# College of Lake County Sustainability Plan 2015-2017



June 2016



## **Contents**

Messa	sage from the President	1
	Overview	
A.	Process	2
В.	Resources	3
C.	Benchmarking, Tracking and Reporting	6
II. Sus	stainability Goals and Action Items	9
A.	Greening Our Campus	9
В.	Greening Our Curriculum	12
C.	Greening Our Community	14
III. Eva	valuation & Tracking	16
A.	Greening Our Campus	16
В.	Greening Our Curriculum	21
C.	Greening Our Community	22

# **Message from the President**

The College of Lake County is deeply committed to helping our students succeed: succeed in their pursuit of higher education, in the job marketplace, and as responsible citizens. Sustainability intersects with each of these spheres of student success and is critical for our future. CLC has dedicated itself to "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." American College and University Presidents' Climate Commitment

The College of Lake County Sustainability Plan calls for implementation of new technologies for our campus to minimize our impact on natural resources that at the same time reflect development of learning outcomes in our curriculum equipping our students for opportunities for job development in the green economy. The American Association of Community Colleges SEED Center identifies the unique opportunities community colleges have to utilize the sustainable practices on campus as a "living laboratory" for sustainability: saving resources through sustainable building practices, providing applied demonstration learning opportunities for students, and serving as a model for members of the community.

We look forward to renewing our active participation with Second Nature's Climate Commitment, the STARS program (Sustainability Tracking, Assessment and Rating System), and the Illinois Sustainable Campus Compact. These reporting networks provide us with the tools to benchmark and measure our improvement as we implement this Plan.

CLC is working to infuse sustainability into its culture, incorporating social, economic, and environmental sustainability into our daily operations. The Sustainability Plan identifies priorities and action items that can help guide responsible decision-making made at the College. Those priorities and action items will be measured and evaluated annually. CLC will strive to lead in integrating sustainability into our campus, preparing its students to be resilient to changes in the climate, technology, and the workplace, and collaborating with partners in the community and across the state.

Sincerely,

Girard W. Weber, Ph.D. President

## I. Overview

The College of Lake County (CLC) has identified a goal in its Strategic Plan to promote excellence in sustainability as a strength within the college and Lake County community. The College of Lake County Sustainability Plan establishes an ambitious agenda for the college to be a leader for sustainability in higher education. The Plan serves as a roadmap for translating CLC's vision for sustainability into reality, integrating sustainability into the daily operations across the three campuses, throughout curriculum development and among community relations. The definition of "sustainability" is most often borrowed from the United Nations Brundtland Commission: "meet[ing] the needs of the present without compromising the ability of future generations to meet their own needs" (1987). At the College of Lake County, sustainability translates into our mission statement and how we deliver "high quality, accessible learning opportunities to advance student success and strengthen the diverse communities we serve."

The college's shared governance structure ensures cross-functional representation and institutional communication for projects and initiatives that affect all stakeholders at the institution. The Sustainability Guiding Coalition (SGC) is responsible for overseeing initiatives that promote the integration of sustainability across the college. Under the SGC are different entities that carry out the action items within the three spheres of the Sustainability Plan: Greening our Campus, Greening our Curriculum, and Greening our Community.

The Environmental Action Committee (EAC) is responsible for overseeing and carrying out Action Items under the goals in Greening our Campus. The EAC also reports to the Campus Environment and Operations Commission. Members join the EAC on a voluntary basis, representing CLC faculty, staff and students, including the Sustainability Manager.

In Fiscal year 2016, the College of Lake County will complete its AQIP project to infuse sustainability into the college curriculum, hence Greening our Curriculum. Recommendations will be made to support faculty members in realizing the integration of sustainability across the curriculum, including the utilizing the campus as a living laboratory. Training, support, and resources will be made available to faculty on an ongoing basis.

The goals will continue to be evaluated and the action items and performance metrics will be recorded for annual updates. As part of the Sustainability Plan, the Climate Action Plan further identifies strategies for reducing our greenhouse gas emissions, in compliance with the Second Nature Climate Commitment.

#### A. Process

The Sustainability Plan is developed through the input of staff, faculty, and students of the Environmental Action Committee, integrating resources available through state and national organizational resources, drawing upon direction from the Strategic Plan. The Sustainable Master Plan mirrors many of the goals and objectives of the Sustainability Plan to be carried out with new construction and retrofitting of the campus grounds and facilities.

The Sustainability Plan was originally drafted in 2011-12 by the Sustainability Coordinator and the Environmental Action Committee (EAC). The Sustainability Plan includes fruitful results from reports to the American College Presidents' Climate Commitment (ACUPCC), the Association for the Advancement of Sustainability in Higher Education's (AASHE) Sustainability Tracking, Assessment, and Rating System (STARS), and the Illinois Campus Sustainability Compact.

The college's greenhouse gas (GHG) inventory is updated annually after the end of the fiscal year in September. The findings of the GHG contribute to development of the Climate Action Plan (CAP) which will be presented to the Environmental Action Committee (EAC) and Sustainability Guiding Coalition (SGC) in the fall. The EAC will assist the Sustainability Manager in updating of the College's status with the Second Nature Climate Commitment, the Illinois Campus Sustainability Compact, and the AASHE Sustainability Tracking, Assessment, and Rating System (STARS).

