Campus Sustainability Action Plan
Spring 2015

Fairfield
UNIVERSITY

Fairfield UNIVERSITY

Office of the President

November 7, 2016

I am pleased to endorse and support Fairfield University's first Campus Sustainability Plan. This important document — the a collaborative work of faculty, students and staff — will provide guidance and clarity of focus for the myriad of sustainability initiatives and activities that are currently underway, or which we have planned for the future of our campus environment.

While Fairfield has long been committed to a model of stewardship in relation to the social and ecological environment, this current document is a timely one, arising as it does in the context set by Pope Francis in the first encyclical letter of his papacy, Laudata Si: On Care for our Common Home, in 2015.

With reference to previous calls to be mindful of the wellbeing of the planet that have been made by the Church, and with a particular emphasis on the example set by Saint Francis of Assisi in his "care for the vulnerable" and life that celebrated an "integral ecology lived out joyfully and authentically," Pope Francis has made an appeal to the body of Church and to the world to embrace the "urgent challenge to protect our common home," which includes " a concern to bring the whole human family together to seek a sustainable and integral development, for we know that things can change."

"Climate change is a global problem with grave implications: environmental, social, economic, political, and for the distribution of goods," Pope Francis continues. "It represents one of the principal challenges facing humanity in our day."

As a Jesuit and Catholic University Fairfield has a particular obligation to be conscious of its obligation to God's creation in all dimensions of our operations — in our classrooms, in the maintenance of our facilities, and most particularly in our collective sense of responsibility to be a body of hope, and an agent of positive social transformation. Pope Francis has made it clear that the ecological environment can no longer be excluded from this overarching obligation.

And so the campus sustainability plan that follows will serve as a significant and foundational document for how we proceed as a community in our obligation as a Catholic and Jesuit University to follow and express our overarching mission, which is to serve the common good, and to be mindful in all that we do of our obligation to take up our part in embodying and expressing God's love for, and presence in, His Creation.

Sincerely,

Jeffrey P. von Arx, S.J.
President

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Table of Contents

I. Introduction

Brief History
A Campus Sustainability Committee (CSC) was originally formed in October, 2008, as part of the American College and University President's Climate Commitment to carbon neutrality. Membership was by appointment, and included student, staff, and faculty membership. The CSC has met approximately monthly since that time, and developed working groups in 2010 to undertake the development of a Campus Sustainability Plan including goals and metrics for implementation. These working groups brought together students, staff, faculty, and administrators from across campus with interests and expertise in sustainability issues

The Campus Sustainability Plan
The Campus Sustainability Plan is a dynamic document defining major steps toward achieving sustainability into the future. Nine functional areas have been identified (Campus Operations, Energy, Building Design and Construction, Waste Management, Land and Water Management, Student and Academic Engagement, Finance, and Administration) and working groups have developed a series of recommendations, goals, objectives and benchmarks over short, intermediate, and long timeframes. The goals developed by each functional group are interconnected and consistent with a philosophy of sustainability shared across the student, faculty, staff, and administrative domains. A summary of each functional group's long-term vision follows; more detailed descriptions are provided in the body of the Campus Sustainability Plan.

The Vision behind the Plan
Fairfield University is ready to take a leadership role in the promotion of sustainability, and to become a regional center of higher education, discovery and operations. Current initiatives include significant accomplishments in the greening of campus structures, energy sourcing, and accountability for greenhouse gas emissions. In addition to these largely operational initiatives, Fairfield University has a strong tradition of faculty and student engagement in sustainability initiatives leading to establishment of a campus organic teaching garden, student-driven water quality monitoring, vigorous curriculum development, and other academic initiatives inside and outside the classroom.

How to Read this Document
This Campus Sustainability Plan has been assembled based on evaluations of several working groups focused on distinct aspects of campus sustainability. Background information and goals for each section are presented using the following template:

Background: This would describe history of action and current status. For example, for waste management, it could have a graph of recent tonnage (trash vs. recycling).

Goal 1: This is a prioritized list of Goals. Where do we want to be? What should we do first? For example, the goal for waste management could be to increase % recycling from 15 to 25% and reduce overall tonnage of waste produced by 'x' amount.

Strategies to meet goals:

Project (Informative title + brief description)	Contact (Name + email + phone)	Cost (Low, med, high)	Impact on Goal (Low, med, high)	Timeframe (completed, in progress, 1-2 yrs, 5-10 yrs, 10-20 yrs)

Goal 2: The next most important something else…

Strategies to meet goals:

Project (Informative title + brief description)	Contact (Name + email + phone)	Cost (Low, med, high)	Impact on Goal (Low, med, high)	Timeframe (completed, in progress, 1-2 yrs, 5-10 yrs, 10-20 yrs)

Goal 3: (etc…as appropriate)

II. Campus Operations:

Auxiliary Services (Bookstores, Food Service, Vending, Transportation)
Background: There is gaining momentum on college campuses regarding the move towards personal water bottles rather than purchasing water in bottles in retail locations on campus. (snack bar, library, vending) This does create some contractual problems in the short period with our vending contracts but in the long run, it is an environmental issue that cannot be ignored.

Goal: To promote at current water coolers on campus the request that "Stags use bottles, not landfills"
There will also be an audit of current water coolers on campus and the desire to increase the availability of water coolers on campus.
Strategies to Meet Goal

Water cooler promotions	Jim Fitzpatrick	$500	High	In progress as needed
Install additional water coolers	Curt Krushinsky	Medium	High	Ongoing

Purchasing Policies
Background: There are numerous university policies regarding purchasing with direct/indirect impact on university sustainability efforts in a positive, negative and neutral way. However there does not appear to be a "central" university policy encompassing all areas impacting sustainability.
Goal: It is our goal to complete an audit of all existing university purchasing policies and create a central depository for all such policies in the university purchasing department. Once the audit is complete, these policies will be reviewed by the campus sustainability committee with recommendations being sent to the university purchasing director.

Strategies to meet goal:

Audit and Review of University Purchasing Policies	Jim Fitzpatrick & Peter Perez	Low	High	In progress, completion 08/30/2106

University Vehicles
Background Hundreds of university vehicles exist yet there does not appear to be a central depository for information about such vehicles. In order to plan for new/replacement vehicle purchase, a central location must be designated and a vehicle replacement policy must be established that has environmental issues included as a key component in such purchase review.
Goal: It is recommended that a university vehicle audit be undertaken and that a central vehicle information center is established, reviewed and updated on an annual basis. One of the main components of this audit and depository will be to collect information on current vehicles so purchasing decisions based on key and significant environmental practices may be followed.

Strategies to meet goal:

Audit and Review of existing University vehicles	Peter Perez X2205	Low	High	In progress, completion 08/30/2016
Draft and propose policy for purchasing energy efficient vehicles	Peter Perez X2205	Low	High	In progress, completion 08/30/2016
Draft and propose vehicle idling policy	Frank Ficko X4090	Low	High	In progress, completion 08/30/2016

Custodial Services
Background: High volume numbers of cleaning products are used daily on the Fairfield University campus by both university departments and auxiliary services (Sodexo food service & ABM custodial services). While assuming that the purchase of such products is contingent on strong environmental policies and practices, there is no central clearinghouse on campus that tracks and reviews such purchases.

Goal: To audit/catalogue on an annual basis the type & volume of cleaning products used on campus and review if such products are meeting the university sustainability efforts.

Cleaning product audit	Candido Rosario	Low	High	In progress, completion 08/30/2016
Collect and publicize links to vendor sustainability policies	Jim Fitzpatrick	Low	Low	In progress, completion 08/30/2016

III. Energy

Background: The following plan provides insight into utility usage and looks for ways to obtain efficiencies and reduce consumption. The primary objective is to achieve the goals established by Fairfield University's Climate Action Plan.

Based on the order of magnitudes, energy will be the primary focus. The process will be to first identify the largest areas of usage on campus in terms of electricity and BTU's of heating and cooling. Recommended changes will involve equipment modifications as well as behavioral changes. Equipment modifications will be sorted by low, medium and high costs. Behavioral changes will be described and accompanied by a description of the methodologies to implement, communicate, monitor and applaud the change in behavior.

See the end of this section for an overview of campus energy infrastructure.

Goal 1: Target a Reduction of Energy Consumption by 5%, FY 2012; by 20% by 2020.

