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Corporate Social Responsibility Within the American Craft Beer Industry: Environmental Sustainability and Community Engagement

BY Bradley DeMild

ADVISOR • John Visich

EDITORIAL REVIEWER • Dirk Primus

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ABSTRACT

Craft brewing and craft beer is emerging as an established business in the United States, with many states housing established regional breweries. As the United States looks to implement environmentally friendly practices in business operations, the goal of this report is to analyze the respective steps taken by the craft beer industry to achieve sustainability. Looking into environmental sustainability and community efforts holistically, the corporate social responsibly (CSR) practices of certified independent, craft brewers who are members of the Brewers Association of various sizes, lends insights into the current state of the industry. A combination of educational materials provided by the Brewers Association and autonomous action taken by the brewers themselves will lead to the creation of a “sustainability scorecard” for established brewers and a “blueprint” for new brewers. Observations indicate that many brewers place a high importance on sustainability and community efforts, and have gone above and beyond in terms of community engagement, employing considerable steps ensure environmental sustainability in their operations.

THE HISTORY OF THE AMERICAN BEER INDUSTRY

Humans, as a species, have been searching for and discovering ways of crafting alcoholic beverages long before written history, and beer stands as one of the forerunners. From funding the expeditions of the British Empire (Swinnen & Driski, 2017) to a 2004 discovery of a 5,000-year-old brewery in China (Beer 100 Editors, 2021), beer is woven into the fabric of human history. However, as the process of brewing became more industrialized in the eighteenth and nineteenth centuries, traditional homebrewing practices were facing fierce competition; until by the twentieth century, homebrewing was reduced to that of a hobby (CraftBeer.com, 2019). But, with the dawn of the twenty-first century, the tides are turning yet again (Beer 100 Editors, 2021).

The American beer industry began via the pilgrims and European colonization. This, in turn, led to most beers resembling modern English beers where it remained this way through the early nineteenth century. During this time, commercial brewing slowly found a way to establish itself. By offering early colonizers access to beer, it eliminated their time spent personally brewing and allowed them to focus more elsewhere. For years, the art of brewing remained stagnant. (Petro, 2020). It would not be until the mid-nineteenth century that a new wave of immigration, bringing new brewing practices, would begin to further alter the early American beer industry (Beer 100 Editors, 2021). Namely, the introduction of German lagers and Anheuser-Busch, the first American national beer brewery, dramatically altered the course of the industry (Petro, 2020).

As the beer industry grew, it faced regulatory pressures from members of the American public and the government. Through intense discussions, lobbying, and a unique combination of aligning ideologies, the Eighteenth Amendment to the Constitution of the United States was ratified on January 16th, 1919. Taking effect exactly one year later, this Amendment sought to prohibit, “the manufacture, sale, or transportation of intoxicating liquors” but allowed for consumption and production done in private. While originally vetoed by President Woodrow Wilson, and subsequently overridden by both the House of Representatives and the Senate, the National Prohibition Act of 1919 sought to further define the term “intoxicating liquors” and ensuing enforcement actions. After thirteen years in effect, the Eighteenth Amendment was repealed in its entirety by the ratification of the Twenty-First Amendment in 1933 (George &

Richards, 2022). This period of prohibition had irreparable consequences on the brewers (Beer 100 Editors, 2021). Many small brewers did not survive.

As of 1970 there was roughly one-hundred breweries that existed in the United States, owned either fully or in part by a few large conglomerates (Petro, 2020). It would not be until the late 1970s, where a craft and micro brewing revolution would begin to gain momentum in the United States. Specifically, following the official legalization of homebrewing under the Jimmy Carter administration, a seed was sown that would disrupt the traditional beer brewing industry in the coming decades (CraftBeer.com, 2019).

Fast forwarding to 2018, the market valuation for the beer industry is \$114 billion and directly employs seventy-thousand people with another two million jobs linked to it (bartenders, distributors, etc.). Additionally, it contributes \$328 billion or 1.6% to the United States' gross domestic product (Petro, 2020). While the craft brewing industry is young, it has gained a significant foothold within the United States as the number of independent brewers have jumped from five thousand in 2016, to seven thousand in 2018, and nine thousand in 2020 (CraftBeer.com, 2019), spearheaded by organizations like that of the Brewers Association, allowing craft brewers to stand out from the large conglomerate brewers such as Anheuser Busch InBev, MolsonCoors, Constellation and Heineken USA (Scott, 2021).

While craft beer is an important part of the beer industry as a whole and the United States economy, it is imperative to research the modern methods by which craft brewers may weather the sands of time. This paper aims to build a fundamental framework regarding the specifics of Corporate Social Responsibility (CSR) in the craft beer industry, focusing on environmental sustainability and community engagement, through study of educational publications made by the Brewers Association and actions taken by other unique, independent craft brewers¹. As places of gather and key players in local communities, it is fundamentally important to these communities and the national economy that craft brewers not only succeed but do so in a way that benefits society.

¹ Brewers must be registered members of the Brewers Association to ensure the independence and validity of said brewers.

This paper will examine what the Brewers Association, a definitive organization in the craft beer industry, recommends to craft brewers in terms of environmental sustainability and community engagement. This will be followed by concise case studies of independent craft brewers and their related practices that will end in the creation of a CSR scorecard.

THE BREWERS ASSOCIATION

The Brewers Association is a registered 501(c)(6) not-for-profit trade association with over six thousand U.S. Brewery members and over thirty-seven thousand members of their American Homebrewers Association branch. They are comprised of members of the allied trade, beer wholesalers, retailers, individuals, and other associate members. Along with publishing educational materials, they host annual conferences and beer award ceremonies. The Brewers Association's slogan is, "The Organization of Brewers, for Brewers and by Brewers" (Brewers Association, 2022). The following sections will analyze the recommendations and procedures outlined by the Brewers Association in terms of energy usage and greenhouse gases reduction, wastewater, and solid waste (environmental sustainability), as well as summarizing guidance in relation to community engagement.

Environmental Sustainability

When looking to the future, it is becoming increasingly clear that a business's impact upon the environment is important to both the government and the people. As part of this shift, the Brewers Association has published manuals, ranging from water and wastewater management to energy usage and greenhouse gas emissions that highlight in extreme detail recommend changes that a brewer can implement. Additionally, breweries themselves have implemented a host of environmentally friendly practices.

Energy Usage and Greenhouse Gases Reduction

Energy in the form of electricity and natural gas are essential to the brewing process. Electricity powers machines, lights, and many utilities. In fact, refrigeration utilizes thirty-five percent of the total energy consumed at a brewery and packaging and compressed air utilize a respective twenty-five and ten percent. Natural gas is used to produce hot water and steam throughout the process. Sites of usage include the brewhouse which accounts for forty-five percent of natural gas spend, packaging that accounts for twenty-five percent, and general utilities that account for twenty percent (Brewers Association, 2020, p. 6). The Brewers Association places a greater focus upon reducing electricity usage as it is linked with the entirety of the process, from harvesting the raw ingredients to serving the final product to the customer. Furthermore, it has a bigger direct impact on the entire process, is considerably easier to implement process changes, and can be better tracked via associated costs (Brewers Association, 2020, p. 7).

Before engaging with the specifics, when it comes to a brewery's journey towards sustainable energy usage, the Brewers Association has two clear recommendations: set forthright goals that are attainable but allow for growth (Brewers Association, 2020, p. 14), and it is better to properly maintain current equipment (ensuring efficient function) than to immediately invest in capital intensive solutions (Brewers Association, 2020, p. 27). There are three scopes to investigate greenhouse gas emissions as part of electricity usage; direct emissions that the brewery has control over (scope 1), emissions that the brewery cannot control but are resultant of brewery activities (i.e., purchased electricity and steam) (scope 2), and other indirect emissions (i.e., greenhouse gasses emitted during third-party packaging production) (scope 3) (Brewers Association, 2020, p. 8). By understanding where a certain activity fits into the three-scope framework, a brewery can begin to take adequate action.

Direct Emissions. For emissions that the brewery has direct control over, the Brewers Association recommends installing an energy usage and tracking system (Brewers Association, 2020, p. 9) with the understanding that more data with specificity can yield greater benefits from the system (Brewers Association, 2020, p. 10). This system can be used to track items such as lighting energy usage, machine energy consumption, carbon dioxide recapture, and boiler heat distribution. A redesign of a brewery's lighting system could reduce energy usage and lead to

cost savings between twenty and forty percent (Brewers Association, 2020, p. 21). If coupled with devices such as occupant sensors or timers, the benefits could be even more (Brewers Association, 2020, p. 23). To assist in reducing the energy consumption of the many machines present within the process, the Brewers Association specifically mentions variable speed drivers, which at the same power input level can operate at different output levels (Brewers Association, 2020, p. 18). Used to drive pumps, motors, and fans, variable speed drivers can lead to cost savings of ten to sixty percent and greatly decrease energy usage (Brewers Association, 2020, p. 21). Investigating carbon dioxide recapture to decrease the brewery's carbon footprint (Brewers Association, 2020, p. 17) and utilization of excess boiler heat to heat the brewhouse (Brewers Association, 2020, p. 34) are other recommendations put forth in the manual. On a final note, regarding direct emissions, the Brewers Association emphasizes exhausting all other options before investing in renewable energy as it only offsets the cost of purchasing energy and the associated greenhouse gas emissions whilst being capital intensive. Furthermore, the type of renewable energy and its overall practicality and applicability should be heavily considered (Brewers Association, 2020, p. 42).

Indirect Emissions. In terms of the indirect or uncontrollable emissions of a brewery, there are only a few recommendations from the Brewers Association. First, a brewery should carefully consider where it sources its materials and the impact its suppliers have on the environment (Brewers Association, 2020, p. 41). One way to reduce supplier impact is to purchase ingredients and packaging locally in order to reduce transportation emissions. Additionally, if a brewer has done all that they can, a final push to net carbon neutrality can be made through the purchase of renewable energy certificates. This allows the buyer to hedge against future energy prices while verifying the source of the energy and achieving “greener” operations.

On a final note, the Brewers Association Sustainability Benchmarking Tool (which members can receive) includes a list of various state specific website links and organizations that brewers can use as a resource through their sustainability journey (Brewers Association, 2020). This list includes items such as ISO50001, an energy management standard applicable to all business sectors that is aimed to provide “a practical way to improve energy use, through the development of an energy management system” (ISO, 2020).

Water and Wastewater

The main ingredient in beer is water and since much of it is required throughout the brewing process, a considerable amount of wastewater is produced. As with energy reduction, the Brewers Association recommends implementing a system by which the brewery can track their water intake and wastewater output (Brewers Association, 2020, p. 19). This can allow brewery three key water-related ratios: water use ratio, wastewater to water ratio, and wastewater to beer ratio. The ideology behind these ratios is to maximize beer output whilst minimizing water intake. For example, a 2015 study of eighty brewers conducted by the Brewers Association found the median wastewater to water ratio was 0.8, meaning that eighty percent of water intake is discharged as effluent² (Brewers Association, 2020, p. 7).