Goals and Action Items are identified in Section II of the Sustainability Plan. Progress is reported annually in Section III in relation to achievement of the Action Items, Performance Metrics results and additional narrative data.

#### **B.** Resources

The Sustainability Plan is developed based on the Strategic Plan goals and also those resources identified in Figure 1.0.

#### **Strategic Plan**

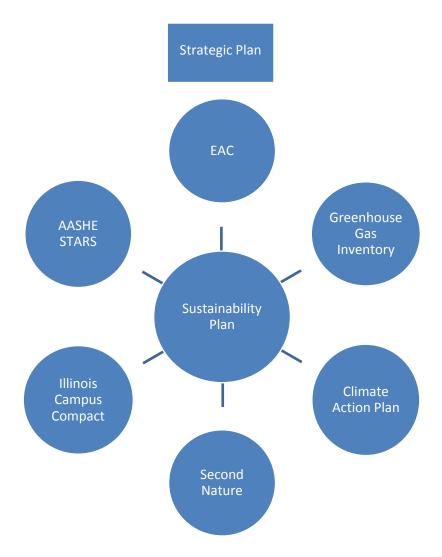
Sustainability plays an integral role in the Strategic Plan for the College of Lake County. The Sustainability Plan will address the following Strategic Plan goals and objectives:

3. Promote excellence in the areas of Diversity, Global Engagement, Sustainability, and Wellness as strengths within the college and Lake County community.

The college will strive to build an inclusive community that recognizes, values, and respects people of all cultures and ways of life while cultivating social justice, global citizenship and environmental responsibility.

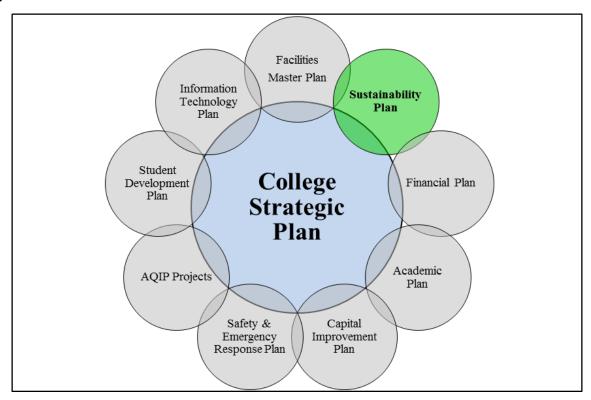
- 3.1. Infuse diversity, multiculturalism and environmental sustainability into the curriculum and college activities.
- 3.2. Recruit and retain under-represented employees and students.
- 3.3. Build competencies in diversity, multiculturalism and sustainability for employees, students and the community.
- 3.4. Increase international educational opportunities and programs.
- 3.5. Increase sustainable practices through all college operations.6. Build the college's reputation as a premier educational institution.

Figure 1.0



The College's Strategic Plan creates the foundation for the development of supporting Operational Plans, of which the Sustainability Plan is one of eight. CLC has a fully-integrated planning process, which informs the implementation and tracking of the Strategic Plan. Figure 1.1 depicts the College's integrated strategic planning process.

Figure 1.1



#### **Environmental Action Committee**

The College of Lake County utilizes a shared governance structure to ensure cross-functional representation and institutional communication for projects and initiatives that affect all stakeholders at the institution. Within this structure sits the Environmental Action Committee (EAC) which reports to the Campus Environment and Operations Commission. Members join the EAC on a voluntary basis and represent CLC faculty, staff and students, and form subcommittees to address sustainability initiatives.

#### Sustainable Master Plan

Adopted by the College of Lake County Board of Trustees in in 2012, the Sustainable Master Plan provides a blueprint for addressing concerns about the physical space on the three campuses through 2018. The Master Plan calls for improvements to existing structures and new construction that greatly improve energy efficiency and generate power from renewable sources onsite. These improvements will address many of the priorities and action items identified in the Sustainability Plan.

#### **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 (48) community colleges across the State of Illinois. IGEN is a resource available to assist CLC with the dissemination of sustainability information for faculty, staff, students and members of the community.

## C. Benchmarking, Tracking and Reporting

#### **Greenhouse Gas Inventory (GHG)**

Much of CLC's Greenhouse Gas (GHG) Inventory, or Carbon Footprint, can be attributed to its building portfolio and the relative efficiencies of electricity, natural gas, and water infrastructure. The College of Lake County's building portfolio currently consists of approximately 930,000 square feet of existing buildings. The A and B Buildings are being renovated and new buildings expected to come online 2016-18 with the implementation of the Sustainable Master Plan. CLC will greatly improve its energy efficiency and reduce its dependence on fossil fuels with building improvements, including the installation of geothermal energy systems and solar thermal water heating.