Strategies to meet goals:

Project: Heat Recovery: Facilities will continue to incorporate this technology in new construction and renovations.	Contact: David Frassinelli dfrassinelli@fairfield.edu, x4254	Cost: Medium	Impact on Goal: Medium	Timeframe: Ongoing
Project: Continue with the replacement of exterior lighting with the new campus standard LED lighting with cutoff features. The new standard fixture eliminates night sky and has an extended life span of 70,000 hours compared to 25,000 hours for conventional fixtures.	Contact: David Frassinelli dfrassinelli@fairfield.edu, x4254	Cost: Medium	Impact on Goal: Medium	Timeframe: in progress, 60% complete
Project: Existing Building Commissioning (formerly known as Retro Commissioning): Fairfield is in the process of rolling out this program. The first building to be done will be the Library. Facilities will start by evaluating the automation of the lighting systems to develop a program to shut off the lights when the building is not in use.	Contact: David Frassinelli dfrassinelli@fairfield.edu, x4254	Cost: Medium	Impact on Goal: Medium	Timeframe: in progress, 10% complete
Project: New HVAC Equipment: Facilities has continued to upgrade HVAC equipment on an annual basis. Townhouse heating and cooling equipment has been completed.	Contact: David Frassinelli dfrassinelli@fairfield.edu, x4254	Cost: High	Impact on Goal: Medium	Timeframe: ongoing
Project: Envelope Upgrades (insulation in window replacements) to improve heat loss.	Contact: David Frassinelli dfrassinelli@fairfield.edu, x4254	Cost: High	Impact on Goal: Medium	Timeframe: ongoing.
Project: BMS Upgrades: Facilities will continue to add buildings to the central control system at CUF.	Contact: David Frassinelli dfrassinelli@fairfield.edu, x4254	Cost: High	Impact on Goal: Medium	Timeframe: ongoing.
Project: Continue doing night setbacks and increase setback range from 3 to 5 degrees. Buildings capable of accommodating and slated for the	Contact David Frassinelli, dfrassinelli@fairfield.edu, x4254	Cost: Low	Impact on Goal: Medium	Timeframe: in progress, 50% complete

night setbacks; Library, Kelley Center, Alumni House, WAC. (Kelley and WAC are completed. See Fairfield University Energy Plan, Nov. 2011 for more details)				
Project: Plug Load Reductions. Putting computers and other equipment onto power strips can significantly reduce power consumption. The university could supply power strips to faculty and staff and require their use. Students can be encouraged to use these as well.	Contact: David Frassinelli, dfrassinelli@fairfield.edu, x4254; LEAF, Leaders for Environmental Action at Fairfield, leaf.fairfield@gmail.com	Cost: Low	Impact on Goal: Low	Timeframe: 1-2 years
Project: Task Lighting/Light bulb Restriction: institute a policy allowing one task light per student and require the use of CFL bulbs. Continue the swap out program for incandescent to CFL bulbs that was started last year.	Contact: LEAF, Leaders for Environmental Action at Fairfield, leaf.fairfield@gmail.com	Cost: Low	Impact on Goal: Medium	Timeframe: in progress, 0% complete
Project: Shutting off lights: Develop a PR program to encourage the community to shut off lights in rooms not being used.	Contact: David Frassinelli dfrassinelli@fairfield.edu, x4254	Cost: Low	Impact on Goal: Low	Timeframe: 1-2 years
Project: Encourage and educate students toward bringing energy efficient electronics to campus, e.g., LED flat screen televisions rather than plasma screen televisions	Contact: LEAF, Leaders for Environmental Action at Fairfield; leaf.fairfield@gmail.com	Cost: Low	Impact on Goal: Low	Timeframe: in progress
Project: Make greater use of new ultrasonic technology occupancy sensors across campus.	Contact: David Frassinelli dfrassinelli@fairfield.edu, x4254	Cost: Medium	Impact on Goal: Medium	Timeframe: ongoing

Goal 2: Target a reduction in mobile fuel usage by 20% by 2025.

Strategies to meet goals:

Project: Install two electric charging stations for electric vehicles, both University fleet and employee.	Contact: David Frassinelli, dfrassinelli@fairfield.edu, x4254	Cost: Medium	Impact on Goal: Low	Timeframe: 1 year
Project: Continue to replace traditional fleet vehicles with hybrids or other alternative technology where appropriate to function	Contact: David Frassinelli, dfrassinelli@fairfield.edu, x4254	Cost: Medium	Impact on Goal: Medium	Timeframe: on going

Goal 3: Cut carbon emissions by achieving goals 1 and 2 above

Strategies to meet goals:

Brief Campus Overview

The Fairfield University Campus is provided electricity from a single high voltage electrical loop that originates at the Central Utility Facility (CUF). Certain areas of the campus, such as the Townhouses, The Grounds Barn, Southwell Hall and the Early Learning Center have their own electrical services separate from the campus loop.

The bulk of the power coming out of CUF is provided by a 4.6 megawatt gas driven jet engine turbine known as the cogeneration unit. The 4.6 megawatt designation is the potential output of the unit in an ideal factory setting. For practical purposes, the unit produces approximately 3.9 to 4.0 megawatts. There is also a utility line from our local utility that runs through CUF to supplement the power of the cogeneration unit. At all times of the year, Fairfield imports electricity from the local utility over that electrical line. In months such as February when the campus load is close to 3.2 megawatts, the import is minimal. In September, the campus load can approach 4.9 megawatts.

In the 1970's, Fairfield centralized the heating and cooling of buildings in the campus core by installing a high temperature hot water loop (HTHW) and a chilled water loop (CW). The generation of the heat was provided by conventional gas boilers and the generation of cooling provided by conventional chillers. The loop is actually three separate loops. The first loop serves the Campus Center, Recreational Complex, Bannow North and the School of Nursing and represents 43% of the total CUF production of 78 billion heating and cooling BTU's. The second loop serves Kostka, Claver, Bannow South, Library and 47 Mahan representing 49% of production not including 51 McInnes that was recently added. Prep is on its own loop and consumes 8%. The installation of the cogeneration facility has allowed Fairfield to capture the waste heat from the generation of electricity to provide heating and cooling.

Fairfield has a second loop on the other side of campus that provides heat to Canisius, Donnarumma and all of the dorms on the quad. This loop was designed as a dual temperature loop that could provide cooling to these buildings should Fairfield install the equipment to provide chilled water. The heating is provided by dual fuel boilers in Loyola and Jogues Halls.

The energy department at Fairfield University located in the CUF facility has a sophisticated controls system that allows Facilities to view the building systems on campus. The temperatures in various rooms, the temperature set points and the temperatures coming out of the HVAC supply ducts can all be viewed. Unfortunately, not all buildings on campus have this capability. Extending the ability to control buildings will be an important step in reducing energy costs and effectively managing the university's overall energy consumption. This will complement strategies provide in Section V: Building Design and Construction.

IV. Building design and construction

Background: Fairfield University's campus is composed of 59 buildings with 2.1 million square feet of space spread across 214+ acres. Fairfield supports a student, faculty and staff population of approximately 6,000. Over 80% of our undergraduate student body resides in on-campus housing. The University continues to grow. Over the past five years Fairfield University has built approximately 220,000 gross square feet (GSF) and renovated 30,000 GSF. Fairfield has made a commitment to make sustainability a focus of every new construction and renovation project.

Building design, construction and renovation projects impact campus sustainability in a number of ways. In the design phases of these projects the Department of Facilities will evaluate the feasibility of green features that could be incorporated into projects. Recent elements incorporated into design have included green roofs, low flow toilets, low flow shower heads, permeable pavement, renewable building products with low carbon footprint, heat recapturing HVAC systems and LED lighting. During construction, the construction team manages budgets to incorporate as many of these elements as the budget allows.

The goals in this section focus on creating a comprehensive and holistic approach to "greening" processes involved in the planning, design, construction, operation, maintenance and reuse of Fairfield University's buildings, facilities and built environment.

Goal 1: To the maximum extent possible, design new facilities to LEED Silver sustainability standard

Strategies to meet goals:

Energy efficient and sustainable design standards shall be utilized on all new construction projects. As of this writing all new construction shall meet or exceed a LEED Silver level of sustainability.	Curt Krushinsky ckrushinsky@fairfield.edu x2503	Medium	High	In progress

Goal 2: Develop sustainable plans for renovating and retrofitting existing buildings as resources allow.

Strategies to meet goals:

Energy efficient and sustainable design standards shall be utilized on all applicable renovation projects. As of this writing all major renovations shall meet or exceed a LEED Silver level of sustainability.	Curt Krushinsky ckrushinsky@fairfield.edu x2503	Cost: Low	Impact on Goal: Medium	Timeframe: in progress

Goal 3: Upgrade Building HVAC Systems as resources allow.

