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URBST 372 Semester Project

GreenThumb Service Learning Internship:

A Sustainability Guide for the Office Environment and Business Operations

For my Service Learning Internship I volunteered with GreenThumb, a division of NYC Parks, which is a city agency that works to establish community gardens throughout the five boroughs. Residents and/or concerned community members can form new green spaces in their neighborhoods on property that would otherwise be abandoned, misused, or simply an eyesore. They can also join existing gardens if they do not have a location to transform in mind. In this way GreenThumb provides NYC residents with all the tools, supplies, and know-how to establish and maintain functional community gardens that both aid in the ongoing fight against environmental injustices and food desert perpetuation, and address the need for more community-oriented green spaces within our urban environments.

I think that GreenThumb's work is incredibly important and necessary to make NYC more sustainable and enjoyable place to live. I was fortunate enough to meet many of the primary gardeners and volunteers of the various garden sites that GreenThumb oversees, and saw firsthand how meaningful and useful these spaces are for residents of these neighborhoods. Some gardens have been established for over 40 years, as long as GreenThumb has existed, and they serve as the only (or one of the only) clean, green, and constructive public spaces in the area. The gardens provide community members with fresh produce, and hands-on experience in growing *healthy* food of their own, with lessons in hard work, patience, teamwork and sustainable living. Over the years many of these gardens have expanded to create more useable space for the youths of the neighborhoods, or to implement educational or beneficial activities for the community. These expansions/projects include the construction of stages for residents, especially children, to put on shows

and performances, or conduct workshops; the addition of butterfly gardens or spaces for bee which are both educational and eco-friendly; the construction of roof-rainwater collection to save water and more efficiently irrigate plants, and the installation of barbeque pits for community gatherings. Farmers markets are often held at or near these spaces, and some gardens give their crop to local businesses or schools, in addition to serving as compost drop-off sites. All in all, GreenThumb is providing a great service to NYC as community gardens are essential for bringing the city into a new age of environmental sustainability and more just ways of life.

That being said, during my time spent in the GreenThumb Office and at some of their training/welcoming events, I noticed that there were certain operations that ought to be less wasteful. Some examples are:

- Food served at the volunteer training session as well as the YLC (Youth Leadership Council) Kickoff event was individually packaged in cardboard boxes, with all the inside contents each individually wrapped in plastic.
- At tabling events, GreenThumb calendars and flyers were printed out in large quantities with many leftover after the event was over.
- In the office, many lights, computers, and other appliances are kept on all day long, despite not being in use.
- Purchases made for events are not sustainably sourced or certified, such as the plastic tablecloths that were bought for the Kickoff and then disposed of right afterwards.
- At various events, there was no distinction between what gets thrown away, recycled, or composted, and no receptacles in which to do so.

GreenThumb, as a division of NYC Parks, and an environmental organization with the aim of greening the whole of New York City, I feel that their office and operations should be more in line with their sustainably oriented values. I have researched sustainable practices for office environments, and having assessed which areas need improvement, it is my hope that the following Sustainability Guideline will prove useful not only GreenThumb, but NYC Parks as a whole, as well as any businesses that wish to “green” their workplace. I have outlined what changes can be made to office operations that will allow for optimal efficiency while creating as little environmental impact as possible.

*Disclaimer: NYC Parks created a Sustainability Plan of their own in 2010 that mostly pertained to operations within city parks themselves, but there was one section that discussed suggestions for within their agencies’ offices that addressed some of the changes I hope to implement. There was one suggestion that is very favorable, and I will include them in my plan as well.

A Sustainable Guideline for NYC Parks Offices and Operations

This sustainability plan outlines simple and easy changes that can be made in an office setting that will reduce energy use, improve waste management, lower carbon emissions and enable the working environment to maintain functionality while reducing their environmental footprint. Most, if not all, suggestions in this guideline may seem obvious to the common environmentalist, or even the average (educated) Joe. However the plan also includes means by which change employee habits and how to maintain these suggestions over time. The key to creating a sustainable work environment (in terms of eco-friendliness) is being able to sustain it, of course.

❖ Saving Energy

- 1) Switch to LED's! These light bulbs use 75% less energy than traditional incandescent bulbs. CFL's (compact fluorescent light bulbs) only use 25-35% less energy. LED's also last 25 times longer than incandescents, which will save money in the long run.¹
- 2) Set all appliances and computers to Energy Saver mode. This can save up to 172 Kwh a year, which is about \$250.² In addition, turn off anything when not in use. For example, when leaving a meeting, make sure the lights in the conference room are turned off and any devices used during the meeting are shut down as well.

