

Sustainability Practices for Cafés and Restaurants

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About the Alliance and its internship program

Since its organization in 2003, the Alliance has focused on sustainability at the community level, and this commitment goes beyond environmental concerns and looks at the many inter-related aspects of sustainability as they apply to communities here in the Lehigh Valley. Its commitment to sustainable food systems goes back to the Alliance's founding..

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Executive Summary

We live in a world filled with concerns about climate change, food and health, and other factors critical for sustainability, and these problems are growing at exponential rates. We all need to take action to prevent these problems from spiraling out of control, including taking a close look at our current practices, instead of just continuing ‘business as usual’.

Sustainability is often defined as the “avoidance of depletion of natural resources in order to maintain an ecological balance.” The Alliance expands this to include “holistic approaches to the environment, social justice, health, participatory democracy, and local economies”. With this in mind, the impacts of unsustainable thinking become more noticeable. In a world filled with disposable “things” we have strained our environment to its breaking point. Plastic straws litter our oceans and sidewalks. Packaging from purchases blows across highways. Plants and animals are pulled from their lands making way for garbage heaps and the residual waste which pollutes the Earth. We are beyond a time to talk about these problems. Businesses that serve food have a special role to play as we develop ways to live more sustainably and advocate for a more sustainable global society.

Food waste, Product sustainability, Energy, and Water use are key areas for action.

- Consider establishing a compost program for local municipalities, or in cities to reduce food waste in landfills, and ultimately be converted into nourishing soil for future produce.
- Consider issues like plastic straws, making a shift towards paper straws that can be composted and break-down quickly to prevent build up.
- Consider take-away containers that are made of sugarcane and are biodegradable and compostable.
- Consider solar energy solutions that take natural sunlight and convert it to electricity to power our homes and businesses.
- Consider switching away from disposable water bottles to reusable ones

These are just a few ideas of some simple changes that can be made to help build a better world. The question we offer is why have these changes been pushed aside? Why is it that we tolerate the use of plastic bags? Why do we allow Styrofoam to be used in food service? All of the considerations above are choices, ideals, and mindsets that have been used in businesses and can be done by everyone.

All of these choices have the power to make an impact and a change to the world we currently live in and provide relief from these problems continuing to build. The idea of sustainability is not something that should be looked upon as “trendy” or “costly”, instead sustainability should be viewed as an action that improves the world we live in and the world of future generations. Cost impacts most of the choices we make on a regular basis. We all make decisions based on cost throughout our lives. Why is plastic so affordable? Because the user is not paying for all of the negative environmental impacts, and implications of living in a disposable world. That cost is shared by us all.

Sustainability Practices for Cafés and Restaurants

Introduction

We live in a world filled with concerns about climate change, food and health, pollution and degradation of the environment, and other aspects of sustainability. Unfortunately, the problems are growing at exponential rates. When we look at the causes, it becomes clear that many of our current practices cause or contribute to the problems. We all need to take action to prevent these problems from spiraling out of control, including taking a close look at our current practices, instead of just continuing ‘business as usual’.

In a world where population is growing, and becoming increasingly difficult to feed sustainably, restaurants and businesses of all sizes need to consider changing their practices to lessen their environmental impact. Sustainability is often defined as the “avoidance of depletion of natural resources in order to maintain an ecological balance”¹, and the Alliance expands this to include “holistic approaches to the environment, social justice, health, participatory democracy, and local economies”. Ensuring the responsible use of resources and treatment of the environment, so future generations can have a similar quality of life. By incorporating more-sustainable practices, a business can make greater impacts on environmental conservation, reduce health concerns by customers, and be a community role model for change. Our planet is facing a climate crisis, and our food system plays a large role in contributing to this problem. From the owner of the business, to the patrons the business services, it is important that everyone is concerned and vocal about sustainability. As a business owner, making your services more sustainable increases attractiveness to the growing number of customers that are aware and demand sustainability. Restaurant owners, in turn, have the power to influence the practices of their suppliers by demanding more sustainable products and buying food from farms that incorporate sustainable practices. Providing sustainably-grown food to restaurants and cafés addresses health concerns from the use of synthetic pesticides and fertilizers that have negative health effects. All of these different players in the supply chain of a business are important to consider when looking at the means by which a restaurant affects the environment.