Strategies to meet goals:

Existing building HVAC equipment shall be replaced with more energy efficient models, as applicable,	Curt Krushinsky ckrushinsky@fairfield.edu x2503	Low	High	In progress

Goal 4: Purchase Sustainable Furniture, Fixtures and Equipment (FF&E) that balance functionality with sustainability.

Develop a set of guiding principles and policies regarding the specification and purchase of preferred furniture, fixtures and equipment (FF&E) as campus standard.	Curt Krushinsky ckrushinsky@fairfield.edu x2503	Low	High	In progress

Goal 5: Communication Economic and Social Benefits.

Strategies to meet goals:

Develop and document opportunities to communicate "economic" and "social" benefits of sustainable design into construction, operation and maintenance of campus buildings and facilities.	Curt Krushinsky ckrushinsky@fairfield.edu x2503	Low	High	In progress

Goal 6: Create opportunities for the built environment to provide educational benefits

Strategies to meet goals:

Incorporate green elements in such a manner that allows ongoing educational benefits	Curt Krushinsky ckrushinsky@fairfield.edu x2503	Low	High	In progress

Goal 7: Include building systems that promote awareness of energy consumption as opportunities become available.

Provide live and online opportunities for students to see the power, water and heating consumption related to their activities	Curt Krushinsky ckrushinsky@fairfield.edu x2503	Medium	High	Partially complete

V. Waste Management

Background: A formal recycling program at Fairfield University began in 1993. As of January 1, 1991, it is Connecticut State Law that all persons, businesses, and institutions recycle all products possible including but not limited to aluminum, glass, plastic, scrap metal, organics (ie: leaves), and various forms of paper and cardboard. (Annotated List of CT General Statutes Concerning Recycling Requirements)

Historically, Fairfield University has maintained an average diversion rate (percent recycled of total hauled) of around 12 percent. Methods of recycling have been altered since the programs' genesis, in order to explore potentials of increasing the diversion rate. A curbside pick-up program began in 2003 in the Townhouse student housing, as a way to make recycling more convenient and standardized. In 2008, students began the "Gimme 5" Program, focusing on creating on-campus public collection centers for #5 Plastics, which were then shipped to an outside recycling company.

Tomra's Bottle and Can Deposit machines were brought onto campus in 2009 in the Townhouses, replacing the curbside pick-up program. Although receiving abundant media attention, the machines did not become as successful as hoped among the student population due to machine error and inconvenience of receiving rebate money.

In 2011, the University adopted the Single Stream Recycling Program, which began in the Town of Fairfield the summer of the same year. This allows for a greater quantity of materials to enter the recycling stream, and ideally makes it "easier" to recycle, as there is no separation of materials on the consumer's side, just one recycling bin. Although a learning curve period was expected, the dramatic decrease in diversion rate observed in the first few months of the program was disheartening. The overall reported hauling tonnages, however, were also much less than expected, possibly due to decrease in students and staff on campus, less off-campus sources contributing to the University's dumpsters (illegal dumping), and altered national averages of waste per square yard (the rate that determines the University's hauling weights).

Fairfield University also generates some forms of biological, chemical, and other hazardous wastes, which required disposal according to state and federal regulations. The University holds certification as ESQG (Exempt Small Quantity Status) that places limits as to what we "lab pack" out per month. The university contracts with a licensed hazardous waste hauler for disposal of this material.

Goal 1: Track solid waste stream volume and content

Strategies to meet goals:

Establish reporting rate consistent with past reporting to better track Single Stream Program's progress	Joe Bouchard JMBouchard@fairfield.edu, John Dulina john.dulina@wintersbrosct.com	Low	N/a	<1 year
Implement tracking and reporting on wastewater volume	Joe Bouchard	Low	Medium	< 1 year
Establish reporting on biological, chemical, and hazardous waste generation	Joe Bouchard	Low	Medium	<1 year

Goal2: Increase diversion rate to 35% by 2015

Strategies to meet goals:

Evaluate reinstating Curbside Recycling	Joe Bouchard JMBouchard@fairfield.edu	Low (transferring funds from Tomra to new program)	Medium	1 Year
Mandatory education programs: • Must be initiated by students, but funded by Facilities Management, with communication with and support of	Peter Crowley pcrowley@fairfield.edu, Candido Rosario	Low	Medium	1-2 years

Custodial. • Includes increased signage, more developed website resources, standardized FYE training.	crosario@fairfield.edu			

Goal 3: Assess the amount of hazardous waste generated on campus, and search for methods to reduce the type and amount of such wastes.

Strategies to meet goals:

Generate a review of sources and amounts of of hazardous waste over the past 5- and 10-year periods	Joe Bouchard JMBouchard@fairfield.edu	Low	Medium	1 Year
Share review with CSC and the campus entities identified as significant contributors to hazardous waste. Work collaboratively to identify methods to reduce or eliminate hazardous waste generation.	Joe Bouchard JMBouchard@fairfield.edu	Low	Medium	1-2 years
Implement methods to reduce or elimnate hazardous waste generation	Joe Bouchard JMBouchard@fairfield.edu	Unknown	Hight	3-5 years

VI. Land and Water Management

Background:
Fairfield University sits on 214 acres in a suburban setting in southwestern CT. The outdoor landscape is a mixture of lawn, athletic fields, landscaped plantings, and mixed hardwood forest. Water resources include 2 small ponds, a small stream, and a wetland. 28 acres are in areas regulated by the Town of Fairfield (wetlands and conservation easements). Land and water management encompasses a wide range of activities on campus. The goals in this section focus on reducing the environmental impact of these activities, enhancing biodiversity, and increasing campus awareness of the importance of land management to sustainability.

Our overall approach to achieving the goals stated below is to formally develop management plans for the campus open spaces and collect them in a comprehensive document. Open spaces include the range of outdoor spaces from highly managed lawns and landscaped areas to conservation easements that have town-prescribed management conditions to relatively unmanaged natural areas. The process of developing the components in the plan has already begun and includes collecting current practices, describing the campus and developing broad management goals for each type of area. Central to this approach is to develop a universal list of place names and descriptions to the various areas on campus. We are also working to come up with a broad set of open area categories guided by the basic management goals for each area type. The list of place names, management goals for each area type and specific recommendations for each area will combine to ultimately be the comprehensive management plan for open spaces.

Goal 1: Improve campus awareness and importance of land management practices and various uses of outdoor space.

Develop a layer for the current campus map which outlines areas of different land use (e.g., lawn, athletic fields, natural areas). Calculate % of campus devoted to different land use.	Curt Krushinsky[2]	Med	High	In progress
Identify areas that are used for classroom activities and faculty/student research. Add signage to highlight those areas.	Chair, Faculty Committee on Sustainability Curt Krushinsky[2]	Low	High	1-2 years
Implement changes.	Chair, Faculty Committee on Sustainability Curt Krushinsky[2]	Likely Low	Likely high	Unknown
Add educational signage that highlights activities/management strategies in different areas.	Curt Krushinsky[2]	Low	High	1-2 years
Implement changes.	Curt Krushinsky[2]	Likely Low	Likely high	Unknown
Develop admissions/outreach material (self-guided campus tour) to highlight campus features related to sustainability. Examples of stops on the tour: Geothermal wells, campus garden, Hopkins retention pond, water quality monitoring sites, etc.	Admissions, Campus Sustainability Committee	Low	High	1-2 years

Goal 2: Improve outdoor water management where possible and practical.

Currently water is used primarily for irrigating some lawn areas, annual plantings, and new plantings. A small amount of total lawn area is irrigated using traditional sprinkler irrigation. Annual plantings are overhead watered by hand. Mature trees and shrubs are watered by hand during drought conditions. Recent initiatives which reduce water usage include drip irrigation in new planters at 51 McInnes and drip irrigation in the campus vegetable garden. Plants in the campus vegetable garden are also heavily mulched to reduce water loss.

Currently stormwater is managed through a number of retention ponds on campus as well as the absorption in natural areas and to a lesser extent lawns. A series of storm drains collect runoff from impervious surfaces and delivers it either to the campus stream or to the Town of Fairfield stormwater system.

