PELICAN BREWING COMPANY

2019 SUSTAINABILITY INITIATIVES

SALMON SUPER HWY

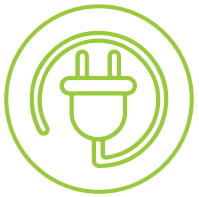
Pelican donates a portion of proceeds from every barrel sold of Five Fin West Pilsner directly to the Salmon Super Highway project. This organization works to restores access to almost 180 miles of blocked habitat throughout six major salmon & steelhead rivers of Oregon's North Coast. Using a strategic, scaled approach to maximize benefits and minimize costs, a unique, community partnership will deliver a portfolio of 93 projects in 10 years. Their completion will reconnect historic habitat, reduce chronic flooding, improve recreation opportunities and stimulate the local economy, both now and for the future.

TRANSPORTATION CARBON OFFSET

The shipping and logistics team at Pelican have worked over the last several years to develop a deep connection with local freight companies to help offset the carbon footprint that comes along with shipping beer. Pelican ensures that every semi-truck that coming to the brewery is full of packaging and raw materials and every trailer leaving the brewery are full of beer heading to wholesalers. By doing this, we make sure that we never have empty trailers on the road that create unnecessary trucking and will offset our carbon footprint by an estimated 25-30 tons in 2019.

WATER CONSERVATION

When the Brewers Association first posted the statistic that it takes 7 gallons of water to produce 1 gallon beer, we gasped and then asked ourselves, "What is our consumption?" We carefully looked over all of our procedures, water meters, and waste water logs. What we found was quite surprising. We landed at half the national average with 4.6 gallons of water to 1 gallon of beer. We then spent time dialing in processes and have been able to drop that ratio to under 4:1. An incredible feat that shows every step in our process is done with purpose and not wastefully.



GREEN POWER

Pelican is now purchasing 50% of its electrical power from local and renewable sources. The brewery sends its wastewater to the Farm Power digester in Tillamook, which helps reduce nutrient loading from local dairies. The methane generated from this process creates electricity. The electric power is then purchased back by Pelican at a premium cost to help support this effort. By supporting the Green Power program at Tillamook PUD, Pelican it helping to reduce the amount of methane gas released into the air. It also helps improve water quality in local streams & rivers by decreasing the volume of waste deposited directly on farm fields.

ENERGY GENERATION

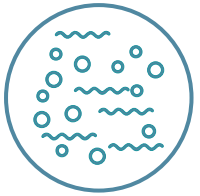
At the Pelican Brewery, we capture all waste water streams from our brewing process. Through a great local partner, we turn our effluent into electricity. Our process uses lots of water. Cleaning, sanitation, and rinsing all contribute. In 2018, Pelican installed infrastructure to capture, and move it to our local digester. There it's mixed with farm waste. Through biotransformation methane-rich biogas is produced, which runs two 700KW combined heat/power generators. Our combined efforts greatly reduce nutrient loading to our rivers and streams, and make us a good partner to our city utilities.

SPENT GRAIN

Pelican is proud to be able to supply all of our spent grain from all three of our facilities to local dairy farmers. Spent grain provides additional nutrients, like protein and fiber, for livestock and help farmers cut back their costs on having to buy feed. Pelican used almost 2 million pounds of malt in 2018, with cheese being one of the other major commodities produced on the rural Oregon coast, that's a lot of happy cows!

BETTER BOILERS

In 2016 Pelican installed a new energy efficient Miura Boiler. New technology and better process control allow this boiler to capture more steam condensate and reuse it in the generation process. The condensate return lines have a connection to our kettle steam stack that increases the recovered condensate and creates a 5% utilization increase.



HOT WATER RECLAMATION

Once wort is boiled it needs to be cooled down so the yeast can ferment the sugars and make beer. To do this Pelican utilizes a single stage cooling system to bring wort from boiling temperatures to below 70°F. We run chilled water and the wort through a plate heat exchanger. We then route the now heated water back to our Hot Process Water tank and reuse it in the brewhouse. This process helps cut back our need to heat water with our boiler and reduces our usage of propane. This critical process reduces our consumption of propane by over 40,000 gals a year.