It is imperative to track wastewater as it contains byproducts such as spent grains, spent yeast, and trub (high weight protein precipitates) which when expelled directly into the environment can have significant negative impacts on local aquatic ecosystems, resulting in mass deterioration of the plant and animal populations (Brewers Association, 2020, p. 5). Furthermore, wastewater is governed by local ordinances and regulations that may affect the wastewater treatment process, leading each brewery to have to consider their set of unique circumstances. Additionally, wastewater is expensive, contributing eight to seventeen percent of the costs per barrel of beer (Brewers Association, 2020, p. 7). Based on the size of the brewery, the Brewers Association has many recommendations to prevent overwhelming local wastewater treatment facilities. One common process is that of side streaming (Brewers Association, 2020, p. 20). This is where the wastewater is filtered on-site, the negative byproducts are removed, and the remaining waste is ethically disposed of. This can dramatically decrease a brewer's impact on the municipal waterworks facility (Brewers Association, 2020, p. 22). Other recommendations to treat wastewater vary based on the size of the brewery and their output capacity. For small breweries, it is very possible that their wastewater output can be sent directly to municipal waterworks facilities due to excretion levels falling within the boundaries of the local municipal code (Brewers Association, 2020, p. 10). However, for larger, more industrial breweries

² "Effluent is defined as generated wastewater that flows to the sewer system" (Brewers Association, 2020, p. 6)

additional steps must be taken to ensure the proper processes are undertaken, which may include building an on-site water treatment facility.

One brewery that produces around ten-thousand barrels of beer per year contributes the same amount of wastewater as one-thousand homes (or four-thousand residents), which, as previously mentioned, can cause undue strain on even larger municipal waterwork systems (Brewers Association, 2020, p. 11). Regardless of size, the main recommendation is to consult applicable local municipal offices and (if applicable) the United States Office of Water, Office of Wastewater. Thus, a brewery can request the required permits and ensure proper treatment of their wastewater (Brewers Association, 2020, p. 10).

On a final note, it is possible to reach net zero liquid discharge through extensive investment and monitoring. This goal may prove practical to brewers that reside in areas with frequent droughts or stringent water usage regulations (Brewers Association, 2020, p. 25)

Solid Waste

As part of the aforementioned side streaming process, one of the steps is the removal of the negative byproducts such as spent grain, spent yeast, and trub. While some of these fine particles slip through the straining process, other larger waste particles are captured. This includes larger particles of spent grain, sweet water, spent hops, trub, spent yeast, and ullage³. Spent grain and sweet water is extracted from the lauter tun⁴ and can be used as animal feed for local farms as they are high in carbohydrates and contain protein. Spent hops is a byproduct of the brew kettle⁵ that can also prove useful as animal feed or can be used in the soil amendment process. Trub is mainly concentrated in the whirlpool tank⁶ and is another byproduct that can be used as animal feed. Spent yeast from the bottom of the tanks is high in protein which also makes it useful for animal feed or as an ingredient in the alcohol distillation process due to the presence of ethanol.

³ Ullage in this context refers to the sediment remaining in a cask after all the sealable beer has been removed (Marchbanks, 2021)

⁴ “A Lauter Tun is a vessel for separating the wort from the solids of the mash... [It] works much like a large sieve” (Hampson, 2021)

⁵ “[Brew] Kettle, the vessel in which beer wort is boiled with hops” (Oliver, 2021)

⁶ The Whirlpool tank is the vessel in which hop fragments and other solid particles are separated from hot wort (Klimovitz, 2021)

Lastly, ullage from the racker⁷ can also be utilized in distillation due to the presence of ethanol (Brewers Association, 2020, p. 22). Meaning, spent yeast and ullage can be sold to a partnering local distillery.

Overall, solid waste can be delivered to farms for feed or fertilization, taken to compost sites, or given to local water treatment plants to aid in their processes. The Brewers Association highlights that solid waste has an extensive list of applications.

The Brewers Association has a variety of recommendations that can help a brewery continue or even begin their path towards sustainability. Whether it is establishing a routine maintenance plan to ensure there is an efficient use of energy throughout the process or installing renewable energy on-site, there is an entry point and suggestions for breweries of all sizes.

Community Engagement

A brewery's impact on its community goes beyond environmental sustainability. Consumers have been favoring transparency and those businesses who enact community-based programs. As Andrew Coplon said at the 2021 Craft Brewers Conference in Denver hosted by the Brewers Association, "Craft beer has always been about community" (Coplon, Valentine, Wisneski, & Nierling, 2021), and the following section will look at what brewers can do to ensure that this relationship between the community and their beer thrives.

In order to properly orient a brewery to serve its community, it must first have an actionable mission statement that lays out the values and ideologies that they, the brewer, wish to present to the community. In doing so, this gives direction to both the employees and customers of the brewery, setting a clear path for a lasting relationship. This should be followed by being transparent, open, and honest with the customers regarding all aspects of daily operations. This sets an expectation for the customer and allows them to feel involved and attached to the process and the brewery, leading them to become ambassadors to community. As ambassadors, this word of mouth will not only lead to increased revenues but creates loyalty. However, it is important to realize that the definition of a customer expands beyond those who may come into the taproom.

⁷ The racker or the process of racking involves transferring beer from one vessel to another (Thomas, 2021)

To-go customers, distributors, and even shops are all part of a brewery's customer network. Ensuring that the values of a brewery extend all customers is essential in creating returning, happy patrons (Coplton, Valentine, Wisneski, & Nierling, 2021).

Furthermore, breweries can implement customer rewards/ loyalty programs that, when done correctly, ensures a consistent, usually local, customer-base. Coupled with corporate philanthropy, this can figuratively amplify the value of the customer's dollar by allowing the consumer to understand how and where their money is being reinvested into the community (Coplton, Valentine, Wisneski, & Nierling, 2021). However, philanthropy cannot be used in vain, purely as a marketing tool, as the customer will be quick to see through that veil. Philanthropy should be used in meaningful ways (as perceived by the community). This can range from fundraisers for local schools, partnering with other community businesses, events, and charitable donations (to verified, proper charities) that can aid in building the image and reputation of a brewery (Stevens, 2021).

In terms of partnering with local businesses, many of these activities go hand in hand with the previously mentioned sustainable environmental practices. Investing into local ingredient sourcing, providing farmers with solid waste, or selling waste to distilleries are all methods of benefiting the community. This cyclical process has the potential to greatly benefit all participants (Brewers Association, 2020).

Events that promise scalable returns to the community or simply serve as a way for the community to gather under the "roof" of the brewery are both recommendations that build the relationship with the neighborhood. As a closing remark, one of the most important recommendations by the Brewers Association (and those who presented on related topics at the 2021 Craft Brewers Conference), is to simply observe how other businesses in the are serving the community. By learning from the successes and failures within the community, a brewery can blend observed aspects into their own planning and events to aid in their mission to better serve the community (Coplton, Valentine, Wisneski, & Nierling, 2021).

By incorporating just some of these things, breweries can begin to act as a “third-place”⁸ within their communities for people of all lifestyles and ages. Coupled with philanthropic events, breweries will establish themselves hallmarks of their local community.

Closing Notes

It is clear from the materials provided by the Brewers Association (that are available to all members), that the two elements of environmental sustainability and community engagement are not mutually exclusive. Many of the explored recommendations in regard to environmental sustainability benefit the community and, on the other side, the increased revenues associated with a strong community image and reputation can be used to invest in sustainable practices. As is the goal with this paper, the ability to understand the entire process at a high level demonstrates the cyclical connection between the two researched elements and emphasizes the importance of environmental sustainability and community engagement both individually and collectively.

⁸ Coined by sociologist Ray Oldenburg, it is used to describe a place where people can spend time outside of home (first place) or the workplace (second place) (Diaz & Butler, 2016).

INDEPENDENT BREWERS – EXTENDED CASE STUDIES

Many brewers haven't taken into account the recommendations of the Brewers Association and others have gone and developed their own sustainability programs and processes. The next sections will take an in-depth look at three craft brewers and their push for environmental sustainability in conjunction with their community engagement efforts.

Allagash Brewing Company

Located in Portland, Maine, Allagash Brewing Company (Allagash) got its start out of corner warehouse in 1995 by Rob Tod. By 1998, Allagash's principal beer, Allagash White, had won its first medal at the World Beer Cup⁹. Fast forward to 2021, they were nominated for, and won, Brewery of the Year at the Great American Beer Festival¹⁰ (Allagash Brewing Company, 2022). Allagash is a member of the Brewers Association, a certified independent brewer, a regional brewery (Brewers Association, 2022), and a certified B Corp¹¹ (Allagash Brewing Company, 2022). The following sections will explore the initiatives put forth by Allagash in terms of energy usage and greenhouse gas reduction, water and wastewater practices, solid waste treatment, and their community engagement efforts.

Energy Usage and Greenhouse Gases Reduction

At Allagash, environmental stewardship is central to the very core values of the brewery, representative of their commitment is their operation as a certified B Corporation. As the first B Corporation in Maine and the fourteenth in the United States, Allagash is committed to making business decisions that benefit their employees, community, and the environment (Willis, 2021). Allagash has an Environment Impact Score of 34.8 with an Overall Impact Score of 83.8¹² (B Labs, 2020)

⁹ World Beer Cup, started by the Brewers Association in 1996 and held in conjunction with the Craft Brewers Conference and BrewExpo America, is one of the world's premier beer competitions (Brewers Association, 2022).

¹⁰ Brewery of the Year in the 15,001 – 100,000 barrels per year category.

¹¹ "B Corp Certification is a designation that a business is meeting high standards of verified performance, accountability, and transparency on factors from employee benefits and charitable giving to supply chain practices and input materials" (B Labs, 2022).

¹² An Overall Impact Score of 80 qualifies a company for B Corp Certification and the median Overall Impact Score for ordinary businesses is 50.9 (B Labs, 2020).

Since installing their solar array in 2015, Allagash has saved 313,241 pounds of carbon dioxide from entering the atmosphere (Allagash Brewing Company, 2021). In addition to this, Allagash has also partnered with local farmers, promising to utilize one million pounds of Maine-grown grain. While benefiting the community (see the below community engagement section), this also greatly cuts the associated greenhouse gas emissions with regards to transporting the grain from the field to the brewery (Allagash Brewing Company, 2020). They also sourced 19,240 pounds of local fruit in 2020 to be used for brewing (Allagash Brewing Company, 2020).

As a brewer, Allagash has also placed an emphasis on the materials used in their processes, such as aluminum cans, packaging products, and glass. As such, Allagash has created a community recycling program at their tasting room as well as founding a recycling Co-Op. (Willis, 2021). The recycling Co-Op was founded in March 2021 and is aimed to properly recycling lesser used, but hard to recycle materials such as shrink wrap, grain bags, PakTech carriers¹³, metal caps and cages, and corks. Many of these items can only be recycled in large quantities, making it challenging for smaller businesses and breweries to recycle these items on their own. By utilizing their excess warehouse space, Allagash has created an initial partnership with Bissell Brothers Brewing, Foundation Brewing Company, and Maine Beer Company to collect these materials and store them until they can be recycled. Allagash is actively looking for new breweries for the Co-Op (Allagash Brewing Company, 2021). The community recycling program at the tasting room piggybacks off of the Recycling Co-Op by inviting customers to drop off items such as PakTechs, natural corks, bottle caps and cages, air pillows and brown packing paper. For each bag of recyclables brought in, customers receive a punch on their digital punch card¹⁴ and after six punches, the customer receives twenty percent off their purchases at the tasting room. Through this program, Allagash was able to collect over six thousand PakTechs from January 2021 to June 2021 and 2,500 pounds of carriers in 2020 (Willis, 2021).