The Clean Air-Cool Planet Campus Carbon Calculator (<a href="http://campuscarbon.com/">http://campuscarbon.com/</a> CampusCalculator.aspx) is utilized by over 600 colleges and universities across North America to develop a GHG inventory. The Campus Carbon Calculator measures all six greenhouse gases specified by the Kyoto Protocol ( $CO_2$ ,  $CH_4$ ,  $N_2O$ , HFC and PFC, and  $SF_6$ ). It facilitates the calculation of project emissions into the future and produces charts and graphs illustrating changes and trends in college emissions over time. The database was originally developed from the Intergovernmental Panel on Climate Change (IPCC, <a href="https://www.ipcc.ch">www.ipcc.ch</a>) for national-level inventories and adapted the data for use at institutions of higher education. In Section III Evaluation and Tracking, Figures 3.0, 3.1, 3.2, and 3.3 identify the calculation method and display results of this process.

#### **Climate Action Plan (CAP)**

CLC's Climate Action Plan (CAP) outlines steps for the College to take toward minimizing its GHG emissions, leading to its ultimate goal of climate neutrality, based on the priorities and action items of the Sustainability Plan, developed from the College's GHG Inventory.

The CAP sets goals for future action and develops a timeline for their achievement. An inventory of GHG emissions was conducted for Fiscal Year 2010 in order to determine a baseline. From this baseline, strategies were developed to reduce CLC's sources of GHG emissions. These strategies will be under constant revision as research and technology further develop. The proposed strategies are reviewed relative to their scope, cost and anticipated time required for implementation: short-, mid-, and long-term action items each have a specific set of goals associated with them. Climate neutrality and sustainability are incorporated into CLC's educational experiences and community outreach, as described in this Sustainability Plan under Greening Our Curriculum and Greening Our Community.

#### **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. Second Nature serves as a critical driver for leaders in higher education to promote a positive future for humanity with healthy, just, and sustainable living within a dynamically changing earth system. The College of Lake County's President, Dr. Jerry Weber, 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. Under its commitment, 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. This progress is guided by mitigation strategies identified in the Climate Action Plan. This Climate Action Plan is built into the Sustainability Plan as a key indicator of sustainability. The priorities throughout this plan that contribute to the Climate Action Plan and Second Nature are denoted by (^).

#### Sustainability Tracking, Assessment and Rating System (STARS)

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. In fall 2010, CLC earned a STARS Silver Rating for its accomplishments in sustainability. This STARS reporting process will be re-evaluated each spring to measure progress and to identify projects and initiatives that have yet to be accomplished. CLC is committed to resuming its participation in the program again, with STARS reports due to be resubmitted every three years. The goals of this Sustainability Plan that follow those of the STARS rating system are denoted by (\*).

#### **Illinois Campus Sustainability Compact**

The Illinois Campus Sustainability Compact outlines environmental goals that colleges and universities may adopt, with objectives such as purchasing renewable energy, implementing green building practices, developing sustainable transportation options, improving water conservation, and incorporating sustainable dining practices. The Compact encourages Illinois' institutions of higher education to integrate sustainability throughout their campuses, measure improvement, and report this progress to the community. CLC received the Gold level award of the Compact in the fall 2014, in recognition of its comprehensive Sustainability Plan. Progress reports are due annually. Goals that support the Compact are denoted by (I).

#### **SEED Center Green Genome**

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 has signed the Community College Presidents' pledge to support the role of community colleges in fostering economic growth and fulfilling the requirements of the emerging green and sustainable economy. Goals that support the Green Genome tool are denoted by a (g).

#### **Timeframe**

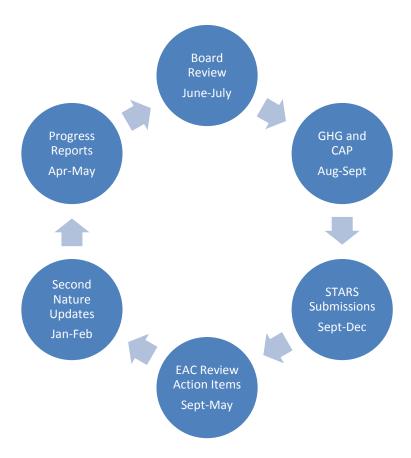
The goals, action items, and related activities will be reviewed annually by the Sustainability Guiding Coalition, EAC, and the Campus Environment and Operations Committee (CEOC). The Greenhouse Gas Inventory will be updated annually, which will help with the submission of update reports to STARS, Second Nature, and the Illinois Compact. The Second Nature Climate Commitment will be updated

annually. STARS and the Illinois Compact will be updated every three years. Data for STARS reporting will occur in three-semester periods, during which the final semester we will submit reports to the STARS program. After the three-year period, Sustainability Goals and Action items will be re-evaluated and an updated Sustainability Plan will be written. Figure 1.2 represents the reporting timeline over the next year. Figure 1.3 represents the annual timeline for the implementing the Sustainability Plan.

Figure 1.2

<u>Timeline</u>	Summer '16	Fall '16	Spring '17	Summer '17	Fall '17
CLC Internal	Plan Update	EAC Review & Implement	EAC Review & Implement	Plan Update	EAC Review & Implement
^ ACUPCC	GHG	Data	Data	GHG & CAP	Resubmit Report
Illinois Compact	Data	Data	Data	Data	Progress Report
* STARS	Resubmit Report	Data	Data	Data	Data

Figure 1.3



# **II. Sustainability Goals and Action Items**

## A. Sustainability Planning & Administration

- \* ^ I g Goal 1 Coordination: Improve and enhance sustainability efforts of the college with a planning and coordinating committee, such as the Environmental Action Committee, made up of administration, faculty, staff, and students, that feeds into the governance structure and coordinates with the Diversity Commission.
- \*^I <u>Goal 2 Human Capital</u>: Induce behavioral change through education, awareness and engagement of college employees in the implementation of sustainable practices on campus
  - **Action Item 4.1:** Offer educational resources at new employee orientation and for professional development about sustainable practices.
  - **Action Item 4.2:** Staff and faculty will participate in activities such as recycling and turning off unused electronic equipment.
  - **Action Item 4.3:** Develop communication updates and feedback opportunities for all college employees about the performance of sustainability efforts.