This report outlines some ways in which cafés and restaurants can reduce their climate and environmental impacts. To assess the sustainability of restaurants, we developed five categories:

Food Waste: Keeping food waste out of the landfill by donating it to people in need or repurposing it as a valuable addition to healthy soil.

Food Sustainability: Sourcing food that is sustainably grown, processed, and transported to reduce environmental degradation and mitigate global warming.

Product Sustainability: Ensuring that all materials, including cutlery, plates, bowls, napkins, cups, and other supplies, minimize impact on the environment and global warming.

Energy Usage: Conserving energy to reduce greenhouse gas emissions by using efficient equipment and reducing energy waste—which reduce energy costs at the same time. In the long-run, converting to renewable energy is the most sustainable option.

Water Usage: Reducing water use conserves limited water resources, and simultaneously reducing costs.

Food Waste

In America we waste almost 40% of the food we produce, resulting in large quantities of wasted resources, money, and unnecessary additions to landfills.² Many restaurants have basic techniques to track types of food served and how many customers they’re serving, but in order to successfully reduce food waste, restaurants need to keep track of what is purchased, what is sold, and what is going to waste.

There are two main methods for tracking waste: manual tracking and technological solutions. Software programs that track food waste by weight and type to help match ordering quantities to demand. Software products, such as LeanPath, involve an upfront cost but can produce significant savings in the long term by reducing trash collection fees and savings associated with not over-ordering products that will just end up in the trash. For a more low-tech solution, the EPA has created a spreadsheet that businesses can use to track what is being thrown away and why — a free resource that serves the same purposes. [See attachment D.]

HIGHMARK FARMSTAND

- Composts all inedible portions of produce
- Donates unpurchased produce and products to Easton Hunger Coalition
- Tracks the products bought and sold to ensure nothing is bought in excess
- Buys from local farms and producers to reduce wasted produce on long transports

ware products, such as LeanPath, involve an upfront cost but can produce significant savings in the long term by reducing trash collection fees and savings associated with not over-ordering products that will just end up in the trash. For a more low-tech solution, the EPA has created a spreadsheet that businesses can use to track what is being thrown away and why — a free resource that serves the same purposes. [See attachment D.]

In addition, food-serving businesses should set up systems to identify food that is still edible but may not be usable in the restaurant, and donate it to local food banks that will distribute it to people in need. Restaurants also can encourage employees to take home leftover food with them, so nothing goes to waste. If your business is having trouble locating where to donate leftover food, Feeding America can be used to locate local food banks. Food byproducts or food that is no longer edible can be composted.

Composting is a viable solution that helps eliminate large amounts of food and paper waste, and reduces trash-hauling and landfill costs. Inedible foods are still useful when composted, whether done on site or by a composting facility. Compostable items generally include prep waste and food that is inedible, expired, or uneaten. [See Table 1]. Combining food waste with other organic products such as paper, cardboard, and yard scraps, along with air and moisture, creates a mix that is transformed into nutrient-rich, healthy soil. Because not all locations have space for individual composting, business and residents should pressure municipalities to establish city-wide programs. In addition, compost provides nutrient rich-soil that can be used for growing food and for landscaping.

Compostable	Avoid
Food waste	Cooking oil
Coffee grounds	Significant amounts of paper that's coated or printed, dairy products, meat, citrus, or onion & garlic
Tea leaves	
Napkins	
Paper towels	
Paper bags	
Cardboard boxes	
<small>Table 1: This is a general list of compostable materials. Always check with your local facility for acceptable materials or start your own compost bin.</small>	

In some cases, re-using items such as scraps or left-over baked goods is another way to reduce food waste by creating new offerings to enhance menus or including them in the next day’s special. For example, unused fruit and vegetables can be juiced, or left-over bones could be used to create a stock for the next day’s soup. Advertising use of these conscious methods of upcycling leftover foods can help customers become more aware of their food sustainability at home and what they choose to do with foods that may not look quite as appetizing at first glance.

