



# Annual Report of the John Carroll University Sustainability Committee for 2017

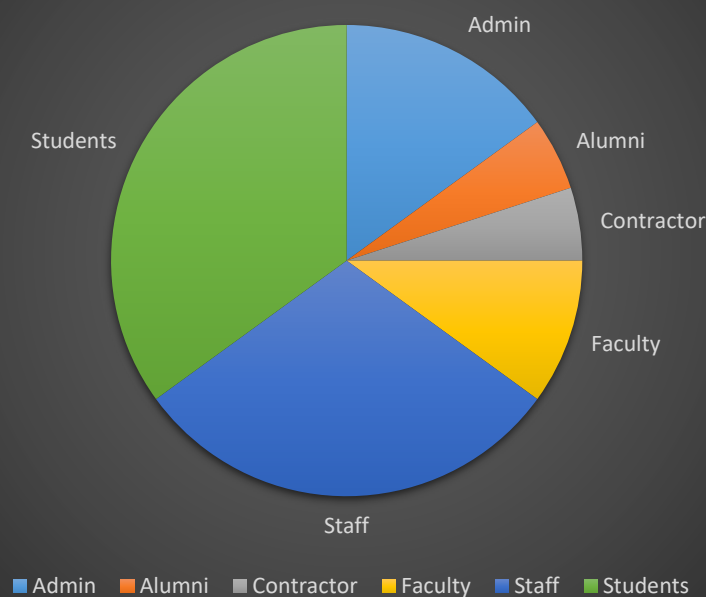
*As a Catholic and Jesuit university, John Carroll University is committed to the environmental values of Laudato Si' and those of the Society of Jesus as expressed by General Congregations 35 & 36.*

Prepared February 22, 2018

## Committee Members, 2017-18 AY

- Alan Miciak, Ph.D., Dean, Boler School of Business
- Andrew Fronczek, Executive Director of Purchasing & Auxiliary Services
- Andrew Powell, Assistant Director of Dining Services
- AnneCecelia Byrne, Environmental Issues Group (EIG), Class of 2020
- Brendan Dolan, Assistant Director of Residence Life – *Committee Secretary*
- Brendan Sieber, Student Union, Class of 2020
- Carol Dietz, Associate Vice President for Facilities – *Immediate Past Chair*
- Dale Armbruster, Integrated Marketing and Communications
- Dominic Gideon, Students for Social Justice, Class of 2018
- Edward Peck, Ph. D., Vice President for University Mission & Identity, *ex officio*
- James Watling, Ph.D., Associate Professor, Biology
- Jeff Your, Manager of Central Scientific Stores & Laboratory Support Services – *Committee Chair*
- John Scarano, Director of Campus Ministry
- Mason Cross, EIG, Class of 2018
- Maureen Reilly, Student Union (SU) Environmental Task Force, Class of 2020
- Mitch Tabol, Director of Physical Plant
- Rory Hill, Manager of Facilities Scheduling and Special Events
- Samantha Skerlec, EIG President 2017
- Sean Freeman, SU, Class of 2019
- Sophie Kocheff, EIG President 2018, Class of 2019
- Tyler McTigue '14, Alumni representative

### Committee Demographics



# Sustainability Committee Annual Report 2017

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## Executive Summary

Highlights of the last year include considerable energy savings with resulting decrease in carbon footprint, statements of solidarity with other institutions of higher learning, a resurgence of student membership on the committee, several outreach actions by the committee, via social media, and by student groups.

The sub-committees' work represents an institution-wide concern for our carbon footprint and care for creation by Campus Ministry, Facilities/Grounds, Dining Hall, Residence Life, Student Affairs, Business Practices, and Recycling/Housekeeping.

## Committee Highlights for 2017

- ✚ Electricity contract locked in a favorable price for the next three years which includes 20% renewable sourced energy significantly decreasing our carbon footprint. **This savings in carbon equates to removing 785 cars from the highway for a year** (almost 9,000,000 vehicle miles), more than the total commuting miles of all JCU employees.
- ✚ Continued demand response energy rebate program – during an August 2017 audit, JCU **shed 53% of its electrical load** in a short period of time, making this energy available to the grid during peak summer demand periods.
- ✚ JCU **recycled about 1,000 pounds** of mixed battery waste, diverting these products from landfill to useful reclamation of recyclable resources.
- ✚ Dining hall improved its **food waste composting** program, diverting over 24 tons of pre- and post-consumer waste from landfills during the school year.
- ✚ Attractive **recycling containers** have been placed across campus, themselves made from recycled plastics.
- ✚ New landscaping contractors brought many **green initiatives** to campus.
- ✚ Increased student membership on committee and **increased student engagement in sustainability activity** on campus.
- ✚ “Don’t Throw it Away, Give it Away”- end of year **food items were collected** from students (over a full pallet) and donated to the Cleveland Food Bank.
- ✚ Information Centers created in the residence halls **reducing paper waste** across campus. Decreased number of postings per event from 50+ to 12.
- ✚ Jeanne Colleran, interim president, with 160 other Catholic leaders, signed a [letter appealing to President Trump and Congress](#) in **support of climate change science**, funding, and international policy negotiations.
- ✚ Passing the torch of **leadership** – Fr. Niehoff named Jeff Your to chair the committee, to succeed Carol Dietz, whose able leadership steered the work of the committee since its formation in 2010.

# Introduction

John Carroll University's **Sustainability Committee** has inspired a culture of sustainability at the University since its inception in 2010. Sustainability projects at John Carroll are increasingly visible in recent years. The Committee advocates these ongoing efforts and identifies strategies for additional sustainability initiatives. Our campus is committed to measurable progress toward "going green."

In 2015, John Carroll joined many institutions nationwide as a presidential signatory to the White House Pledge on Climate Change. Our website seeks to improve the education and the communication of our green initiatives both on-campus and in our larger community. <http://jcu.edu/sustainability>

John Carroll is the **only one** of 28 Jesuit colleges and universities that links sustainability from its front page.<sup>1</sup>



OUR CAMPUS IS  
COMMITTED TO  
MEASURABLE  
PROGRESS TOWARD  
"GOING GREEN."

## Mission

John Carroll University will support sustainable activity, set an example for our community, and serve as a leader in our region through education, action and policy development. We are committed to protect and preserve the earth and ensure the quality of life for future generations in a manner consistent with our Jesuit mission.

## Vision

Our vision is an environmentally, socially, and economically sustainable university campus and community with employees and students who incorporate sustainability in their education, work and daily lives.

## Strategic Initiatives

- Conserve natural resources and reduce waste, energy usage and our overall carbon footprint.

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<sup>1</sup> For links to other Jesuit institutions with sustainability websites, see [Appendix 4](#).

- Identify, promote and implement sustainable practices in all aspects of our operations.
- Directly support the University's culture of continuous improvement and enhance the University's overall Catholic character and commitment to the environment.

# Goals

We will develop goals and metrics in these nine areas by December, 2010 to better gauge the efforts of sustainability and measure our progress toward achieving carbon neutrality at John Carroll University.

- Energy and Water Use
- Design and Construction
- Transportation
- Waste Reduction
- Procurement
- Office Practices and IT
- Student Life
- Food Services
- Landscaping / Grounds



# Tactics

In keeping with the Goal “Faith that Does Justice”, as outlined in JCU’s 2015 Strategic Plan “Promise and Prominence”, specific tactics for the University Strategic Plan (USP), Goal 2, Objective 1 - Deepen the University’s commitment to peace, justice, and sustainability - have been identified:

- Encourage all programs to consider deepening their commitment to peace, justice, and/or sustainability and identify opportunities to further distinguish themselves<sup>2</sup>
- Coordinate existing programs that focus on peace, justice, and/or sustainability in order to identify common themes and combine programming efforts.
- Support and monitor ongoing sustainability efforts through the physical plant to increase energy efficiency and recycling efforts, reduce consumption, and utilize sustainable landscaping.

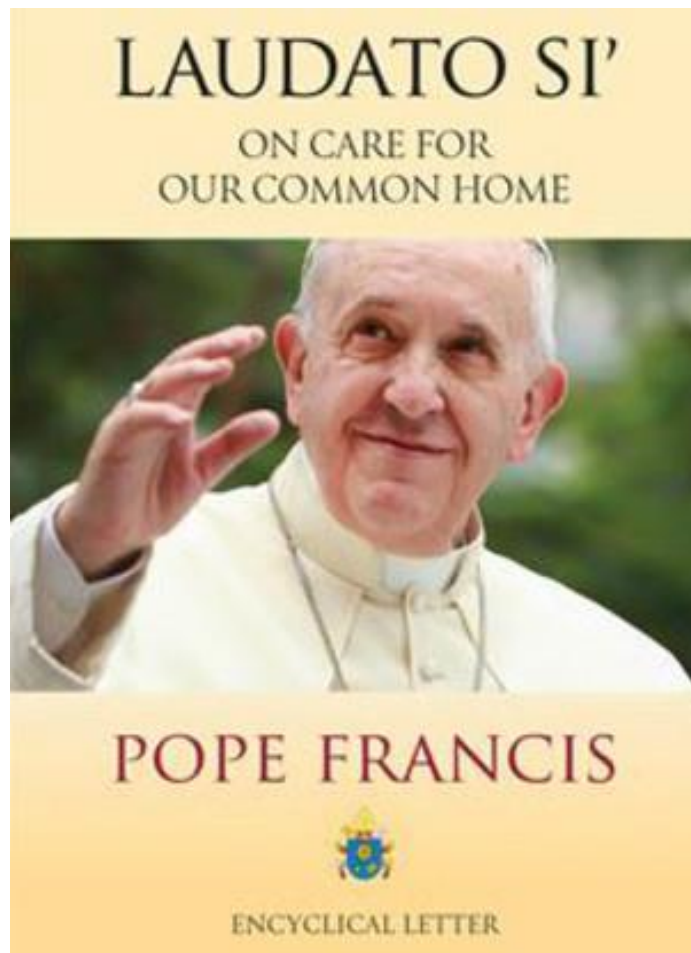
*Our committee is still committed to the following, even though not specifically*

<sup>2</sup> For a complete list of all course offerings having an environmental component, see [Appendix 2](#)

## Sustainability Committee Annual Report 2017

*enumerated in the USP:*

- Complete the AASHE STARS program to benchmark JCU current practices with other college and universities and identify best practices for future tactics
- Commit to LEED certification for all future campus renovations
- Increase the number of recycling and water bottle refill stations in academic and administrative buildings on campus.
- Increase the use of native plants in campus gardens to reduce water and fertilizer use.
- Sustainability signage around campus, explaining the efforts taken and the environmental benefits thereof, e.g., rain garden describing native species.
- Continue cooperative efforts with the Mission & Identity Office and Campus Ministry to educate the JCU community regarding Catholic teaching on this topic.
- Engage campus community in Town Hall meeting, at least once every two years, to focus on the work of the Committee and to reflect on our shared responsibility to address climate change, as cited in Pope Francis' 2015 encyclical [Laudato Si'](#).





# Committee Activity

## Appointment of new committee chair

In Spring 2017, Fr. Robert Niehoff, SJ, president of the University, appointed Jeff Your as the new committee chair, succeeding Carol Dietz, founding chair, who led the committee so ably for over 7 years.

