



## Muskegon Community College

### 2020-2021 Annual Report Joint Sustainability Council

*Sustainability is meeting the needs of the present without compromising the ability of future generations to meet their own needs.*

#### A. Council Membership

Faculty: Seth York, Counseling; Scott Kendall, Life Sciences; Kimberlee Mason, Nursing

Community Member: Darlene DeHudy

Auxiliary Services: Stacey DeBrot

Custodial: Reuben Cortez

Information Technology: Jacob Langlois

Physical Plant: Dave Sturgeon, Stanley Dean, *Vice Chair*

Dean of Student Success, Provost/Executive Vice President: Jason Cooper (designee)

MCESSU Representative: Paula Halloran

Student Representative: unfilled this year

General: Dan Rinsema-Sybenga, Clarence Rudat, Tamera Owens, *Chair: 1 vote in a tie*

#### B. Activities and Areas of Concern

1. Bylaws - Annual bylaws review was held in September, 2020 and amendments were made to update staff titles and clarify terms of office and elections.
2. Campus Sustainability Month - For Campus Sustainability Month in October, we utilized MCC's Jay Mail emailing to share weekly tips on how to incorporate small lifestyle changes to enhance sustainability.
3. Oak tree cut down by the Kasey Hartz Natural Area - In spring, 2021, a fallen, storm-damaged tree was removed by Physical Plant, but there was also an oak tree removed to allow access for a 7,000-pound vacuum truck to pump out the acid pit dilution trap. The original design of the trap is flawed, causing buildup of a crust-like material, and leading to back up into the Science Wing lab floors. The pit will be re-plumbed, and new 1"-1-1/2" limestone will be placed in the pit. The JSC can and shall oversee purchase another oak tree to plant at a future date.
4. New Property on Stebbins Road - Our new property on Stebbins has been cleared, and Clarence Rudat reported that there is funding available to plant this as a no-mow pollinator area, until the college decides what to do with it. He will get information on this.
5. Michigan Recycling Coalition membership renewal - Membership fees are about \$250 a year, coming out of Physical Plant budget. Not a lot of it was pertinent to MCC, and we chose to drop the membership.
6. Composting - Food Service will not be reopening for fall, so there will not be any food scrap contribution to composting. At this time, plans to upgrade composting are suspended.
7. Shakespeare Garden - (photos by Stanley Dean) The Shakespeare Garden on the Main Campus is by Door 2, between old receiving (Bookstore entrance) and ATM entrance. It was donated by benefactors, and the plantings are to be authentic to common plants from the time of William Shakespeare. In May, 2021, The nearby patio retaining wall had to be removed for repairs to chiller supply and return, and there is a plan for the patio to be removed. In addition to repairs needed following the pipe work, we need to refresh/reimagine the Garden. Amy Swope, David Sturgeon, and Stan Dean are looking into this and waiting on quotes. There was originally a bench included, but it has been missing for several years. We might include signage to describe the name and purpose of the Garden.



8. Herb Garden - The Herb Garden is between the English Department entrance and the Stevenson Center. Pauline Keith used to do a lot of volunteer work to maintain it when she worked for the English Department, but she is now in the CSC. Clarence Rudat has also supervised the Student Garden Club in maintenance of the Garden, but it is

tough to get together because of COVID-19. The Club is working on the white house now. When things are donated, we need to see how they fit and have a plan.

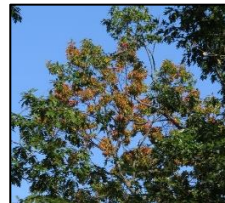
9. No-Mow Area - Stan Dean would like to convert an area by the library to a native planting, no-mow area, and will coordinate with Clarence Rudat on appropriate plants.

10. Oak Wilt and Hemlock Woolly Adelgid - (internet photos)

These are two diseases that are watched for in the Natural Area, and around campus. (Hoffmaster Park has recently lost 300 trees to Oak Wilt.) We have had a tree service survey our oaks and look for gypsy moths, and students doing an MSU plant identification unit will survey this week for the whole campus to locate and categorize trees. MSU is also offering a new spring and fall Urban and Community Forestry certificate, beginning this fall. MCC is the pilot location for this certificate in the State of Michigan.



