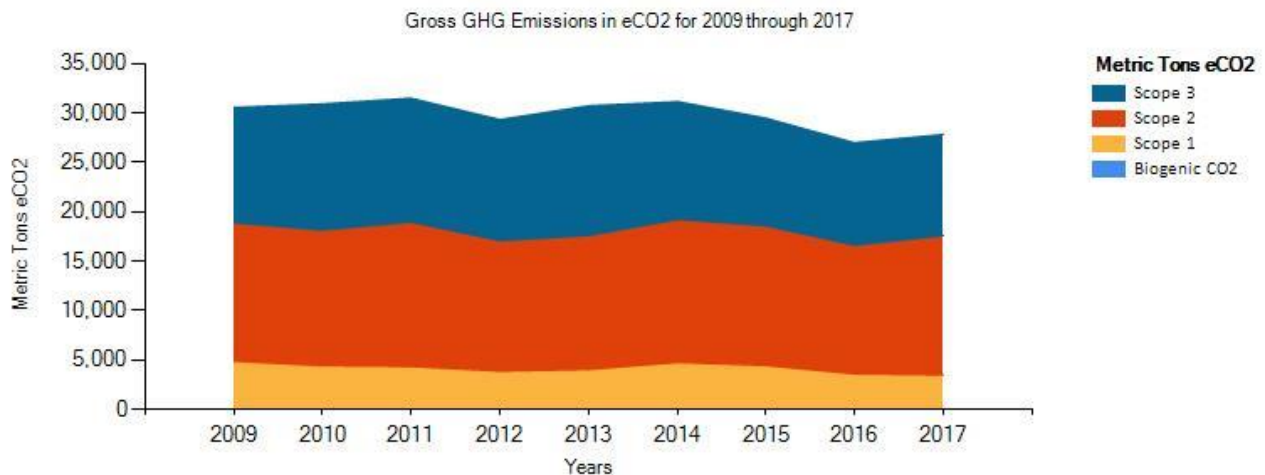
**Figure 2.3 Greenhouse Gas Emissions by Scope in Metric Tons of CO<sub>2</sub> Equivalent (MTCO<sub>2</sub>e)**

Fiscal Year	Scope 1	Scope 2	Scope 3	Total GHGs
<b>FY 2009</b>	4,871.30	14,029.97	11,678.95	30,580.21
<b>FY 2010</b>	4,434.26	13,715.23	12,779.69	30,929.18
<b>FY 2011</b>	4,340.82	14,627.06	12,545.94	31,513.82
<b>FY 2012</b>	3,871.41	13,207.34	12,268.91	29,347.66
<b>FT 2013</b>	4,044.70	13,563.13	13,133.49	30,741.31
<b>FY 2014</b>	4,762.04	14,478.03	11,919.62	31,159.69
<b>FY 2015</b>	4,452.90	14,151.20	10,902.46	29,506.55
<b>FY 2016</b>	3,599.04	13,026.07	10,383.72	27,008.83
<b>FY 2017</b>	3,496.39	14,092.25	10,250.84	27,839.48