Allagash is also a supporter of Maine's Extended Producer Responsibility (ERP) law that holds producers of more than one ton of waste per year (or with a gross revenue of less than two

¹³ PakTech carries are made with one-hundred percent recycled plastic that attach to the top of a can in groups of two to twelve for easy transport (PakTech, 2021) (See Appendix E).

¹⁴ Digital Punch cards are used to eliminate paper waste (Willis, 2021).

million dollars per year) responsible for costs associated with recycling their waste. They are also a founding member of the Glass Recycling Coalition that is dedicated to creating systems for the proper recycling of glass bottles.

Water and Wastewater

As stated on Allagash's website, "Clean water is essential for our company, our community, and our high quality of life here in Maine" (Allagash Brewing Company, 2021), demonstrating their commitment to responsible usage of water and proper treatment of wastewater. Through their partnership with Sebago Clean Waters¹⁵, Allagash donates ten cents for every barrel of beer to protect a local watershed. This equated to ten thousand dollars donated in 2020 with the ideology that the size of the donations will grow proportionately with the size of the brewery.

Furthermore, there is a strong emphasis using water as effectively as possible. As of 2021, Allagash's water to beer ratio is 3.8 gallons to 1 gallon which is roughly half the industry average. This tracking is achieved by the presence of flowmeters at every applicable point within the process. (Willis, 2021).

Moreover, Allagash is a strong proponent of the aforementioned side streaming process, reducing the impact of their effluent on Portland's wastewater system. As part of this, Allagash has invested in a fully automated pretreatment system that maintains a proper pH of the effluent to avoid infrastructure corrosion or waste buildup, protecting local ecosystems and leading to easier treatment. They also have a water collection system where the water is utilized in a variety of processes, such as rising the bottles (Willis, 2021).

Solid Waste

Allagash's forenamed side streaming process eliminates 99.8 percent of all waste (Allagash Brewing Company, 2021). Part of this waste is solid waste, namely spent grains. In a typical week, Allagash produces sixty to seventy tons of spend grain that is then sold at a discount to Justice Farms, a local cattle farm. They have donated grain bags to veterans' groups, colleges,

¹⁵ A collaborative of nine organizations and a regional water utility (the Portland Water District) combining our resources, expertise, and experience to increase the pace of forest conservation in the Sebago Lake watershed (Sebago Clean Waters, 2022)

and tailors along with donating five-gallon sugar jugs to local maple farmers. Plastic sheets used separate stacks of bottles have been contributed to local groups to be used as low-cost signage. Allagash's solid waste efforts can be summed up in this sentence, "If you get creative, side streaming is a perfect way to put your waste to good use and a great way to engage with the community" (Allagash Brewing Company, 2021).

Community Engagement

As previously mentioned, sustainable environmental practices and community engagement efforts go hand in hand as seen with Allagash's grain promise, where they delivered on their 2017 promise to brew using one million pounds of Maine-grown grain, ending 2021 with 1,093,526 pounds of Maine-grown grain utilized (Allagash Brewing Company, 2022), their community recycling program at the taproom that rewards customers for recycling, and donating/ selling solid waste to members of the community. Additionally, Allagash has partnered with many local organizations such as Teracycle, EcoMaine, the Glass Recycling Coalition, Garbage to Garden, Ruth's Reusable Resources, Clynk, and Window Dressers (Allagash Brewing Company, 2021).

However, where Allagash has emphasized the community is with their philanthropy. In 2021 alone, Allagash has charitably donated over half a million dollars (Allagash Brewing Company, 2022). Additionally in 2020, during the pandemic they donated ten thousand cans of beer to first responders, over twenty-one thousand gallons of beer to local distillers to be used to make hospital-grade sanitizer, seven thousand cardboard cartons to a local food pantry, and donated nearly seven thousand dollars from oak barrel sales to local elementary schools to purchase stuffed animals and laptops for kids during social distancing. They also raised nearly \$8,754 during their Twenty-Five Days of Giving. It should be noted that Allagash and its employees donated more than just money but also their time. In 2020, employees spent 824 hours (over thirty-four days) volunteering in the community (Allagash Brewing Company, 2020).

Closing Notes

Through its core values of innovation, quality, growth, family, passion, and caring, Allagash has invested heavily in both time and money to sustainable efforts and in its commitment to the community. As put by their founder Rob Tod, their motto “‘from Maine, with love,’ [Encapsulates] who we are, and what we strive to do. It says that no matter the circumstances, we’re here to support our employees, enrich our community, care for our environment, and continue to brew high-quality beer.” (Allagash Brewing Company, 2020).

Lakefront Brewery, Inc.

Founded and located in Milwaukee, Wisconsin, Lakefront Brewing, Inc (Lakefront) began as an outlet for a sibling rivalry between brothers Russ and Jim Kilsch. Starting with a homebrewing book, a few fifty-five-gallon steel drums, and used dairy equipment, the brothers made their first sale on December 2nd, 1987. By 1989 beer sales totaled 125 barrels and subsequently began to quickly double. In 1990, Russ Kilsch built his own bottling machine to match the growing demand and by 1998 sales reached almost three thousand barrels. Fast forwarding to today, Lakefront brews the first beer in the United States made strictly from in-state ingredients, the oldest certified organic beer, and the first government-certified, gluten-free beer. Hosting over eighty thousand people per year for tours (Lakefront Brewery, Inc., 2022), Lakefront is a member of the Brewers Association, a certified independent brewer, a regional brewery (Brewers Association, 2022) with a distribution network spanning most of the Northern United States (Lakefront Brewery, Inc., 2022), and a certified B Corporation (Lakefront Brewery, Inc., 2022).

Energy Usage and Greenhouse Gasses Reduction

Lakefront became the first B Corporation in Wisconsin and the twenty-second brewery B Corporation in the world on April 22nd, 2020. They have an Overall Impact Score of 80.1 and an Environment Impact Score of 13.6 (B Labs, 2020). In order to better track their energy spend, Lakefront began using the aforementioned Brewers Association Sustainability Benchmarking Tool in 2019 (Lakefront Brewery, Inc., 2020).

In an effort to minimize their environmental footprint, Lakefront has invested in technologies throughout their brewing process and brewhouse. Some of these investments include using a heat exchanger to reuse hot water, installing a setback thermostat, replacing halogen exit signs with more effect LED exit signs, using one hundred percent plant-based cups, and producing six-pack carriers out of recycled paper stock. Substantial action was undertaken in the 2010s to further Lakefront’s push for environmental sustainability. This encompasses activities such as replacing all lighting in the brewhouse with energy efficient alternatives (2011), switching to a new bottle type that consumes less glass and is easier to recycle (2011), and utilizing to Microstar kegs¹⁶ to dramatically reduce carbon emissions through keg sharing and as part of the Environmental Protection Agency’s (EPA) SmartWay Program¹⁷ (2014) (Lakefront Brewery, Inc., 2022).

In 2017, Lakefront installed seventy kilowatt-hours of solar panels on their warehouse to offset thirty-nine percent of their annual energy consumption from the electrical grid. In 2019 this solar array produced 72.94 MWh which saved fifty-six tons of carbon dioxide from entering the atmosphere (Lakefront Brewery, Inc., 2022). To further reduce their carbon emissions, they founded an apiary on their grounds that has produced over fifty gallons of honey in 2021 (Moses, 2021).

On a final note, Lakefront developed a database to monitor electricity, natural gas, and water use efficiencies to compare with beer sales. They also began environmental tours on Fridays to educate the local populace regarding their environmental practices (Lakefront Brewery, Inc., 2022).

Water and Wastewater

As they are located directly on the Milwaukee waterfront, Lakefront has invested heavily in ensuring proper water usage, including the previously mentioned database. This includes promoting the EPA draft rule “Definition of Water of the United States Under the Clean Water Act,” which advocated for clean water protection (Lakefront Brewery, Inc., 2022).

¹⁶ A keg-renting company that provides just-in-time keg deliveries for breweries (Microstar, 2022)

¹⁷ “EPA’s SmartWay program helps companies advance supply chain sustainability by measuring, benchmarking, and improving freight transportation efficiency.” (United States Environmental Protection Agency, 2022)

In terms minimizing water use in the brewing processes, in 2015 Lakefront switched from a continuous rinse process to a stainless-steel drum that cut water usage from gallon per minute to 132 gallons for the entire procedure as well as automating the bottle washing process to only utilize water if a bottle is present in the machine. In 2020, sinks, drains, and faucets across the brewhouse and taproom were replaced to improve efficiency and decrease water lost to leaks (Lakefront Brewery, Inc., 2022). In spite of these efforts, there has been no publicization of any of the three key water use ratios.

There have also been efforts to treat and conserve water outside of the brewing process by installing drought resistant landscaping and creating a fifty-three-plant rain garden that removes pollutants during the months of April through August. Additionally, Lakefront adopted a portion of the river where employees volunteer to pick up trash along the neighboring path along as well as partnering with Riverkeepers¹⁸. They also partnered with Natural Resources Defense Council Brewers for clean water in 2020 (Lakefront Brewery, Inc., 2022).

Solid Waste

Starting in 2005, Lakefront partnered with Growing Power¹⁹ to provide their urban farm with spent grain. In 2013 they began to locally sell their old, corrugated cardboard to be used in a variety of applications. Furthermore, they partnered with Compost Crusader in 2016 to recycle organic waste as part of the Dumpster for Dirt Program where for every twenty thousand pounds of material Compost Crusaders diverts from the landfill, one yard of finished compost is donated back to the community (Lakefront Brewery, Inc., 2022).

Community Engagement

Lakefront started as a community beer and has ensured that they stay engaged in the community through hosting events and charitable giving. Some notable philanthropic activities include

¹⁸ “Milwaukee Riverkeeper is a science-based advocacy organization working for swimmable, fishable rivers throughout the Milwaukee River Basin” (Milwaukee Riverkeeper, 2022).

¹⁹ Growing Power was a Milwaukee-based urban farm that used vermiculture and aquaponics to grow food. The operation shut down in 2017 following the retirement of the organizations founder (Encyclopedia of Milwaukee, 2022).

providing barrels to KHS USA²⁰ that were packed with school and medical supplies for disadvantaged communities in Jamaica, donating five percent of proceeds from the day to Milwaukee High School of the Arts and Carver Academy, conducted a clothing drive for One Warm Coat, a toy drive for Toys for Tots, and a food drive for Hunger Task Force during their Black Friday event. The Beer Hall hosted a voter registration event to bolster support for local politics. Blood Drives are another important community activity at Lakefront with the 2021 drive collecting enough blood to save the lives of eighty locals. Finally, in 2022 Lakefront joined the Wisconsin Sustainable Business Council (Lakefront Brewery, Inc., 2022).