Food Sustainability

Sustainably-grown food is crucial to a restaurant’s sustainability, since products grown ‘conventionally’ have adverse impacts on people’s health and the environment. Chemical pesticides and fertilizers destroy our soil and leak into waterways, causing health impacts for animal and plant life. One way to avoid these harmful impacts is to use only organically-grown food.

According to the USDA, “produce can be called organic if it’s certified to have grown on soil that had no prohibited substances applied for three years prior to harvest. Prohibited substances include most synthetic fertilizers and pesticides.³” In order for animal products to be considered organic, their diet must consist of organic feed, and their living conditions must also accommodate how they would naturally behave. Lastly, the organic certification for animal products means they aren’t allowed to be given hormones or antibiotics.

Some farms that are not certified organic may use organic practices, or even stricter agro-ecological practices. Speak directly with the farms to see what methods they use.

Fair trade products ensure that producers are paid living wages and have access to other community-enhancing benefits that support the economy and their education. Fair Trade supports environmental sustainability as well, since the certification requires environmentally appropriate growing methods and many Fair Trade products are also certified organic. “The

standards also promote training for farmers, which can include advice on switching to environmentally friendly [practices](#)”⁴. Additionally, the fair-trade certification prohibits the use of harmful chemicals on the product, emphasizes the protection of biodiversity, and makes sure producers are committed to managing wastewater.

Restaurants can substantially improve their sustainability by sourcing food from local farms and producers. Connecting with the farms within the area can significantly reduce the miles the food must travel to get to a customer’s plate, reducing emissions associated with the transportation of food. This also improves the health and quality of products by being able to pick them at their peak ripeness and consume them within days of harvest as opposed to months. Choosing local sources also supports the economy in the area instead of having money leave the local region to be sent to large, industrial farms.

Offering whole-food, plant-based options in food serving businesses allows the customer to choose a more sustainable option. Meat and animal products require much more land and resources to produce than plant-based products, causing it to be a major source of deforestation. Additionally, managing the waste from the billions of animals consumed each year is extremely difficult, and causes major pollution threats to our waterways. Not only is the process of producing meat products at this scale energy-intensive, but also naturally-occurring processes in cows produce methane that is released into our atmosphere contributing to global warming.

GREENMOUTH

- Offers organic, locally sourced products wherever possible
- All menu items are made from scratch
- Fully vegetarian menu with many vegan options
- Menu changes to reflect seasonal availability

Food Service Products

One of the largest issues encountered by food-serving businesses is finding sustainable to-go containers for customers who choose to take their food away or want to bring leftovers home. These containers create large amount of waste and are rarely recycled due to lack of convenient recycling programs or food contamination. These plastics can take up to 1000 years to decompose and will most likely end up in our waterways polluting the environment and causing extreme damage to the livelihood of marine species. [See facing page] One of the most widely used and most harmful types of packaging is Styrofoam. This product takes millions of years to break down but is still used in many locations due to its low cost. many people to just toss the whole container when they are done. This affects wildlife, and subsequently finds its way into our food system, posing threats to human health. Paper containers are a more sustainable option because they decompose faster, but still pose challenges to being recycled if contaminated with food products. While there are alternative “greener” products on the market, such as PLA plastic made from plant sources, they still pose issues in terms of their end-of-life disposal. The best option is to incentivize customers to either eat in or bring in their own containers, by charging an extra fee for take-away. Greenmouth, one of the Lehigh Valley’s sustainability leaders, is planning a pilot program where customers will be charged a small fee for take-out orders, to try and limit to-go orders reduce the waste created.