### **B.** Greening Our Campus

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

- \* ^ I <u>Goal 3 Buildings and Energy</u>: Minimize building energy consumption through conservation, efficiency and improvement measures
  - **Action Item 3.1:** Improve energy conservation through maximization of space use, occupant education and coordination of facilities staff scheduling with building systems controls.
  - **Action Item 3.2:** Perform assessments of energy use, including energy sub-metering where applicable and campus-wide building commissioning to ensure highest performance of existing building infrastructure.
  - **Action Item 3.3:** Upgrade all lighting systems across campus buildings and grounds through use of occupancy and daylight sensors, LED and other high-efficiency lighting technologies.
  - **Action Item 3.4:** Maximize efficiency of existing heat, ventilation and air conditioning infrastructure based on the following strategies:
    - Installation of geothermal HVAC systems in the A and B Buildings.
    - Centralize control via addition of a Central Plant.

- Install variable-frequency drives to all blowers, pumps, cooling tower fans, and chillers. Replace aging duct board with high-pressure ducts.
- Replace hot water boilers with solar thermal water heaters.

**Action Item 3.5:** Develop building and operations standards using Green Building Guidelines as written in compliance Illinois Public Act 096-0073, requiring all new State-funded building and renovation projects meet at a minimum the LEED Silver rating or equivalent requirements. Consider LEED for Operations and Maintenance of Existing Buildings standard where appropriate.

**Action Item 3.6:** Increase use of renewable energy sources, including exploration and feasibility analysis of the following applications:

- Convert aging heat air handlers to solar thermal-assisted systems.
- Add solar photovoltaic arrays to new Science Building.
- Integrate geothermal heat and cooling sources.
- Study wind energy production.

**Action Item 3.7:** Provide physical and virtual access to energy efficiency and renewable energy technologies to be used as models for community and curriculum demonstrations.

\* **Goal 4 – Dining Services:** Offer increased local and sustainable food options and improved resource recovery through food service operations.

**Action Item 4.1:** Expand capacity of the College to grow and purchase food produced within 250 miles of campus, including facility improvements to campus greenhouse and support of community-based and/or on-campus growing and distribution operations.

**Action Item 4.2:** Increase the supply of certified organic, vegetarian, vegan and/or other healthy meal options for students and employees in Lancers cafeteria.

**Action Item 4.3:** Evaluate pre- and post-consumer food scrap composting, promotion of food and beverage container reuse and recycling, and contractual service standards for waste minimization and materials.

**Action Item 4.4:** Continue education and awareness of local and sustainable food options through Culinary Arts and Horticulture programs, such as: campus community gardens, Community Supported Agriculture, farmers' markets, and donations of fresh gleaned produce to food pantries.

\* ^ <u>Goal 5 – Grounds</u>: Improve sustainable landscape practices, including coordination and management of turf grass, natural areas, installation of prairie pods/gardens, integrated pest management, and best management practices for stormwater treatment.

**Action Item 5.1:** Develop a site management and training plan, establishing high, medium, and low maintenance zones in landscaped areas, including: turf, natural areas, prairie pods, stormwater best management practices, lake/pond shoreline buffers, green roofs, bike paths, butterfly garden, arboretum, and the farm. Include biodiversity, soil and water quality baseline assessments.

- **Action Item 5.2:** Reduce the quantity of stormwater runoff on campus through installation of green infrastructure best management practices, such as bioswales, rain gardens, pervious pavement, and rainwater catchment systems.
- Action Item 5.3: Reduce turf grass area on campuses by 50%.
- Action Item 5.4: Reforestation of campus trees, using mostly species native to Lake County.
- \* ^ Goal 6 Purchasing: Encourage adoption of environmental and social considerations into purchasing and procurement processes
  - **Action Item 6.1:** Develop and implement policies for procurement and disposal of items that take into consideration their impacts on the environment and human health, in addition to the budget.
  - **Action Item 6.2:** Develop policies to encourage life-cycle analyses for purchasing 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 6.3:** Eliminate use of products that emit Volatile Organic Compounds (VOCs) and/or other toxins, including cleaning supplies, furniture, paints and adhesives where feasible.
- \* ^ I <u>Goal 7 Transportation</u>: Improve alternative transportation options for all faculty, staff and students commuting to and from campus
  - Action Item 7.1: Study the transportation choices made by students, faculty, and staff.
  - **Action Item 7.2:** Increase awareness and education of alternative transportation options, including rewards and incentives for college faculty, staff and students to utilize public transport, car sharing programs, and low-emission vehicles.
  - **Action Item 7.3:** Create and enforce internal procedures such as purchasing of fuel efficient and alternative fuel vehicles for campus fleet and anti-idling guidelines throughout campus grounds.
  - **Action Item 7.4:** Measure and mitigate emissions that result from business-related travel by college employees.
  - **Action Item 7.5:** Install electric charging stations on campus.
- \* ^ I Goal 8 Waste: Reduce unnecessary waste, maximize waste diversion and resource recovery across campus by individuals and through institution-wide policies and programs
  - **Action Item 8.1:** Implement guidelines for reuse and recycling of construction and demolition (C&D) materials.