Lakefront has partnered with a host of businesses to address their various needs. This includes Ardagh Group Inc, Malteurop North America, Briess Industries, Reinhart Foodservice Inc, Hollingberry & Son Inc, Advantage Logistics LLC, Rock Cheese, Pelliconi, Country Malt – North Country, Cergill Inc, and BSG Craftbrewing (Lakefront Brewery, Inc., 2022).

Closing Notes

While their Overall Impact Score is only one tenth of a point over the eighty-point requirement for a certified B Corporation, Lakefront’s efforts for the environment and community have continuously gained recognition. In 2007 they became the first Travel Green brewery in Wisconsin as recognized by the Wisconsin Department of Natural Resources’ Green Tier program. Lakefront was awarded a grant from the Wisconsin Profitability and Sustainability Initiative that they used to create the aforementioned database to monitor electricity, natural gas, and water usage. Lakefront has also been awarded the Lake Friendly Certification²¹. In 2021 they were awarded with Green Professional Designation from the Green Masters Program²² (Lakefront Brewery, Inc., 2022). Overall, Lakefront’s their actions in environmental sustainability and community engagement embody their slogan, “Crafting an honest day’s beer since 1987” (Lakefront Brewery, Inc., 2022).

²⁰ KHS is a global supplier of sustainable, efficient and durable filling and packaging systems and solutions (KHS Group, 2022)

²¹ Awarded by the Plastic-Free Milwaukee coalition with the mission to reduce the harms that unnecessary plastics have on environmental health, public health, and social justice (Plastic Free MKE, 2022).

²² The Green Masters Programs aids businesses in developing systems for tracking and improving sustainability metrics and outcomes (Wisconsin Business Council, 2022).

Sierra Nevada Brewing Company

Calling the city Chico, California home, Sierra Nevada Brewing Company (Sierra Nevada) was founded in 1980 with an inaugural five barrels of stout followed by a soon be revolutionary Pale Ale. By 1986, the original brewhouse was producing at capacity leading to the building of a new one in 1987. Ten years later, a two-hundred-barrel system was built to complement the original one-hundred-barrel system. By 2013, Sierra Nevada was an established brand and to meet the need of consumers on the East Coast, a brewery in Mills River, North Carolina was built.

Surviving the devastating forest fires of California and the COVID-19 pandemic, Sierra Nevada is still growing strong and leading as one of the nation's premier craft breweries (Sierra Nevada Brewing Company, 2022). They are a member of the Brewers Association, a certified independent brewer, and a regional brewery (Brewers Association, 2022) with a distribution network spanning most of the United States (Sierra Nevada Brewing Company, 2022). As stated on their website, Sierra Nevada is, "100% family owned, operated, and argued over" (Sierra Nevada Brewing Company, 2022).

Energy Usage and Greenhouse Gasses Reduction

Sierra Nevada was built on the motto "reduce, reuse, recycle" as all of the original brewing equipment stemmed from repurposed dairy equipment. Currently boasting the largest solar array for any craft brewer and the first LEED Platinum²³ certified production brewery in the United States (Sierra Nevada Brewing Company, 2022).

The Chico Brewhouse. At the Chico brewhouse, Sierra Nevada had fully embraced a host of environmentally friendly practices. These include an on-site, ten-acre hop yard and a neighboring one-hundred-acre barley field, and on-site garden and greenhouse that provides ingredients for the brewhouse and the taproom. These cut emissions associated with the transport of raw materials. Where transportation is needed, used fryer oil is converted in-house to biodiesel, powering Sierra Nevada's fleet of local and long-haul trucks throughout California. To further cut down on transportation emissions, they have installed a rail transfer facility two miles from

²³ LEED Platinum is the highest rating, reserved for those who score 80+ points. "LEED provides a framework for healthy, efficient, carbon and cost-saving green buildings. LEED certification is a globally recognized symbol of sustainability achievement and leadership." (United States Green Building Council, 2022).

the brewhouse, allowing the efficient transport of four truckloads worth of malt to the silos (Sierra Nevada Brewing Company, 2022).

In terms of energy production, the Chico plant houses a two-megawatt solar system that provides sixty percent of the brewery's energy needs. They have also installed independent solar systems to power the rail transfer facility, on-site daycare, and office building. In addition to the solar array, Sierra Nevada installed Capstone Microturbines in 2016 that fulfill thirty-five percent of the energy requirements of the brewery. To manage excess energy production and increase efficiency, they also installed a one-megawatt hour Tesla Battery System to curtail spikes in electrical grid demand.

The Mills River Brewhouse. The Mills River brewhouse is surrounded by a section of forest that, together with natural resource specialists, Sierra Nevada has been restoring to house only native plant and animal life. Furthermore, three acres of the property are dedicated to growing produce, namely oyster and shiitake mushrooms, to use in the restaurant, leading to overall lower emissions. When building the brewery, any cleared hardwood trees were cut and milled locally to be reused in the various visitor areas. To reduce energy usage associated with lighting, the Mills River brewhouse has been designed to incorporate daylighting in the form of skylights and large windows that work in tandem with ambient light sensors. There is also on-site recycling (Sierra Nevada Brewing Company, 2022).

In terms of energy production, the Mills River Brewhouse has similar capabilities to the Chico Brewhouse. A 600kw solar array provides over six percent of the brewhouse's needs along with nine solar trees located throughout the property. In conjunction, a 400kw Capstone microturbine system provides fifteen percent of the required energy using recycled biogas from the wastewater treatment process (Sierra Nevada Brewing Company, 2022).

Water and Wastewater

At the Mills River location, Sierra Nevada receives over fifty inches of rain each year. To take advantage of this, there are twelve, 6,500-gallon cisterns that collect rainwater from the roof as well as a 450,000-gallon underground cistern that collects water from the parking lot and

bioswales²⁴ (Sierra Nevada Brewing Company, 2022). This water is then used in various locations throughout the brewery. The Chico brewhouse additionally is landscaped using drought-resistant, native plants to decrease external water usage.

Both brewhouses have on-site wastewater treatment facilities that remove over ninety-five percent of organic particulates through solids removal, anaerobic digestion, and aerobic treatment processes (Sierra Nevada Brewing Company, 2022). This decreases the load on local municipal water systems. Additionally, the biogas byproduct is used to power the aforementioned Capstone microturbines (Sierra Nevada Brewing Company, 2022).

Solid Waste

Similar to Lakefront, Sierra Nevada is able to divert 99.8 percent of all solid waste from the landfill (Sierra Nevada Brewing Company, 2022). The Chico brewhouse is home to the HotRot, a state-of-the-art composting machine that take scraps from the on-site restaurant and spent brewing ingredients and turns them into fertilizer for their agricultural activities. Both locations also house spent grain silos to allow local agricultural businesses to easily load and transport said grain back to their operations.

Community Engagement

Sierra Nevada is heavily invested into the communities at both of their brewing locations. Between hosting concerts at their amphitheater in Mills River (Sierra Nevada Brewing Company, 2022) or the annual adult only Beer Camp in Chico filled with activities such as human foosball, keg bowling, and a silent disco, they are constantly finding ways to engage the community (Sierra Nevada Brewing Company, 2022). In an effort to support the surrounding trail systems used by the community, Sierra Nevada recently launched their Take Back Our Trail Program to fund the maintenance of the forenamed trails (Sierra Nevada Brewing Company, 2022). Similar to this project, Sierra Nevada supports a multitude of outdoor activities providing beer to hikers, bikers, and all outdoor enthusiasts alike (Sierra Nevada Brewing Company, 2022).

²⁴ Bioswales are similar to rain gardens and act as a means of filtration as part of the property's stormwater management plan (Sierra Nevada Brewing Company, 2022).

Due to the close ties between beer, alcohol, and the issues that may arise thereof, Sierra Nevada does not donate to events that seeks to raise funds for those under twenty-one years of age and only donate to registered 501(c) organizations²⁵ (Sierra Nevada Brewing Company, 2022).

Closing Notes

It is clear that Sierra Nevada has been built on the very premise of environmental sustainability and the community as well as being aware that their product, beer, may have on the community. Their commitment to the community is aptly summarized in this quote from their website, “Since [Sierra Nevada] started this adventure in 1980, we’ve always looked beyond the beer. As much as we’re able, we try to support and help improve communities and causes near and far.” (Sierra Nevada Brewing Company, 2022).

INDEPENDENT BREWERS – SHORT CASE STUDIES

Many brewers haven taken into account the recommendations of the Brewers Association and others have gone a developed their own sustainability programs and processes. The next sections will take and brief look at three different craft brewers and their push for environmental sustainability in conjunction with their community engagement efforts.

Tröegs Independent Brewing

Tröegs Independent Brewing (Tröegs), founded in 1997 by brothers John and Chris Trogner, is located in Hershey, Pennsylvania. Throughout its twenty-four years of operation, Tröegs has remained family-owned and is constantly experimenting with new beers and flavor combinations (Tröegs Independent Brewing, 2022). Tröegs is a member of the Brewers Association, a certified independent brewer, and a regional brewery with a distribution network spanning most of the Northeast and South Atlantic regions (Brewers Association, 2022). Their Perpetual IPA is the best-selling IPA in Pennsylvania (Tröegs Independent Brewing, 2022).

²⁵ “The 501(c) is a subsection under the United States Internal Revenue Code (IRC). The subsection relates to nonprofit organizations and tax law; specifically, it identifies which nonprofit organizations are exempt from paying federal income tax.” (Segal, 2021).

Environmental Sustainability

Tröegs, while not immediately clear in their material, have made large investments into some sustainable practices. In September 2021, during a two-day shutdown, a 643-kilowatt solar array was installed. Planned to produce 812,366 kWh annually, this array should fulfill fifteen to twenty percent of the brewery's energy requirements. In addition, Tröegs installed a new white roof membrane to maximize the production of the solar array (Tröegs Independent Brewing, 2021). In a continued effort to minimize carbon emissions as well as building a relationship with the community, Tröegs works closely with local businesses to source ingredients. These ingredients include a yearly order of twenty-five thousand pounds of honey from a local beekeeper, one hundred thousand pounds of Pennsylvania barley ordered every year, a growing amount of local grain (Tröegs Independent Brewing, 2020), and three thousand pounds of longneck pumpkins. Ingredients for the on-site kitchen are also sourced from local farms. Bow Creek Farm, a mere three miles away from the Tröegs Brewery supplies them with beef for hamburgers (Tröegs Independent Brewing, 2020).

As said by Chris Trogner, “[Tröegs is] making these incremental changes to decrease our environmental impact and improve the experience people have when they visit Tröegs.” (Tröegs Independent Brewing, 2021).

Community Engagement

As explored in the previous section, Tröegs works very closely with the local community of farmers to provide ingredients not only for the brewing process but for the kitchen as well. However, their efforts expand further as they donate charitably, aiding and protecting the local land and communities. One such philanthropic activity was donating a portion of their proceeds from the sale of their Trail Day dry-hopped pilsner to aid in protecting a fifteen-thousand-acre section of Pennsylvania's Kittatinny Ridge, a crucial habitat for plants and animals (Tröegs Independent Brewing, 2020).