The simplest way to promote product sustainability in the restaurant business is with reusable serving products. Ditching single-use utensils — especially plastic — is an easy way to cut back on both waste and costs. Reusable products pay for themselves in a matter of only a few months, because you can use, wash, and restock them over and over again until they finally break or wear out.. Plastic utensils are technically recyclable, but many haulers don’t take them as they aren’t worth the process. There are more sustainable alternatives such as wood or bamboo disposable utensils that will decompose faster; however, the best option is to provide stainless steel utensils and then wash and reuse them over and over.

LIT COFFEE ROASTERY & BAKESHOP

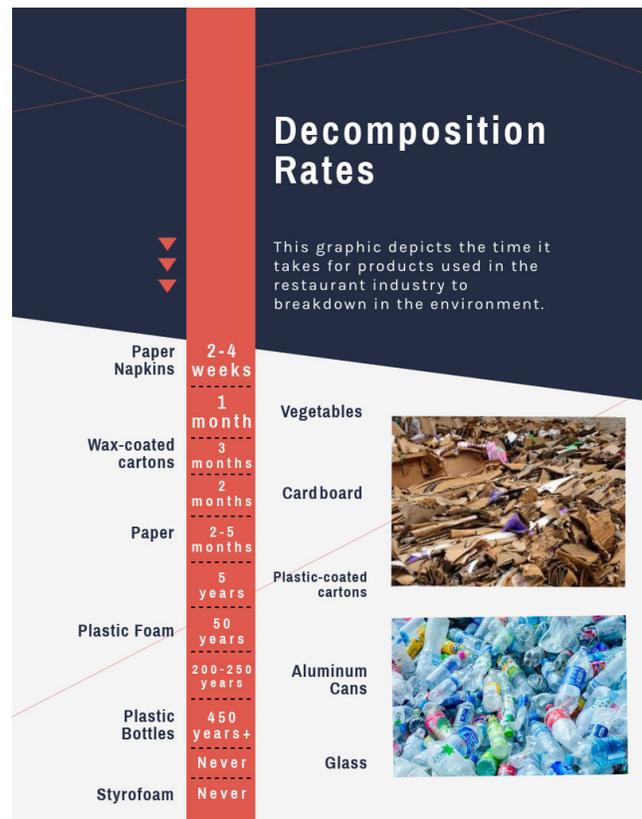
- Uses reusable dinnerware for dine-in customers
- Offers compostable alternatives for take-away
- Allows customers to use their own mugs
- All Styrofoam products have been removed
- Prepares baked goods on premises
- Uses local, organic, and Fair Trade ingredients whenever possible

Using reusable dinnerware goes hand-in-hand with using reusable utensils. Providing hard dining ware for eat-in customers is a way to enhance the dining experience for patrons. Similarly, to switching to metal utensils, the upfront cost seems like a lot, but the cost of washing and replacing the plates will be cheaper in the long run than continuously buying disposable plates. Switching to reusables can also significantly reduce your trash volume, thus saving the business money in trash collection fees.

As is the case with reusable dinnerware, cloth napkins are another way to enhance dining experience, and reduce waste and costs at the same time. Cloth napkins are a one-time purchase that can be washed on-site or by a local laundering service in order to be reused. While using a couple of paper napkins per meal may not seem significant, when you add up the amount of people using them, they create a serious problem. Not only do they create vast amounts of trash, producing them also uses resources and emits greenhouse gases in the process. While cloth napkins might not be an option for every scenario, there are many businesses that could benefit from making the switch to cloth.

Receipts are part of most transactions between businesses and customers. While it may seem as though a small receipt can't be much of an addition to the landfill, printing copies for every customer at of businesses, results in a significant impact. Each year they are responsible for the destruction of 12.4 million trees and create 1.5 billion pounds of waste in America alone.⁵

In addition, printed receipts waste paper — and many of them are hazardous to human health because thermal paper contains BPA (bisphenol A), or similar coatings that are known for many health effects that come from using it. (This is why common household plastics such as baby bottles and storage containers are labeled “BPA free.”) Studies conducted within the last decade have concluded that thermal receipts can contain a mass of BPA that is “250 to 1,000 times greater than the amount in a can of food.”⁶ If it's harmful to have BPA in our households, why are we OK with using it in food businesses? In addition to the human health concerns, this type of coated paper is not recyclable and leads to unnecessary waste in our landfills. Many point of sale (POS) systems now avoid the need for paper receipts, offering the customer options of a printed, texted, or emailed receipt, or no receipt at all.