Strategies to meet goals:

Assess irrigation water use with an eye towards reducing use.	David Frassinelli[1]	Low	High	In progress
Implement water saving measures where needed and practical.	David Frassinelli[1]	Unknown	Unknown	Unknown
Assess current vegetated buffers around water bodies in relation to stormwater run-off and particulate capture.	David Frassinelli[1]	Low	High	In progress
Implement plan to add buffers where needed and practical.	David Frassinelli[1]	Likely low	Likely med	Likely short term

Goal 3: Reduce indoor water consumption by 30%, by 2025.

The potable water source for Fairfield University is Aquarion, a private utility. The campus is served by a variety of water mains that enter the campus from a number of directions. In the Townhouse area, all of the Townhouses are individually metered. Accordingly, the Townhouses have the highest cost for water at $6+ per thousand gallons. A major water main enters the campus from the west and serves the Regis pumphouse. This pump house boosts the water pressure to provide domestic and fire sprinkler water to the quad buildings, Bellarmine and portions of the library. Based on the volume, the cost of water is approximately $2+ per thousand gallons. Sewage leaves the campus in Town owned sanitary lines that go to the Town treatment plant. The charge for total sewage is based on the consumption information provided by Aquarion.

Strategies to meet goals:

Project: Install low pressure shower heads in residence halls, townhouses and apartments	Contact: David Frassinelli dfrassinelli@fairfield.edu, x4254	Cost: Low	Impact on Goal: Medium	Timeframe: in progress
Assess low flush toilets in all existing bathrooms	Contact: David Frassinelli dfrassinelli@fairfield.edu, x4254	Cost: Low	Impact on Goal: Medium	Timeframe: in progress
Project: Purchase water efficient washing machines for residence hall laundry rooms when replacement is due	Contact: David Frassinelli dfrassinelli@fairfield.edu, x4254	Cost: Low	Impact on Goal: Medium	Timeframe: in progress

Goal 4: Target a reduction in sewage effluent by 30%, by 2025.

Strategies to meet goals:

Project: Meet water conservation strategies outlined in Goal 2.	Contact: David Frassinelli, dfrassinelli@fairfield.edu, X4254	Cost:	Impact on Goal:	Timeframe: in progress

Goal 5: Reduce fertilizer input to and export from campus where practical.

As of 2012, all lawn areas are fertilized 4 times per year with 3.5 lbs of nitrogen per unit area. The rate was reduced in 2010 from 4 to 3.5 lbs per unit area resulting in 25% reduction. At least 50% of the nitrogen is slow-release. Three of the four applications to the lawn areas near the townhouses and Dolan School of Business use organic fertilizer. Some campus waterways currently have vegetated buffers which act to reduce nitrogen export to the streams and off campus. Some ornamentals are spot fertilized with a liquid organic fertilizer when needed. Lawn fertilizer is applied by an outside contractor. Athletic fields have a different management plan than lawns.

Strategies to meet goals:

Assess current vegetated buffers around water bodies in relation to fertilizer capture.	David Frassinelli[1]	Low	High	In progress
Implement plan to add buffers where	David Frassinelli[1]	Likely low	Likely med	Likely short

needed and practical.				
Assess current fertilizer application practices near water bodies.	David Frassinelli[1]	Low	High	In progress
Implement plan to add no fertilizer application buffer zones where needed and practical.	David Frassinelli[1]	Likely low	Likely med	Likely short
Assess current fertilizer application practices near natural areas.	David Frassinelli[1]	Low	High	In progress
Implement plan to add no fertilizer application buffer zones where needed and practical.	David Frassinelli[1]	Likely low	Likely med	Likely short
Consider an increase in the proportion of slow release fertilizer to reduce fertilizer runoff.	David Frassinelli[1]	Low	High	In progress
Implement plan to modify current fertilizer composition if needed and practical.	David Frassinelli[1]	Likely low	Likely med	Likely short
Consider an increase in organic application to reduce fertilizer runoff and reduce greenhouse gas emissions in production.	David Frassinelli[1]	Low	High	In progress
Implement plan to modify current fertilizer composition if needed and practical.	David Frassinelli[1]	Likely med	Likely med	Likely short
Consider modifying timing of fertilizer application to comply with best practices.	David Frassinelli[1]	Low	High	In progress
Implement plan to modify the timing of current fertilizer application if needed and practical.	David Frassinelli[1]	Likely low	Likely med	Likely short
Consider designating some areas outside of high use core areas as reduced fertilizer application areas.	David Frassinelli[1]	Low	High	In progress
Implement plan to designate certain areas reduced fertilizer areas.	David Frassinelli[1]	Likely low	Likely med	Likely short

Goal 6: Reduce pesticide use on campus where practical.

As of 2012, pre-emergent herbicide is applied to lawns and areas landscaped with wood chips every spring. In addition, grub control is applied to lawns once per year when necessary and broadleaf weeds are spot controlled with herbicide. Ornamental trees are fumigated with fungicide once per year. Tree disease is assessed by a certified arborist and treated only if necessary.

Strategies to meet goals:

Assess current pesticide application practices near water bodies and create no pesticide application buffer zones around water bodies.	David Frassinelli[1]	Low	High	In progress
Implement plan to add no pesticide application buffer zones where needed and practical.	David Frassinelli[1]	Likely low	Likely med	Likely short
Assess current pesticide application practices near natural areas and create no pesticide application buffer zones.	David Frassinelli[1]	Low	High	In progress
Implement plan to add no pesticide application buffer zones where	David Frassinelli[1]	Likely low	Likely med	Likely short

needed and practical.				
Consider the use of organic pesticide application.	David Frassinelli[1]	Low	High	In progress
Implement plan to modify current pesticide composition if needed and practical.	David Frassinelli[1]	Likely med	Likely med	Likely short
Consider designating some areas outside of high use core areas as reduced pesticide application areas.	David Frassinelli[1]	Low	High	In progress
Implement plan to designate certain areas reduced pesticide areas.	David Frassinelli[1]	Likely low	Likely med	Likely short

Goal 6: Reduce impact of ice and snow management practices if possible without sacrificing safety.

Campus walks and roadways are treated to ensure safety of students, staff, faculty and visitors. Until 2011, surfaces were treated with both sand and salt. Stormwater catch basins were cleaned of sand as necessary and sand was reused. Current practice is use of salt only. Better management of salt and sand use will reduce impacts on campus water bodies. Currently, salinity levels in the campus stream increase significantly during the winter season.

Strategies to meet goals:

Assess current vegetated buffers around water bodies in relation to salt and sand capture.	David Frassinelli[1]	Low	High	In progress
Implement plan to add buffers where needed and practical.	David Frassinelli[1]	Likely low	Likely low for salt, Likely med for sand	Likely short
Consider the use of some alternative ice treatment materials.	David Frassinelli[1]	Low	High	In progress
Implement plan to modify the composition of current ice treatment materials if needed and practical.	David Frassinelli[1]	Likely med	Likely med	Likely short

Goal 7: Reduce the impact of invasive species.
Most of the natural areas on campus contain some invasive species, and in many cases the abundance of invasive species is detrimental to biodiversity. Currently, there is some work to remove invasive vines on campus, especially when they are causing damage to trees. Tree of Heaven (*Ailanthus*), a non-native tree is currently removed when possible. There are a few areas under conservation easement with more active management of invasive species. Removal of invasive species in some cases may require new plantings of native plants in their place.

Strategies to meet goals:

Develop a list of invasive organisms with management priority.	David Frassinelli[1]	Low	High	In progress
Define areas of campus according to invasive species removal practice.	David Frassinelli[1]	Low	High	In progress
Identify priority areas for management.	David Frassinelli[1]	Low	High	In progress
Implement invasive species plan.	David Frassinelli[1]	Likely med	Likely high	Continuous
Develop a plan for replanting of native plants following the removal of invasive species.	David Frassinelli[1]	Low	High	In progress
Implement native plantings plan.	David Frassinelli[1]	Likely med	Likely med	Continuous

Goal 8: Enhance biodiversity with native plantings. Native plants provide better food and habitat for wildlife than non-native species.

Strategies to meet goals:

Assess current plant choice practices and explore ways to increase planting of native species as ornamentals.	David Frassinelli[1]	Low	High	In progress

Implement native plantings plan.	David Frassinelli[1]	Likely med	Likely med	Continuous
Use plantings of native ornamentals to reclaim marginal areas of lawn in appropriate areas.	David Frassinelli[1]	Low	High	In progress
Implement native plantings plan.	David Frassinelli[1]	Likely med	Likely med	Continuous

Goal 9: Increase the breadth of campus composting activities where economically viable. Currently there is a very successful composting program on campus for leaf waste.