## Conferences and Workshops Attended

- JCU was represented at the Ohio Higher Education Sustainability Professionals Summit by Rory Hill and Jeff Your, at Denison University, January 11, 2017
- Successful Recycling in Your Workplace – Cuyahoga County Solid Waste District, September 15, 2017 by Jeff Your
- Contracting for Waste and Recycling Services – Cuyahoga County Solid Waste District, September 15, 2017 by Jeff Your

## On-campus Committee Presentations

- Ignatian Heritage Week 2017 – Report given by all committee members to campus community.
- Display of efforts at each of ten new student orientation resource fairs, summer 2017.
- Numerous brown-bag lunch presentations in response to Laudato Si'
- Signatory to Statement by Leaders in Catholic Higher Education – see [Appendix 3](#)

## Networking Organizations

- Member of Ohio Higher Education Sustainability Professionals
- Member of Association for the Advancement of Sustainability in Higher Education (AASHE)

## Political Action

- Along with many other Jesuit schools, JCU is a signatory of the attached letter to President Trump on climate change. [See Appendix 6.](#)

## Sustainability Committee Annual Report 2017

Washington, D.C. – November 16, 2017 – The leaders of 161 Catholic colleges and universities, religious congregations, national organizations, and health care providers, serving people and communities in every state of the nation, have issued a [letter](#) to President Trump and the U.S. Congress in support of climate change science, funding and international policy negotiations. The letter was organized by Catholic Climate Covenant and signed by the leaders of over 150 Catholic colleges and universities, religious congregations, national organizations, and health care providers.

“This letter demonstrates a broad, unified Catholic desire for American leadership on climate change” said Most Rev. Richard Pates, Bishop of Des Moines and United States Conference of Catholic Bishops (USCCB)-appointed Liaison to Catholic Climate Covenant. “Catholic concern for climate change as a moral issue goes back to Pope John Paul II. Faithful to the Church’s consistent teaching, Catholics in the United States will tirelessly urge our elected leaders to address one of the most pressing modern issues.”

In the letter, Catholic leaders outline the Church’s long-standing commitment to care for creation and reiterate the U.S. bishops’ counsel to act on widely-accepted climate change science. The leaders then collectively urge President Trump and members of the U.S. Congress to take three specific actions:


1. Fund the United Nations Framework Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change (IPCC);
2. Meaningfully participate in the deliberations of the UNFCCC; and
3. Honor U.S. Commitments to the Green Climate Fund

*“The issue of climate change should be as much of an institution-wide responsibility as living our mission. Answering Pope Francis’s compelling call in *Laudato Si’* to be better stewards of creation is more than a papal request. It is a requisite response to living our Catholic values.”*

Fred P. Pestello, Ph.D.,  
President of Saint Louis  
University

In signing onto the letter, Fred P. Pestello, Ph.D., President of Saint Louis University, said: “The issue of climate change should be as much of an institution-wide responsibility as living our mission. Answering Pope Francis’s compelling call in *Laudato Si’* to be better stewards of creation is more than a papal request. It is a requisite response to living our Catholic values. Humanity must reconcile the ways in which we have not upheld the dignity of creation. Saint Louis University is compelled to solidarity in this journey. Many of the students studying at Catholic universities have been at the forefront of this endeavor, increasingly aware of their responsibility as co-creators. And the talented scientists at our universities have convincingly made the empirical case for substantial action, as well as the urgency of this critical challenge.”

Teresa Maya, CCVI, President of the Leadership Conference of Women Religious, said: “Women religious are keenly aware of the threat climate change poses to God’s creation, especially to those who are most vulnerable. We believe that we are called to live in right relationship with all of creation and we know that each of us has a responsibility to cooperate with God to protect our common home. We call on President Trump, members of Congress, and all Americans to work together to address the existential threat of climate change.”



“THIS LETTER  
DEMONSTRATES A  
BROAD, UNIFIED  
CATHOLIC DESIRE  
FOR AMERICAN  
LEADERSHIP ON  
CLIMATE CHANGE”

Most Rev. Richard Pates

James F. Ennis, Executive Director of Catholic Rural Life, said: “Working with farmers and ranchers across the US, Catholic Rural Life has seen and heard the challenges facing agriculture due to the changing climate in many regions. Men and women and families living in rural communities, many of whom make their living off of the land or sea, are extremely concerned and vulnerable to changes in climate. That is why Catholic Rural Life is joining other Catholic organizations to urge President Trump and Congress to reassert U.S. leadership in the global effort to address climate change.”

For more information: [jose@catholicclimatecovenant.org](mailto:jose@catholicclimatecovenant.org); 202-756-5545  
<http://www.catholicclimatecovenant.org>.

Catholic Climate Covenant inspires and equips Catholic people and communities to care for creation and care for the poor. Through our seventeen national partners, we guide the U.S. Church's response to climate change by educating, giving public witness and offering resources.

### Committee Rebranding

The committee rolled out a re-worked prototype of our logo for promotional materials. The next step will be to give this concept to Integrated Marketing and Communication for alignment with JCU branding and style guidelines. Many thanks to Andrew Powell of Aramark for his work on this.



This will replace our older versions from past years:



### Co-Sponsored Events

- Living the Mission Day trip to the Cleveland Metroparks Zoo, August 24, 2017; a group of 35 first-year students learn about the sustainability initiatives at the zoo. We have always had a member of the JCU Sustainability Committee go as one of the staff chaperones so that person can talk about JCU's initiatives.

### Website updates

- Committee roster updated
- Sustainability Asset Map added to website – see [Appendix 5](#)
- Landing page updated with following:

The Sustainability Committee has inspired a culture of sustainability at the University since its inception in 2010. This website seeks to improve the education and the communication of our green initiatives both on-campus and in our larger community.

Sustainability projects at John Carroll are increasingly visible in recent years. The Committee advocates these ongoing efforts and identifies strategies for additional sustainability initiatives. Our campus is committed to measurable progress toward “going green.”

In 2015, John Carroll joined many institutions nationwide as a signatory to the [White House Pledge on Climate Change](#)



### Social media

The student Environmental Issues Group has a presence on Facebook and content is refreshed weekly.

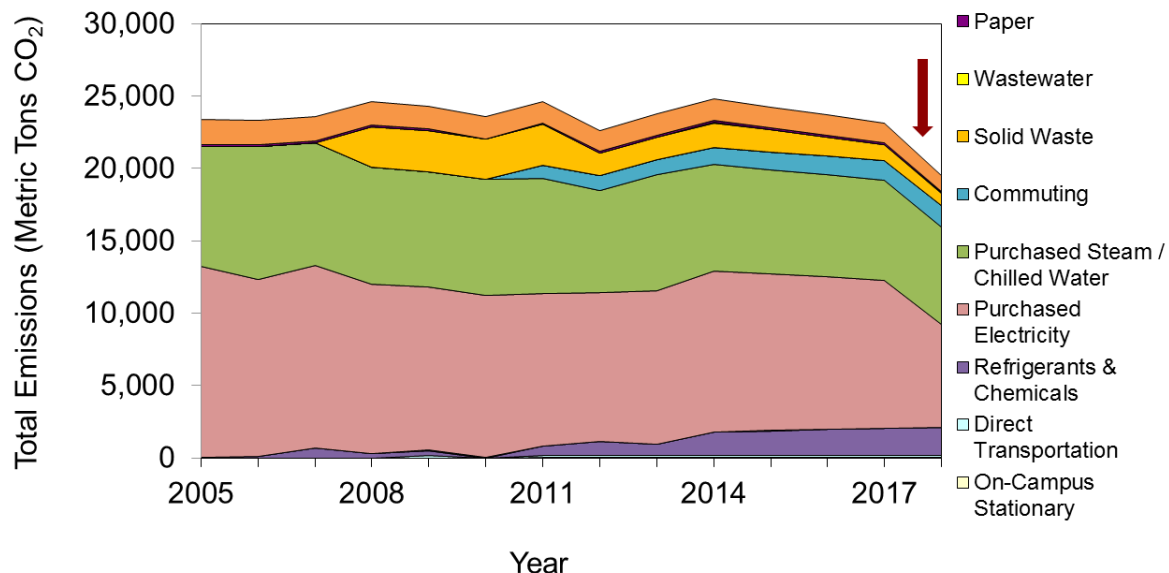
<https://www.facebook.com/groups/EIGJCU/>  
<https://www.facebook.com/GREENJCU/>

# Sub-Committee Updates

## Carbon Footprint Calculations

Committee member and Biology faculty member, James Watling, Ph.D presented a report on our current carbon footprint in January 2017 during Ignatian Heritage Week with updates since 2012. He has been busy this year updating data sets and increasing the number of parameters reported, as illustrated here.

### JCU Campus Carbon Footprint



Of particular note in the above graph is the downward trend projected for 2018, indicated by the red arrow. These estimates are based on negotiated contract for energy which locks in pricing for three years with guaranteed 20% renewably-sourced content.

This **savings in carbon equates to removing 785 cars from the highway for a year** (almost 9,000,000 vehicle miles), more than the total commuting miles of all JCU employees.

Future amplification of carbon data capture will include air travel and student commuter miles.

### Business Practices

Third-party partnerships include

- Aramark
- ComDoc
- Cuyahoga County Waste District
- Full-Cycle Organics
- Meritech
- Rumpke
- Staples

Integrated Marketing and Communications is very pleased to report that the newly designed John Carroll magazine will be printed on recycled paper, continuing a tradition that started a few years ago. It was important to us that 42,000 copies were produced with recycled paper, and our new print vendor was able to deliver.

Human Resources introduced OnBase software a couple years back in an effort to move toward a paperless campus. OnBase provides enterprise content management (ECM), case management, business process management (BPM), records management and capture all on a single database, code base and content repository.

Central Scientific Stores and Laboratory Support Services has long expressed concern regarding environmental issues associated with packing materials used to protect the contents of science supply shipments. These include concerns about chlorofluorocarbons (Styrofoam), non-degradable litter, vermiculite, ozone depletion, and resource renewability. These concerns are expressed directly to suppliers and through professional organizations such as the National Association of Scientific Materials Managers and the American Chemical Society.

Preference is given to suppliers who make a conscientious effort to choose packing materials that are environmentally responsible while providing adequate protection to ensure the prompt, undamaged delivery of product.

### Campus Ministry

Campus Ministry hosted John Connor for a lunch seminar on “Climate Change - How can I be an Environmental Activist?” on October 30, 2017. John has reached out to over 300 universities, mayors, governors, presidents... “anyone who will listen,” with his urgent message of a grassroots movement to address this issue in an aggressive way. There were 15 faculty/staff/students in attendance.

Campus Ministry has also led student discussion groups on:



- The USCCB on the Environment- <http://www.usccb.org/issues-and-action/human-life-and-dignity/environment/>
- “Global Climate Change: A Plea for Dialogue, Prudence and the Common Good” <http://www.usccb.org/sdwp/international/globalclimate.shtml#change>
- “Renewing the Earth - An Invitation to Reflection and Action on Environment in Light of Catholic Social Teaching” A Pastoral Statement of the United States Catholic Conference - <http://www.usccb.org/issues-and-action/human-life-and-dignity/environment/renewing-the-earth.cfm>

Campus Ministry remains committed to starting up the simple living house again. We are looking into how to make this work.

January 2018: Immersion Experience in Nicaragua. The experience is focused on developing an understanding of the impact that trade has on the people of Nicaragua, especially the poor. The group will analyze trade from various perspectives in the coffee and apparel industries.