¹ <https://energy.gov/energysaver/led-lighting>

²<https://green.harvard.edu/sites/green.harvard.edu/files/Power%20Management%20Apple%20Computers.pdf>

- Using a laptop instead of a desktop and monitor saves energy as well. If possible, use laptops instead.³
- Another option is to have Smart power strips. These strips have a “controlling appliance” outlet, and once that appliance is turned off, all the other outlets are shut down as well. These power strips do have outlets that remain on indefinitely as well, for appliances that need to be kept on all the time. For example, if you have a monitor, desktop, and printer, the monitor would be the controlling appliance. Shutting the monitor down shuts off the desktop and printer too, but if a fax machine is plugged in, that will stay on if plugged into the appropriate outlet.⁴

3) Maintain efficient temperature settings. You want the thermostat to be set as close to the outside temperature as is comfortable, that way your cooling and heating systems are not working too hard. The ideal thermostat setting is 78 degrees Fahrenheit, and in the winter it is 68 degrees. Staying within this range, 74-78 in the spring and summer, and 68-72 in the winter, will maximize energy savings.⁵ There are ways to keep comfortable with these temperatures:

³ <https://green.harvard.edu/programs/green-offices/green-office-resources>

⁴ Ibid.

⁵ <https://www.thebalance.com/set-your-thermostat-for-maximum-energy-savings-2941138>

- Using fans can make a room feel up to 4 degrees cooler, allowing you to set the thermostat higher and reduce your energy consumption, and bill! ⁶
- Keep your AC fans on low at all times.⁷
- You want to prevent the sun's heat from passing through the glass windows and getting inside the building. Options such as solar screens, solar films, awnings, and even outdoor vegetation can help keep offices cool. If this is not possible, drapes, blinds, and windowsill plants can help, but they will be blocking and absorbing heat that has already entered the building. ⁸
- Tune-up, or check your heating, ventilating and air-conditioning systems regularly with annual maintenance to ensure they are functioning at their best performance rates. ⁹
- Open windows at night! Temperatures have the potential to drop as much as 20 degrees at night in certain areas. By shutting off heating systems and opening the windows when leaving the office, this can drastically reduce energy usage. ¹⁰

4) Use Energy Star certified appliances. This will ensure that the appliance is energy efficient, and certified by the EPA.

⁶ Ibid.

⁷ <https://green.harvard.edu/sites/green.harvard.edu/files/Temp%20Guidelines.pdf>

⁸ <https://www.sba.gov/managing-business/running-business/energy-efficiency/energy-saving-tips/tips-energy-efficiency>

⁹ Ibid.

¹⁰ <https://www.thebalance.com/set-your-thermostat-for-maximum-energy-savings-2941138>

5) Have a Shut Down Checklist! This reminds employees to TURN OFF ALL LIGHTS AND APPLIANCES AT NIGHT, especially if they are the last ones in the office.

❖ Recycling Materials and Saving Paper

- 1) This one is very simple. Recycle everything! Employees should be taught exactly what gets thrown in each bin, either through a training session upon hiring, or with an informational E-book. Posters should also be hung over/on each receptacle specifying what gets thrown in each bin. There should be a paper, plastic, glass and metal, and compost bin on every floor, in addition to the regular trash receptacle(s) that go to landfill.
- 2) ALWAYS print double sided. However, try to reduce paper usage at all costs in the first place. At tabling events, having an email sign up sheet via tablet and excel sheet or Google Docs instead of a paper one is an easy way to reduce paper usage and minimize work later on when adding all the names and emails to the mailing list. Handing out pamphlets and flyers can also be avoided by having everything available online for people to view. When passing on information, simply let people know that any questions or inquiries can be answered by following your organization's social media platforms. Posting event dates, updates, and information on not only keeps people interested and involved in your activities, but eliminates the need to have paper handouts.

❖ Reducing Food Waste

1) COMPOSTING IS ESSENTIAL. In the USA, organic waste is the second highest component of landfills, which contributes to methane emissions. In addition, 30-40% of America's food supply is wasted, equaling more than 20 pounds of food per person per month!¹¹ This can be fixed simply by separating your food waste from the rest of your trash. At GreenThumb for example, there is a compost bin in the kitchen/break room that allows employees to throw away anything they didn't eat in the appropriate receptacle.