**Figure 2.4: 2017 GHG Emissions by Scope**

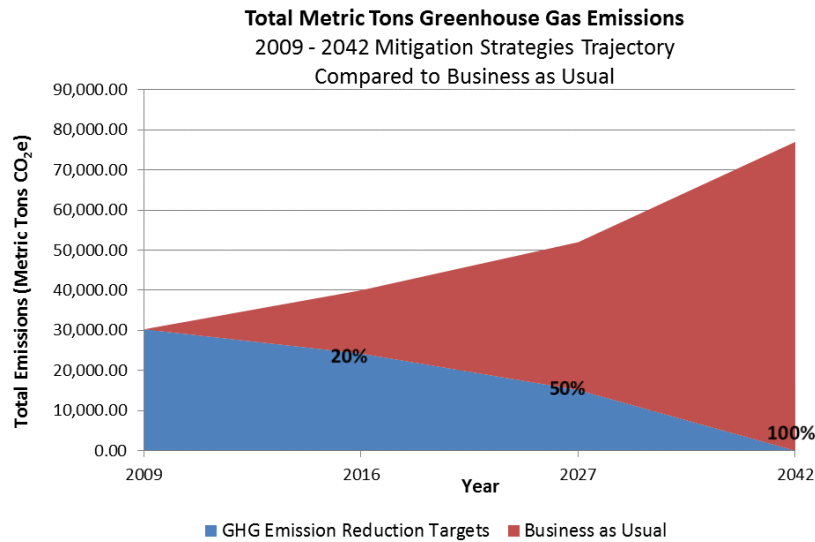


**Figure 2.5: CO<sub>2</sub> Emissions 2009-2017**



The CarbonMAP online tool also facilitates the calculation of project emissions into the future and produces charts and graphs illustrating changes and trends in college emissions over time. In the future, the Sustainability Indicator Management & Analysis Platform (SIMAP) will take over the primary GHG analysis tool.

Figure 2.6



### Goals for Mitigation of GHG Emissions

The assessment of the fiscal year 2009 greenhouse gas (GHG) emissions serves as the baseline calculation. The thirty year goal for carbon neutrality was formalized in 2012, hence the year 2042 is the year for 100% mitigation of GHGs. Figure 2.6 shows the progression originally anticipated for the college in meeting its long-term goals. CLC was able to drop its GHG emissions by 21.7% in FY16. With the continued upgrades in electronics and implementation of Master Plan technology, CLC should continue to lower its projected reduction in GHG emissions.

### Greenhouse Gas Emissions Mitigation Strategies

CLC has been actively pursuing strategies to reduce its greenhouse gas emissions. These strategies are identified in the Sustainability Plan under goals identified in the Greening our Campus section:

**Goal 2 – Buildings and Energy:** Minimize building energy consumption through conservation, efficiency and improvement measures

**Goal 3 – Dining Services:** Increase local and sustainable food options and improve food scrap collection in dining areas

**Goal 4 – Grounds:** Increase sustainable landscape, integrated pest management, and stormwater best management practices

**Goal 5 – Purchasing:** Encourage environmental and social considerations in purchasing and procurement procedures

**Goal 6 – Transportation:** Increase utilization of alternative transportation options

**Goal 7 – Waste:** Maximize waste diversion and resource recovery across campus

**Goal 8 – Water:** Improve water conservation within building operations, on campus grounds, and in the Lake County community

These goals are tracked annually to report progress in improving practices and reducing negative impacts on the environment, including greenhouse gas emissions.



These goals are also reflected in the building out of the 2012 Sustainable Master Plan. All major building renovations and construction are following a minimum of LEED Silver standard, as identified by the United States Green Building Council (USGBC). The renovation of the B and C wings, with the new campus core and Café Willow are expected to meet the LEED Silver standard of certification. The new chemistry lab addition to the Southlake Campus is expected to meet Silver level certification. The newly constructed Science Building (part of the A wing) is expected to meet LEED Platinum standards of certification. The planned Lakeshore Campus addition is expected to be constructed also at the Platinum level of certification.

### **Implementation Structure**

The college plans to implement its GHG mitigation strategies over the next thirty years, as new technologies and resources become available. The Sustainability Plan is monitored yearly and updated every three years, to reflect progress toward our sustainability and climate action goals. The sustainability manager will coordinate these efforts through the Sustainability Council and Environmental Action Committee, along with other campus stakeholders.

### III. Sustainability Goals

Section II. Sustainability Goals identifies four sections with thirteen separate aspirational goals to increase sustainability at the College of Lake County and the surrounding community. Action Items provide direction for achieving each goal. Each goal has a separate performance metric which will track and evaluate progress being made for each goal in the Annual Performance Report.