**Action Item 8.2:** Establish goals and tracking measures for waste reduction, reuse and recycling rates, including participation in annual campaigns.

**Action Item 8.3:** Increase education, awareness and encouragement of resource recovery, including installation of a waste diversion alternative at every point of disposal on campus.

**Action Item 8.4:** Create a centralized, current source for recycling and diversion information for students, employees, and community members, including scheduled collection programs for items that can be donated, reused, repurposed or recycled on campus or in the community.

\* ^ Goal 9 – Water: Support and improve water conservation measures within building operations, on campus grounds, and in the Lake County community

**Action Item 9.1:** Measure and create benchmarks for institutional water use, including sub-metering where applicable.

**Action Item 9.2:** Expand use of two-stage or other water-saving toilet fixtures in all campus washrooms.

**Action Item 9.3:** Minimize irrigation, consider use of non-potable rainwater and greywater and install drought tolerant, native plant species.

**Action Item 9.4:** Increase education and awareness of water use implications, conservation strategies and water quality issues on campus and throughout the community.

**Action Item 9.5:** Study uses for non-potable water, such as captured condensate from Heating and Air Conditioning cooling coils to refill cooling towers, rain barrels/cisterns, or greywater for toilet flushing.

## C. Greening Our Curriculum

Greening Our Curriculum involves engaging faculty, staff and students in incorporating a foundation of understanding of sustainability context in all educational experiences offered by the institution.

Through participation in the Sustainability Tracking, Assessment and Rating System (STARS), the College of Lake County developed Student Learning Objectives in Sustainability and a set of definitions for identifying courses in sustainability offered by the College. Priorities and action items in this section are based upon these definitions, represented in Figures 2.0 and 2.1.

Figure 2.0: Student Learning Objectives in Sustainability

After successful course completion, student has the ability to:

Demonstrate technical skills that are necessary to pursue a career in a sustainability

Discuss concepts and applications of sustainability

Demonstrate understanding of environmental issues that have resulted from mismanaged practices in the past and the opportunities to address those issues with sustainable techniques

Develop and implement an ethical perspective of our interconnected world

Identify connections between sustainability and their chosen field of study

Identify how sustainability can inform decision-making to create solutions for current and emerging social-economic-environmental issues

Analyze real-world challenges to environmental systems from a holistic perspective and formulate practical sustainable solutions

Figure 2.1: Course Definitions

If a course meets at least <u>one</u> of the Student Learning Objectives above it can be identified as a Sustainability-Related course. If <u>five or more</u> of the learning objectives are accomplished in a course, it can be identified as a Sustainability-Focused course.

Sustainability-Focused courses:	Concentrate on the concept of sustainability, including its social, economic, and environmental dimensions, or examine an issue or topic using sustainability as a lens.	
Sustainability-Related courses:	Incorporate sustainability as a distinct course component or module, or concentrate on a single sustainability principle or issue.	

\* ^ I g Goal 10 – Curriculum: Integrate connection between Student Learning Objectives in Sustainability and other components of sustainability education with all credit curriculum offered by the institution

**Action Item 10.1:** Offer faculty development opportunities, training, incentives and resources to support curriculum development in sustainability.

**Action Item 10.2:** Establish mechanisms and incentives that encourage integration of sustainability themes and topics into existing curriculum through learning outcomes, course objectives, student assignments and outdoor learning.

**Action Item 10.3:** Explore student sustainability literacy assessments and tracking methodology to evaluate student exposure and comprehension of sustainability principles.

**Action Item 10.4:** Grow partnerships with other educational institutions and community organizations to enhance sustainability applications in curriculum such as immersive experiences, community-based projects and continual education.

**Action Item 10.5:** Utilize sustainability technologies and initiatives in campus operations to enhance hands-on training and educational opportunities in the classroom and conjointly, allow compliments within curriculum activities to enhance campus facility improvements.

\* I g Goal 11 – Student Engagement: Provide unique opportunities for CLC students to influence, participate, and learn from sustainability efforts on campus and in the community

**Action Item 11.1:** Communicate information and updates to all college students on institutional sustainability commitments and performance including materials in New Student Orientation, and opportunities to provide feedback and suggestions.

**Action Item 11.2:** Work with offices and departments that coordinate student services and student leadership to integrate sustainable practices and activities into existing student life.

**Action Item 11.3:** Coordinate peer-to-peer sustainability outreach for students to receive training and support in representing and promoting sustainability resources and events to the student body.

**Action Item 11.4:** Create partnerships within the community and on campus to offer extra-curricular experiences for students to be exposed to sustainability concepts as they impact their education, lifestyle and future.