Strategies to meet goals:

Consider composting or other alternative methods of dealing with food waste.	David Frassinelli[1] Jim Fitzpatrick	Likely high	Likely high	Unknown
Implement changes.	David Frassinelli[1]	Likely high	Likely high	Unknown
Assess needs of the current leaf composting operation.	David Frassinelli[1]	Low	Med	1-2 years
Implement changes.	David Frassinelli[1]	Likely med	Likely low	Unknown

[1] David Frassinelli, Associate Vice President of Facilities Management, dfrassinelli@fairfield.edu, X4254

VII. Academic Initiatives

Introduction
Fairfield University has a strong interdisciplinary Environmental Studies Program that has led development of academic course and resources to promote education on sustainability. We have identified four key areas to support this work and ensure that sustainability becomes an essential part of academic life and characteristic of education at Fairfield.

Area 1: Develop and Implement the Use of Quantitative and Qualitative Metrics to Examine Academic and Research Programs Related to Sustainability

Background: Fairfield University has significantly expanded the quantity and quality of its academic programs relevant to sustainability as well as management of these programs. At the same time, gaps exist in our understanding of many important quantitative and qualitative issues related to courses, enrollments, trends, distribution across Schools and Departments, relation to the Core Curriculum, and other issues. Obtaining and monitoring this information will allow faculty and administrators to confirm accomplishments, indentify opportunities, adjust activities, address priorities and support grant proposals, relevant University reporting (e.g. sustainability scorecards), and related institutional activity.

Similarly, Fairfield University faculty and students engage in meaningful research relevant to sustainability. Unfortunately, no systematic understanding of these activities or their impacts exists. Obtaining and monitoring this information will allow faculty and administrators to confirm accomplishments, indentify opportunities, expand and support key activities, and support grant proposals, University reporting, and related institutional activity.

Goal 1: Develop Quantitative and Qualitative Metrics for Assessing Academic Programs Related to Sustainability.

Develop Quantitative Metrics for Assessing Academic Programs Related to Sustainability *Identify, define and prioritize numerical indicators to help us understand and assess the extant development, current status, and general impact of academic programs related to sustainability.*	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program Director, Environmental Studies Program	Low in monetary terms. Medium in time.	Impact on Goal: High	In progress
Develop Qualitative Metrics for Assessing Academic Programs Related to Sustainability *Identify, define and prioritize numerical indicators to help us understand and assess the extant development, current status, and general impact of academic programs related to sustainability.*	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program Director, Environmental Studies Program	Low in monetary terms. Medium in time.	Impact on Goal: High	In progress
Seek Internal and External Support to Develop and Implement the Use of Quantitative and Qualitative Metrics. *Identify potential University and external funding sources and*	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program Director, Environmental	Low in monetary terms. Medium in time.	Impact on Goal: High	1-2 years

develop proposals seeking resources for, e.g., student assistants, meeting support, course release, and summer and/or academic year stipends to undertake the time-consuming tasks required to identify, define, and prioritize the metrics; gather the initial information; create a system to update it annually; analyze the information; and take initial action.	Studies Program Foundation Relations, Corporate Relations and Advancement.			

Goal 2: Implement the Use of Quantitative and Qualitative Metrics for Assessing Academic Programs Related to Sustainability.

Gather Baseline Information on the quantitative metrics. *On a prioritized basis, work with relevant University officials to gather information on as many metrics as possible and identify gaps in the available information.*	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program Director, Environmental Studies Program University officials involved in institutional research and records.	Low to High in monetary terms due to time spent. Medium to high in time.	Impact on Goal: High	1-2 years
Develop and Implement Systems for Updating Quantitative Metrics on an Annual Basis. *Work with relevant University Officials to develop methods for gathering the necessary information on an annual basis.*	Faculty Committee on Sustainability. Steering Committee Environmental Studies Program. Director, Environmental Studies Program University officials involved in institutional research and records	Low in monetary and time terms if system can be regularized.	Impact on Goal: High	3-5 years for creating the system, depending on resources, and then annual updates.
Gather Information on the qualitative metrics. *On a prioritized basis, work with relevant University officials to gather information on as many metrics as possible and identify gaps in the available information.*	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program Director, Environmental Studies Program University officials involved in institutional research, records and alumni affairs.	Low to High in monetary terms due to time spent. Medium to high in time.	Impact on Goal: High	1-2 years depending on resources.
Develop and Implement Systems for Updating	Faculty Committee on Sustainability.	Low in monetary	Impact on Goal:	3-5 years for creating the

Qualitative Metrics *Work with relevant University Officials to develop methods for gathering the necessary information every 5 years or, as needed and appropriate..*	Steering Committee Environmental Studies Program. Director, Environmental Studies Program University officials involved in institutional research, records, and alumni affairs	and time terms if system can be regularized.	High	system, depending on resources, and then annual updates.

Goal 3: Develop Metrics to Assess Research Activity Related to Sustainability.

Develop Metrics to Assess Research Programs Related to Sustainability *Identify, define and prioritize indicators to help us understand and assess the extant development, current status, and general impact of Fairfield University research programs related to sustainability.*	Faculty Committee on Sustainability. Steering Committee Environmental Studies Program. Director, Environmental Studies Program	Low in monetary terms. Medium in time.	Impact on Goal: High	In progress
Seek Internal and External Support to Develop and Utilize Quantitative and Qualitative Metrics relevant to Research Activities on Sustainability *This would be done as part of effort to seek support for development and utilization of metrics to examine educational programs related to sustainability.*	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program Director, Environmental Studies Program Foundation Relations, Corporate Relations and Advancement.	Low in monetary terms. Medium in time.	Impact on Goal: High	1-2 years

Goal 4: Implement the Use of Quantitative and Qualitative Metrics for Assessing Research Activities Related to Sustainability.

Gather Information on the quantitative metrics. *On a prioritized basis, work with relevant University officials to gather information and identify information gaps. This could be done as part of effort to seek support for development and utilization of metrics to examine educational programs related to sustainability.*	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program Director, Environmental Studies Program University officials involved in institutional research.	Low to High in monetary terms due to time spent. Medium to high in time.	Impact on Goal: High	1-2 years depending on resources.
Develop and Implement a System for Updating	Faculty Committee on Sustainability.	Low in monetary	Impact on Goal:	3-5 years for creating the

Quantitative Metrics *Work with University Officials to develop methods for gathering the necessary information on an annual basis. This could be done as part of effort to seek support for development and utilization of metrics to examine educational programs related to sustainability.*	Steering Committee, Environmental Studies Program Director, Environmental Studies Program University officials involved in institutional research.	and time terms if system can be regularized.	High	system, depending on resources, and then annual updates.

Area II: Analyze the Metrics and Create and Implement Plans to Enhance the Academic and Research Programs Related to Sustainability

Background: Once the metrics have been developed and sufficient information has been gathered, Faculty and administrators will analyze trends and other findings and, if appropriate, take steps to maintain and improve the academic programs on the basis of the metrics, on an ongoing basis.

Goal 1: Analyze Fairfield University's Academic and Research Programs Related To Sustainability Using the Quantitative and Qualitative Metrics

Assess Academic Programs Related To Sustainability Using The Metrics *Analyze results from metrics, on an ongoing basis, to develop and prioritize options for maintain and improving academic activities related to sustainability. Draft a plan(s) based on results, if necessary, and seek funding for implementing the plan.*	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program Director, Environmental Studies Program University officials involved in institutional research.	Low in monetary terms. Very high in time.	Impact on Goal: High	Completed Fall 2013
Assess Academic Programs Related To Sustainability Using The Metrics *Analyze results from metrics, on an ongoing basis, to develop and prioritize options for maintain and improving academic activities related to sustainability. Draft a plan(s) based on results, if necessary, and seek funding for implementing the plan.*	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program Director, Environmental Studies Program University officials involved in institutional research.	Low in monetary terms. Very high in time.	Impact on Goal: High	Ongoing

Goal 2: Develop and Implement Plans to Maintain and Improve Sustainability Academics and Research on the Basis of the Assessments and to Implement the Related Goals Outlined in the Following Sections (subject to normal governance provisions).