The Sustainability Plan goals identify aspirations that CLC has for improving its sustainability. These goals also help the college to report its progress through third party organizations. Goals are identified with symbols that correspond to the following reporting mechanisms including: AASHE STARS (\*), Second Nature Climate Commitment (^) and the AACC Green Genome tool (g). These organizations provide technical assistance for the college in meeting its own sustainability goals, while also providing a format for benchmarking our performance in relation to peer institutions across North America. See Appendix B for more information about these organizations and their benchmarking tools.

#### A. Sustainability Planning & Participation

Sustainability Planning and Administration covers the coordination of sustainability-related activities among the employees at the college.

**\* ^ g Goal 1 – Governance and Participation:** Improve employee engagement in sustainability governance and initiatives

**Action Item 1.1:** Support the Sustainability Council, Environmental Action Committee, and other governance entities in the development and implementation of sustainability initiatives

**Action Item 1.2:** Provide education and support for faculty and staff to participate in sustainable practices on campus and in the community

**Action Item 1.3:** Provide ongoing opportunities for staff and faculty to provide communication and feedback regarding sustainability opportunities and initiatives

**Performance Metric:** Increased staff and faculty participation in activities such as recycling and turning off unused electronic equipment



## B. Greening Our Campus

Greening Our Campus involves integration of sustainability principles and practices into all college operations including administrative decision-making, social responsibility, and facilities management.

\* **Goal 2 – Buildings and Energy:** Minimize energy consumption through building efficiency and the development of renewable energy resources, in support of Climate Action Plan goals for carbon neutrality

**Action Item 2.1:** Continue energy conservation through efficient scheduling with building systems controls and retro-commissioning of HVAC equipment

**Action Item 2.2:** Continue retrofitting of all lighting systems to energy efficient LED fixtures and expand use of occupancy and daylight sensors

**Action Item 2.3:** Expand the use of geothermal heat exchange systems through all of the main buildings across the Grayslake Campus

**Action Item 2.4:** Expand the use of solar photovoltaic energy systems on all three campuses

**Action Item 2.5:** Provide physical and virtual access to energy efficiency and renewable energy technologies to be used as models for community and curriculum demonstrations

**Action Item 2.6:** Support Green Building Guidelines, in compliance with Illinois law, requiring all new construction and renovation projects meet the equivalent LEED Silver standards

**Performance Metric:** Reduced MMBTUs of annual electricity and natural gas consumption

\* **Goal 3 – Dining Services:** Increase the sustainability of food operations on all three campuses

**Action Item 3.1:** Increase the amount of produce sold to Café Willow dining services from the campus farm and from other farms within 250 miles

**Action Item 3.2:** Increase the availability of certified organic, vegetarian, vegan and/or other healthy meal options for students and employees in Café Willow

**Action Item 3.3:** Evaluate and expand pre- and post-consumer food scrap composting in the café and for special events catering

**Action Item 3.4:** Promote the use of reusable food and beverage containers

**Action Item 3.5:** Promote awareness of the campus farm, apiary and farm market and the benefits of local and sustainable foods

**Performance Metric:** Increased quantities of locally grown food and vegetable-based entrees

**Performance Metric:** Increased percentage increase in food scraps diverted from the landfill for composting

\* **Goal 4 – Grounds:** Increase sustainable landscape, integrated pest management, and stormwater best management practices

**Action Item 4.1:** Develop and implement the Landscape Management Plan

**Action Item 4.2:** Evaluate levels of grounds department staffing, training, and assigned tasks to be able to carry out the Landscapes Management Plan

**Action Item 4.3:** Support the integrated pest management strategies employed across campus grounds and facilities

**Action Item 4.4:** Increase use of native plants and native plant gardens

**Action Item 4.5:** Reforest campus trees annually with species native to Lake County and hardy to local climate conditions

**Action Item 4.6:** Expand best management practices such as bioswales, rain gardens, pervious pavement, and rainwater catchment systems

**Action item 4.7:** Host monthly restoration work days to continue community involvement with the restoration process

**Action Item 4.8:** Continue ecological restoration of campus natural areas

**Action Item 4.9:** Develop a "Living Lab Trail" to educate visitors about sustainable features across the campuses

**Performance Metric:** Increased area of land managed for restored natural areas, native plantings, and best management practices

\* **Goal 5 – Purchasing:** Increase environmental and social considerations in purchasing and procurement procedures

**Action Item 5.1:** Implement policies for procurement and disposal of items that take into consideration environmental and human health impacts.