## Energy and Utilities

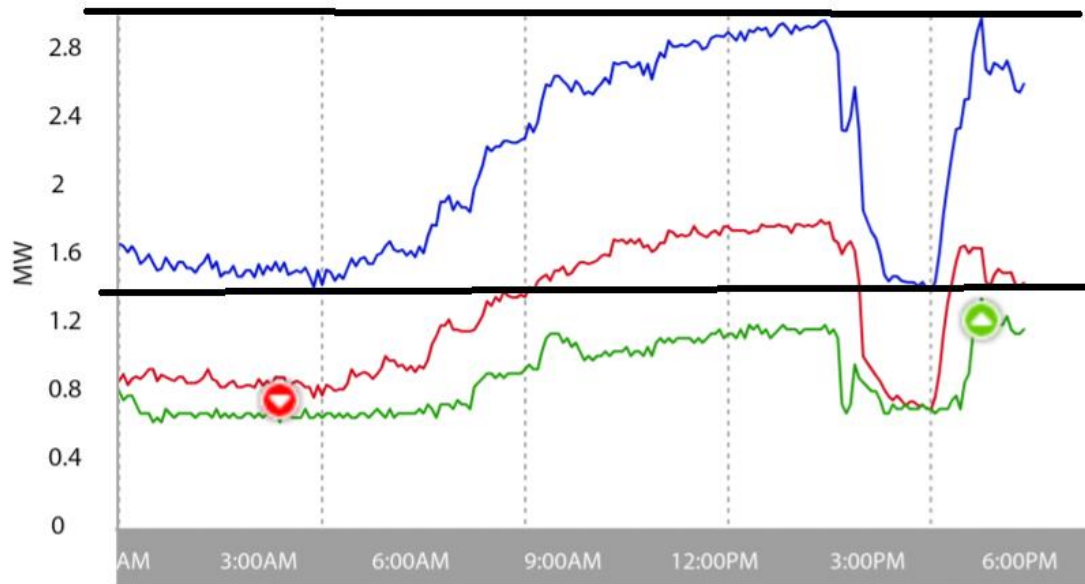
**The university has invested more than \$1,500,000 since 2004** on energy conservation projects including:

- Lighting upgrades in Campion, Hamlin, and Murphy Halls using electronic ballasts and more efficient LED, CFL, T8 and T5 lamps
- New electric pickup truck
- Boiler replacement in Campion Hall
- Library cooling tower– filter media replacement
- Installed motion sensors to turn off lights in laundry rooms and restrooms, and in Dolan Center classrooms and labs to turn off lights and reduce air supply in unoccupied spaces;
- Installed water saving low flow shower heads, automatic low flow faucets, and auto- flush toilets;
- Installed condensate recovery on Dolan Center Air Handling units
- Replaced paper towel dispensers and inefficient electric hand dryers with high efficiency electric Xlerator hand dryers;
- Insulated boilers and hot water lines;
- Replaced old inefficient HVAC (heating, ventilation, air conditioning) equipment and controls with more efficient equipment
- Ongoing tracking of electricity, gas, and water usage; for details see [Appendix 9](#)



## Sustainability Committee Annual Report 2017

- Continued participation in summer PJM Grid Demand Response program



*Illustrated above is a minute-by-minute electricity 'load-shed' graph showing what JCU is capable of attaining during an ENERNOC energy audit on August 17, 2017. Peak draw of 3.0 MegaWatts is reduced to 1.4 MW, a savings of 53%.*

- New electricity contract for June 2017 – May 2020 includes commitment for 20% of electricity to come from renewable sources
- Several excess real estate properties were sold off in 2017. This has realized a cost savings in energy for the University

These projects have had a significant impact on our electricity, gas and water usage.

### Future Energy Conservation Projects

- Continue lighting upgrades and long term replacement strategy with high efficiency equipment and controls
- Schedule equipment operation to reduce energy used
- Consider renewable energy – solar panels and geothermal systems
- Consider heat recovery projects including electric generators with heat recovery systems
- Consider energy efficient windows, roofing insulation, and cool roofs for building envelope projects
- Consider more efficient utilization of space and reduce energy used for vacant space

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Illustrated here are the metrics on utility usage tracked over a decade (2007-2017). For a closer look, [see Appendix 9](#).



### Facilities and Grounds

A number of campus wide drinking fountains have been replaced with water bottle refill stations. These areas include the Administration Building, the Boler School of Business, and the Dolan Science Center, the O'Malley Center, Rodman Hall, and Hamlin Hall's Chi Omega wing. This sustainable initiative was to help reduce the amount of disposable plastic bottles being used on the campus.

The Maintenance staff has been cleaning out mechanical rooms, the DSC Garage and other areas of the campus. The staff has been removing discarded equipment and other materials, many of them to be repurposed, recycled, or scraped to a salvage company. We have also been recycling our wooden pallets to a company that uses them for mulch.

The Maintenance staff are also focused on ensuring the efficient performance of all HVAC units, building equipment, and other systems in order that they operate to its optimum capacity. Increased emphasis is placed on preventative maintenance and the PM work orders are reviewed and completed on a regular basis so equipment can be monitored and serviced for maximum output and energy savings. A deferred maintenance and capital renewal inventory is reviewed and updated annually in order that building systems are maintained and equipment is replaced as it reaches the end of its useful life cycle.

Instead of bulk rock salt to treat our roadways and parking lots, JCU has been using Clearlane, a pre-wet de-icing product that has been mixed with liquid magnesium. This product scatters less and adheres to the pavement better than rock salt and is three times less corrosive than rock salt or other de-icing products. Clearlane melts more quickly, works better in colder temperatures, and has a residual effect of working longer on the road surfaces. In addition to better traction performance, we use less de-icing material because of fewer applications. The change of longer lasting de-icing materials is anticipated to save on labor, fuel and vehicle maintenance events. Our landscaping contractor, Turfscape, has introduced the use of salt brine as a pre-treatment to our walkways and steps in order to keep these areas from prematurely freezing during snow and ice events, in addition to using less bagged products when additional salting becomes necessary.

The JCU Facilities Department has been busy looking ahead to the 2018 spring season. In collaboration with Turfscape, we have been researching the requirements for earning the Tree USA designation for the JCU campus. Requirements include creating a GPS map of the campus trees, strategically planting additional trees around the campus as a work project initiative with the students, and celebrating Arbor Day. There will be redesigning and landscaping of some ornamental beds that will include additional native plant and flower species to attract pollinators such as hummingbirds, butterflies and bees. We are also investigating creating signage to draw attention to the various sustainable efforts that exist on the campus such as the bio-retention basin and other sustainable initiatives

on the campus.

We are also creating a memorial tree index whereas donors can choose indigenous species that will provide lasting beauty, yet maintain the continuity of the campus landscape.

Another application was recently submitted to the Northeast Ohio Regional Sewer District to obtain a fee credit for lessening the impact of stormwater runoff on the JCU campus. The bioswale adjacent to the Carroll lot and the dry basin in front of the Dolan Science Center help us qualify for and obtain a reduction in sewer fees paid to NEORSD.

### Recycling

Newer trash cans have been installed and recycling cans are coming soon. These are to be placed in the Dolan Science Center Atrium, O'Connell Reading Room, Pellegrine Room (A202/203), Lombardo Student Center Conference Room, Jardine, Murphy and O'Dea Rooms. More will go into the Campus Ministry, Commuter, and Student Diversity Lounges in the LSC building. All will be labeled with trash or recycling stickers and also have some landfill or recycling facts on other stickers applied to the cans. We're trying to increase awareness of the program in these spaces with an educational aspect as well. For sample images, see [Appendix 7](#)



*Many attractive recycling stations have been installed on campus which have been manufactured with recycled plastics; this one above used the equivalent of 655 milk jugs.*

### Enhanced battery recycling

A campus wide program was begun in 2016. In the summer of 2017, JCU recycled over 2,000 pounds of



mixed battery waste, diverting these products from landfill to useful reclamation of recyclable natural resources. Lead/acid, nickel-chromium, lithium/ion, zinc-carbon, nickel-metal hydride, and silver oxide chemistries were represented in this shipment. Battery drop-offs are located conveniently across campus. Containers are monitored and when full, the hosting dept or office, need only call for a pickup. For locations, see [Appendix 8](#).

A number of depreciated vehicles and landscaping equipment at the end of their useful life (to JCU) were auctioned off to interested parties. This keeps useable material out of landfills.

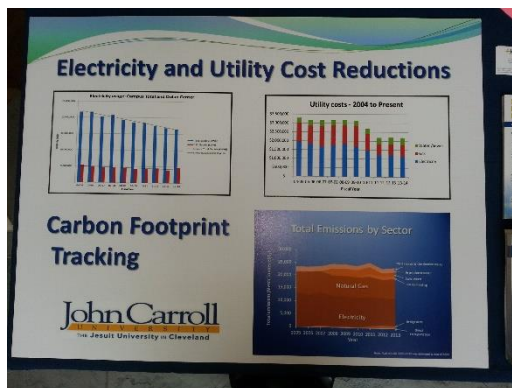
### Residence Life / Student Engagement

The Office of Residence Life continues to collaborate with other offices toward our shared goal of improving sustainable practices at John Carroll University. Contributing to our collective mission of environmental justice, the following was accomplished over the past year.

1. Continued landfill diversion through the “Don’t Throw it Away, Give it Away” program. At the end of the academic year non-perishable food items were collected from students (over a full pallet) and donated to the Cleveland Food Bank. In addition, a new collaboration with the Labre Project was formed to collect all donated supplies, clothes, linens, and other items through this program.
2. The collaboration with Labre has now expanded to include donations of clothing from items left behind in laundry rooms during breaks and over the summer period. Also included in landfill diversion are the donations of items left behind by our Summer Camps and Conference program to Goodwill, the Labre Project, and when possible, the Fatima Food Drive.
3. A new collaboration was built this summer with the Bike Cooperative on-campus. Bikes are now able to be reserved and checked out in Residence Hall Offices during hours the RAs are present in the office.
4. 12 Information Centers were created in the Residence Halls to reduce the amount of posting and paper waste throughout the community. This brought down the average number of postings, per event/advertisement, from 50+ to 12. A significant reduction over time.
5. Reusable programming bags were introduced for Resident Assistants to take on all related programming shopping to reduce the amount of plastic and paper bags when purchasing items or groceries for programming events in the Residence Halls.
6. Laundry machines were upgraded in all Residence Halls which should have the added benefits of improved energy efficiency and water use reduction.
7. Maintenance collaborated with our office to install wireless thermostats in all student residential duplexes and houses. This improves energy efficiency throughout these units with regards to Air Conditioning and Heating.
8. A group of 32 incoming Class of 2021 students were offered a day at the Cleveland Metroparks Zoo during Streak Week 2017 where they learned about sustainability efforts at the zoo and at JCU during a lunchtime presentation.
9. Display of efforts at each of ten new student orientation resource fairs, summer 2017.



# Sustainability Committee Annual Report 2017



### Student Dining

- Schott Dining Hall has been tray-less since 2008 (reducing food waste and minimizes water and energy needs for cleaning)
- Reusable Take-out program in place along with the use of Bio-degradable containers diverting approximately 60,000 foam containers from the landfill.
- Excess food donated weekly to shelters.
- Serve 100% Fair Trade Certified coffee in Dining Hall, Java City, and all catered events; offer at least one Fair Trade Certified coffee blend in Einstein Bagel's at all times, other Fair Trade items used are sugar, tea, rice, chocolate, and bananas.
- JCU Dining has converted to 100% use of green cleaning products.
- 100% diversion of used Fryer Oil.
- JCU Dining refill program ( which offers \$1 refills on both coffee and fountain beverages across campus ) has diverted 8,000 paper cups since its inception in the fall of 2009.

[Full Cycle Organics](#) became our new provider for our **composting program** here in Dining Services in 2017. They are a local company and are able to compost a majority of our post-consumer waste from the dining hall. At the peak of our prior composting program we were diverting about 24 tons of pre and post-consumer waste throughout a school year.