Tröegs also partners with local businesses and organizations to better serve their community. In 2022 they have partnered with the Pennsylvania Dairymen's Association and the Dairy Excellence Foundation to offer ten, three-thousand-dollar scholarships for undergraduate

students who are pursuing a degree in a dairy-related field (Tröegs Independent Brewing, 2022). In addition to giving, Tröegs hosts a few yearly events that aim at bringing the community together. One such event is the annual Ullr Festival that is free for everyone that includes activities such as raffles and contests that benefit local charities like the Peyton Walker Foundation (Tröegs Independent Brewing, 2021).

Closing Notes

While Tröegs does not make its sustainability efforts readily available, they have made it clear through their vast array of partnerships with local farmers and recent projects that the Tröegs brand is dedicated to ensuring the health of the surrounding land whilst building a close relationship with the local Pennsylvania communities. This dedication to the community is perfectly summarized by this quote, “Our priority is buying the best ingredients in the world. A lot of times that means we’re pointed toward Germany for grain or the Pacific Northwest for hops. But sometimes, because we live and brew in fertile central Pennsylvania, we find what we’re looking for right in our backyard” (Tröegs Independent Brewing, 2021).

Sly Fox Brewing Company

Headquartered in Pottstown, Pennsylvania with locations all throughout Southeastern Pennsylvania and Pittsburg, Sly Fox Brewing Company (Sly Fox) was founded in December 1995 by Pete Giannopoulos. After continuously outgrowing old establishments, the Pottstown location opened in January 2012 with a German 40-barrel brewhouse, taproom, and room to expand. They contribute their success not only to their award-winning beers but also to their proactive business strategies. In 2006, Sly Fox become the first brewery in the Mid-Atlantic region with its own canning line, spearheading the craft-beer-in-a-can revolution (Sly Fox Brewing Company, 2022). They are a member of the Brewers Association, a certified independent brewer, and a microbrewery (Brewers Association, 2022) with a distribution network spanning Pennsylvania, New York, New Jersey, Delaware, Maryland, Virginia and Washington DC (Sly Fox Brewing Company, 2022).

Environmental Sustainability

Sly Fox has little to no published material regarding environmentally sustainable practices at any of their locations. Beyond investments in the efficiency of their brewing and packaging processes there is no information readily available (Sly Fox Brewing Company, 2022) and efforts to contact Sly Fox regarding further details and practices were left unanswered.

Community Engagement

On the other hand, Sly Fox is consistently active within the local community and has a slew of published material regarding their efforts. As partners with the Schuylkill River National and State Heritage Area (SRHA), they have an annual release of their SRT (Schuylkill River Trail) Ale with benefits aiding trail maintenance and clean-up. In 2017 Sly Fox was recognized by the SRHA for its efforts in supporting the trail (Sly Fox Brewing Company, 2017). Other partnerships include Alex's Lemonade Stand Foundation, a national childhood cancer foundation that has raised over \$150 million (Sly Fox Brewing Company, 2018). Most recently, after a disastrous flood following Hurricane Ida in 2021, Sly Fox, in conjunction with other local businesses and Open Hearth, aided in raising nearly forty-five thousand dollars for those in Montgomery County affected by the flood (Sly Fox Brewing Company, 2021).

Beyond charitable giving, Sly Fox hosts a variety of events throughout the year aimed at bringing the community together. One of their most popular events is the annual Bock Fest and Goat Race hosted on the first Sunday of May. Live music, beer, and local businesses are combined with a pack of sixty-six goats competing to name the upcoming seasonal summer bock beer (Sly Fox Brewing Company, 2022). Other events include their Annual Can Jam Music Festival and a seasonal Bocce League (Sly Fox Brewing Company, 2022). On a final note, similar to the recommendations put forth by the Brewers Association, Sly Fox hosts a pair of seasonal loyalty programs where customers of the brewery can win an all-expense paid trip to Europe (Sly Fox Brewing Company, 2022).

Closing Notes

While their sustainability practices are left undetailed, it is evident that Sly Fox is an advocate for the local community with events all throughout the year and consistent charitable activities. Their dedication to the community and positioning as a beer for the outdoor enthusiast summarizes this commitment. “Cyclists, runners, climbers, golfers, and hikers meet at our pubs after days spent doing what they love. Brewed in the vibrant communities of Phoenixville and Pottstown, Pennsylvania's Sly Fox beer has become synonymous with outdoor adventure and the active lifestyle” (Sly Fox Brewing Company, 2022).

Narragansett Brewing Company

Founded in 1890 by six German immigrants, Narragansett Brewing Company (Narragansett) is currently headquartered in Providence, Rhode Island. In its first decade of brewing, Narragansett quickly became the best-selling beer in New England. They continued growing rapidly until Prohibition where Narragansett retooled and began to produce sodas, sell ice, and brew beers that were assigned as prescriptions. After prohibition, production of beer was quickly restarted and by 1936, a fully operational canning line was installed in the brewery. Through its partnership with the professional Major League Baseball Team, the Red Sox, Narragansett grew rapidly in the mid-1900s. In 1975, Narragansett was purchased by Falstaff Brewing Corporation where after a series of unforeseen circumstances and poor management, moved Narragansett’s brewing operations out of New England (Narragansett Brewing Company, 2022).

After nearly three decades of stagnation, current president Mark Hellendrung bought the failing Narragansett brand, making it once again an independent brewery and moving operations back to New England. Narragansett is a member of the Brewers Association, a certified independent brewer, and a regional brewery (Brewers Association, 2022) with a distribution network spanning all New England and the East Coast (Narragansett Brewing Company, 2022).

Environmental Sustainability

Similarly to Sly Fox, Narragansett has a lack of readily available published material regarding their sustainability efforts on their website and attempts to contact them regarding such practices

were left unanswered. As they have been rapidly expanding in the last five years, from their location in Rochester, New York to Pawtucket and Providence, Rhode Island, it seems that Narragansett's attention has been focused on rebuilding their New England image and strengthening their ties to the community its founders called home.

Community Engagement

Beginning with their slogan of over 120 years, "Hi Neighbor" (Narragansett Brewing Company, 2022), Narragansett has firmly oriented themselves to serve the local community. Most recently they held a special fundraising event in February 2022 to raise proceeds for a local Rehoboth, Massachusetts brewery, Anawan Brewing Company. With over three hundred people attending, Narragansett was able to donate roughly six thousand dollars (Dymowski, 2022). In 2019, there was a push to deepen their Rhode Island roots, hosting to first BuyRI Tour. For thirty-nine weeks, Narragansett hosted an event in one of Rhode Island's thirty-nine cities at a specific bar of choice, urging the community to discover their fellow "neighbors" (Narragansett Brewing Company, 2019).

In addition, Narragansett has continued to run their Made on Honor series, highlighting local craftsmen and craftswomen through short videos and advertising. Some of these local businesses include Brothers Artisan Oil, Parlor Skis, the Cable Car Cinema, Spindrift Soap Company, and may more. In 2016, the Made on Honor series won an Emmy for Best Community Service Project (Narragansett Brewing Company, 2022). Other community engagement efforts include highlighting and honoring long-time customers, hosting holiday events, and having giveaways (Narragansett Brewing Company, 2022).

Closing Notes

Despite the lack of published or known environmentally sustainable efforts, Narragansett has placed an emphasis on rebuilding their image as New England's premier beer. In doing so, rebuilding their ties with the community (and Rhode Island specifically) has been given the utmost priority. This excerpt from their website superbly illustrates this commitment, "[Narragansett is] here because of the help and support of our community. We will never forget

that. We feel that it is our responsibility to pay that support forward and help our community grow. So please, meet some of our neighbors. They have inspired us, and we're sure they'll do the same for you" (Narragansett Brewing Company, 2022).

KEY TAKEAWAYS FROM THE BREWERS

While some brewers lack in transparency regarding their sustainability efforts, all of the studied breweries have made it clear, they are not only supporters of the community, they aim to be cornerstones of the community. Many have adopted recommendations from the Brewers Association. Most have developed their own processes and methods regarding environmental sustainability and have gone beyond the call of duty regarding methods in engaging with the community.

Whether they have an apiary to harvest local honey, grow their own hop and barely on-site, host goat races, or form a slew of partnerships with local businesses, it is evident that these independent brewers have uniquely positioned themselves to serve both the environment and the community.

CORPORATE SOCIAL RESPONSIBILITY SCORECARD

The recommendations put forth by the Brewers Association and an examination of some of the best practices of individual brewers has culminated in the creation of a Corporate Social Responsibility Scorecard that is designed specifically for craft brewers. As a first of its kind tool, the six sections of General, Energy and Greenhouse Gasses, Water and Wastewater, Solid Waste, Community Engagement, and Awards and Certifications are designed to take a holistic approach when examining a brewer's activities. While modeled after the LEED scorecard, this scorecard aims to expand beyond building design and location. Instead, the CSR Scorecard takes an expansive view, incorporating community engagement activities.

This scorecard is intended to be utilized by the Brewers Association. Therefore, when they are validating a brewer's independence and membership, the Brewers Association can also examine

the brewer’s activities in terms of community engagement and environmental sustainability, resulting in a score out of one hundred. The scorecard is as follows:

Figure 1: CSR Scorecard (continued onto next page)

Craft Brewer Environmental Sustainability and Community Engagement Scorecard	
Totals	0 / 100
General	0 / 18
Availability of Information to the Public	/ 5
Actionable Brewery-Specific Goals & Values	/ 2
Employee Training	/ 2
Energy and Water Management Tracking System	/ 3
Routine Maintenance Plan	/ 2
Efficiency Inspections	/ 2
Land Management	/ 2

Corporate Social Responsibility within the American Craft Beer Industry: Environmental
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Honors Thesis for Bradley DeMild

Energy and Greenhouse Gasses	0 / 16
<i>Direct Emissions</i>	<i>0 / 13</i>
Energy Efficient Machinery	/ 3
Energy Efficient Lighting	/ 2
Carbon Dioxide Recapture	/ 1
Hot Water Recapture	/ 1
Renewable Energy	/ 3
Onsite/ Local Raw Ingredient Sourcing	/ 3
<i>Indirect Emissions</i>	<i>0 / 3</i>
Supplier Vetting	/ 2
Renewable Energy Certificates	/ 1
Water and Wastewater	0 / 13
Water Efficient Machinery	/ 3
Applicable Wastewater Treatment	/ 2
Rainwater Storage & Management	/ 3
Water Management/Protection Agency Partnership(s)	/ 1
Net Zero Liquid Discharge	/ 1
Miscellaneous	/ 3
Solid Waste	0 / 20
Solid Waste Plan	/ 2
Sidestreaming	/ 3
Sold/Donated to Applicable 3rd Parties	/ 3
Composting	/ 2
Recycling Program	/ 3
Other Raw Material Donations/Sales	/ 5
Miscellaneous	/ 2
Community Engagement	0 / 23
Customer Relationship Management	/ 3
Transparent Operations	/ 3
Philanthropic Activities	/ 5
Local Business Partnerships	/ 3
Events and Activities	/ 5
Volunteering	/ 2
Miscellaneous	/ 2
Awards and Certifications	0 / 10
B Corp Certification	/ 2
LEED Certification	/ 2
Other Awards and Certifications	/ 6

For a detailed breakdown of the CSR Scorecard, see Appendix G. Furthermore, depending on the points awarded to the brewer, they can earn recognitions for their activities. For those who score less than sixty-five points, they cannot be certified. If the score lands between sixty-five and seventy-five points, a brewer may earn the title of “Certified”. For a score between seventy-six and eighty-three, a brewer is considered “Up and Coming”. If a brewer scores within the intervals of eighty-four and ninety-one, they are considered a “Leader”. Finally, a score between ninety-two and one hundred, a brewer earns the recognition of “Spotlight”, denoting that their practices in terms of community engagement and environmental sustainability demonstrate some of the best practices in the field. The different intervals are designed to be difficult in achieving higher ranking recognitions without making it impossible, for both large and small brewers.