**Action Item 5.2:** Encourage life-cycle analyses for purchase of products that are reusable, have recycled-content, require less energy consumption, reduce waste, can be locally sourced, and have third-party certification of goods and services and for requests for quotation, proposals and bids.

**Action Item 5.3:** Adopt ENERGY STAR® purchasing standards for all new computer equipment, appliances and equipment

**Action Item 5.4:** Purchase cloud-computing products when possible to reduce the need for internal server equipment

**Action Item 5.5:** Implement smaller physical footprint devices such as “mini” form factor computers which reduce freight costs, generate less heat, and use less energy

**Action Item 5.6:** Evaluate and implement plans for the consolidation of many printers with shared multi-function print devices

**Action Item 5.7:** Prioritize goods and services in requests for quotation and proposals from companies that highlight their own sustainability efforts

**Action Item 5.8:** Prioritize purchase of supplies with Green Seal certification (or similar equivalent) and eliminate use of products that emit volatile organic compounds (VOCs) and/or other toxins

**Performance Metric:** Increased purchasing of sustainable products and services

\* **Goal 6 – Transportation:** Increase utilization of alternative modes of transportation

**Action Item 6.1:** Survey transportation choices made by students and faculty/staff every three years

**Action Item 6.2:** Increase awareness of alternative modes of transportation, including: walking, bicycling, public transport, car sharing programs, and low-emission vehicles and teleconferencing

**Action Item 6.3:** Work with Pace to negotiate reduced student rates for bus passes

**Action Item 6.4:** Purchase fuel efficient vehicles for the campus fleet

**Action Item 6.5:** Measure and mitigate emissions that result from business-related air travel

**Action Item 6.6:** Monitor existing and install additional electric vehicle charging stations

**Action Item 6.7:** Support efforts by Lake County and surrounding jurisdictions to connect bicycle/multi-use trails to CLC campuses

**Action Item 6.8:** Participate in a bike sharing program with local community entities

**Performance Metric:** Increased percentage of students and faculty/staff commuting by alternative modes of transportation

\* ^ **Goal 7 – Waste:** Maximize waste diversion and resource recovery across all three campuses

**Action Item 7.1:** Enhance education and awareness about resource recovery, through a comprehensive signage campaign and website information (all three campuses once every three years)

**Action Item 7.2:** Conduct annual audits of waste disposal across all three campuses, and report progress in reducing and diverting waste through recycling and compost disposal.

**Action Item 7.3:** Continue implementation of guidelines for reuse and recycling of construction and demolition (C&D) materials.

**Performance Metric:** Increased diversion of waste from landfills on all three campuses

\* ^ **Goal 8 – Water:** Improve water conservation across all three campuses

**Action Item 8.1:** Increase education and awareness of water use implications, conservation strategies and water quality issues on campus and throughout the community

**Action Item 8.2:** Measure and create benchmarks for institutional water use, including sub-metering of landscape irrigation

**Action Item 8.3:** Minimize irrigation, consider collection of rainwater/greywater for irrigation, and install drought tolerant, native plant species

**Action Item 8.4:** Monitor and report on the impacts of rainwater collection for use in flushing toilets in the A Wing Science Building

**Performance Metric:** Reduced gallons of water metered annually



## C. Greening Our Curriculum

Greening Our Curriculum involves engaging faculty, staff and students in incorporating sustainability in educational and extra-curricular experiences at the college. Sustainability increases student engagement and prepares students for careers in a changing world.