Woolly Adelgid



Oak Wilt

### C. November, 2020 Physical Plant report, submitted by David Sturgeon

1. Drinking Fountain Bottle Filling Stations  
MCC has kept 10,883.96 pounds of plastic bottles (272,099 uses x .04 lb. (average industry weight of a 16-ounce plastic water bottle) from the waste stream / landfills.
2. Custodial Supplies  
Paper Towel – Green Seal Certified, Toilet Paper – Green Seal Certified. <https://www.greenseal.org/>
3. Purell Hand Sanitizing Stations  
Foam and touchless dispensing - standard. 30% more efficient in product dispensing when compared to gel. More uses per refill. Refills are recyclable.
4. Chemical Dispensing System – 3M Twist and Fill  
25 - Units located where applicable for custodial chemical use.  
Green Seal Certified – <https://www.greenseal.org/>  
Reduced chemical and water waste – Chemistry waste reduction as compared to non-measured dispensing  
<https://multimedia.3m.com/mws/media/1042747O/3m-chemical-management-systems-brochure.pdf>
5. Custodial Equipment  
HEPA Upright Vacuums – Green Seal Certified <https://www.greenseal.org/>  
HEPA Cordless Backpack Vacuums – Green Seal Certified, HEPA Chariot – Vacuum – Green Seal Certified.  
Window Cleaning – Hydro cart, Cleano Wand Kits – zero chemical glass cleaning. Deionized water. Reduces chemicals 100% reduces labor 35%.  
Battery Powered Blowers – No fossil fuel use to clear entrances. Positive affect for internal clean air quality due to no foul exhaust. No fuel or oil to store.
6. Ozonated Water Dispensers on Washers  
BR Gym & STC Custodial – Reduce laundry soap. Reduce need for hot water. Sanitized wash to reduce cross contaminations. Microfiber cleaning – wipers, dusters, Cleanos.
7. Wrestling Mat Cleaning and Disinfecting System (Kennedy)  
Microfiber application and surface cleaning. Reduced waste and chemical use. Reduction of bacteria, mold, viruses and pathogens
8. Microfiber Towel Initiative  
Improved cleaning by increased cleaning surface of medium. Washable in excess of 500 times. Recyclable - reduces landfill waste by use and volume.
9. Irrigation – “MCC Grounds Water Conservation Project”  
Smart / WIFI Irrigation Controllers – 10 units – MC, Ottawa Center (STC under consideration for 2021). The system, by design, listens to nature. It synchronizes with all-weather events, calculated daily evapotranspiration losses, and adjusts the water duration by defined programs for our climate. Guaranteed to reduce water consumption by 35%. Operations labor reduction 50%.
10. MC North Well Frequency Drive Installation  
Reduces start up electrical power from locked rotor state and run power needed. Reduces energy consumption a minimum of 30%. Equipment protection from “dirty power” and power losses / spikes.
11. Lawn & Field Conversion to Heat Tolerant Grass Cultivar  
More than 800 pounds applied for initial testing 2019/ 2020. Areas that are developed have reduced water consumption 50%. Next areas targeted for development consideration are south gated lot courtyard, rooftop garden medium courtyard, main campus south.
12. Golf Course Parking Lot Lighting – LED

Fuller spectrum and coverage of produced light. Energy consumption reduction 70%. Quicker ROI. Reduced maintenance costs over the life of the fixtures.

13. Ultra High Efficiency Heating Boilers - 97% AFUE Efficiency  
STC -3, H and W Center – 2, Science Wing – 2, Stevenson Center Boiler House – 2, BR Gym – 2, LSFC – 1 – Pool Heating, 1 – Domestic Hot Water
14. Integrated Lighting Controls  
Automotive, MC Parking Lot North & South, LIT, OC (Motion and Adjustments), H & W Center, Art & Music, Science Wing, Higher Ed STC
15. Led Lighting Interior & Exterior  
Main Campus Interior – 55% Completed, STC – 100% Completed, Main Campus Walkways – 100% Completed, OC – 100% Completed, Main Campus Wall packs – 90% Completed, H & W Center – 100% Completed, Art & Music Interior and Exterior –100% Completed
16. Campus Parking Lot LED Lighting  
Science Wing – 100% Completed, Golf Course – 100% Completed, North Parking – 50% Completed, STC Parking – 100% Completed, South Parking – 60% Completed
17. STC - Internal Lighting Controls Update – 100% Completed
18. STC – Temple Boiler System Reset Controls  
Reduce heating loop temperatures when outside air allows, and reduction in gas and electrical use
19. STC – Welding Lab Exhaust System Upgrade  
Cleaner air in workspace, reduce waste from filter replacements and costs, and reduced energy use 20%
20. DDC HVAC Controls  
Main Campus – Integrated DDC, STC – Integrated DDC, Ottawa Center – Daily Night Setback, LSFC – Replace current AHU controller with integrated digital programmable unit.
21. HVAC Economizer Controls and Equipment  
Utilizes cooler than 55-degree ambient air to provide interior cooling. Reduces DX cooling operation. Reduces energy consumption up to 70% per applicable units. Increases interior space flush and air exchanges
22. HVAC Preventative Maintenance  
Economizer Cleaning and Operations Check, Cooling Operations Check, Heating Operations Check, Filters and Belts,  
Coil Cleaning and Sanitizing. Reduces equipment breakdowns, downtime and unplanned repairs. Preventative maintenance has a proved ROI of reduced energy consumption of a minimum of 20% annually.
23. Smart Printing Initiative – Campus Wide  
Energy, equipment rental and support reduction. Reduced paper waste by selective printing model, color and two sided prompting.