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Graphic created by Emma Coppock

Energy

The most noticeable impact of energy usage is the bill that comes from the utility company, but what may ultimately be more important is power generation's degradation of the environment and huge contribution to global warming and the climate crisis. Businesses can address these concerns by taking a closer look at the energy they use and considering alternatives that also reduce costs, by taking advantage of more-sustainable options that a growing number of customers appreciate. At 10¢ per kWh, an incandescent light running for 25,000 hours would cost about four times as much as an LED (Light Emitting Diode).⁷ While the initial cost is somewhat higher, the overall savings speak for themselves — especially because LEDs often last for 15 years or more, thus reducing maintenance costs. Many businesses that have enough window area can use natural light to reduce the need for artificial lighting, at least for part of the day.

Occupancy sensors can reduce energy waste in low-traffic areas such as supply rooms, storage areas, and restrooms, areas where people often leave lights on when leaving the space. An occupancy sensor turns lights on when someone enters the room and turns them off a few minutes after they leave. Research indicates that the incorporation of occupancy sensors can result in 24% energy savings.⁸ These savings, combined with other energy-conservation strategies, can result in significant savings.

Another component of energy conservation is heating, ventilation, and air conditioning (HVAC). Optimizing systems can significantly reduce energy and HVAC costs, and routine maintenance, such as changing filters, contribute to even greater savings. When looking at energy use it is also important to seal cracks and crevices to reduce the amount of leakage from the building. Correct thermostat settings also reduce energy use, because setting temperatures too cool in the summer or too warm in the winter raises costs dramatically.

Appliances also play an important role in energy conservation. Most modern appliances come fully equipped to conserve energy, indicated by an Energy Star certification, which shows that the device is in the top 30% of comparable appliances. Replacing older appliances with those that are Energy Star certified improves energy efficiency and reduces operating costs. In many cases, the cost is paid back in only a few years. Research shows that “using an energy star certified commercial convection oven can save \$680 annually, and \$7,450 over the lifetime of the product”⁹ illustrating the importance of converting to energy-efficient products, which also decreases the demand for fossil fuels.

Converting to renewable energy allows your business to eliminate its greenhouse gas emissions [GHG] and reduce costs at the same time.¹⁰ Sourcing even part of your energy needs from renewable energy can help the business reduce its emissions. Solar energy works by converting sunlight into energy that can

JUMBARs

- Purchases 100% of energy from wind farms
- Switching to LED lighting
- Makes use of natural sunlight
- Composts food waste
- Sources local, organic, and FairTrade ingredients when possible
- Bakes bread and pastries on premises

be used to power anything that plugs into an outlet. While initial costs have been the number-one barrier to business owners, solar energy offers potential long-term cost savings and it qualifies for federal tax credits as well as low-cost loans from the state. Solar energy that is connected to the grid allows the business to offset some of their energy needs with solar-generated power, drawing on the grid as needed. This reduces the amount of unclean energy a

business uses and can reduce monthly energy costs as well. Unlike other forms of electric generation, the use of solar energy does not require any water for cooling, an important way to conserve water sources and ensure that these resources will be available for generations to come.

Water

Water is essential, and it is important that everyone conserve this most valuable resource. While most of us cannot imagine living without running water ready and available on demand, this is a struggle for other regions of the world. Water conservation impacts both the quantity and quality of water.

One way to conserve as much water as possible, is to incorporate faucet aerators to reduce the flow from faucets, which can reduce faucet flow to 0.5 gpm (1.9 liters per minute).¹¹ These systems dramatically impact the use of water, but also how water is delivered to the user. Modern aerators and low-flow fixtures improve the amount of pressure associated with the faucets. Touchless or automated faucets take this process one step further, reducing the volume of water that runs unnecessarily.