Strategies to meet goal:

Seek and Obtain Resources to Support Development and Implementation of Specific	Faculty Committee on Sustainability.	Low in monetary terms.	Impact on Goal: High	In progress and ongoing

Strategies to Support and Improve Academics and Research. *Identify potential external funding sources to respond to issues revealed through study of the metrics.*	Steering Committee, Environmental Studies Program Director, Environmental Studies Program Foundation Relations, Corporate Relations and Advancement.	Medium to High in time.		
Develop Specific Strategies to Support and Improve Academics and Research.	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program Director, Environmental Studies Program	Low in monetary terms. Medium to High in time.	Impact on Goal: High	1–2 years
Implement Strategies to Support and Improve Academics and Research.	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program Director, Environmental Studies Program	Low in monetary terms. Medium to High in time.	Impact on Goal: High	1–2 years

Area III: Enhance and Expand Course Offerings Related to Sustainability

Background: Although the number of courses, and the departments in which they are offered, has increased significantly since 2008, Fairfield University's course offerings relevant to sustainability could still improve. In advance of the systematic analysis that should result from use of the metrics, a number of other key priorities and opportunities have already been identified to enhance these educational programs.

Goal 1: Secure Consistent Scheduling of Key Courses Related to Sustainability.

The effectiveness of the Environmental Studies Program and overall academic offerings related to Sustainability depend on the availability of courses offered by departments across the University. Students depend on the future availability of these courses when planning the schedules so they can meet College Core, major, minor, and other requirements. Thus, maintaining and expanding the Environment Program requires ensuring the availability of key required and elective courses, particularly those that meet certain College Core Requirements. This will also increase the number of students able to take such course.

Obtain agreement from relevant Department Chairs that courses classified as Foundational Courses in the Environmental Studies Program will be offered on an annual basis with certain courses running two or more sections each year.	Environment Program Director working with Department Chairs and relevant University officials.	Low	Impact on Goal: High	Ongoing
Obtain agreement from relevant Department Chairs and faculty that other key courses relevant to sustainability will be offered on a regular basis, ideally on average of at least once every two years.	Environment Program Director working with Department Chairs and relevant University officials.	Low to medium depending on staffing issues.	Impact on Goal: High	Ongoing

Goal 2: Increase the Distribution of Courses Related to Sustainability across a larger number of Academic Departments, Core Curriculum Requirements, and Living-and-Learning Initiatives (subject to standard governance processes).

Some Schools, Departments and College Core Requirements have no courses, or very few courses, related to sustainability. Adding courses in these departments and Core Requirements would increase the intellectual scope of the academic offerings related to sustainability at Fairfield University. Such courses would also increase opportunities for more students to take courses related to sustainability.

Develop one or more courses in the Philosophy Department (PH) that examines environmental and sustainability issues. Currently, there is no class offered by the philosophy department that address the environment or sustainability as a principle focus. Such a course would also fit naturally into a modern Jesuit institution with a vibrant core curriculum and fill a significant hole in the curriculum.	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program. Director, Environmental Studies Program. Chair, Department of Philosophy.	Low if current faculty member or replacement hire teach the classes. Medium if an adjunct is needed.	Impact on Goal: High	3-5 years
Develop one or more courses in the Religious Studies Department (RS) that examines how religious traditions understand the environment and human responsibilities toward it. Currently, there is no such class offered by the religious studies department. Such a course would also fit naturally into a modern Jesuit institution with a vibrant core curriculum and fill a significant hole in the curriculum.	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program. Director, Environmental Studies Program. Chair, Department of Religious Studies	Low if current faculty member or replacement hire teach the classes. Medium if an adjunct is needed.	Impact on Goal: High	3-5 years
Develop a course that could fulfill one of the Core Curriculum requirements in the Visual and Performing Arts (VPA) that addresses issues of sustainability.	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program. Director, Environmental Studies Program. VPA Faculty.	Low if current faculty member or replacement hire teaches the class. Medium if an adjunct is needed.	Impact on Goal: High	3-5 years
Develop one or more additional courses in the Dolan School of Business (DSB) that address sustainability issues.	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program. Director, Environmental Studies Program. DSB Faculty.	Low if current faculty member or replacement hire teach the classes. Medium if an adjunct is needed.	Impact on Goal: Medium	Unknown
Develop Freshman Cornerstone	Steering Committee,	Low.	Impact on	1-2 years

Courses related to sustainability	Environmental Studies Program. Director, Environmental Studies Program. Relevant officials in Academic Affairs and Residential Life.		Goal: High	

Goal 3: Add Additional Courses that Increase the Number of Sustainability Topics Addressed at Fairfield University (subject to standard governance approvals)

In addition to courses in Departments without them, other important topics related to sustainability studies require inclusion in the University's list of courses. Some of these courses would cover traditional subjects while others would focus on developing skills that students could use to obtain or excel in professional fields.

Earth Science Develop a Natural Science Core Course that examines central issues in earth science	Steering Committee, Environmental Studies Program. Director, Environmental Studies Program. Science Faculty	Low if current faculty member or replacement hire teaches the class. Medium if an adjunct is needed.	Impact on Goal: High	1-2 years
Field Testing and Analysis. Develop an interdisciplinary advanced science course that teaches techniques to test for pollutants in air, water, soil and on surfaces of products and materials. Such a course would provide important skills for Fairfield graduates.	Steering Committee, Environmental Studies Program. Director, Environmental Studies Program. Science Faculty	Low if current faculty member or replacement hire teaches the class. Medium if an adjunct is needed.	Impact on Goal: High	In progress
GIS Course Develop an interdisciplinary course that teaches science majors and students interested in environmental science and policy how to employ Geographic Information Systems. Such a course would provide important skills for Fairfield graduates.	Faculty Committee on Sustainability. Steering Committee, Environmental Studies Program. Director, Environmental Studies Program. Relevant Faculty	Low if a current faculty member teaches the class. Medium if an adjunct is needed.	Impact on Goal: High	Unknown
State & Local Environmental Policy. Develop a new course that examines state and local environmental politics, policy and law.	Steering Committee, Environmental Studies Program. Director, Environmental Studies Program.	Var.	Impact on Goal: Medium	Unknown
Comparative Env. Policy Develop a new politics, international studies, and/or international business course that examines comparative	Steering Committee, Environmental Studies Program. Director, Environmental	Var.	Impact on Goal: Medium	Unknown

environmental and sustainability policy and law in different countries.	Studies Program. Relevant Faculty			
US Environmental History Develop a College Core history Course that provides a broad survey of environmental history in the USA.	Steering Committee, Environmental Studies Program. Director, Environmental Studies Program. Relevant Faculty	Var.	Impact on Goal: High	Unknown

Area IV: Expand and Enhance Faculty Positions Related to Sustainability Dependent on Available Resources, Demand, and Case Statements

Develop Case Statements Outline advantages of adding Faculty in identified fields and submit to Advancement, Deans and Search Committees.			Impact on Goal: Medium	In progress
Hire Full-Time Faculty member in Philosophy who focuses on sustainability related issues.		Low if a replacement hire. High if a new FTE.	Impact on Goal: High	Completed Fall 2012
Hire Full-Time Faculty member in Religious Studies who focuses on sustainability related issues.		Low if a replacement hire. High if a new FTE.	Impact on Goal: High	Unknown
Hire Full-Time Faculty member in History who focuses on sustainability related issues.		Low if a replacement hire. High if a new FTE..	Impact on Goal: Medium	Unknown
Hire One or More Additional Full-Time Faculty in the Dolan School of Business who focuses on sustainability issues relevant to business.		Low if a replacement hire. High if new FTE.	Impact on Goal: Medium	Unknown
Ensure that Current Faculty Focused on Sustainability are Replaced only by other Faculty Similarly Focused.		Low	Impact on Goal: High	Ongoing
Create One of More Endowed Chairs for Faculty Positions related to Sustainability.	Advancement	High	Impact on Goal: High	Ongoing

Area V: Expand and Enhance Living and Learning Opportunities Related to Sustainability When and If New Living and Learning Areas are Considered

Create a Sophomore Living and Learning Cluster or Floor related to sustainability.	Campus Sustainability Committee and Relevant officials in Academic Affairs and Residential Life.	Low to Medium.	Impact on Goal: High	Unknown
Expand and Enhance Living and Learning Options for Juniors	Campus Sustainability Committee and	Low to Medium.	Impact on Goal:	1-2 years

and Seniors related to sustainability.	Relevant officials in Academic Affairs and Residential Life.		Medium	
Expand and Enhance Service Learning Course Opportunities Related to sustainability.	Office of Service Learning and Faculty	Low to Medium.	Impact on Goal: Medium	1-2 years
Expand and Enhance Internship Opportunities related to sustainability.		Low to Medium.	Impact on Goal: High	1-2 years

Area VI: Increase Faculty, Administration, and Student Awareness of Educational Opportunities Related to Sustainability Subject to Available Resources.