- We need to take this one step further, however, and maintain the same standards of the office at any events the business hosts. Recycling and composting bins should be provided at all social gatherings, networkings, and events that the office puts on. Guest should be informed as to what goes in each bin, perhaps upon entry, or by having an employee stand by the receptacles.

❖ Sustainable Purchasing

1) This goes for both office supplies and event planning. By sourcing all supplies, decorations, and catering services from environmentally conscious and responsible companies, we can make less of an impact on the planet.

¹¹ http://www.worldfooddayusa.org/food_waste_the_facts

Here is a very useful poster containing environmentally friendly office supply brands:

brands:

Harvard Green Office Program
 Office for Sustainability
green.harvard.edu

Common Green Purchases

- All items can be purchased through WB Mason on HCOM.
- Check the [Harvard Reuse List](#) before making purchases:
- Energy Star and EPEAT designations should be on all appliances, computers, and light bulbs purchased.



Toner:

- Roxbury Remanufactured
- Search Roxbury Technology on HCOM. Available for most printer/copiers.



Copy Paper:

- 30% PCW*: # CAS054901
- 50% PCW: # CAS055011
- 100% PCW: # CAS054922



Notepads:

- Legal: # TOP74085
- Notebook: # MEA06594
- Steno Pad: # TOP74688
- Flip Charts # MMM559RP



File Folders:

- Colored: # ESS48434
- Manila: # ESS48420
- 100% Recycled: # ESS04350



Post-It Notes:

- Yellow: # MMM654RPYW
- Pastels: # MMM654RPA



Inter-office Envelopes:

FREE from Harvard Mail. Email: [hums\[at\]harvard.edu](mailto:hums[at]harvard.edu). Include: name of office, Harvard address, and requested number of envelopes.



Hanging Folders:

- 1/5 Tab: # UNV14115
- Legal: # UNV14213



Envelopes:

- Business: # QUA11117
- Window: # QUA90120



Ring Binders:

- 3": # AVE03602

*WB Mason is Harvard's preferred vendor.  HARVARD UNIVERSITY OFFICE FOR SUSTAINABILITY

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- In the office, you want to use biodegradable and non-toxic cleaning products.
- This goes hand in hand with saving paper. You want products that are made from a high percentage of post consumer recycled materials.

Here is a poster that shares environmentally friendly paper products:

¹² <https://green.harvard.edu/sites/green.harvard.edu/files/Common%20Green%20Purchases.pdf>

Harvard Green Office Program
Office for Sustainability
www.green.harvard.edu

Green Paper Product Supplies

When purchasing paper products, look for items with high a percentage of **post consumer** recycled content.

Facial Tissues:

- Marcal (MRC4034)



Toilet paper:

- Seventh Generation (SEV13733)
- Marcal (MRC16466)
- Atlas (ALM235)

Paper Towels: (When hand dryers are unavailable)

- Envision (GEP23304)
- Tork (TRKMK520A)
- Scott (KIM01801)



WB Mason (Harvard's preferred vendor) product codes for these recommended items are in parentheses



¹³<https://green.harvard.edu/sites/green.harvard.edu/files/Green%20Paper%20Product%20Supplies.pdf>

- 2) You want to incorporate points that have already been made to create a Zero Water Event. This means that all the food is sourced sustainably and served with washable, recyclable, or compostable dishware and utensils.

Again, here is an example of easy swaps to make that will turn your event into a Zero Waste Event:



ITEM	BEST	GOOD	AVOID
EATING UTENSILS, SERVING UTENSILS	Washable	Compostable plant-based greenware	Plastic
DISHES, BOWLS	Washable	Compostable paper	Styrofoam, plastic
CUPS	Washable	Compostable plant-based greenware	Styrofoam, plastic
NAPKINS, TOWELS	Washable (cloth)	Contains some or all post-consumer recycled content	Bleached, deforested
FOOD: PREPARATION	Organic, GMO-free, served on plates or family-style	Bulk, fresh	Package, individually wrapped
FOOD: PROTEIN	Vegetarian (lentils, legumes)	Fish, poultry	Red meat
FOOD: SOURCE	Local	U.S.-based	Imported
FOOD: SERVERS	Powerless insulated hot/cold containers	Green Sterno chafing fuel	Oven-warmers
BEVERAGES	Washable pitchers	Aluminum cans, glass bottles	Plastic bottles
DECORATIONS	Reusable, e.g. plants	Recyclable	Disposable
INVITATIONS	Electronic (Evite, Eventbrite, Paperless Post). Include walking/biking information	Postcard on recycled paper, encourages public transit	Card stock, envelope sent through U.S.P.S.
GIVEAWAYS	Reusable, environmental	Recyclable materials	Packaged, disposable
WASTE BINS	Waste monitors to help with sorting	Recycling and compost bins with clear signage	Large, open-mouthed trash bins
LEFTOVERS	Leftovers donated to local food bank or shelter	Uneaten items composted	Food items in trash
COMMUNICATIONS	Clear signage, table tents, verbal announcements, and invitation language	Signage on compost bins, recycling, and near compostable materials; table tents	Waste bins without signs
TRANSPORTATION	Central locations that are walkable or accessible by bicycle	Locations accessible by public transit	Remote locations only accessible by car