When washing fruits or vegetables, consider filling a pan or basin with clean water to use for the rinse, which prevents water from running throughout the process. When it comes to dishes, a business should always consider using a dishwasher rather than hand washing dishes, because it reduces the need to pre-

rinse and conserves water throughout the process. The EPA estimates an efficient dishwasher uses half as much water, as handwashing, saving close to 5,000 gallons (18,92 liters) each year.¹²

Minimizing use of garbage disposals is another way to conserve water, because to run effectively, these systems use large quantities of water. Opting for a composting program rather than relying on garbage disposals make a significant impact on the amount of water utilized at the kitchen sink.

A WaterSense certification indicates a water-efficient fixture and demonstrates your business is committed to water conservation, but the current program covers only toilets and faucets. Federal regulations state that new toilets must use no more than 1.6 gallons (6.06 liters) per flush. Replacing an old toilet represents a

SCRATCH

- Sources from local farm that uses hydroponics to grow lettuce
- Chemical-free growing prevents pesticide from leaking into groundwater or contaminating the food
- Reduces water use by turning off when not in use.
- Thaws frozen food in the fridge rather than running under water

70% savings in water and can cut indoor water use by about 30%. Alternatively, purchase a dual-flush toilet or install a dual-flush converter, saving an average family 15,000 gallons (56,781 liters) of water each year. More water can be used when it's needed, but for most flushes you'll be using 70% less, adding up to some significant water savings.¹³ In addition to investing in low-flow fixtures, restaurant owners or managers can save water simply by checking faucets and pipes for leaks regularly. "A leaky faucet that drips at the rate of one drip per second can waste more than 3,000 gallons per year".¹⁴ Furthermore, insulating pipes is a great way to conserve water, because hot water will be available more quickly without wasting water.

Restaurants also use a great deal of water for food preparation, and everyday actions can make a significant impact—but water used to produce the food you buy can be even more significant. ("Out of sight, out of mind.") Beef, for example, is one of the most water-intensive foods—it takes 15,415 liters (109 gallons) of water for every kilogram (2.2 pounds) of beef.¹⁵ By serving more fruits and vegetables, restaurants can significantly reduce the amount of water used.

Conclusion

Overall, we found owners are eager to implement practices that will make them more sustainable and reduce the impact of their operations on our environment—and many of the restaurants and cafés we met with have already made substantial progress. The biggest barriers we found to implementing necessary changes are cost, availability, ease of transition, and concern about customers' perception of what they want in a dining experience; restaurant owners don't want to disrupt customer demand. For example, a business may be interested in switching to paper straws but are afraid that their customer base will complain about the switch. It's hard for restaurants to take the initiative to make sustainable changes when they are unsure of how their customer base will react.

However, we found that many business owners received a positive response when they switched to more sustainable practices. It's important for businesses owners to keep customers informed and knowledgeable of the restaurant's practices in terms of sustainability, so that it can be an educational opportunity and help teach the general public about why these issues matter. We were surprised to learn that many businesses have already taken many steps towards implementing sustainable practices, but have not made them known to the public.

By implementing the practices discussed above, cafés and restaurants can save money in the long run, while taking important steps towards sustainability. Initial costs may seem high at first glance, the difference in per-serving costs is minimal. The most expensive product change was replacing Styrofoam clamshells with sugarcane take-away containers, but this worked out to an average of only 11¢ per customer. In the end, if you absolutely have to raise the prices of your take-out menu items by this small amount, will it be a problem? This will allow you to shift to more sustainable products, and your customers will appreciate that your business is choosing more responsible products. As interest in sustainability continues to grow dramatically, making these necessary changes will help attract a loyal customer base that is committed to the business's sustainability. While some of these switches may involve initial investments, marketing these changes can increase customer appreciation and attract a wider variety of customers. This could be as simple as a small text box on your menu explaining what you have done and how your business is committed to protecting the environment, community, and the future.