**\* ^ g Goal 9 – Curriculum:** Integrate sustainability content and focus across the curriculum

**Action Item 9.1:** Offer faculty development opportunities, training, incentives and resources to support curriculum development with sustainability content and focus.

**Action Item 9.2:** Encourage the integration of sustainability into existing curriculum through learning outcomes, course objectives, student assignments, and immersive experiences.

**Action Item 9.3:** Explore student sustainability literacy assessments and tracking methodology to evaluate student exposure and comprehension of sustainability principles.

**Action Item 9.4:** Utilize sustainability technologies and initiatives in campus operations to enhance hands-on training and educational opportunities in the classroom.

**Performance Metric:** Increased number of courses reported with sustainability content or focus

**Performance Metric:** Increased number of CLC graduates entering the workplace with sustainability related degrees or certificates

**\* g Goal 10 – Student Engagement:** Engage CLC students in sustainability efforts and events on campus and in the community

**Action Item 10.1:** Inform students about institutional sustainability commitments and performance.

**Action Item 10.2:** Develop opportunities for student involvement with extra-curricular experiences related to sustainability.

**Action Item 10.3:** Explore peer-to-peer sustainability outreach among the student body.

**Performance Metric:** Increased number of student-oriented sustainability activities

**Performance Metric:** Increased number of students participating in sustainability activities

**g Goal 11 – Workforce & Professional Development:** Incorporate sustainability and green job training into workforce and professional development

**Action Item 11.1:** Provide sustainability training, education, certification, and resources for workforce development.

**Action Item 11.2:** Expand partnerships with local corporate and community organizations to provide resources to students and community members interested in pursuing sustainability related careers.

**Action Item 11.3:** Connect existing and potential students to engage in the local green economy through support, skills training and collaboration with community entities that serve youth and adults with barriers to employment.

**Performance Metric:** Increased number of WPDI courses with sustainability content

## D. Greening Our Community

The College of Lake County seeks to engage and convene a wide spectrum of stakeholders to foster collaborative initiatives, share best practices and build public awareness of sustainability and green economic development efforts on campus and throughout the community.

\* **g Goal 12 – Collaboration**: Facilitate environmental, social and economic sustainability goals across the community

**Action Item 12.1:** Host the Sustainable CLC website with information, tools, resources and opportunities to engage with sustainable businesses, consumers and supporting entities

**Action Item 12.2:** Explore education and training needs of Lake County community employers that the College can work to address

**Action Item 12.3:** Facilitate networking activities and informational meetings among community stakeholders, including the Community Partners for Sustainability and related conferences

**Action Item 12.4:** Provide forums for community members to explore and engage in environmental, social justice, and economic responsibility aspects of sustainability

**Action Item 12.5:** Utilize the campus as a teaching tool for demonstration of best management practices

**Action Item 12.6:** Share institutional sustainability commitments and performance updates with the community

Performance Metric: Increased number of CLC events and number of community members coming together to explore sustainability initiatives

Performance Metric: Increased number of businesses and organizations networking with CLC to enhance a sustainable economy in Lake County

^ **Goal 13 – Resilience Planning**: Support resilience to future changes to climate in Lake County

**Action Item 13.1:** Convene the Community Partners for Sustainability to review CLC Climate Action Plan

**Action Item 13.2:** Assess resilience with vulnerabilities to extreme climate events, including infrastructure, economics, ecosystem services, and social equity and governance

**Action Item 13.3:** Highlight opportunities to address vulnerabilities to climate impacts across the Lake County community