**g** <u>Goal 12 – Workforce & Professional Development</u>: Incorporate new market trends in sustainability and green job training into workforce and professional educational opportunities and assistance offered by the institution

**Action Item 12.1:** Provide sustainability training, certification, resources and educational opportunities for economic and workforce development.

**Action Item 12.2:** Expand partnerships with local corporate and community organizations to offer insight, networking and hands-on experiences to students and community members interested in pursuing careers in sustainability fields.

**Action Item 12.3:** 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.

## **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.

- \* I g Goal 13 Green Economy: Support economic resilience and growth by providing current information and resources on sustainability to the public and across industry sectors.
  - **Action Item 13.1:** Host the Sustainable CLC website to serve as a tactical hub for information, tools, resources and virtual exchange opportunities for an active and engaged online community of sustainable businesses, consumers and supporting entities.
  - **Action Item 13.2:** Share best practices examples implemented on campus and provide opportunities for the community to learn from experts on concepts of social, economic and environmental sustainability via events, activities, websites, newsletters and demonstration.
  - **Action Item 13.3:** Communicate updates to the community on institutional sustainability commitments and performance and seek feedback and suggestions.
- \* I g Goal 14 Collaboration: Develop partnerships with various entities to facilitate and accelerate sustainability goals and accomplishments across the community.
  - **Action Item 14.1:** Connect entities across industry sectors and link businesses, jobs, education and municipal entities to support efforts to grow a sustainable regional economy, including participation in community-based coalitions, councils and other discussions.
  - **Action Item 14.2:** Encourage collaboration and networking among stakeholders through events and activities, including facilitation of the Community Partners for Sustainability in Lake County meetings and the Lake County Green conference.
  - **Action Item 14.3:** Explore needs and interests of the Lake County community stakeholders to identify needs and resources that the College can work to address.

# **III. Evaluation & Tracking**

Section III provides a template for the annual Performance Update of the Sustainability Plan and reports on the progress that CLC is making in achieving its sustainability goals. Goals and Action Items are identified as being either met, in progress, or unmet. Performance metrics provide measurable outcomes, as either discreet numbers or as a percentage of the whole, as related to the corresponding Goals and Action Items. In addition to these metrics, narrative data provides qualitative descriptions of achievements. Together these reporting mechanisms are tracked annually as a performance report for the College's Strategic Plan and the Sustainability Plan.

The Sustainability Manager, 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.

## A. Sustainability Planning & Administration

<u>Goal 1 – Coordination</u>: Improve and enhance sustainability efforts of the college with a planning and coordinating committee, such as the Environmental Action Committee, made up of administration, faculty, staff, and students, that feeds into the governance structure and coordinates with the Diversity Commission.

<u>Goal 2 – Human Capital</u>: Encourage behavioral change through education, awareness and engagement of college employees in the implementation of sustainable practices on campus

Action Item Status:	2015	2016	2017
Met (M) – In Progress (P) – Unmet (U)			
Action Item 2.1 Educational Resources at Orientation and for Professional	Р		
Development			
Action Item 2.2 Employee participation in activities such as recycling and	Р		
turning off of unused electronics			
Action Item 2.3 Communication and Feedback	Р		
Performance Metrics:			
Number of employees attending sustainability courses (Action Item 2.1)	40		
Employee participation in sustainability initiatives (Action Items 2.2, 2.3)			

## **B.** Greening Our Campus

<u>Goal 3 – Buildings and Energy</u>: Minimize building energy consumption through increased conservation and efficiency. TARGET: The Grayslake Campus will decrease energy consumption by 20% from FY 2014 to FY 2017.

Action Item Status:			
Met (M) – In Progress (P) – Unmet (U)	2015	2016	2017
Action Item 3.1 Assessments of Energy Use	Р		
Action Item 3.2 Improve Energy Conservation	Р		
Action Item 3.3 Upgrade Lighting Systems	Р		
Action Item 3.4 Increase Energy Efficiency of Buildings	Р		
Action Item 3.5 Green Building Guidelines	Р		
Action Item 3.7 Physical and Virtual Access to Information	Р		
Performance Metrics:			
Reduction in greenhouse gas emissions			
(Action Items 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7)			
Reduction of energy use for heating and water heating			
(Action Items 3.1, 3.2, 3.4, 3.5, 3.6, 3.7)			
Reduction in electricity usage			
(Action Items 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7)			
Percentage of light fixtures converted to LED	19%		
(Action Item 3.3, 3.5, 3.7)			

Figure 3.0: FY 2014 Greenhouse Gas (GHG) Calculations

	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><li>Natural gas</li><li>Gas &amp; diesel fleet</li><li>Refrigerants</li><li>Fertilizers</li></ul>	<ul><li> Electricity</li><li> Paper purchased</li></ul>	Full and part time faculty, staff, & student travel
Method	<ul><li>Facilities metering</li><li>Natural gas budget</li></ul>	<ul><li>Facilities metering</li><li>Electricity budget</li><li>Purchasing receipts</li></ul>	<ul> <li>Mass Transit         Survey, Fall '15</li> <li>IEPR office         calculations</li> </ul>
Total	4,762.04 MTC0₂e	15,359.35 MTC0₂e	12,314.55 MTC0₂e