Significant progress does not happen overnight, but even the smallest changes create ripple effects that can add up over time. Businesses committed to sustainability are starting the conversation about the effects taking place on our planet, and these conversations can inspire others to make changes as well. Sometimes all it takes is one business owner to decide they have a responsibility to the planet and start to make the changes this world desperately needs.

Notes

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Attachment A – Sustainability Evaluation Tool

Overview

1. Are you committed to sustainability?
2. Do you market your sustainability practices for your customers to see?
3. What are some of your long-term sustainability goals?

Food Waste

4. Does your business compost food waste?
5. Does your business send compost to a local organization?
6. How are food wastes transported?
7. Does your business various portion sizes for all menu items?
8. Does your business offer half-portions on request for all menu items?
9. Is majority of food served finished or thrown away?
10. Does your business donate unused food (directly to food bank)?
11. If so, what organization and what types of foods are donated?
12. If not, would you be interested in partnering with a local organization?
13. Does your business tailor ordering of perishable goods to minimize waste?
14. Does your business have a system for tracking waste?
15. If so, how do you track the waste?
16. Does your business use waste information to improve ordering?
17. What is the flow of food waste?
18. Does your business recycle all cooking oil?
19. If so, is it a local organization?

Ancillary Product Sustainability

20. Does your business ask customers if they will be dining in or taking away?
21. Does your business have a paperless receipt option?
22. Does your business have an option for servers to take orders without paper?
23. Does your business use cloth napkins for in-house dining?
24. If your business uses paper napkins, do you have a system for composting them?
25. Does your business use permanent coffee filters or compost disposable filters?
26. Has your business eliminated all Styrofoam products?
27. Does your business use washable dinnerware for dine-in customers?
28. Does your business use biodegradable take away containers?
29. Does your business give straws only upon request?
30. Does your business use only plastic-free straws and coffee stirrers?
31. Have you reduced or eliminated excess packaging?
32. Have you eliminated use of disposable products?

Food Sustainability

33. Does your business source food ingredients and products locally (50-mile radius)?
34. Does your business change menu items to take advantage of seasonal availability?
35. If your business serves meat products, are they pasture-raised and grass-fed?
36. Does your business serve dairy products that are pasture-raised and grass-fed?
37. Does your business source all eggs from local, free-range, pasture-fed chickens?
38. Does your business serve organic products when possible?
39. Does your business prohibit the use of synthetic pesticides on foods purchased by your business?
40. Does your business make all menu items scratch?
41. Does your business offer vegetarian and vegan entrees?
42. Has your business eliminated disposable products?
43. Does your business purchase Fair-Trade products where available?
44. Are you aware of where your products are grown and produced?

Energy

45. Does your business use all LED lightbulbs?
46. Does your business power off or shut down equipment when not in use?
47. Does your business unplug appliances when not in use for long periods of time?
48. Does your business shut down computers or place them in “Energy Saver” mode when not in use?
49. Does your business turn off the majority of lights when closed?
50. Does your business use occupancy sensors for lights in low-traffic areas?
51. Does your business reduce HVAC use by using energy-conserving thermostat settings?
52. Does your business open windows and/or fans in place of air conditioning on cooler days?
53. Does your business use any form of renewable energy?
54. If so, what type of renewable energy?
55. Does your business use daylight sensors or manually adjust lighting when there is enough daylight?
56. Does your facility use Energy Star appliances?

Water

57. Does your business make sure faucets in prep areas & kitchen are turned off when not needed?
58. Does your business use touchless faucets or valves?
59. Does your business reduce water use and only use water that is needed for processes?
60. Does your facility use WaterSense appliances (where applicable)?
61. Has your business made any adjustments to reduce flow from faucets?
62. Does your business thaw frozen foods in the refrigerator?