- All of the leftover food from the cafeteria is composted using a waste pulping system
- This pulping system reduces waste volume by 87.5%
- The water used to run the pulping system is effectively extracted and reused every time the machine is run

The process of the pulping machine:

1. The waste enters the pulper and is mixed with water, creating a slurry mixture that is 95% liquid and 5% solid waste
2. The mixture is transferred through a short pipeline and led to the Hydra-Extractor
3. The Hydra-Extractor removes most of the water from the mixture, and the remains are discharged into the trash ready for compostable disposal
4. The extracted water is then reused as the cycle continues



## Other Committee Initiatives

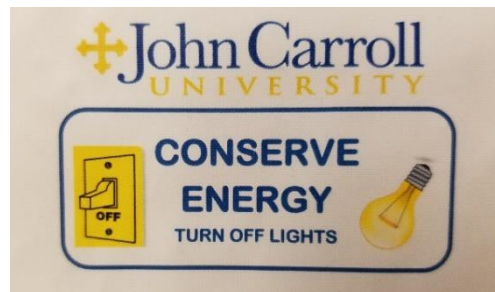
### Fund-Raising



- Plant sale in October 2017 (Campus Sustainability Month) raised \$85 in 2017 and \$130 in 2016
- Sale of scrap metal netted about \$100
- Permanent funding of committee is being pursued. All projects in last seven years have been funded through energy savings and rebates.

### Energy / Water Conservation Education

- Energy conservation stickers, illustrated at right, were installed at classroom and laboratory light switches, February 2017
- Energy conservation stickers installed on fume hood sashes throughout the Dolan Center for Science and Technology, summer 2017, *illustrated below*.



***Fume hoods that are left open can consume as much energy as 3.5 homes.***

Closing the sash when done using the hood can substantially reduce energy consumption – from 3.5 homes' worth down to 2. Fume hood sashes are in place for your safety, and shutting the sash helps protect you and your colleagues should something explode in the hood.

- We encouraged students to take the #EveryDropCounts pledge, a commitment to turn off the faucet when brushing teeth. Working with AASHE, Colgate-Palmolive is working with global ambassador Michael Phelps to inspire students to save water through a promotional video, <https://smiles.colgate.com/page/content/everydropcounts>. Over 46,000 people have already taken the pledge, saving more than 370,000 gallons of water every day.

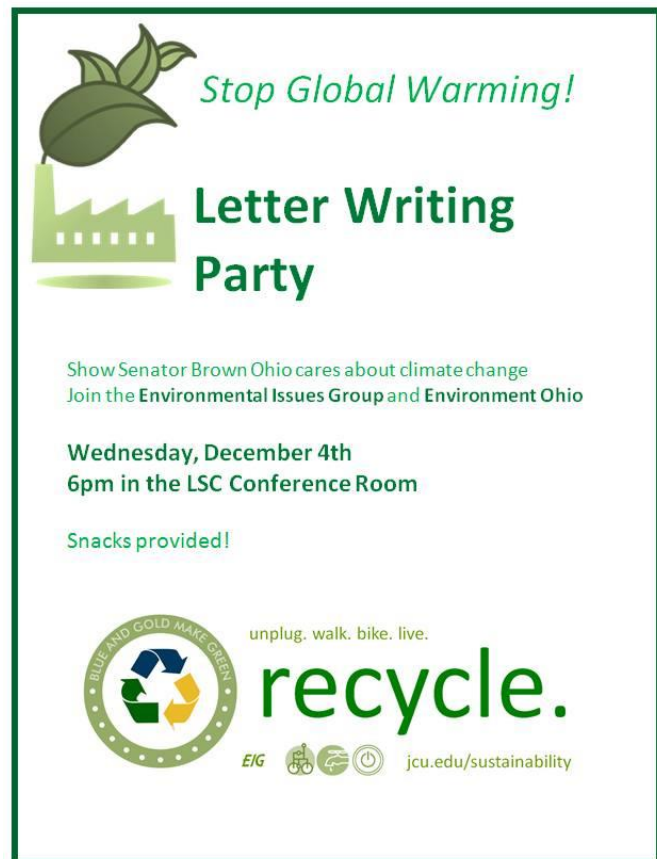


# Student Initiatives

## Environmental Issues Group (EIG)

### Accomplishments:

- Went from losing our recognition to being a consistent group that meets weekly
- Beach cleanups & news coverage
- Bike Co-Op set up and run through Residence Life
- Video for on campus sustainability - Started and need to finish by the end of the semester
- Held a panel on campus titled "Climate Change: Looking to the Future," with professors from the Biology, Business, Political Science and Communications Departments
- Presented for out group in Dr. Buchanan's Journalism class
- Brought over 40 students to D.C. for the People's Climate March
- Green Streak Week/Open Mic Night success
- Political action – letter writing party, December 2017



## Sustainability Committee Annual Report 2017

### Future Goals:

- Further expand knowledge of our organization on campus and in the community
- Continue relations with Residence Life for the Bike Co-Op and grow upon the base we've built
- Finish the video for on campus sustainability
- Create better relations with the Biology Department



## Environmental Task Force

– begun in spring 2017 at the direction of Student Union.

## Students for Social Justice

Fair Trade products are offered on campus now, administered by student group via campus ministry. *Gifts that Give Twice* is the annual holiday sale that is sponsored by the Students for Social Justice **Fair Trade Committee**, the Center for Service and Social Action, and Campus Ministry. Most of the fair trade products for sale during Gifts that Give Twice are provided by the Catholic Relief Services Fair Trade “Work of Human Hands” line. These products help farmers and artisans in more than 30 countries in accordance with five main initiatives:

## Sustainability Committee Annual Report 2017

- Environmental Stewardship
- Building Long-term Relationships
- Establishment of Cooperative Workplaces
- Fair Prices
- Small Business Empowerment and Development



The Ohio Fair Trade Teach-In & Expo was hosted by JCU on October 21, 2017. This is the largest regional Fair Trade event of its kind in the country. It brings people together from across the state to learn about and become more involved in supporting Fair Trade – a model for socially and environmentally conscious purchasing. Celebrating over 10 years since its inception, the Teach-In & Expo includes keynote speakers, educational workshops, and a Fair Trade marketplace with thousands of artisan and food products from around the world.

In addition, the committee

- Provides information about clothing in the bookstore
- Hosts Fair Trade Fridays in the Student Center
- Took a Field trip to Goodwill
- Continues to sell coffee, tea, and chocolate to our campus community
- Sold 200 Fair Trade roses for St. Valentine's Day 2017

## **APPENDIX 1 – Committee members, 2016-17**

- Carol Dietz, Associate Vice President for Facilities – Committee Chair
- Brendan Dolan, Assistant Director of Residence Life
- Rebecca Drenovsky, Ph.D., Associate Professor, Biology
- James Watling, Ph.D., Assistant Professor, Biology
- Jacob Dybiec, Class of 2017
- Andrew Fronczek, Executive Director of Purchasing & Auxiliary Services
- Rory Hill, Manager of Facilities Scheduling and Special Events
- Mary-Frances McGowan, Class of 2017
- Alan Miciak, Ph.D., Dean, Boler School of Business
- Joseph Mruzek, Class of 2017
- Edward Peck, Ph. D., Vice President for University Mission & Identity
- Andrew Powell, Assistant Director of Dining Services
- Rachelle Psznick, IMC Web Content Coordinator
- John Scarano, Director Campus Ministry
- Nicolle Simonovic, Class of 2016
- Mitch Tabol, Director of Physical Plant
- Jeff Your, Manager CSSLSS – Committee Secretary

## APPENDIX 2 – Academic Content

John Carroll University offers a major in Environmental Science, and interdisciplinary minors in Population & Public Health, and Environmental Studies. Additionally, listed here are courses offered with an environmental focus for at least part of the course [per [2017-2019 Undergraduate Bulletin](#)]:

### Biology

109/L. ENVIRONMENTAL BIOLOGY/ w. LABORATORY  
137. CLIMATE CHANGE  
222. GENERAL ECOLOGY  
224/L. TERRESTRIAL ECOLOGY/w. LABORATORY  
331. GLOBAL CLIMATE CHANGE  
417. INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS  
419. CONSERVATION BIOLOGY  
424/L. AQUATIC RESOURCES/ w. LABORATORY  
435/L. PLANT ECOLOGY/ w. LABORATORY  
444/L. ADVANCED ECOLOGY/ w. LABORATORY  
447/L. ALGAE AS BIOINDICATORS/ w. LABORATORY  
454/L. DESERT BIOLOGY/w. FIELD STUDY

### Chemistry

103/L. ENVIRONMENTAL CHEMISTRY/ w. LABORATORY  
105/L. CHEMISTRY IN SOCIETY/ w. LABORATORY

### Communications

354. SOCIAL ISSUES IN JOURNALISM  
376. CRISIS COMMUNICATION

### Economics

101. INTRODUCTION TO ECONOMIC PROBLEMS AND POLICIES  
315. ENVIRONMENTAL ECONOMICS

### English

291. ENVIRONMENTAL LITERATURE  
406. WRITING AND THE ENVIRONMENT

### History

271. WORLD GEOGRAPHY

### **Management, Marketing, and Supply Chain**

580. Environmental Sustainability in Business  
581. Social and Environmental Marketing

### **Philosophy**

315. APPLIED ETHICS

### **Physics**

115/L. ENVIRONMENTAL EARTH SCIENCE/ w. LABORATORY  
117. CLIMATE CHANGE SCIENCE & POLICY

### **Pre-Health Professions**

273. CURRENT ISSUES IN POPULATION AND PUBLIC HEALTH

### **Sociology**

201. HISTORICAL AND CONTEMPORARY SOCIAL ISSUES  
370. CULTURE, ENVIRONMENT, AND GLOBAL HEALTH

### **Theology and Religious Studies**

342. ISLAM AND THE ENVIRONMENT



## APPENDIX 3 – Leaders in Catholic Higher Education Statement

Statement of Leaders in Catholic Higher Education Globally on Pope Francis's Encyclical *LAUDATO SI: ON CARE FOR OUR COMMON HOME*

On June 18, 2015, Pope Francis issued 'Laudato Si', On the Care of our Common Home' a timely, comprehensive, and inspiring encyclical with an urgent call to action to address the climate and justice crises threatening the planet, crises widely recognized as defining characteristics of our times and a serious threat to our future. He calls upon every person on the planet, the whole human community, to take up this urgent set of challenges, recognizing the profound religious and moral imperatives they present.

Pope Francis states forcefully and clearly that facing these challenges will require profound changes in lifestyles, myths and mental paradigms, models of production and consumption, cultural assumptions and values, and the consolidated social and political structures that govern society today. All of this presents extraordinary educational and spiritual challenges.

Catholic Higher Education, then, has a vital and challenging role to play in shaping and informing the serious educational and moral dialogues that must take place to respond to this call, to address these crises. Higher educational institutions globally must seek to provide influential leadership in discovering new and life-giving paths to address the pressing emergencies of climate change, social exclusion, and extreme poverty and in uncovering new paths to achieving peace, justice and environmental sustainability for the whole human family and the entire family of creation.

As leaders of Catholic Higher Education around the world, we thank Pope Francis for his strong and courageous leadership in addressing the interrelated crises and ways of life threatening Earth in our times. His leadership inspires our own.