Figure 3.1: GHG Emissions by Scope

2014 Gross GHG Emissions

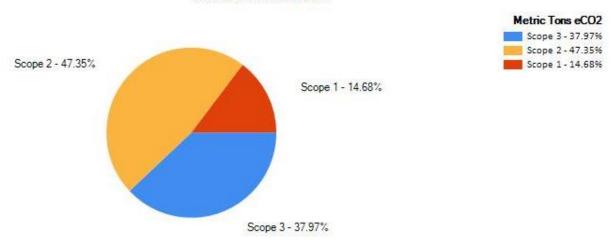


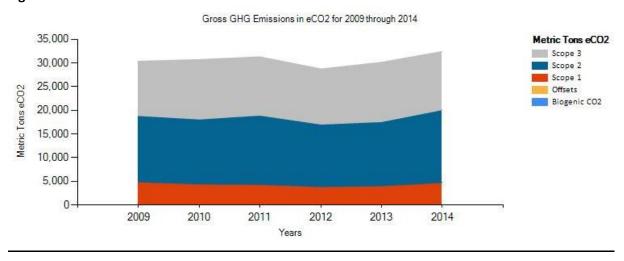
Figure 3.2: GHG Emissions by Source

Scope 2: Purchased Electricity - 47.35%

Scope 3: Office Paper - 0.6264%
Scope 3: Commuting - 37.25%

Scope 3: Office Paper - 0.6264%
Scope 3: Waste Water - 0.0285%
Scope 3: Solid Waste - 0.064%
Scope 1: Fleet - 0.4263%
Scope 1: Fertilizer - 0.0406%
Scope 2: Purchased Electricity - 47.35%
Scope 3: Commuting - 37.25%

Figure 3.3: GHG Emissions 2009-2014



<u>Goal 4 – Dining Services</u>: Offer increased local and sustainable food options and improved resource recovery through food service operations. TARGET: 25% of produce utilized in the cafeteria and Prairie restaurant will come from sources within 250 miles of campus by FY 2017.

Action Item Status: Met (M) – In Progress (P) – Unmet (U)	2015	2016	2017
Action Item 4.1 Local Food Sourcing	Р		
Action Item 4.2 Organic, Vegetarian & Healthy Options	Р		
Action Item 4.3 Composting, Reuse & Recycling	Р		
Action Item 4.4 Culinary Arts, Comm. Gardens and Farmers' Mkt.	Р		
Performance Metrics:			
Percentage of food purchased from locally-grown or on-campus sources	0%		
(Action Items 4.1, 4.2, 4.4)			
Pounds of food scraps composted in one day (Action Item 4.3)	6 lbs.		

<u>Goal 5 – Grounds</u>: Improve sustainable landscape practices, including coordination and management of turf grass, natural areas, installation of prairie pods/gardens, integrated pest management, and best management practices for stormwater treatment. TARGET: 50% of the turfgrass area will be converted to restored natural areas and with native landscaping by 10% FY 2017.

Action Item Status:	2015	2016	2017
Met (M) – In Progress (P) – Unmet (U)			
Action Item 5.1 Campus Landscape Management Plan	Р		
Action Item 5.2 Reduce stormwater runoff	Р		
Action Item 5.3 Reduce turfgrass area	Р		
Action Item 5.4 Reforestation with native trees	U		
Performance Metrics:			
Square footage of best management practices (BMPs) installed for	0		
enhanced stormwater management (Action Item 5.2, 5.3)			
Percentage of campus grounds converted to natural areas and native	29%		
landscaping (Action Items 5.1, 5.2, 5.3, 5.4)			

<u>Goal 6 – Purchasing</u>: Incorporation of environmental and social considerations into purchasing and procurement processes.

Action Item Status: Met (M) – In Progress (P) – Unmet (U)	2015	2016	2017
Action Item 6.1 Purchasing and Disposal Policies	М		
Action Item 6.2 Life Cycle Analysis Policy	U		
Action Item 6.3 Eliminate Purchases with VOCs	Р		
Performance Metrics:			
Percentage of products purchased with environmentally or socially responsible specifications (Action Items 6.1, 6.2)			
Percentage of products containing VOCs (Action Item 6.3)	0%		

**Goal 7 – Transportation**: Improve alternative transportation options for all faculty, staff and students commuting to and from campus.

Action Item Status:	2015	2016	2017
Met (M) – In Progress (P) – Unmet (U)			
Action Item 7.1 Study and track transportation choices	Р		
Action Item 7.2 Increase Awareness of Alternative Transportation Options	Р		
Action Item 7.3 Fuel-Efficient Fleet	Р		
Action Item 7.4 Measure and Mitigate Emissions from Business Travel	U		
Action Item 7.5 Install Electric Charging Stations	U		
Performance Metrics:			
Percentage of students and employees engaged in alternative	11%		
transportation strategies (Action Items 7.1, 7.2, 7.5)			
Number of campus fleet vehicles utilizing alternative technologies (Action	2/21		
Items 7.3, 7.4)			

**Goal 8 – Waste**: Maximize waste diversion and resource recovery across campus by individuals and through institution-wide policies and programs. TARGET: Solid waste diversion will increase by 15% in the three-year period from the baseline established in the 2015 spring waste audit.