Since many craft brewers include the Brewers Association’s Seal of Independence (See Appendix B, Figure 2) on their cans, a modification of the seal is being proposed for those brewers who score sixty-five or more points. This addition on the seal is meant to indicate to conscious consumers that not only is this beer independently brewed, but it is brewed by an organization that cares for the environment and the community. Two proposed modifications can be examined in Appendix H.

MOVING FORWARD

This concluding section will examine the limitations encountered within the research process, suggestions and recommendations for future research, and the contributions of the paper to the craft beer industry.

Limitations

Initial limitations to the research were encountered early in terms of the available literature. Due to the choice of topic, most of the literature focused on the historical aspect of beer and craft beer or examined the economic impact of the beer industry. Subsequently, it was difficult to find applicable studies or primary and secondary research. Thus, there was a heavy reliance on the material published by the Brewers Association and material provided by the craft brewers themselves. This provided the most up-to-date and relevant information. In terms of the

information gathered from the Brewers Association, due to the fact that the published educational materials were gathered on a per-request basis (through the student inquiry forms located on the Brewers Association website), it was difficult to determine whether the requested materials were applicable to the scope of the project. This led to some of the received materials not aligning properly with the research or linking to other, unobtainable documents.

Furthermore, when examining brewers, the original goal was to examine only regional breweries. However, for unknown reasons, many inquiries to regional breweries were left unanswered.

On a final note, regarding the selection of breweries, the original goal was to examine eighteen breweries, two from each of the nine U.S. Census Bureau designated regions to add a geographical perspective to the observed sustainable practices. This was modified to the six examined breweries due to the lack of publicly available information on the brewers and unanswered inquiries. Lastly, due to the reasons mentioned above, the scope of the research was continuously adapted throughout the process.

Future Research

To better validate the CSR Scorecard, more breweries need to be examined and input from the Brewers Association should be solicited. Visits to researched breweries should be conducted to gain a better understanding surrounding the specifics of their sustainability and community engagement practices. These visits to the breweries and further research should be accompanied by an expert in the field of craft beer and/or environmental sustainability to provide better context to the learned information. Lastly, the CSR Scorecard should be applied to “trial brewers” to determine the extent of its applicability and expose potential flaws in its design. This will increase the likelihood of the CSR Scorecard being used and applied as proposed in the paper. While the plan is in its conceptual stages, a presentation of the research and the CSR scorecard to the Brewers Association is in the works as a way to codify the analysis. In summary, more research would lead to a more bona fide scorecard and increase the level of legitimacy and appropriateness of the research.

Contributions to the Field

There is currently a lack of research regarding craft brewers and their environmental sustainability and community engagement practices. This paper serves to encourage further research in the field by positioning itself as an entryway into this field. Furthermore, current research does not take a holistic approach to the two researched topics, environmental sustainability and community engagement. This paper emphasizes that these two points are not mutually exclusive and, in fact, possess a considerable amount of overlap, unlike existing research. As the area of ESG (environment, social, governance) is gaining attention, this research could prove extremely useful as part of this shift in focus across many industries.

Lastly, the CSR Scorecard is unlike any existing literature or tools due to its specificity and combined approach of environmental sustainability and community engagement factors. With further development (as mentioned in the Further Research section), there is a possibility that the scorecard could be utilized and recognized at a similar level to that of the LEED Scorecard by the U.S. Green Building Council. Additionally, there is the potential for other industries to create their own scorecard, using the craft brewer CSR scorecard as a blueprint, expanding the reach and impact of this research outside the realm of craft beer.

APPENDIX A

List of Key Organizations

Brewers Association

1327 Spruce Street,
Boulder, CO 80302
Phone: (303) 447-0816
Website: brewersassociation.org

Tröegs Independent Brewing

200 E Hershey Park Dr
Hershey, PA 17033-2719
Phone: (717) 534-1297
Website: www.troegs.com

Allagash Brewing Company

50 Industrial Way
Portland, ME 04103-1270
Phone: (207) 878-5385
Website: www.allagash.com

Sly Fox Brewing Company

331 Circle of Progress Dr
Pottstown, PA 19464-3811
Phone: (484) 524-8210
Website: www.slyfoxbeer.com

Lakefront Brewery, Inc.

1872 N Commerce St
Milwaukee, WI 53212-3701
Phone: (414) 372-8800
Website: www.lakefrontbrewery.com

Narragansett Brewing Company

271 Tockwotton St
Providence, RI 02903
Phone: (401) 437-8970
Website: www.narragansettbeer.com

Sierra Nevada Brewing Company

1075 E 20th St
Chico, CA 95928-6722
Phone: (530) 893-3520
Website: www.sierranevada.com

APPENDIX B

Brewers Association Seals

Figure 2: Brewers Association Seal of a Certified Independent Beer/ Brewers



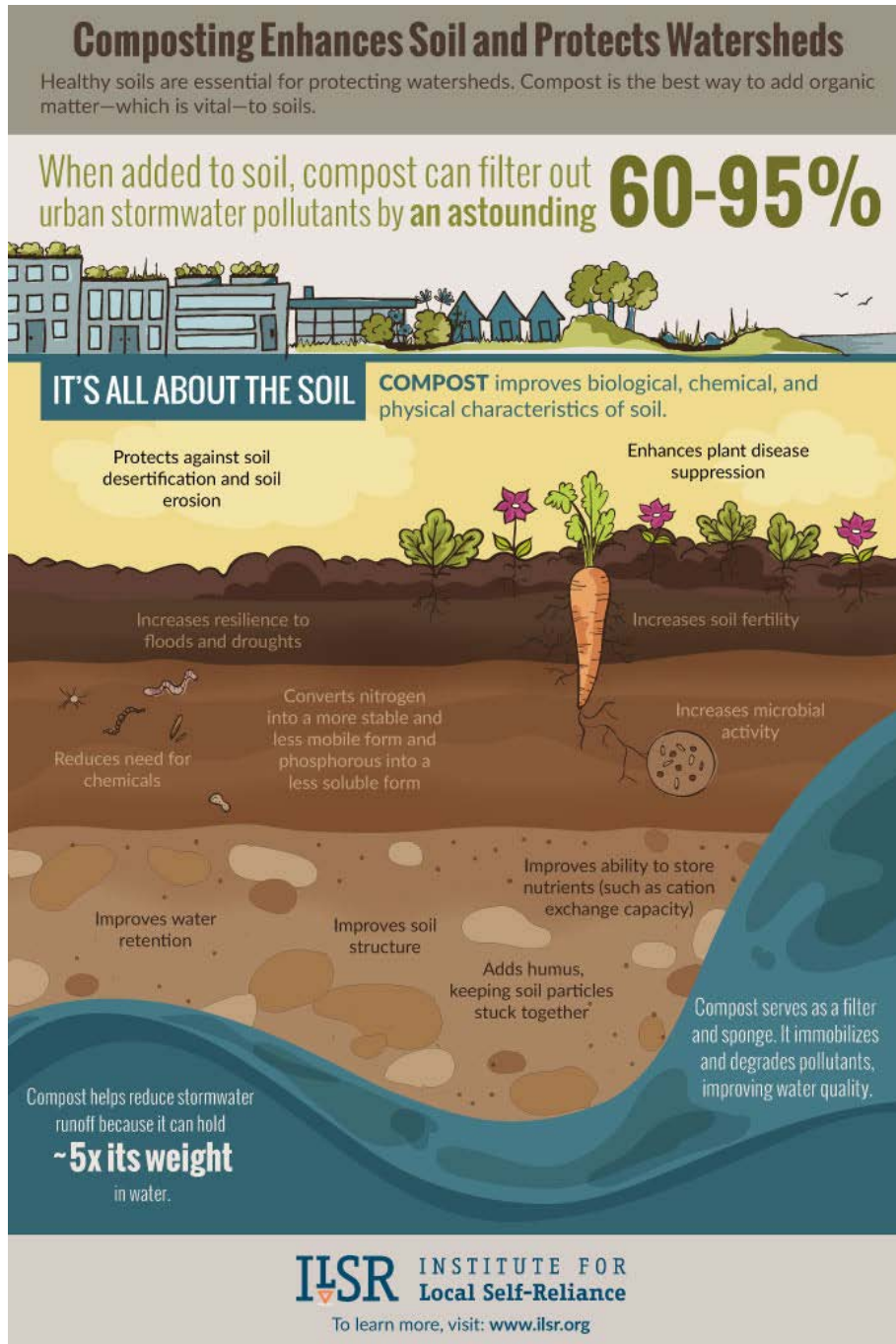
Figure 3: The Brewers Association Logo



APPENDIX C

The Soil Amendment Process

Figure 4: The Importance of Compost and Soil Amendment (Envision Frederick County, 2021)



APPENDIX D

The Brewing Process

The brewing process has nine distinct steps:

1. Malting

- a. Here malted grain and barely grains are soaked in water for 24-48 hours and incubated for 4 to 5 days to allow for germination.
- b. The germination process activates α -amylase, β -amylase and protease enzymes that converts the starch into a simple sugar to allow further fermentation.
- c. This is followed by kilning at 80° C (176° F) which determines the flavor and color of the beer

2. Milling

- a. The roasted malts are crushed to break the kernel s of the malt into cotyledons to allow for sugar extraction during mashing.
- b. Dust, metals, and stones are separated during this process.

3. Mashing

- a. The grains from the milling process are mixed with 65° C (149° F) water for 1 hour to create a mash.
- b. The enzymes in the mash begin to produce sugars. This sugar rich liquid is referred to as wort.

4. Lautering

- a. The wort is strained at roughly 75° C (167° F) to obtain more liquid.
- b. This is done in 3 Steps:
 - i. Mashing is done at a high temperature to stop enzymatic reactions
 - ii. Recirculation is done by filtering the wort and clarifying it to extract more sugar.
 - iii. Sparging adds more water to the process.

5. Wort Boiling
 - a. Wort is boiled for 60-125 minutes to sterilize the wort, remove microorganisms, and stop any further chemical/ enzymatic activity.
 - b. The boiled wort is separated at the end.
6. Wort Separation and Cooling
 - a. Solid particles are removed in a whirlpool/ settling tank through centrifugal force.
 - b. Worts are cooled to 20° C (68° F) through the addition of water on a plate heat exchanger.
7. Fermentation
 - a. Yeast is added and the filtered liquid is maintained at roughly 60° C (140° F), the temperature varies depending on the type of beer being brewed.
 - b. The yeast converts the sugar to ethanol and carbon dioxide.
 - c. The beer is transferred to another vessel and left to reach desired alcohol levels.
 - d. A secondary fermentation called Krausening is done to aid in the carbonation process.
8. Filtration and Carbonation
 - a. Sheet pad filters remove all remaining particulates.
 - b. Carbonation is achieved by adding carbon dioxide under high pressure or readding sugar, yeast, and hops.
 - c. Carbonation aids in the clarification of beer.
9. Packaging and Bottling
 - a. Following carbonation, beer is moved to a bring beer tank where the cellaring process takes 3-4 weeks to complete.
 - b. Finally, beer is packages in bottles, can, or barrels (Dura, 2020).