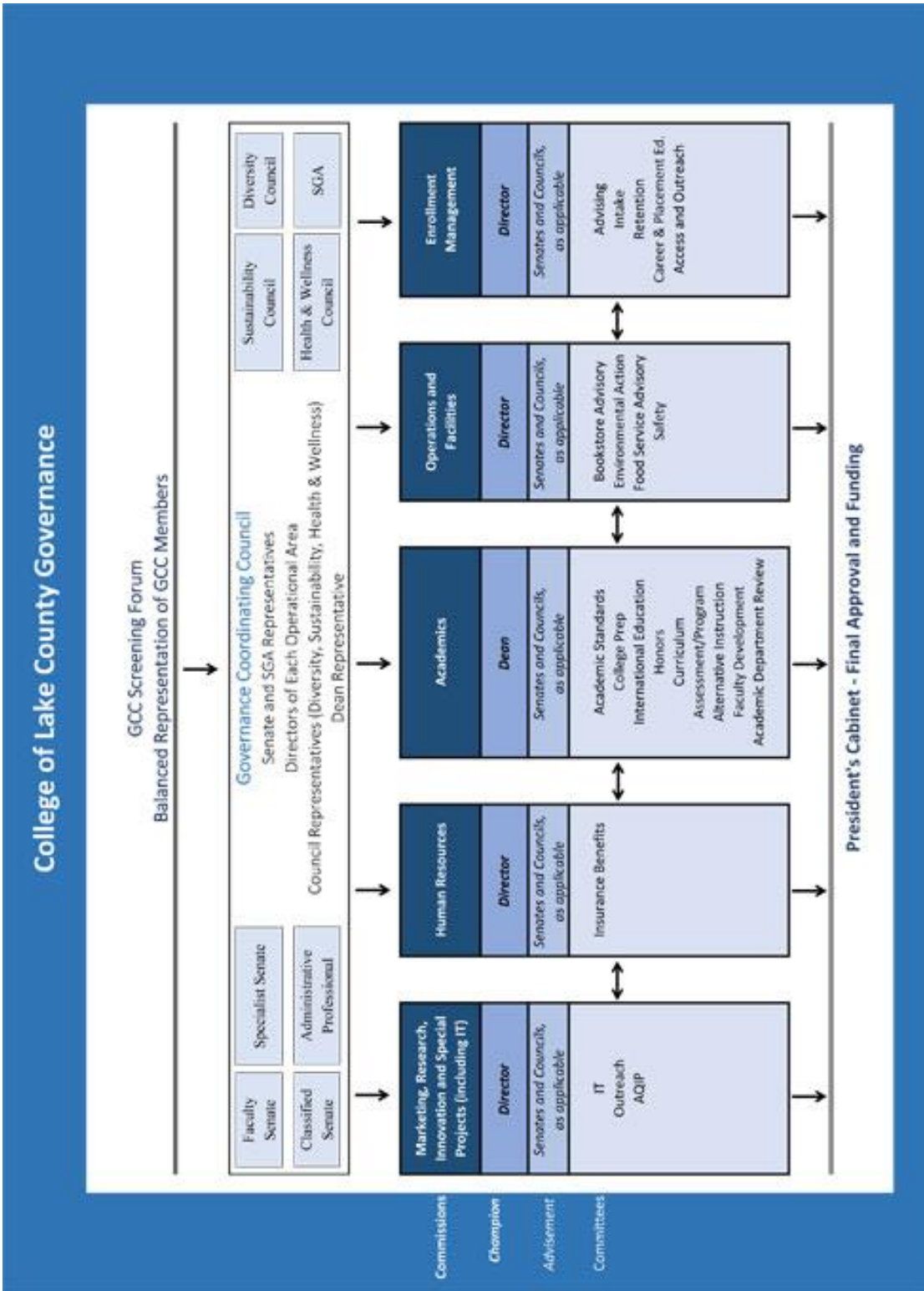
Performance Metric: Completed resilience assessment for future climate-related concerns

## IV. Evaluation & Tracking

Each goal has at least one identified performance metric under the action items in Section III. Performance indicators provide objective measures of progress being made in the pursuit of each corresponding goal. Performance metrics may be either a metered number, a number of events, or as a percentage of the whole. Additionally, narrative data may be included to provide qualitative descriptions of achievements. Together these reporting mechanisms are tracked and reported annually in the Annual Performance Report for the College's Strategic Plan and the Sustainability Plan.