Action Item Status:	2015	2016	2017
Met (M) – In Progress (P) – Unmet (U)			
Action Item 8.1 Guidelines for C&D Diversion	U		
Action Item 8.2 Track Waste Reduction	М		
Action Item 8.3 Recycling with Every Garbage Can	Р		
Action Item 8.4 Develop Info Center for Waste Diversion Information	U		
Performance Metrics:			
Quantities of C&D debris diverted from waste stream (Action Item 8.1)	42%		
Decrease in solid waste disposal (Action Items 8.2, 8.3, 8.4)			

**Goal 9 – Water**: Support and improve water conservation measures within building operations, on campus grounds, and in the Lake County community.

Action Item Status:	2015	2016	2017
Met (M) – In Progress (P) – Unmet (U)			
Action Item 9.1 Benchmark Water Usage	Р		
Action Item 9.2 Water Saving Toilets and Fixtures	М		
Action Item 9.3 Minimize irrigation and install drought tolerant, native plant	Р		
species			
Action Item 9.4 Increase Education and Awareness	Р		
Action Item 9.5 Study Uses for Non-Potable Water	U		
Performance Metrics:			
Annual reduction in water use			
(Action Items 9.1, 9.2, 9.3, 9.4)			

## C. Greening Our Curriculum

**Goal 10 – Curriculum**: Integrate connection between Student Learning Objectives in Sustainability and other components of sustainability education with all credit curriculum offered by the institution.

Action Item Status:	2015	2016	2017
Met (M) – In Progress (P) – Unmet (U)			
Action Item 10.1 Faculty Development Opportunities	Р		
Action Item 10.2 Integration of Sustainability into Existing Curriculum	Р		
Action Item 10.3 Student Sustainability Literacy	Р		
Action Item 10.4 Immersive and Community-Based Experiences	Р		
Action Item 10.5 Experiential Learning with Campus Operations	Р		
Performance Metrics:			
Number of Sustainability-focused or Related credit courses	12		
(Action Items 10.1, 10.2, 10.3, 10.4, 10.5)			
Number of credit programs and departments which include a	4		
Sustainability-Focused or Related courses			
(Action Items 10.1, 10.2, 10.3, 10.4, 10.5)			
Number of graduates from Sustainability-focused programs	24		
(Action Items 10.1, 10.2, 10.3, 10.4, 10.5)			

**Goal 11 – Student Engagement**: Provide unique opportunities for CLC students to influence, participate, and learn from sustainability efforts on campus and in the community.

Action Item Status:	2015	2016	2017
Met (M) – In Progress (P) – Unmet (U)			
Action Item 11.1 Include Sustainability Commitments and Performance in	Р		
New Student Orientation			
Action Item 11.2 Integrate Sustainability Practices and Activities with	М		
Student Life			
Action Item 11.3 Peer-to-Peer Sustainability Outreach	U		
Action Item 11.4 Extra-Curricular Activities	Р		
Performance Metrics:			
Number of sustainability outreach campaigns for students	25		
(Action Items 11.1, 11.2, 11.3)			
Number of students engaged in peer-to-peer outreach (Action Item 11.4)	0		

**Goal 12 – Workforce & Professional Development**: Incorporate sustainability and green job training into workforce and professional educational opportunities.

Action Item Status:	2015	2016	2017
Met (M) – In Progress (P) – Unmet (U)			
Action Item 12.1 Sustainability Training Opportunities with Workforce	U		
Development			
Action Item 12.2 Expand Community Partnerships to Create Experiences	U		
Action Item 12.3 Connect Students to Engage with Green Economy	U		
Performance Metrics:			
Number of courses and trainings offered related to sustainability and	26		
green jobs (Action Items 12.1, 12.2, 12.3)			

Number of students and community members impacted by workforce	77	
educational opportunities (Action Items 12.1, 12.2, 12.3)		

## D. Greening Our Community

**Goal 13 – Green Economy**: Support economic resilience and growth by providing current information and resources on sustainability to the public and across industry sectors.

Action Item Status: Met (M) – In Progress (P) – Unmet (U)	2015	2016	2017
Action Item 13.1 Website as Hub of Information on Green Economy	М		
Action Item 13.2 Share Best Practices on Campus	М		
Action Item 13.3 Communicate Updates on Performance and Solicit	U		
Feedback			
Performance Metrics:			
Number of community members reached via social media (Action Items	274		
13.1, 13.2, 13.3)			
Number of community sustainability events hosted on campus and within	26		
the region (Action Items 13.1, 13.2, 13.3)			

**Goal 14 – Collaboration**: Develop partnerships with various entities to facilitate and accelerate sustainability goals and accomplishments across the community.

Action Item Status:	2015	2016	2017
Met (M) – In Progress (P) – Unmet (U)			
Action Item 14.1 Connect Users across Industry Sectors to Information	Р		
Action Item 14.2 Host Community Partners for Sustainability and Lake	М		
County Green conference			
Action Item 14.3 Survey Needs of stakeholders	Р		
Performance Metrics:			
Number of community members participating in the Community Partners	34		
for Sustainability in Lake County (Action Items 14.1, 14.2, 14.3)			
Number of community members participating in the annual Lake County	100		
Green conference (Action Items 14.1, 14.2, 14.3)			