## Sustainability Committee Annual Report 2017

Grounded in our unwavering commitment to Truth, to rigorous and proven scientific research of the highest quality, to education in knowledge and critical thinking that forms and empowers future leaders dedicated to universal Christian values and to serving the global common good,

We commit ourselves as leaders in Catholic Higher Education to work together regionally and globally, through all the means available to and appropriate for our colleges and universities as institutions of higher learning, to study, promote, and act on the ideals and vision of integral ecology laid out by Pope Francis.

More specifically, we commit ourselves as leaders in Catholic Higher Education globally to integrate care for the planet, integral human development, and concern for the poor within our research projects, our educational curricula and public programming, our institutional infrastructures, policies and practices, and our political and social involvements as colleges and universities.

Through this research, education, and institutional engagement, we will take up the vital roles proper to higher education in the formation of global ecological citizens and in fostering the open, honest national and international dialogues Pope Francis calls for.

We acknowledge and embrace these moral and religious imperatives to work for a world characterized by global social justice and solidarity which the Gospels, Catholic Social Tradition, and now Pope Francis lay out before us and to which they call us so strongly to dedicate our lives, our work, our energies and our resources.

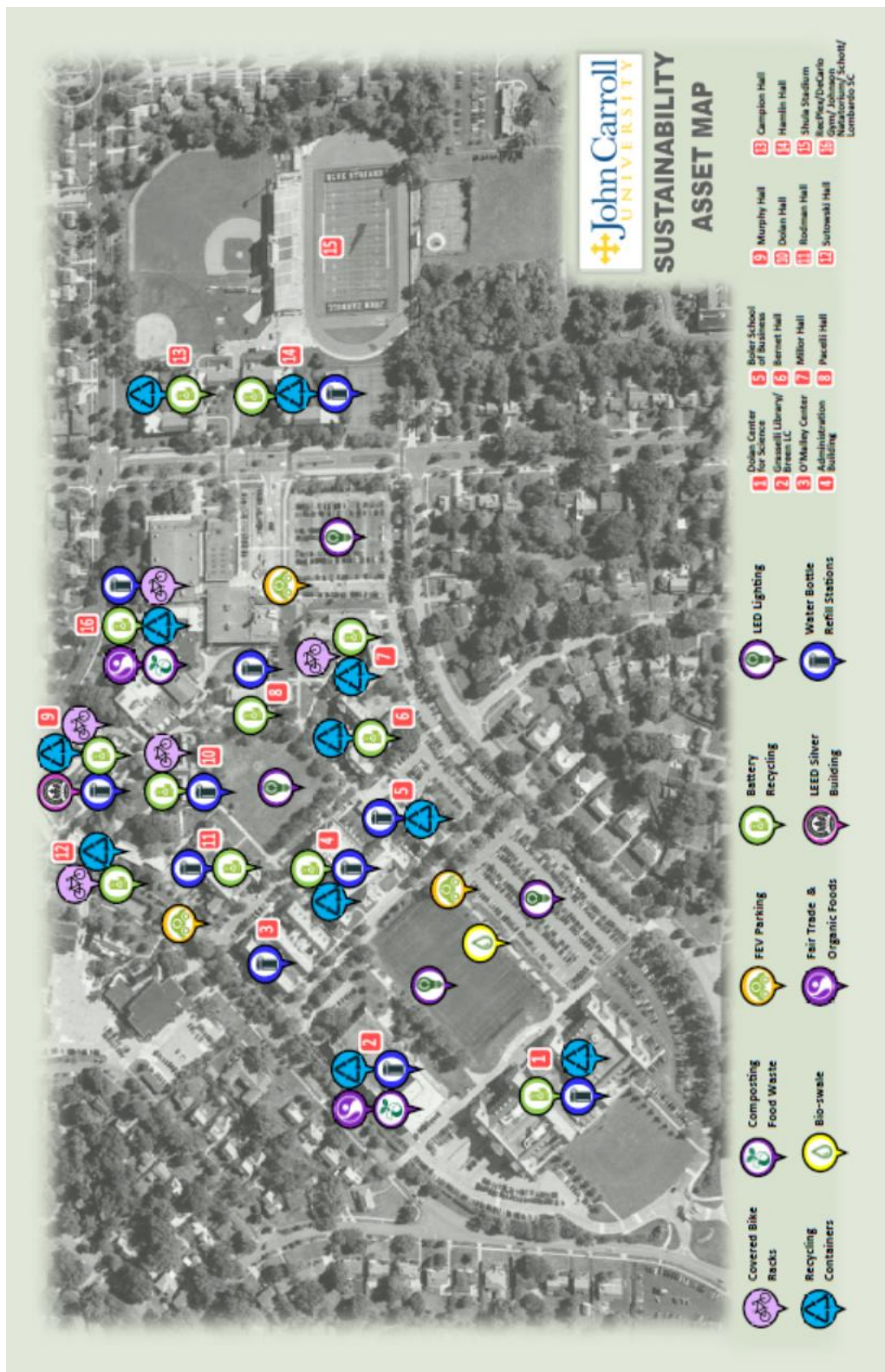




## **APPENDIX 4 – Jesuit University Sustainability Websites, USA assistancy**

[Boston College](#)  
[College of the Holy Cross](#)  
[Creighton University](#)  
[Fordham University](#)  
[Georgetown University](#)  
[Gonzaga University](#)  
[Le Moyne College](#)  
[Loyola University Maryland](#)  
[Marquette University](#)  
[Regis University](#)  
[Saint Joseph's University](#)  
[Saint Louis University](#)  
[Santa Clara University](#)  
[Seattle University](#)  
[University of San Francisco](#)  
[University of Scranton](#)  
[Xavier University](#)

# APPENDIX 5 – Sustainability Asset Map



## APPENDIX 6 – Letter to President Trump

### [Letter to President Trump and Members of United States Congress](#)

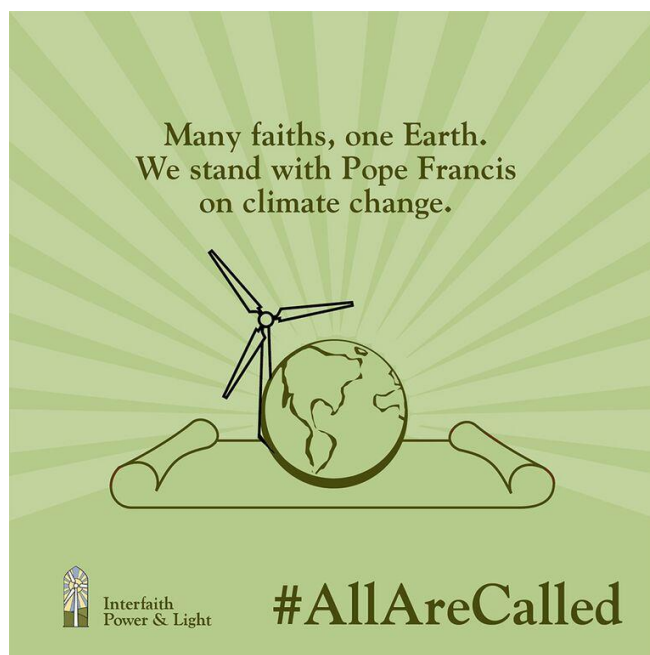
Dear President Trump and Members of the United States Congress:

As leaders of Catholic organizations in the United States, we write with one voice to urge you to reassert U.S. leadership in the global effort to address climate change. On behalf of people who are poor and vulnerable and future generations, we especially ask that you act based upon the best available climate science; fund the United Nations Framework Convention on Climate Change (UNFCCC) and Intergovernmental Panel on Climate Change; honor U.S. commitments to the Green Climate Fund; and meaningfully participate in the deliberations of the UNFCCC.

The Catholic Church has long called for a prudent approach to creation. In 1971, Paul VI wrote, “Man is suddenly becoming aware that by an ill-considered exploitation of nature he risks destroying it and becoming in his turn the victim of this degradation.” His successors, Saint John Paul II, Pope Emeritus Benedict XVI, and Pope Francis have advanced the Church’s call for us to care for creation, a tenet of Catholic social teaching.

Catholic leaders across the nation and world have explicitly and consistently affirmed climate change as a moral issue that threatens core Catholic commitments, including to: protect human life, promote human dignity, exercise a preferential option for the poor and vulnerable, advance the common good, live in solidarity with future generations, and care for God’s creation which is our common home.

The Catholic Church has for years supported actions to address climate change based upon the best available science. The United States Conference of Catholic Bishops (USCCB) expressed in its 2001 statement *Global Climate Change: A Plea For Dialogue, Prudence, and the Common Good*: “In facing climate change, what we already know requires a response; it cannot be easily dismissed. Significant levels of scientific consensus—even in a situation with less than full certainty, where the



consequences of not acting are serious—justifies, indeed can obligate, our taking action intended to avert potential dangers.”

We are thus obligated by our faith to act – especially now considering the November 3rd National Climate Assessment from thirteen federal agencies that concludes:

“[B]ased on extensive evidence, that it is extremely likely that human activities, especially emissions of greenhouse gases, are the dominant cause of the observed warming since the mid-20th century. For the warming over the last century, there is no convincing alternative explanation supported by the extent of the observational evidence.”

Guided by these principles and findings, we members of the Catholic Church in the United States ask that you:

### **1. Fund the United Nations Framework Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change (IPCC)**

The UNFCCC and IPCC are indispensable institutions for the advancement of global diplomacy, action, science and knowledge on climate change. The United States has provided funding for these institutions since 1992, and we applaud the Senate Appropriations Committee’s recent bipartisan amendment to include \$10 million for them in the Senate’s FY2018 budget. We echo the USCCB in its letter urging Congress to support this amendment and call for the Administration and Congress to support future allocations to ensure US participation and leadership in the global efforts to address climate change.

### **2. Meaningfully participate in the deliberations of the UNFCCC**

Climate change is a global problem that requires global solutions. As our nation enjoys vast resources and has been a primary contributor to climate change, justice requires that the U.S. display strong and consistent leadership within the UNFCCC. In this way, the U.S. can help secure science-based global commitments which rapidly reduce greenhouse gas pollution and avoid so-called “tipping points” towards unavoidable and catastrophic impacts.

### **3. Honor U.S. Commitments to the Green Climate Fund**

One measure of a society’s greatness is how it treats people who are poor and vulnerable. As our Catholic tradition instructs us to put the needs of the poor and vulnerable first, we urge you to honor U.S. commitments to the Green Climate Fund.

## Sustainability Committee Annual Report 2017

The Fund helps less developed nations most impacted by climate change to build resilience to present and future impacts. Their peoples are disproportionately harmed by climate change despite often contributing least to the problem.

We heed the call of our Church, which implores, “As individuals, as institutions, as a people we need a change of heart to preserve and protect the planet for our children and for generations yet unborn.” We hope that you will accept our appeal, so that we may continue to dialogue and work together to manifest this change of heart.

Prayerfully submitted,

Michael J. Sheeran, S.J.  
President  
Association of Jesuit Colleges and Universities  
Washington, D.C.

Michael Galligan-Stierle, Ph.D.  
President  
Association of Catholic Colleges and Universities  
Washington, DC

Thomas D. Stegman, S.J., Ph.D.  
Dean  
Boston College School of Theology and Ministry  
Boston, MA

John J. Hurley  
President  
Canisius College  
Buffalo, NY

Joseph M. McShane, S.J., Ph.D.  
President  
Fordham University  
Bronx, NY

John J. DeGioia  
President  
Georgetown University  
Washington, DC

Jeanne Colleran, Ph.D.  
Interim President  
John Carroll University  
University Heights, OH

Et. aliiis



## APPENDIX 7 – Educational content on refuse containers



**Recognized by the waste industry for excellence in landfill management, Rumpke operates 11 landfills throughout Ohio, Kentucky and Indiana, managing more than 3.5 million tons of waste each year.**

**TOGETHER, WE CAN MAKE A DIFFERENCE**

SMALL CHANGES IN BEHAVIOR CAN HAVE A BIG IMPACT ON OUR PLANET!