APPENDIX E

PakTech Carriers

Figure 5: A PakTech 202 Standard Can Carrier – 4 Pack (PakTech, 2021)



APPENDIX F

Sierra Nevada Sustainability

Figure 6: Sierra Nevada's Mills River LEED Scorecard (United States Green Building Council, 2016)

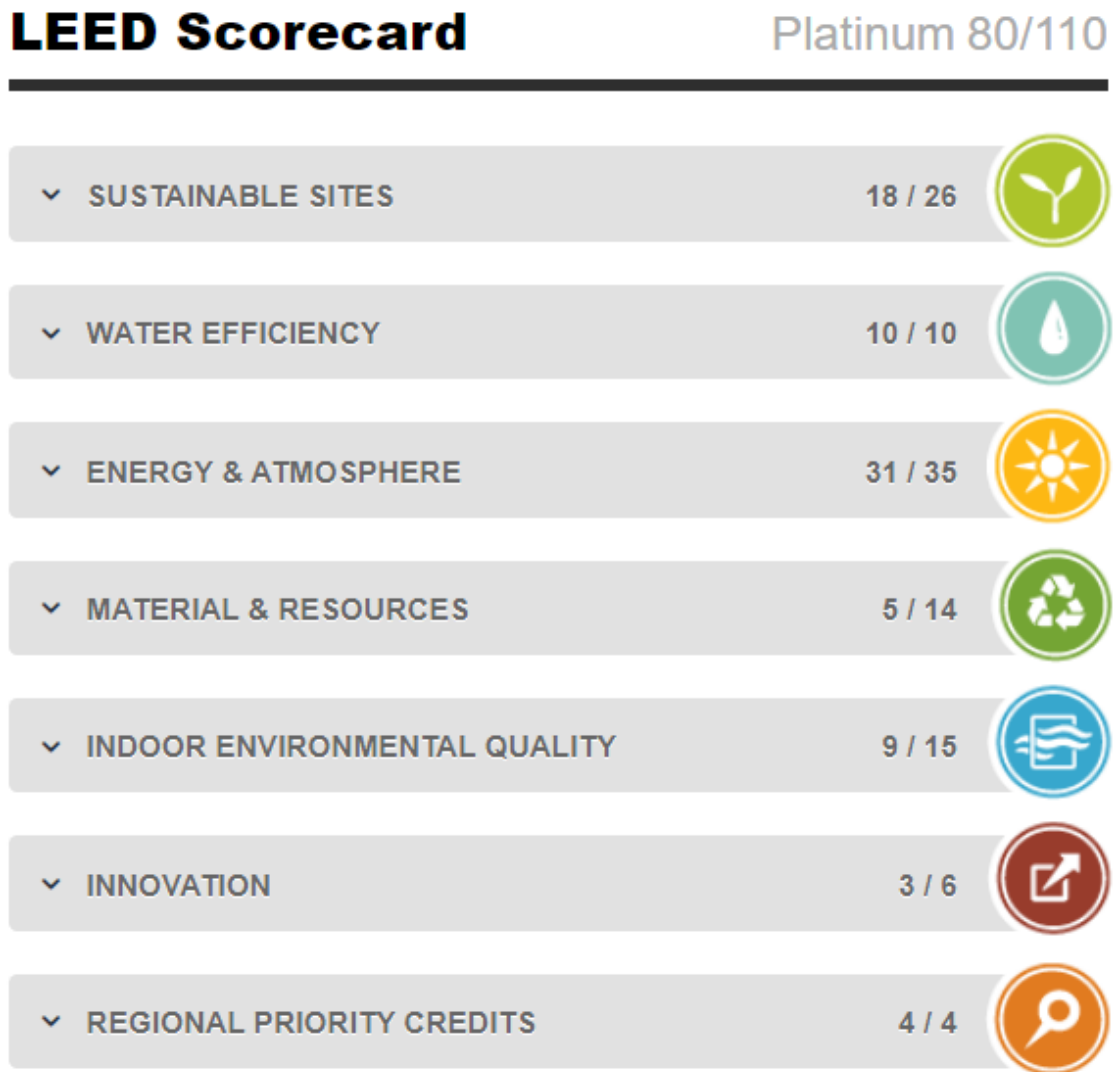
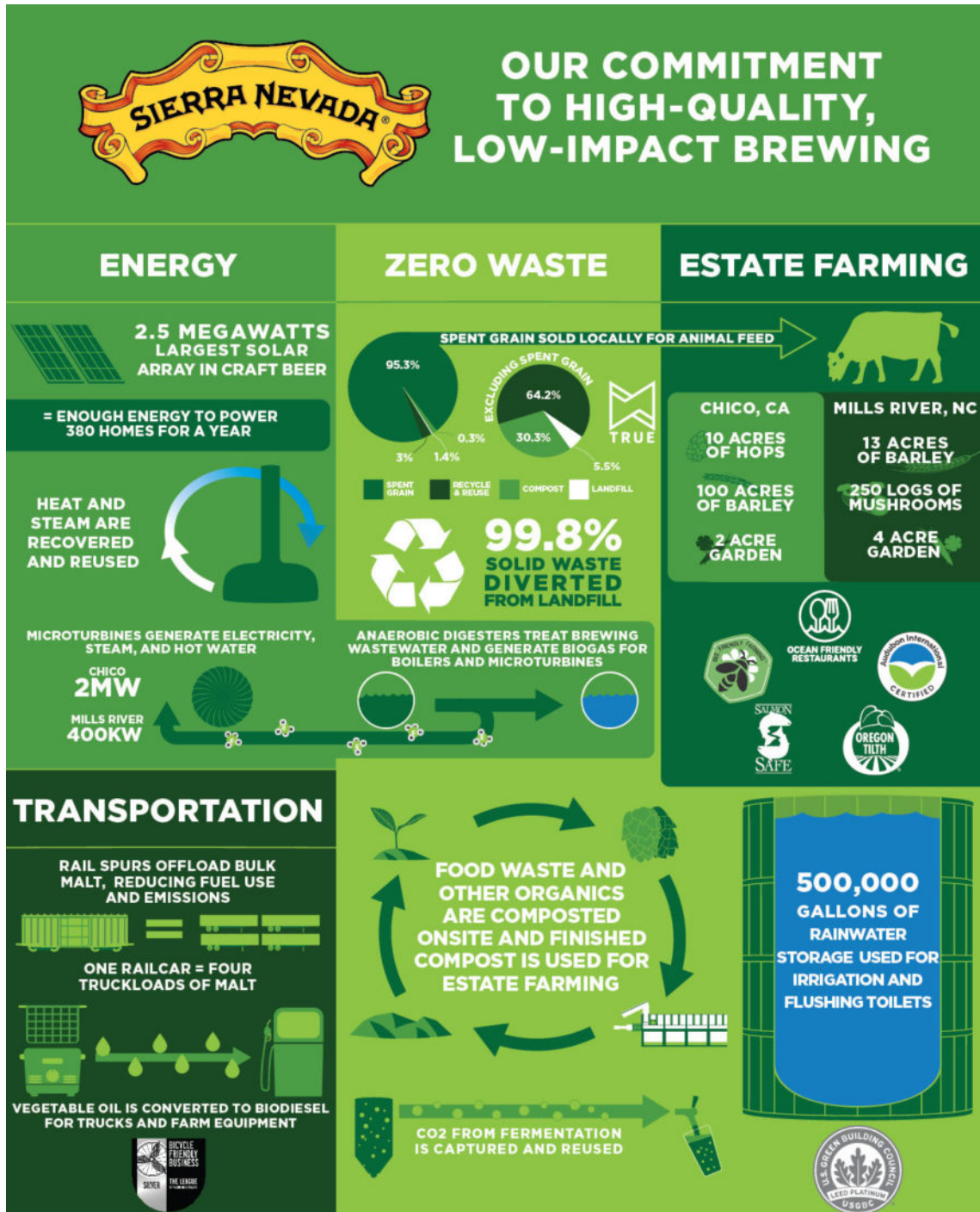


Figure 7: Sierra Nevada Sustainability Infographic (Sierra Nevada Brewing Company, 2022)



APPENDIX G

Craft Brewer Environmental Sustainability and Community Engagement Scorecard Definitions

General

1. Availability of Information to the Public (5 points)
 - a. Points are awarded based on how available environmental and community efforts are available to the public and the ease of locating them.
 - i. 1 point – Environmental sustainability section on website
 - ii. 1 point – up-to-date information regarding environmental sustainability
 - iii. 1 point – community engagement section on website
 - iv. 1 point – up-to-date information regarding community engagement
 - v. 1 point – information is easily accessible
2. Actionable Brewery-Specific Goals & Values (2 points)
 - a. The brewery exhibits a commitment to environmental sustainability and community engagement.
 - i. 1 point – actionable environmental sustainability mission statement and core values
 - ii. 1 point – actionable community engagement mission statement and core values
3. Employee Training (2 points)
 - a. Employees are trained to maximize sustainable efforts and community engagement practices
 - i. 1 point – environmental sustainability training and application
 - ii. 1 point – community and customer engagement training and application
4. Energy and Water Management Tracking System (3 points)
 - a. The brewery employs some type of energy and water tracking system and is it used to make decisions regarding efficiency.
 - i. 1 point – the brewery has an energy tracking system
 - ii. 1 point – the brewery has a water tracking system

- iii. 1 point – the brewery uses its tracking systems to make improvements in efficiency (or at least actively monitor key ratios)
- 5. Routine Maintenance Plan (2 points)
 - a. The brewery has a routine maintenance plan and do they act upon it to ensure machinery is working at an acceptable level of efficiency.
 - i. 1 point – the brewery has a routine maintenance plan
 - ii. 1 point – the maintenance plan is acted upon and followed
- 6. Efficiency Inspections (2 points)
 - a. The brewery consistently monitors equipment and checks for inefficiencies throughout their processes.
 - i. 1 point – the brewery makes inspections beyond the maintenance plan
 - ii. 1 point – the brewery acts upon the inspections to improve processes
- 7. Land Management (2 points)
 - a. The brewery uses its land in a sustainable and applicable manner
 - i. 1 point – the land is preserved in an applicable manner regarding its original state considering its location
 - ii. 1 point – the land has been improved upon in a manner consistent with its original state.