Attachment B – Product Comparison Tool

* Indicates one-time Purchase	Napkins	Bowls	Cups	Plates	Clam Shell (LG)	Clam Shell (SM)
Plastic		\$0.0538	\$0.0519	\$0.1260	\$0.1950	\$0.0979
Styrofoam		\$0.0175	\$0.0470	\$0.0505	\$0.0899	\$0.0419
Paper	\$0.0120	\$0.0604	\$0.0450	\$0.0770		\$0.0955
Recommendation	\$0.8742*	\$1.0047*	\$0.4742	\$1.9992	\$0.1999	\$0.0999
Description	Cloth	China	Plastic (Re - usable)	China	Biodegradable Sug - arcane	EcoChoice Biode - gradable Sugarcane

* Indicates one-time Purchase	To-go Cups	Straws	Spoons	Forks	Knives	Stirrers
Plastic		\$0.0029	\$0.0050	\$0.0050	\$0.0050	\$0.0013
Styrofoam	\$0.0443					
Paper	\$0.0416	\$0.0175				
Recommendation	\$0.1272	\$0.9575*	\$0.2992*	\$0.2975*	\$0.4725*	\$0.0051
Description	Biodegradable Paper	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Wood

H | g h U V Y | g X Y g | b Y X | c g a c k | h Y X | Y F b W g | b d f | W g d Y f d | W W c Z X | Y F b h U b W | U f m d f c X i W g h U h W b | V Y d i f W U g X V m U f Y g U f u b h c f W Z | H Y d f | W g Z | c k Y X V m U b U g h | g | b X | W h | h U h Y g Y d f c X i W g k c i | X b Y X | c V Y d i f W U g X c b W z f U h Y f h U b f Y | i | U n g h W Y X | H Y F Y k | ` V Y | a d | W h c b g f Y U h X | c | f Y d U W a Y b h W g g | c k Y Y f h | g | b Z f a U | c b | g b c h f Y U M X | b h | g h U V Y |

Attachment C – Product Cost Comparisons

	Napkins (Paper)	Bowls (Plastic)	Cups (Plastic)	Plates (Paper)	Clamshell (LG) (Styrofoam)	Clamshell (SM) (Styrofoam)
Customers Per Day	150	150	150	150	150	150
Current Product Price	\$0.012	\$0.054	\$0.052	\$0.077	\$0.090	\$0.042
Current Buying Rate (Per Month)	5,000	5,000	5,000	5,000	4,000	4,000
Recommendation	\$0.8742	\$1.0047	\$0.4742	\$1.9992	\$0.1999	\$0.0999
Description	Cloth	China	Reusable Plastic	China	Biodegradable Sugarcane	EcoChoice Biodegradable Sugarcane
Payback Period (Months)	6.6	1.7	0.8	2.3		
Price Difference/Month					\$440	\$232
Price Difference/Customer					\$0.11	\$0.06
Savings After 1 Year	\$327	\$2,775	\$2,901	\$3,720	\$4,225	\$1,966

	To-go Cups (Paper)	Straws (Plastic)	Spoons (Plastic)	Forks (Plastic)	Knives (Plastic)	
Customers Per Day	150	150	150	150	150	
Current Product Price	\$0.042	\$0.003	\$0.005	\$0.005	\$0.005	
	4,000	5,000	5,000	5,000	4,000	
Recommendation	\$0.127	\$0.018	\$0.299	\$0.298	\$0.472	
Description	Biodegradable Paper	Paper (on request)	Stainless Steel	Stainless Steel	Stainless Steel	Wood
Payback Period (Months)						
Price Difference/Month						\$15
Price Difference/Customer						

This tool reflects the cost savings or payback period for recommended purchases. When looking at price difference per customer, use this information to make price changes on menu items to roll in cost of sustainable products.

Attachment D – EPA Waste Log

Sample form for tracking waste.

Waste Logbook – Facility: _____



Date: _____ Weather: _____
 Notes/Special Events Today: _____

Time	Recorded By	Food Type	Loss Reason	# of Portions	# of Quarts	# of Pounds
					PICK ONE	
TOTAL						

For more information, visit www.epa.gov/foodscraps.

Special thanks to LeanPath, Inc.