The Sustainability Manager, Sustainability Council, Environmental Action Committee, or other stakeholders across the college community have responsibility for working together toward each goal, helping to determine completion, calculating quantitative progress, and providing anecdotal qualitative progress updates.

# APPENDIX A: CLC Governance Structure





## APPENDIX B: Reporting, Accountability & Assistance

The College of Lake County reports progress on the Sustainability Plan goals and action items and greenhouse gas inventory in its Annual Performance Report. CLC also reports its progress in meeting sustainability initiatives through third party mechanisms such as: AASHE STARS (\*), Second Nature Climate Commitment (^) and the AACC Green Genome tool (g). These reporting platforms allow CLC to benchmark its sustainability performance in relation to peer institutions across North America. The organizations that host these reporting mechanisms are identified below, along with other entities that provide technical assistance to the college in meeting its sustainability goals are identified below. The figure below represents the reporting timeline over the next three years.

### Three Year Activity Time Table for Third Party Reporting

<u>Timeline</u>	Spring '18	Fall '18	Spring '19	Fall '19	Spring '20
<b>Annual Performance</b>	Plan Update EAC Review	EAC Review & Implement	Implement	EAC Review & Implement	Implement
<b>^ Second Nature</b>	Progress Report	GHG	Progress Report	GHG	Progress Report
<b>* STARS</b>	Data	Data	Data	Data	STARS Report

#### Second Nature

CLC is a charter signatory to Second Nature’s Climate Commitment. Formerly known as the American College & University Presidents’ Climate Commitment (ACUPCC), Second Nature has helped hundreds of colleges and universities to make the principles of sustainability fundamental to every aspect of higher education. The College of Lake County became a signatory to the ACUPCC in 2009 and further to Second Nature’s Climate Commitment in 2015 to formalize the college’s commitment to climate leadership. The Second Nature Climate Commitment covers both the reduction of our carbon emissions and also the planning with community partners to increase resilience, both on campus and across the community.

CLC will conduct an annual greenhouse gas inventory to record progress in reducing carbon emissions and the move toward its goal of climate neutrality by the year 2042. Interim target dates for meeting carbon reduction and resilience indicators are included in Section II Climate Action Plan. Mitigation mechanisms and strategies are identified in Section III Sustainability Plan Goals and Action Items. Goals in the Sustainability Plan which help CLC to achieve compliance with the Climate Commitment are indicated with ^ as they are listed in II. Sustainability Goals.

#### Association for the Advancement of Sustainability in Higher Education (AASHE)

The Sustainability Tracking, Assessment & Rating System (STARS) is a voluntary, self-reporting framework for helping colleges and universities track and measure their sustainability progress, administered by the Association for the Advancement of Sustainability in Higher Education (AASHE).

By becoming a STARS charter participant, CLC demonstrated leadership among institutions of higher education across the United States in addressing the triple bottom line of sustainability. CLC received a Silver STARS rating in 2011 and again in 2017. In the 2017 Sustainable Campus Index, AASHE ranked the College of Lake County as number eight in North America among over 300 associate's level colleges in North America for sustainability. Each goal that helps the college to meet its STARS reporting tools are identified with \*.

### **American Association of Community Colleges (AACC)**

The American Association of Community Colleges' (AACC) Sustainability Education and Economic Development (SEED) Center has developed a tool called the Green Genome, identifying four "DNA Strands" for successful integration of sustainability in community college education. This tool provides a framework for colleges to assess the presence, level, and quality of their green policies, practices, and/or programs in the four areas of: Community Engagement, Governance, Program Design and Deliver, and Strategic Partnerships. CLC received a Green Genome award in 2016 for establishing outstanding personnel, policy, plans, resources and practices that reflect a commitment to sustainability and green-focused education and training.