Energy and Greenhouse Gasses

- 1. Energy Efficient Machinery (3 points)
 - a. The brewing process and the applicable machinery are using efficient versions as rated by the manufacturer of said machinery or as verified by an independent 3rd party.
 - i. 1 point – more than a third of the equipment is certified efficient
 - ii. 1 point – more than two thirds of the equipment is certified efficient
 - iii. 1 point – all equipment involved in the brewing process is certified efficient

2. Energy Efficient Lighting (2 points)
 - a. Lighting is replaced with energy efficient alternatives in all applicable buildings and daylight is used where appropriate
 - i. 1 point – energy efficient lighting in employed
 - ii. 1 point – daylight is used where appropriate
3. Carbon Dioxide Recapture (1 point)
 - a. Carbon Dioxide that is emitted during the brewing process is recaptured to be used in later parts of the process
 - i. 1 point – a carbon dioxide recapture process is utilized
4. Hot Water Recapture (1 point)
 - a. Hot water that is used in the process is recaptured to eliminate the need to reheat it, using more energy in the process.
 - i. 1 point – a hot water recapture process is utilized
5. Renewable Energy (3 points)
 - a. The brewery has invested in an appropriate method of producing energy on-site
 - i. 1 point – combined renewable energy production accounts for 5 or more percent of the brewery's energy needs
 - ii. 1 point – combined renewable energy production accounts for 20 or more percent of the brewery's energy needs
 - iii. 1 point – combined renewable energy production accounts for 50 or more percent of the brewery's energy needs
6. Onsite/ Local Raw Ingredient Sourcing (3 points)
 - a. The brewery grows/ harvests ingredients to be used in the brewing process (or in an onsite restaurant, where applicable) onsite.
 - i. 1 point – The brewery has some type of onsite operations
 - ii. 1 point – 10 or more percent of raw ingredients are sourced from onsite operations
 - iii. 1 point – This point is awarded for sourcing more than 10 percent of ingredients from local businesses

7. Supplier Vetting (2 points)
 - a. The brewery vets suppliers regarding sustainable practices and overall carbon footprint
 - i. 1 point – suppliers are vetted, and applicable emissions are considered when choosing suppliers
 - ii. 1 point – the brewery actively collaborates with suppliers to reduce emissions
8. Renewable Energy Certificates (1 point)
 - a. Renewable energy certificates can be used to offset energy purchases from the grid and reduce the overall carbon footprint of the brewery.
 - i. 1 point – the brewery buys renewable energy certificates

Water and Wastewater

1. Water Efficient Machinery (3 points)
 - a. The brewing process and the applicable machinery are using water-efficient versions as rated by the manufacturer of said machinery or as verified by an independent 3rd party.
 - i. 1 point – more than a third of the equipment is certified efficient
 - ii. 1 point – more than two thirds of the equipment is certified efficient
 - iii. 1 point – all equipment involved in the brewing process is certified efficient
2. Applicable Wastewater Treatment (2 points)
 - a. Breweries are in compliance with local wastewater regulations and work closely with the local municipality to reduce strain on the system
 - i. 1 point – the brewery works closely with the local municipality, ensuring that all rules and regulations are followed along with reducing the strain on the current wastewater infrastructure.

- ii. 1 point – the brewery treats wastewater in accordance with their size and volume of wastewater output
- 3. Rainwater Storage & Management (3 points)
 - a. The brewery collects and manages rainwater to be further used in applications across the site or utilizes native plants onsite to naturally treat rainwater
 - i. 1 point – a rainwater collection system is installed
 - ii. 1 point – collected rainwater is used throughout the property in applicable processes
 - iii. 1 point – a “rain garden” or similar landscaping is installed utilizing native vegetation
- 4. Water Management Agency Partnership(s) (1 point)
 - a. The brewery partners with a vetted agency to protect local watersheds and waterways within the region
 - i. 1 point – there is a partnership with a water management/protection agency
- 5. Net Zero Liquid Discharge (1 point)
 - a. The brewery achieves a net zero liquid discharge
 - i. 1 point – the brewery achieves a net zero liquid discharge
- 6. Miscellaneous (3 points)
 - a. This is designed to recognize any additional efforts of the brewery regarding their water and wastewater management practices
 - i. 1 point – additional water/wastewater practice as verified by a certified scorer
 - ii. 1 point – additional water/wastewater practice as verified by a certified scorer
 - iii. 1 point – additional water/wastewater practice as verified by a certified scorer

Solid Waste

1. Solid Waste Plan (2 points)
 - a. There is a plan in place to manage solid waste expelled from the brewery
 - i. 1 point – a solid waste plan exists
 - ii. 1 point – the solid waste plan is followed through upon in daily operations
2. Sidestreaming (2 points)
 - a. Sidestreaming is used to remove solid waste from the effluent and stored properly to be used by applicable 3rd parties.
 - i. 1 point – the sidestreaming process is used and the waste is separated based on its potential application by 3rd parties
 - ii. 1 point – the sidestreaming process is 90 or more percent efficient at removing solid waste from the effluent
3. Sold/Donated to Applicable 3rd Parties (3 points)
 - a. The various forms of solid waste is accessible to 3rd parties to be used in their own operations
 - i. 1 point – solid waste as a result of the sidestreaming process is donated/sold
 - ii. 1 point – other solid waste (carboard, packaging materials, plastic, etc.) is donated/sold
 - iii. 1 point – appliable donated solid waste is given to charitable organizations or groups or given through charitable means
4. Composting (2 points)
 - a. There are onsite composting operations at the brewery
 - i. 1 point – onsite composting operations are present at the brewery
 - ii. 1 point – the composting operations are cyclical in nature. The compost aids in the production of raw ingredients that will be used later in the brewing process

5. Recycling Program (3 points)

- a. The brewery has a recycling initiative for those materials that cannot be donated and can be recycled
 - i. 1 point – the brewery has a recycling program that is also available to 3rd parties
 - ii. 1 point – the brewery collects and stores items that can only be recycled in large quantities due to the nature of the material
 - iii. 1 point – the brewery involves the community in the recycling program, rewarding those who take part

6. Other Raw Material Donations/Sales (5 points)

- a. This section is designed to encompass additional programs that the brewery creates/ participates in regarding solid waste (omitting solid waste as a result the sidestreaming process)
 - i. 1 point – the point is awarded as seen fit by a certified scorer
 - ii. 1 point – the point is awarded as seen fit by a certified scorer
 - iii. 1 point – the point is awarded as seen fit by a certified scorer
 - iv. 1 point – the point is awarded as seen fit by a certified scorer
 - v. 1 point – the point is awarded as seen fit by a certified scorer

7. Miscellaneous (2 points)

- a. This is designed to recognize any additional efforts of the brewery regarding solid waste resulting from the sidestreaming process
 - i. 1 point – awarded based on additional solid waste usages/donations/sales as verified by a certified scorer
 - ii. 1 point – awarded based on additional solid waste usages/donations/sales as verified by a certified scorer
 - iii. 1 point – awarded based on additional solid waste usages/donations/sales as verified by a certified scorer

Community Engagement

1. Customer Relationship Management (3 point)
 - a. The brewery enacts activities within their operations to retain customers in the form of giveaways, rewards programs, loyalty programs, etc.
 - i. 1 point – the brewery has a customer relationship management program
 - ii. 1 point – the brewery participates in at least 2 forms of customer retention (giveaways, rewards programs, loyalty programs, etc.)
 - iii. 1 point – the programs and initiatives are innovative and new as judged by a certified scorer
2. Transparent Operations (3 points)
 - a. The brewery and subsequent operations are available to the public to provide an educational insight into daily business operations
 - i. 1 point – information regarding the brewery and its operations are easily available on the brewery’s website
 - ii. 1 point – tours are given to provide insight to customers regarding the brewery and its operations
 - iii. 1 point – information available to the customer has an educational tone and nature
3. Philanthropic Activities (5 points)
 - a. The brewery gives back to the community in terms of monetary donations and gifts in kind
 - i. 1 point – the brewery has a donation plan to a verified charity that scales based on the size of its operations
 - ii. 1 point – the brewery participates in lump sum donations in line with its core values and mission
 - iii. 1 point – the brewery donates non-monetary items to applicable charities (excluding those that fall under the Other Raw Materials Donations/Sales provision)

- iv. 1 point – awarded for additional philanthropic activities as judged by a certified scorer
 - v. 1 point – awarded for additional philanthropic activities as judged by a certified scorer
4. Local Business Partnerships (3 Points)
- a. Local partnerships aid in furthering a presence within the community. This section aims to examine partnerships with local agricultural organizations and other businesses.
 - i. 1 point – there is a formed/ forming partnership with a local agricultural organization that supplies raw ingredients on a reoccurring basis
 - ii. 1 point – there is a formed/ forming partnership with a local, non-agriculture orientated, organization
 - iii. 1 point – the brewery has formed 5 or more significant partnerships within the community
5. Events and Activities (5 points)
- a. The brewery serves as a point of gather and entertainment for the community through various events and activities.
 - i. 1 point – there is at least 1 reoccurring annual event hosted by the brewery (if the event was planned but had to be cancelled due to unforeseen circumstances, the point may still be awarded)
 - ii. 1 point – the brewery hosts 1 or more “drives” during the year to benefit the local community (toy drive, food drive, clothing drive, etc.)
 - iii. 1 point – awarded if the event/ activity promotes or is in collaboration with other local businesses within the community
 - iv. 1 point – awarded for additional events and activities as judged by a certified scorer
 - v. 1 point – awarded for additional events and activities as judged by a certified scorer

6. Volunteering

- a. There is a brewery-sponsored effort to have employees volunteer hours outside of traditional work hours in the community
 - i. 1 point – awarded if there is at least 1 planned instance of employees volunteering within the community
 - ii. 1 point – awarded if employee volunteer hours total more than 200 hours in the calendar year

7. Miscellaneous

- a. This is designed to recognize any additional efforts of the brewery regarding community engagement.
 - i. 1 point – awarded based on additional community engagement efforts as verified by a certified scorer
 - ii. 1 point – awarded based on additional community engagement efforts as verified by a certified scorer

Awards and Certifications

1. B Corp Certification (2 points)

- a. Points are awarded if the brewery is a certified B Corp with a qualifying score of 80 or better
 - i. 2 points – the brewery is a certified B Corp

2. LEED Certification (2 points)

- a. Points are awarded if any onsite building involved in the brewing process is LEED Certified. Extra point is awarded if the building is certified LEED Platinum
 - i. 1 point – at least 1 building on the property is LEED Certified
 - ii. 1 point – awarded if any LEED Certified building earns Platinum recognition

3. Other Awards and Certifications (6 points)

- a. Local awards and certifications vary based on location. This is meant to recognize any additional awards and certifications earned by a brewery (omitting awards earned for their beer). Awards and Certifications must be current and cannot be older than 5 years.
 - i. 1 point – the brewery earns an award in recognition of their environmental sustainability efforts
 - ii. 1 point – the brewery earns an award in recognition of their efforts within the community
 - iii. 1 point – awarded for additional earned awards and certifications as judged by a certified scorer
 - iv. 1 point – awarded for additional earned awards and certifications as judged by a certified scorer
 - v. 1 point – awarded for additional earned awards and certifications as judged by a certified scorer
 - vi. 1 point – awarded for additional earned awards and certifications as judged by a certified scorer

APPENDIX H

Proposed Modifications to the Brewers Association Seal of Independence

Figure 8: Modification of the Seal of Independence



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