**WHEN YOU *THROW* SOMETHING AWAY, **WHERE DOES IT GO?****

EVERY YEAR, AMERICANS CREATE **258** MILLION TONS OF TRASH

**169** MILLION TONS END UP IN LANDFILLS AND INCINERATORS

**BUT IT DOESN'T HAVE TO**

**GCA SERVICES GROUP** **John Carroll UNIVERSITY** **RUMPKKE**

An ADM Company Sustainability @ JCU

**RECYCLING FACT**

Enough aluminum cans were recycled last year to fill a hollow Empire State Building 24 times.

**RUMPKKE**



**RUMPKE**

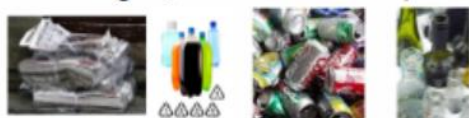
**DID YOU KNOW?**  
More than half of what you throw away could be **recycled**.



## THE FATE OF YOUR WASTE

### Mixed Recycling

(all paper, plastics, cardboard, glass, aluminum and metals)



Clear Bag

Green Dumpster

Recycling Facilities

First stop  
Material Recovery Facility  
where they are sorted by type  
Then Cincinnati to operations

### Trash

(all non recyclables and food waste)



Black Bag

Tan Dumpster

Ohio Landfills

To Rumpke landfill locations across Ohio

for more information visit: [www.jcu.edu/sustainability](http://www.jcu.edu/sustainability)

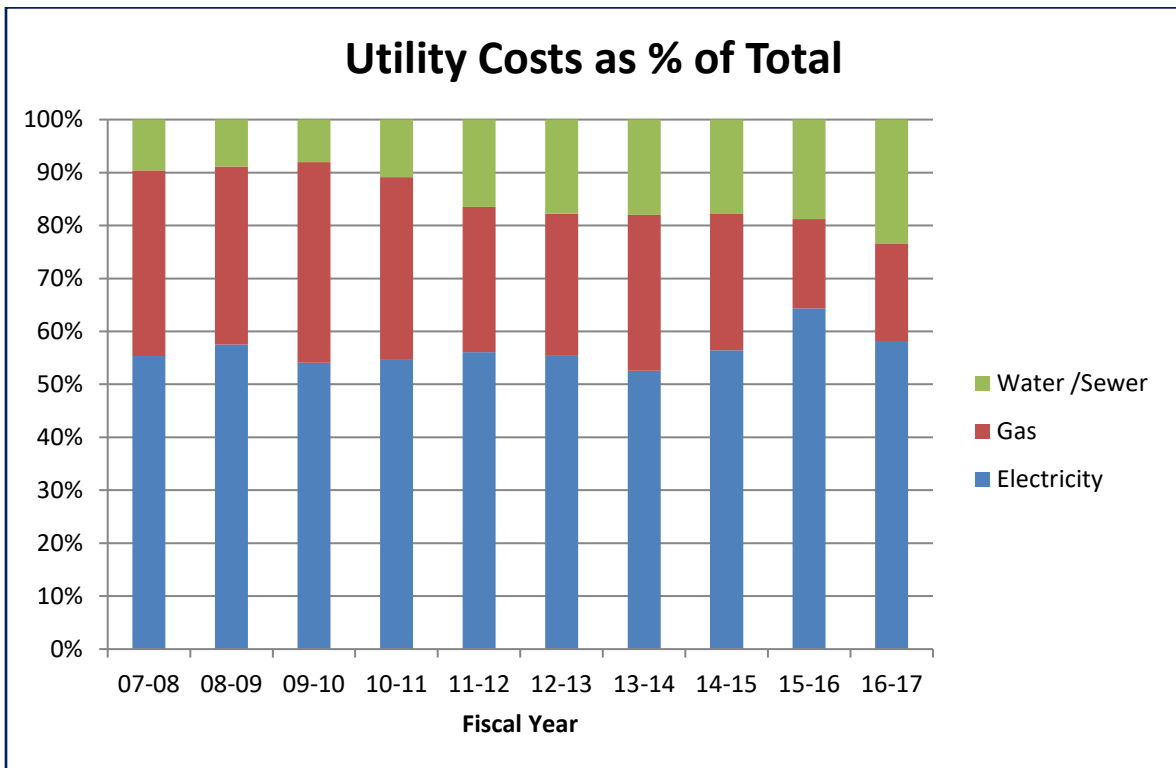
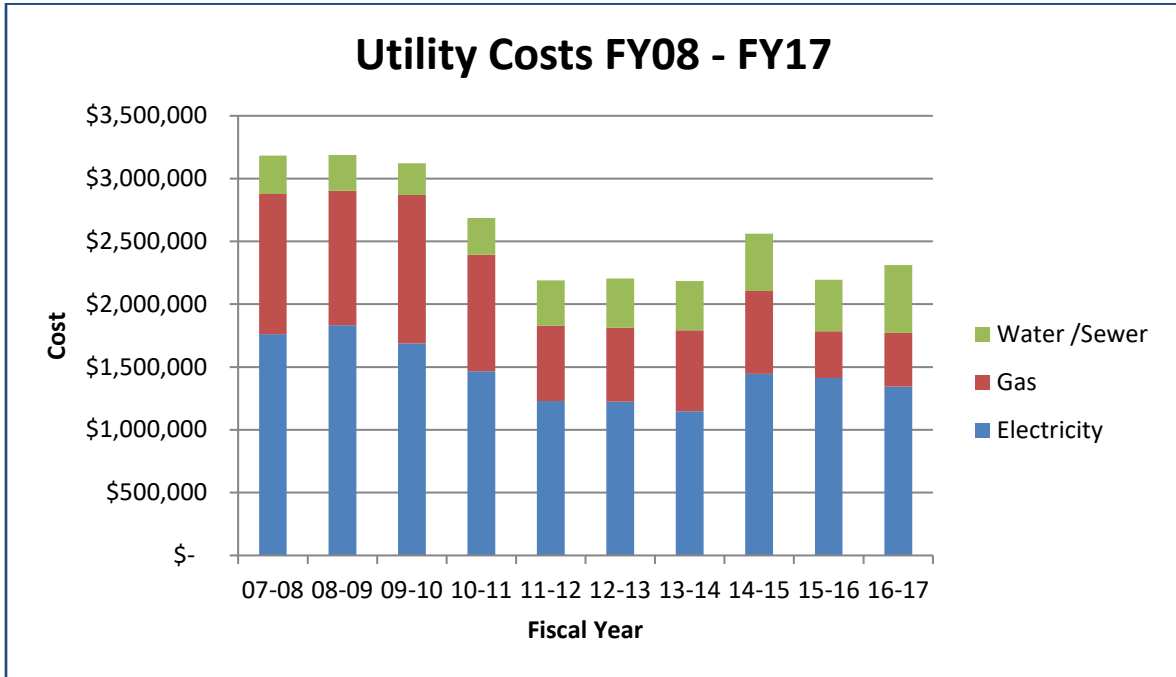
## APPENDIX 8 – Battery Recycling Locations

- Aramark Dining Service Office, the 'Underground'
- Biology Dept – Dolan Science Center, W204
- Campus Ministry – Lombardo Student Ctr, 1st floor
- Central Science Stores – DSC, WG06
- Chemistry Dept – Dolan Science Center, W304
- Each residence hall, main office
- Facilities Office – RecPlex Ground floor, rm 7
- Grasselli Library, vending area, main floor
- Information Tech Services – Rodman, 4th floor
- Mail Center – AD Garden level, below Kulas Aud.
- Mathematics Dept – DSC, E204
- Office of Mission and Identity – AD 128
- Physics Dept – Dolan Science Center, E104
- Psychology Dept – Dolan Science Center, E304
- Theology and Religious Studies – B250
- Tim Russert Department of Communication & Theatre – OC50

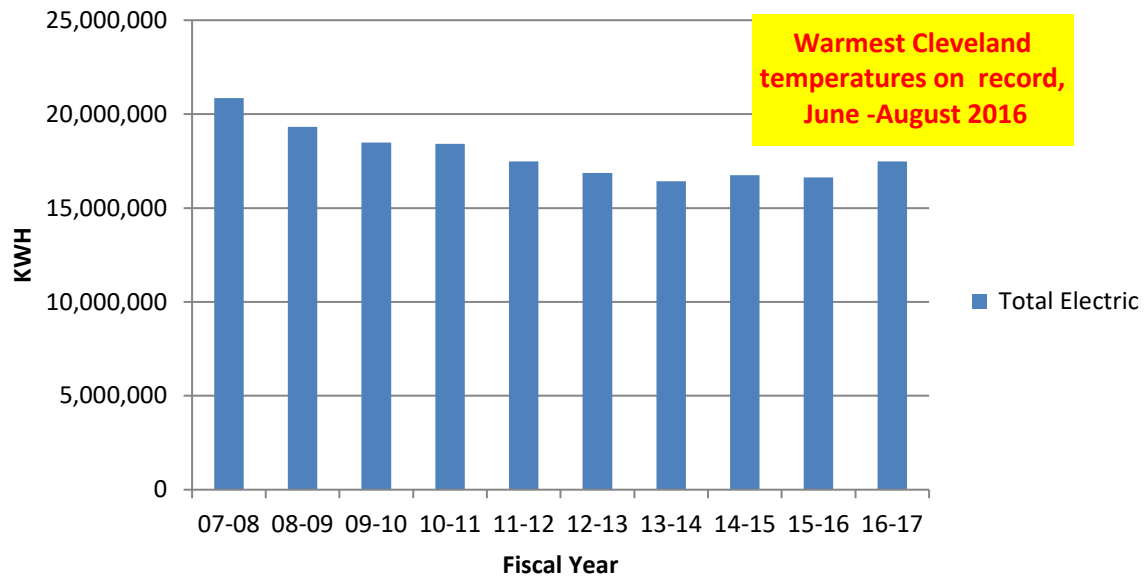




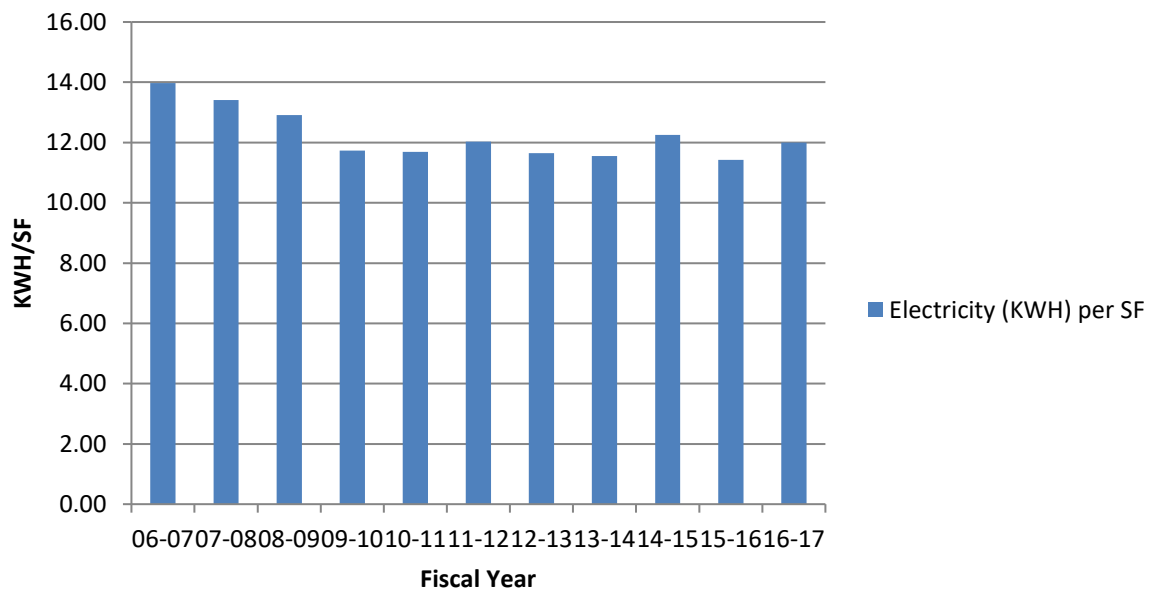
## APPENDIX 9 – Utility metrics 2007-2017