Develop and regularly update information materials for students enrolled in specific schools or majors that describe how sustainability courses fit into their specific curriculums, satisfy College Core Requirements, and count toward particular majors.	Steering Committee and Director, Environmental Studies Program.	Low	Impact on Goal: High	1-2 years
Develop and regularly update outline of "Professional Development" opportunities available to students interested in sustainability during each of their four years at Fairfield.	Steering Committee and Director, Environmental Studies Program working with relevant University officials.	Low	Impact on Goal: High	1-2 years
Update and expand the Environment Studies Program web-site with information relevant to current and prospective students.	Director, Environmental Studies Program working with relevant University officials.	Low	Impact on Goal: High	Major revisions Fall 2014; updates ongoing
Distribute Relevant Information to University staff that help advise pre-major Freshman and Sophomores, Athletes, Business Students, Residential College Students, etc.	Steering Committee and Director, Environmental Studies Program working with relevant University officials.	Low	Impact on Goal: High	In progress
Develop Materials to Assist Admissions Understand Academic and Research Activity Related to Sustainability to Assist Their Recruitment Efforts	Faculty Committee on Sustainability, Steering Committee of the Environmental Studies Program working with relevant University officials.	Low	Impact on Goal: High	In progress

VIII. Student Engagement

Introduction
In recent years, students have demonstrated a strong interest in environmental and sustainability initiatives. Student leaders have recognized the importance of applying that interest to the area of campus sustainability. The student organization LEAF (Leaders for Environmental Action at Fairfield) is one of the most active clubs on campus. One of the primary goals of LEAF is to spread awareness on Environmental initiatives across campus and create positive change by working with the greater student body. LEAF is a vital resource and agent for engaging the greater campus community and student body. In collaboration with Residence Life, FUSA, IRHA, and other Departments on-campus, this plan outlines several ways that students will become more engaged in the Campus sustainability plan.

The CSP plan for student engagement is to increase awareness, and spread habits among the student body to minimize Fairfield University's environmental impact and prepare students for a life in balance with the Earth and its precious resources. We develop and refine a campus plan for student engagement, complete with a list of goals, strategies, a timeline, as well as a list of available networks and tools we can utilize to engage students in living more sustainably on campus

The Recent History of Student Engagement at Fairfield:
The history of involvement in campus sustainability and the history of LEAF are very much intertwined. LEAF was born when Green Campus Initiative and the Student Environmental Association fused together under the premise that their goals were highly similar. Although LEAF has only been operating since 2009, it has already achieved important accomplishments and continues to grow. The majority of LEAF's work is focused around a critical mass of events and activism in the months of April and November, one for Earth *Month* and the other for No-Impact November which is inspired by the documentary "No-Impact Man". In April of 2011 LEAF brought 13 students all the way to the nation's capital for Powershift 2011 to represent Fairfield and ignite a spirit of urgency and inspiration with which to approach environmentalism in Connecticut. In November 2012, LEAF sponsored a solid month of events to cultivate a tradition of environmental awareness and action. The events included a trash audit where students separated recyclables from a dumpster to demonstrate the remaining potential for more sustainable behavior. LEAF is continuing to grow and develop its own sustainable organizational structure to better reach out to students including a radio show, blogging, and social media. LEAF continues to seek new ways of recruiting members to work toward altering the Fairfield student cultural to now include and promote a strong commitment to sustainability and to preserve the resources and health of our planet.

Goal 1: EDUCATION: Educate students about which behaviors and actions promote sustainability in the Residence Halls.

Strategies to meet goals:

Project : **Resident Assistant (RA) /Resident Hall Association Members (RHA).** Educate students about sustainable living by providing information about sustainable living through RA, RCC, Bulletin boards, email, newsletter, opening and closing floor meetings, Orientation	Contact Residence Life Office	Cost Medium	Impact on Goal High	Timeframe Ongoing
List of Student Engagement Opportunities Compile an online resource list of ways students can get involved in sustainable actions. This can be accomplished by identifying sustainable programs/opportunities that are currently available to students to volunteer. Resources: Campus Garden, Student Research, Hiking Trips, LEAF etc.	Contact Academic Departments FUSA/IRHA	Cost Low	Impact on Goal Medium	Timeframe Ongoing maintenance through RA/RHA programs
Student Project Support/Collaboration Support students who would like to create civic engagement projects to promote innovative sustainability efforts related to campus operations and or partnership with campus offices (examples of offices students	Contact Sustainability Committee Student Affairs Division LEAF	Cost Medium	Impact on Goal High	Timeframe Ongoing every semester

can work with are but not limited to: Sodexho, Transportation, Energy/Power, Waste Management, ABM Custodial Services	FUSA/IRHA			
Design and distribute campus promotional literature featuring sustainability (LEED ratings, etc.)	Contact Facilities Management Office of Residence Life	Cost Low	Impact on Goal High	Timeframe Ongoing
Publications & Resources All housing information should include Residence life sustainability initiatives materials to new students - Student should have access to information on recycling efforts and how we are lowering our carbon footprints. - Student initiatives- LEAF - Overview of Trash Audit - Bike Program - Campus Garden	Contact Office of Residence Life	Cost Medium	Impact on Goal Medium	Timeframe Beginning of each semester for all incoming students

Goal 2: **CHANGE BEHAVIOR:** Ensure that all prospective students are aware of and accurately informed about campus sustainability in the Residence halls. Ensure that all incoming students are informed about the residence life sustainability plan which will include sustainability standards, opportunities and practices

Strategies to meet goals:

Inform new students what to bring to campus to help reduce their carbon footprints. - Every student should have a recycle bin in his/her room - Awareness of Global Issues – donating items when during Residence halls closing	Contact Office of Residence Life Student Programs and Leadership Development Facilities Management	Cost Low	Impact on Goal High	Timeframe Before opening and closing of residence halls.
Training of Important Student Leaders Campus tour guides and New Student Leaders informed about different aspects of sustainability on campus	Contact Office of Residence Life Office of Admission Office Student Programs and Leadership Development	Cost Low	Impact on Goal High	Timeframe Throughout the semester. During specialized training during the Spring, Fall semester and Summer for students' leaders.
Greening Orientation/Fall Welcome Create campus signs during orientation that indicate sustainable implementations (e.g. explaining the recycling program etc).	Contact Office of New Student Programs and Leadership Development Facilities Management Office of Residence Life LEAF	Cost Medium	Impact on Goal High	Timeframe June New Student Orientation Beginning of Academic Year (Fall Welcome)
Prospective Students: During open houses promote sustainability initiatives - RCC/IRHA involvement	Contact Admissions Office Facilities Management Office of Residence Life IRHA/RCC	Cost Medium	Impact on Goal Medium	Timeframe Fall and Spring Open Houses

Campus Residence Hall Competitions • Residents Assistants coordinate to raise awareness of and participation in sustainable programs including recycling and Residential Energy Challenge • Energy Monitors visible in residence halls • Recycling bins placed at strategic location in the halls, • Signs in bathroom about water conservation, • Reduce the amount of flyers used for advertising	Contact Office of Residence Life Facilities Management	Cost Medium	Impact on Goal	Timeframe Fall and Spring Semester
Promote Initiatives that Interdisciplinary/Departmental Collaboration • Departments support LEAF who will meet and discuss sustainability or implement programs to educate students about sustainability. • Encourage Faculty to promote sustainability to class projects and study.	Contact Academic Department Office of Residence Life Residential Colleges First Year Living and Learning Communities Clubs Organizations: LEAF/IRHA/RCC/FUSA	Cost Medium	Impact on Goal High	Timeframe Fall and Spring Semester of each academic year
Sustainability Reps in the Residence Halls Explore the feasibility of training RCC "sustainability" representative in current recycling protocol, and coordinate sustainability efforts in the residence halls	Contact Residence Life Fire Marshall Office IRHA/RCC FUSA	Cost Medium	Impact on Goal Medium	Timeframe Fall Semester of each academic year

IX. Finance

Area 1: Investment decisions
The Faculty Committee on Sustainability (FCS) and the Campus Sustainability Committee (CSC) has opened discussions with the Board of Trustees to establish a greater regard for environmental sustainability in university endowment investments. We have incorporated these goals as part of this Plan. Many colleges and universities in the university's peer group and aspiration institutions have investment policies regarding sustainability.

Background: The university endowment fund management is currently overseen by outside investment managers. Investments are tied up for contractual periods in hedge funds and private equity.