RESOURCES (PRODUCTS AVAILABLE THROUGH W.B. MASON):

COMPOSTABLE SERVING WARE	Eco-Products®, Nature House®, and Green Wave brands
RECYCLED-CONTENT NAPKINS	Marcal®, Seventh Generation® brands
COMPOST BAGS	Heritage BioTuf®

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❖ Green Transportation

¹⁴ <https://green.harvard.edu/sites/green.harvard.edu/files/zero-waste-events.pdf>

- 1) Lastly, you want to encourage that employees are commuting to work in the most eco-friendly way possible. This may seem obvious, but this means encouraging biking, walking or taking public transportation over driving. If employees must drive, encourage carpooling.
- 2) For events, picking up supplies instead of having it delivered will save not only on cost but emissions too, especially if you are biking!

❖ Maintaining Sustainability

- 1) NYC Parks suggested in their Sustainability Plan that “Green Gurus” be appointed in every office. These employees will be selected based off of their palpable passion for the environment and will receive extensive training on all points discussed in this plan, so that they can act as resources for all others in the office. Green Gurus will make sure employees are following the guidelines laid out here, and will also be available if anyone has questions or concerns. These Gurus will make sustainability fun and accessible within the office environment.¹⁵
- 2) Change employee habits! Most of the energy saving and recycling guidelines in this sustainability plan rely solely on changing the habits of employee behaviors. Once they have grown accustomed to switching off lights, powering down appliances, using reusable containers for lunches and throwing away all their trash in the correct bins, there is nothing more to do.

¹⁵ https://www.nycgovparks.org/sub_about/sustainable_parks/Sustainable_Parks_Plan.pdf

How do we change behavior? Education and constant reminding. I propose that employees attend a mandatory, once a month presentation in which the Green Gurus go over the Sustainability Plan, and give a brief overview of how each initiative is making a difference. This can include documentary screenings, statistical data on money and energy saved that month, and/or an interactive Q&A in which employees share how their lives have and continue to change as they prioritize sustainability. The goal is to remind people that individual action truly has an impact, and that by working together as an office, the major issues of carbon emissions, waste production, and overuse of resources can be addressed in ways that help alleviate climate change. The hope is that these presentations will also inspire employees to continue their sustainable habits, and even improve upon them in hearing about fellow employee endeavors and how impactful these actions can be.

3) Accountability is key. There is no way that employees are going to change their habits if they are not 1) constantly reminded to do so and 2) reprehensible if they do not. I suggest that employees earn certain benefits/bonuses upon completion and continued use of these guidelines. Each organization can determine the “prizes” accordingly, but here is an example. If an employee is consistent in turning off all their appliances and lights, they receive a complimentary lunch from the company, or even a paid day off. Examining the improvement in energy use and decrease in energy bills can be the determinant. Perhaps this can apply to the whole floor of an office, to create a competition among workers, as the floor that used the least

amount of energy that month gets lunch on the company. In addition, those who fail to comply to the Sustainability Plan can operate under a strike system, and 3-5 strikes can mean anything from suspension to termination, as they are not upholding the values of the company.

In conclusion, with this Sustainability Plan for office environments and workplace operations, I hope that NYC Parks, including GreenThumb, along with any other business aspiring to “go green” will be able to convert their organization into one that functions with optimal efficiency, all the while creating as little environmental impact as possible. We should aim to educate employees in their workplace on matters of the environment, and hopefully in the process this will change not only their office behaviors but also their habits at home. In this way, if we can change the way American companies conduct business, there is no telling what impact that will make for the future of this planet.