### **Illinois Sustainable Technology Center (ISTC)**

The purpose of the ISTC is to encourage and assist citizens, businesses, and government agencies to prevent pollution, conserve natural resources, and reduce waste to protect human health and the environment of Illinois and beyond. ISTC integrates applied research, technical assistance, and information services to advance efforts in the areas of pollution prevention; water and energy conservation; and materials recycling and beneficial reuse. In the past, the ISTC sponsored the Illinois Campus Sustainability Compact. CLC received a Gold level award in 2014 for its sustainability plan. The Compact provided environmental goals with objectives such as purchasing renewable energy, implementing green building practices, developing sustainable transportation options, improving water conservation, and incorporating sustainable dining practices. The ISTC continues to sponsor Sustainability Awards to colleges, businesses, and other institutions across the state.

### **Illinois Green Economy Network**

As one of its founding members, the College of Lake County works with the Illinois Green Economy Network (IGEN) to promote green economic development and workforce training programs, leveraging the power of all forty-eight community colleges across the State of Illinois. IGEN helps to make educational resources to colleges for job training, renewable energy systems, and other sustainable practices. CLC is joining other affiliate colleges to develop the Illinois Community College Monarch Migration Network to assist others in the restoration of monarch butterfly habitats across the state.

### **United States Green Building Council (USGBC)**

The United States Green Building Council (USGBC) developed the Leadership in Energy Efficient Design (LEED) building rating system to benchmark building construction and operations. CLC is opening up renovated and new construction completed under the Sustainable Master Plan. Each of these projects are designed to meet a minimum of LEED Silver standards, including the new Southlake Chemistry Lab and the renovated B and C wings in Grayslake. The new Science Building, designed to LEED Platinum standards, is opening for the 2018 spring semester. CLC received a prestigious 2017 Emerald Award from

the Illinois Chapter of the USGBC for the Science Building, due to its innovative design with sustainable features. The Lakeshore Campus addition is also designed to LEED Platinum standards. This building is currently in the design phase. The USGBC also hosts the Community Green – Center for Green Schools, which CLC has joined as a member to assist students wishing to increase access to USGBC resources.

**Illinois Food Scrap Coalition (IFSC)**

The Illinois Food Scrap Coalition (IFSC) is a group of solid waste agencies, counties, community and government organizations, businesses, schools, institutions, service providers, and processors dedicated to advancing food scrap composting in Illinois through program implementation, policy, and advocacy. CLC joined the IFSC in 2017 when it began its food scrap composting program in Café Willow. The IFSC provide technical assistance with composting procedures and helps to raise awareness of CLC's composting programs.

## APPENDIX C: United Nations Sustainable Development Goals



The Sustainable Development Goals (SDGs) are not legally binding, but governments are expected to take ownership and establish national frameworks for the achievement of the 17 Goals. The SDG Accord is the University and College Sector's Collective Response to the Sustainable Development Goals. Institutions of higher education around the world are encouraged to inspire, celebrate and advance the critical role that education has in delivering the Sustainable Development Goals and the value it brings to governments, business and wider society.

The SDG Accord also provides a commitment learning institutions are making to one another to do more to deliver the goals, to annually report on each signatory's progress, and to do so in ways which share the learning with each other both nationally and internationally.

Openly and annually accounting for progress and sharing our experience and learning from implementing the SDGs are key requirements of the Accord. The Accord is not prescriptive on what form this takes only that it is made available to your local or national networks. Possible formats include reports, videos, policy documents, case studies and blogs etc. AASHE is supportive of colleges and universities considering SDGs in their sustainability planning.

<https://sustainabledevelopment.un.org/?menu=1300>

<http://www.sdgaccord.org/>

## APPENDIX D: Living Lab Trail



Orange dots indicate locations for interpretive signage stations across the outside trails and walkways. Signage will also be placed on the interior of the buildings.