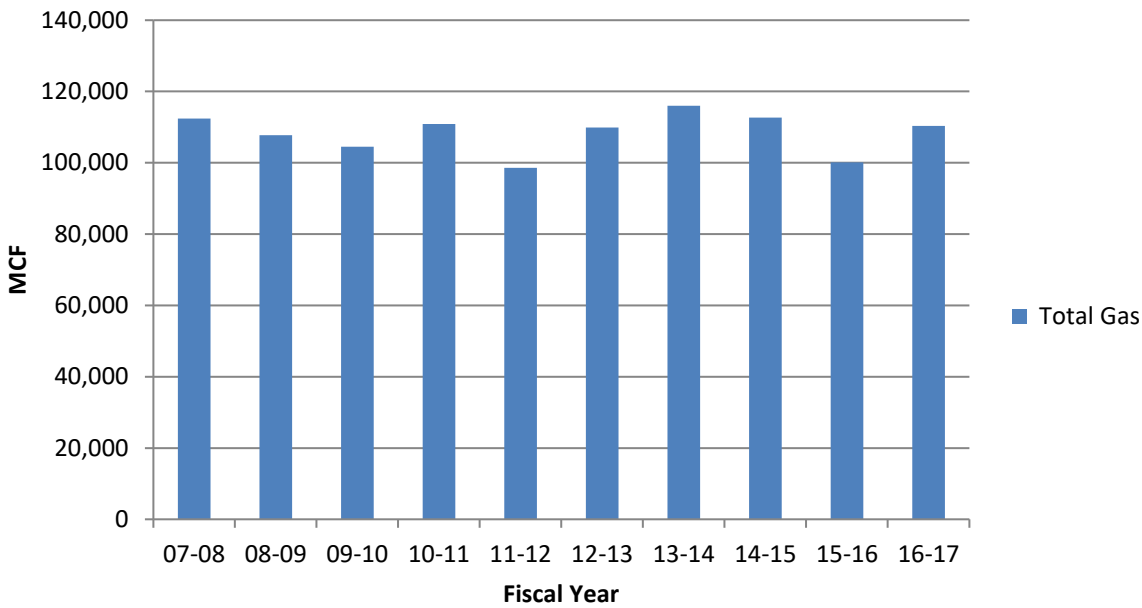
## Electricity usage



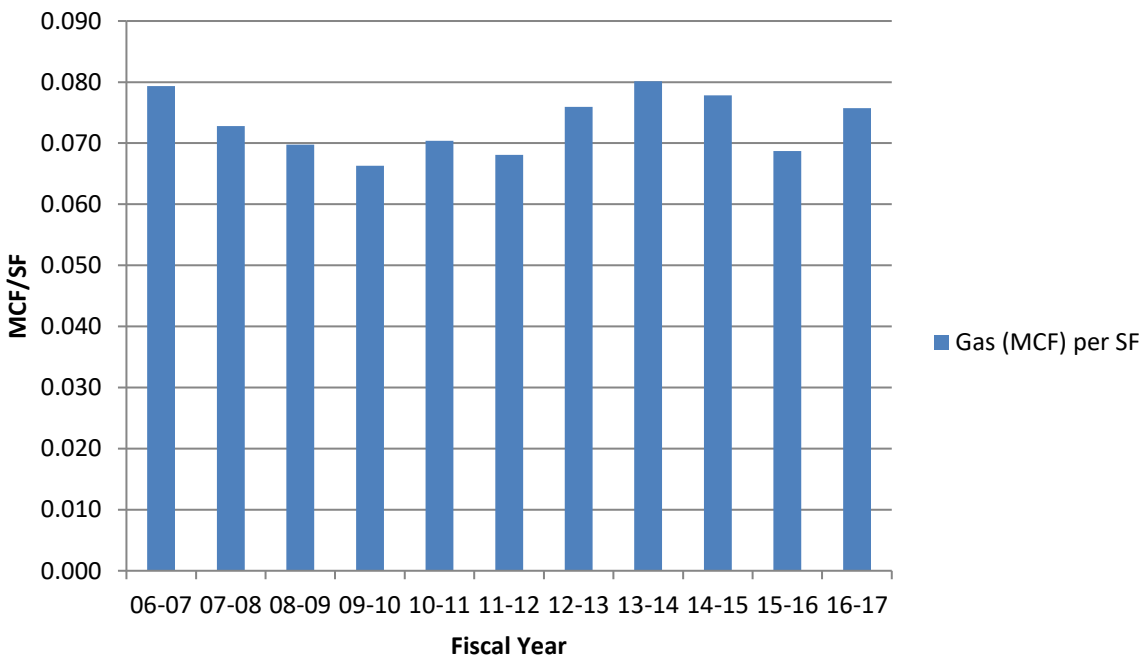
## Electricity (KWH) per SF



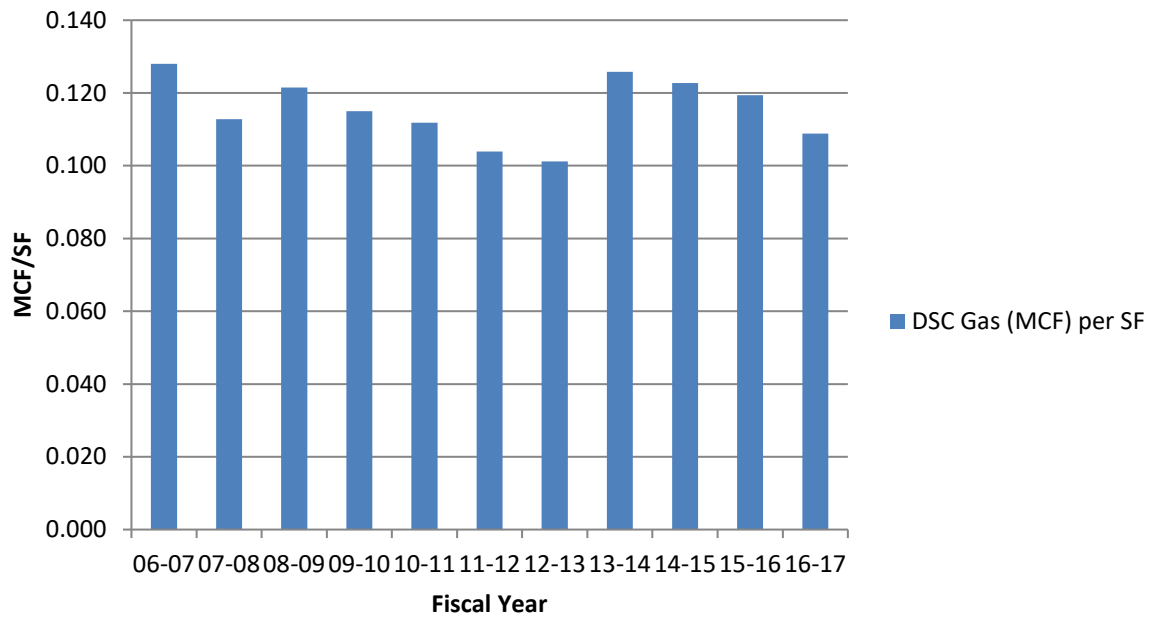
Natural Gas usage



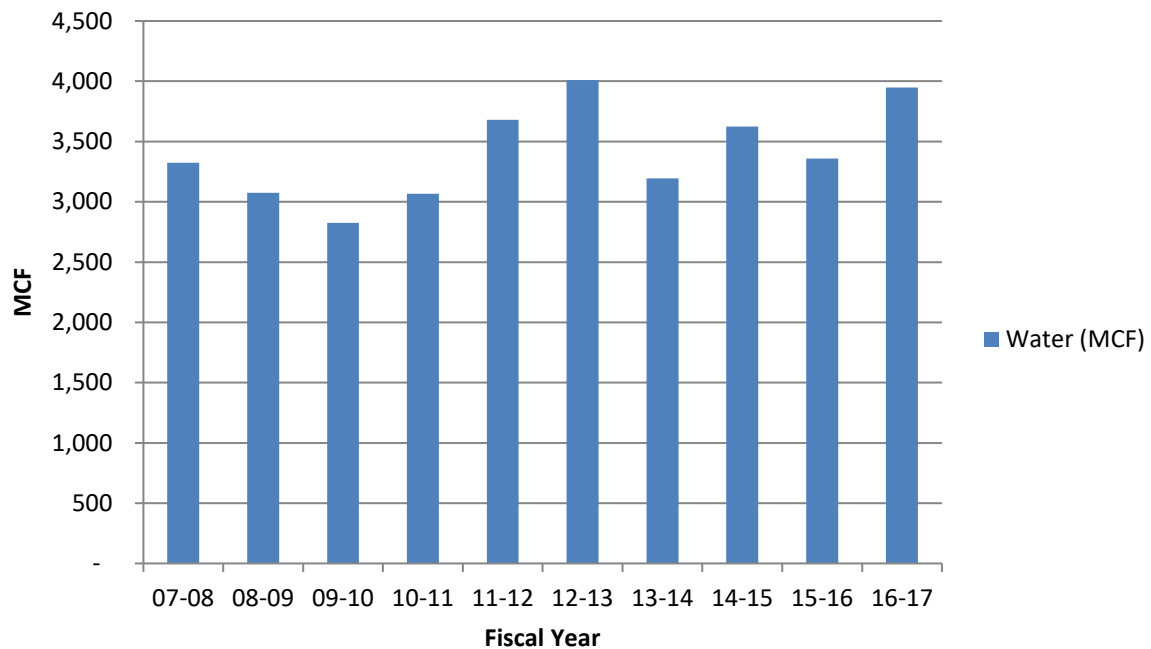
Gas (MCF) per SF

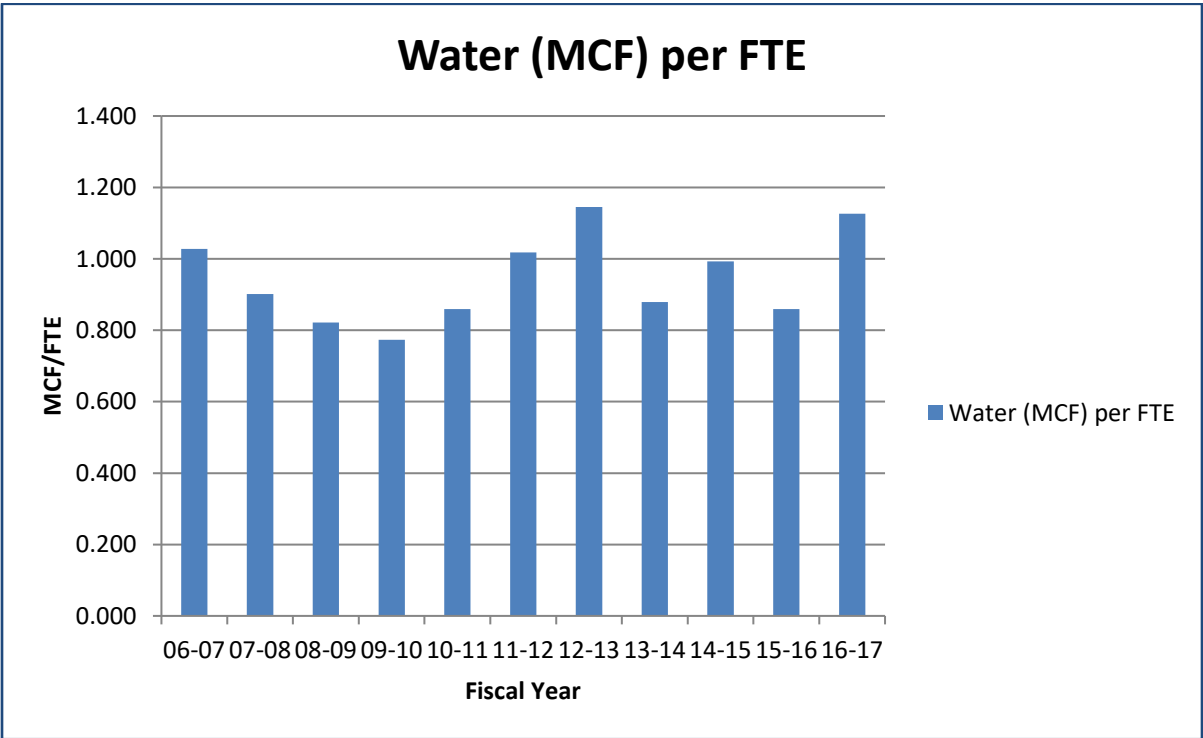
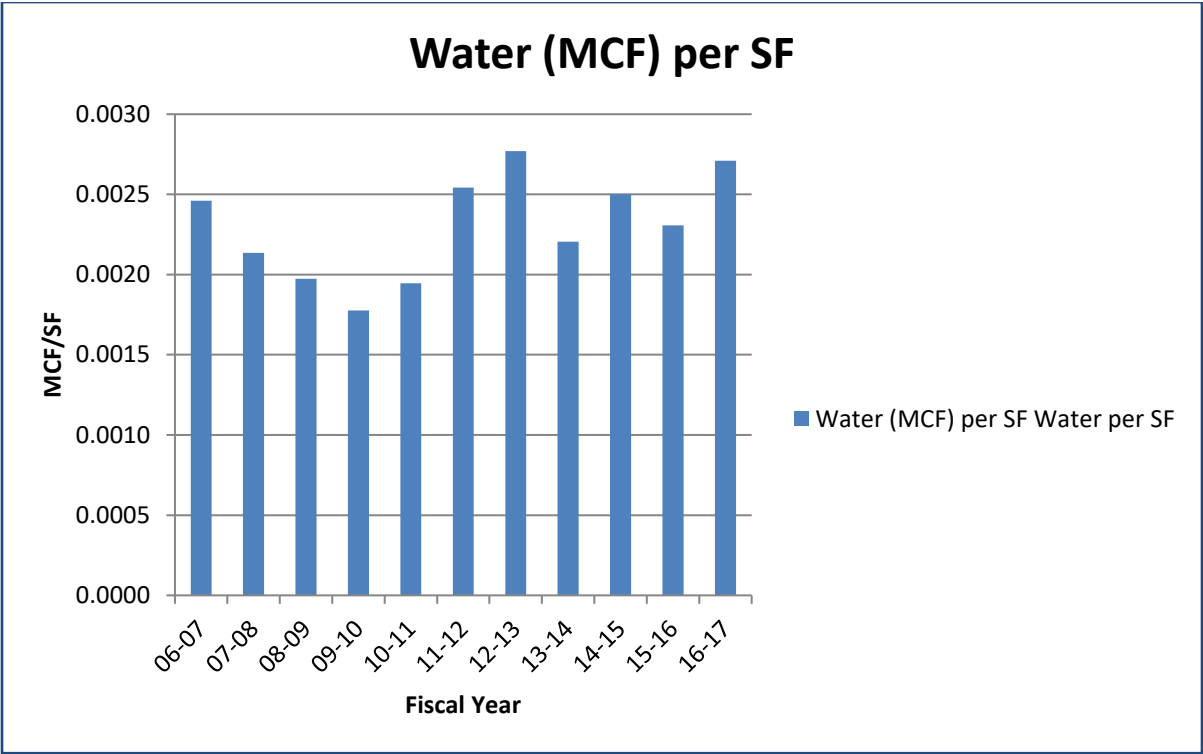


### DSC Gas (MCF) per SF



### Water usage







## APPENDIX 10 – Foundational Documents

(rationale for the creation and continuing work of the Sustainability Committee)

### Reconciliation with Creation

Following the directive of GC 34, Fr. Peter-Hans Kolvenbach commissioned a study and invited all “Jesuits and those who share our mission to show ever more effective ecological solidarity in our spiritual, communal, and apostolic lives.” This invitation calls us to move beyond doubts and indifference to take responsibility for our home, the earth.

Care of the environment affects the quality of our relationships with God, with other human beings, and with creation itself. It touches the core of our faith in and love for God, “from whom we come and towards whom we are journeying.” It might be said that St. Ignatius teaches us this care of the environment in the Principle and Foundation when speaking of the goodness of creation, as well as in the *Contemplatio ad Amorem* when describing the active presence of God within creation.

The drive to access and exploit sources of energy and other natural resources is very rapidly widening the damage to earth, air, water, and our whole environment, to the point that the future of our planet is threatened. Poisoned water, polluted air, massive deforestation, deposits of atomic and toxic waste are causing death and untold suffering, particularly to the poor. Many poor communities have been displaced, and indigenous peoples have been the most affected.

In heeding the call to restore right relationships with creation, we have been moved anew by the cry of those suffering the consequences of environmental destruction, by the many postulates received, and by the recent teaching of the Holy Father and many episcopal conferences on this issue.

This Congregation urges all Jesuits and all partners engaged in the same mission, particularly the universities and research centers, to promote studies and practices focusing on the causes of poverty and the question of the environment’s improvement. We should find ways in which our experiences with refugees and the displaced on one hand, and people who work for the protection of the environment on the other hand, could interact with those institutions, so that research results and advocacy have effective practical benefits for society and the environment. Advocacy and research should serve the poor and those who work for the protection of the environment. This ought to shed new light on the appeal of the Holy Father that costs should be justly shared “taking due account of the different levels of development.”