Goal 1: Provide input to the Board of Trustees on the advantages of considering sustainability in future investment decisions.

Strategies to meet goals:

Project *Endowment Investment* Begin a Sustainable Investment Initiative with the Board of Trustees	Contact VP Finance	Cost Theoretically low	Impact on Goal High	Timeframe 5-10 years

Background: Involve students in sustainability activities through student organizations where they exist and encouraging the creation of organization where they do not exist.

Area 2: Financing of sustainability activities
Changes to Fairfield University to enhance sustainability have associated costs in dollars and personnel resources. Long-term outcomes are expected to be beneficial, but may require investment to initiate and execute initiatives. An informal policy of the Department of Facilities Management is to implement projects enhancing sustainability if they are cost neutral or better. However, the is not formal University-wide policy or funding source for sustainability projects. Therefore, the funding of sustainability activities is an important consideration in achieving goals of the CSP.

Background: Work with the Advancement division to obtain funds targeted towards sustainability activities on campus

Goal 1: Begin conversations with Advancement on ideas with which they might approach prospective donors. This is an ongoing process. Some money may be project targeted and could involve faculty research and/or campus-wide projects; other money could be endowed with annual income used to pay for expenses such as a sustainability director.

Strategies to meet goals:

Distribute *Sustainability at Fairfield: Achievements and Opportunities* to Advancement and subsequently to interested potential donors. (An informational white-paper highlighting opportunities to fund sustainability initiatives related to teaching and research.)	Faculty Sustainabilty Committee, Environmental Studies Program	Varied	High	Ongoing
New Funding Generate ideas through CSC, FSC, faculty and student groups. Bring those ideas to Advancement to be matched with suitable donors.	Contact Development Office CSC, FCS, Environmental Studies Program	Cost Theoretically low	Impact on Goal High	Timeframe 5-10 years

Goal 2: Develop student projects around sustainable themes using seed money made available by a University fund for sustainability.

Strategies to meet goals:

Project	Contact	Cost	Impact on Goal	Timeframe
Students Sustainable Projects Grant Awards Students and other members of the academic community will write proposals for environmentally sustainable on campus projects. Grant proposals will be submitted in the fall of 2012.	James Fitzpatrick	Low	Med	Initiated Spring 2013 In progress

X. Administration:

Background: A Campus Sustainability Committee (CSC) was originally formed in October, 2008, as part of the American College and University President's Climate Commitment to carbon neutrality. Membership was by appointment, and included student, staff, and faculty membership. The appointment letter outlined the committee as: "…a standing administrative committee charged with coordination and oversight of our campus sustainability initiatives. The coordinating committee…will facilitate continued progress by establishing priorities among the various sustainability projects, proposals, and initiatives, and facilitating effective communication across campus about these efforts and their impact."

Major campus projects with significant impacts on sustainability were developed and/or completed subsequent to the formation of the CSC, but received little input from the committee's membership. Subsequent discussions between staff and faculty resulted in a revised membership which includes elected faculty representatives and clarifification of the role of the CSC.

From the revised charge "The Campus Sustainability Committee is charged with helping set the University's goals and evaluating its progress with regards to sustainability, which includes but is not limited to meeting the needs of the present with consideration of the impact of our actions on the future. The committee's membership includes staff, faculty, and students. The committee's role is three-fold:

1. As an advisory group, the committee provides input into the University's decisions in matters related to the environment and sustainability, including but not limited to campus construction and development projects and campus conservation efforts. The CSC recommends specific policies that support the University's sustainability goals and evaluates adherence to them.
2. As a facilitating and coordinating group, the committee serves as a clearinghouse for the myriad sustainability activities and initiatives occurring across campus and helps to establish priorities among them.
3. As a communications group, the committee enables various constituencies on campus to be aware of and informed about programs and activities related to sustainability and disseminates this information to the campus community broadly and to external groups as appropriate or required."

Faculty Initiatives: In the Fall of 2010, parallel to the revision of the CSC, the Academic Council charged a subcommittee composed of seven faculty members to evaluate policies to address environmental and sustainability issues on campus. Following the report of this subcommittee, a Faculty Committee on Sustainability (FCS) was proposed and approved as a handbook committee of the General Faculty in Spring 2011. The general purpose of the FCS is to review and make recommendations regarding campus plans and policies related to the environment with a special focus on how such plans and policies impact curricular development and faculty research. The specific duties of the FCS are threefold:

1. To review, on behalf of the faculty, and make recommendations regarding campus construction and development plans and campus policies related to the environment to ensure their compatibility with current and possible future educational, co-curricular, and research uses of affected areas.
2. To work, on behalf of the faculty, with the Campus Sustainability Committee on policy review, evaluation and generation.
3. To elect faculty representatives to the Campus Sustainability Committee.

The FCS serves as a resource of faculty expertise in issues relevant to sustainability projects under consideration by the CSC, and members of both committees work closely on many projects covered in this document.

Personnel: Responsibilities for sustainability efforts have been spread widely across campus. Some sustainability functions are integrated into job descriptions, others depend on individual passions. There are no existing full-time positions dedicated to sustainability, and historically sustainability advances have arisen from the dedication of students, staff, and faculty individual initiative.

There is currently momentum behind recognition of sustainability as a shared campus responsibility, but questions remain about ongoing coordination, funding, and the possibility of creating a permanent position to oversee sustainability efforts. Alignment of stakeholders is a necessary condition for effective teamwork and sustainability progress, but a major obstacle remains identifying exact decision-making processes. Promoting campus-wide ownership for sustainable change is even more challenging.

Goal1: Foster campus ownership of the sustainability process and Campus Sustainability Plan

Strategies to meet goals:

Project	Contact	Cost	Impact on Goal	Timeframe
Open meetings of the CSC	CSC (by current charge)	Low	?	Ongoing
Publish minutes of CSC meetings	CSC faculty secretary (by	Low	?	Ongoing

	current charge)			
Keep student input integral to the structure and process of sustainability on campus	FUSA contact LEAF contact Ophelie Rowe-Allen	Low	Med	Ongoing
Provide a draft CSP for distribution and comment from the campus community	Jim Biardi jbiardi@fairfield.edu	Low	High	This document
Submit CSP to senior staff and President	David Frassinelli, with support as needed by CSC	Low	High	Fall 2015

Goal 2: Ensure the Campus Sustainability Plan becomes a living document

Strategies to meet goals:

Annual Campus Sustainability Report	CSC (by revised charge)	Med	High	In progress
Regular review of Campus Sustainability Plan and Goals	CSC	Low	Med	1–2 years
Regular review of the effectiveness of the CSC	CSC (by revised charge)	Low	High	Every 3 years

Goal 3: Ensure the Campus Sustainability Plan suggests policies when a centralized, top-down approach can provide coordination and consistency across the campus community. This arises from the view that policy acts as a clear statement from leadership about campus priorities.

Strategies to meet goals:

Identify emergent initiatives from individuals/groups that can be prioritized, assessed, and implemented more widely	CSC subsection leads	Low	Med	In progress
Assess existing policies for construction, purchasing, maintenance, and custodial services for sustainability criteria	David Frassinelli, Jim Fitzpatrick	Low	High	In progress
Formalize sustainability as one of several priorities in Campus Purchasing Policy	Jim Fitzpatrick	Low	Med	In progress
Incorporate sustainability perspectives in campus strategic planning		Med	High	3-5 years

Goal 4: Ensure appropriate progress toward Campus Sustainability Plan goals.

Strategies to meet goals:

Meet with senior administration to present CSP and suggest methods to integrate its goals into operation of divisions, departments, and programs	CSP subsection leads	Med	Med	Spring 2016
Periodic review of progress toward CSP goals.	CSP subsection leads President's Office	Low	High	1-2 years
Periodic evaluation of personnel and resource allocation to ensure efficiency.	CSP subsection leads President's office	Low	Med	1-2 years

Major advances in sustainability would be supported by the establishment of a full-time, permanent Campus Sustainability Coordinator position. Major responsibilities could include:

- Provide 'big picture' leadership and advocacy for sustainability at Fairfield
- Foster communication, collaboration and coordination between sustainability stakeholders in the Fairfield University community

- Support curricular and informal, educational efforts to promote environmental responsibility and behavioral change at CC
- Hold Fairfield staff and faculty accountable for making sustainability progress by reporting appropriate data and updating the CSP as needed
- Develop community partnerships, support emerging networks and coordinate external communications with off-campus constituencies interested in working with the University on sustainability efforts