In our preaching, teaching, and retreat direction, we should invite all people to appreciate more deeply our covenant with creation as central to right relationships with God and one another, and to act accordingly in terms of political responsibility, employment, family life, and personal lifestyle.<sup>3</sup>

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<sup>3</sup> The Decrees of General Congregation 35, d.3, 31-36 (2008). Citation from [https://www.saintpeters.edu/jesuit-identity/files/2012/08/GC35\\_Decrees.pdf](https://www.saintpeters.edu/jesuit-identity/files/2012/08/GC35_Decrees.pdf), accessed on January 29, 2018

## SOCIETY OF JESUS AND ECOLOGY

Care of the environment affects the quality of our relationships with God, with other human beings, and with creation itself. It touches the core of our faith in and love for God ... The drive to access and exploit sources of energy and other natural resources is very rapidly widening the damage to earth, air, water, and our whole environment, to the point that the future of our planet is threatened (GC 35, d. 3, no. 32-33).

**“Open your eyes”...**



**and see “things anew”**

“Open your eyes” and see “things anew.”

The logo (or drawing) represents an eye in which the iris is the globe of the world. The iris or world is green as the colour of ecology. It invites us all to watch and contemplate the world with an ecological, green, and hopeful eye. An eye that helps us in our mission of “reconciliation with creation” (GC 35).

The logo refers to the vision of St. Ignatius near the river Cardoner in Manresa (Autobiography, no. 30). It invites us to watch the present world, to “open our eyes...” and see “things anew,” according to the words of Ignatius. This way he encourages us to be open to the grace that

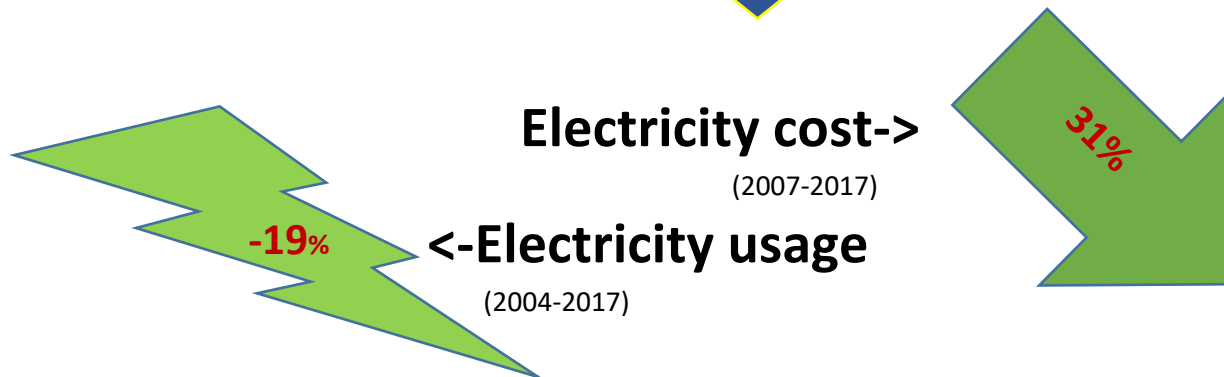
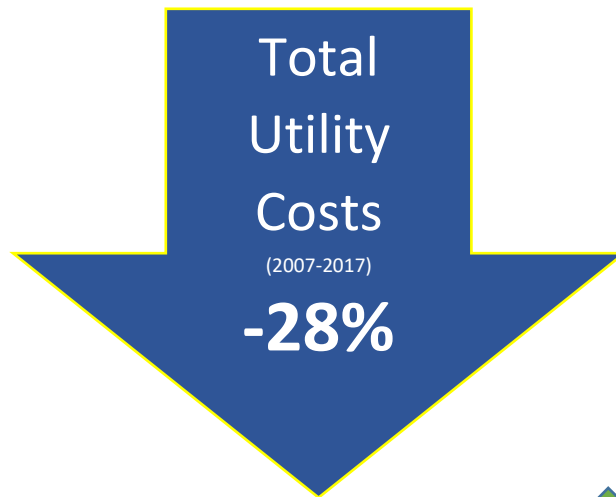
he received and to contemplate with a mystic eye the way God comes closer to us, to our lives, and works within all things. He encourages us to “open our eyes” and contemplate the world as creation, a place in which we can meet God from the consolation and with respect and deep acknowledgement of Him in all His creatures, “in all to love and to serve”. We can meet God in everything and we are called to take care of, to love and to serve Him in His creation. This way we can collaborate with Him to “heal a broken world”. This contemplative eye expresses also the option for the poor because they are the ones who suffer the most the environmental deterioration.

4

<sup>4</sup> [http://www.sjweb.info/resources/annuario/pdf/Annuario2015\\_en.pdf](http://www.sjweb.info/resources/annuario/pdf/Annuario2015_en.pdf), p.7

# Dashboard Indicators

Data at a Glance



Natural gas usage (2004-2017)

Natural gas cost in the marketplace and through negotiation of long-term contracts ->

