



2017/18 Environmental Sustainability Report

Purpose

This document describes Stevens Pass Mountain Resorts environmental sustainability efforts, quantifies its annual impacts, identifies goals, and celebrates achievements. Data is tracked by fiscal year: July 1-June 30. To learn more about our sustainability work, visit www.StevensPass.com/Environment

Introduction

The snow Gods blessed Stevens Pass with yet another good season of snowfall. Stevens Pass visits continue to push the limits with 465,740 visits this year, an increase of 8,034 from the previous fiscal year.

Good consistent snow equates to positive economical support, but also makes for challenging weekend volumes in both people and waste management. Despite these challenges we were able to increase our no landfill volume from 58% to 64%.

The Stevens Pass Environmental program sustained its high level of status quo. 100% of our electricity and propane continue to be offset through the relationship with Bonneville Environmental Foundation.

Through tickets and season pass sales, guests volunteered over \$10,000 for Ski Green carbon offsets and contributions to the National Forest Foundation.

As Stevens Pass aligns its environmental values with Vail Resorts, we will combine our efforts to conserve the natural environment for a bright, sustainable future.

Every Action Matters

Striving for zero footprint, zero landfill, zero net operating impact to forest and habitat.

Climate Change and the Snowpack

It is clear that climate change is underway. Even though Stevens Pass has enjoyed seasonal average snowfall recently, trends in annual average precipitation have been more ambiguous, with some regional weather stations showing a wetter trend and some a drier trend. Winter warming has left mountain snowpack, particularly at lower-mid elevations, vulnerable. Snowpack accumulation has been trending later in recent years while snow melting shifts to earlier in the spring. Pacific Northwest global circulation models suggest a temperature-induced shift to less snow and more rain with a decrease in annual snowpack duration.

Focus on the Future

As we adapt to our new climate, more focus on energy consumption (electricity and fuel) directly related to the operational carbon footprint will be needed. Stevens Pass is excited to join with Vail Resorts and their Epic Promise of zero waste, zero carbon footprint and zero net operating impact to forest and habitat. This will ensure that Stevens Pass' environmental legacy continues well into the future.

The Success Story

The success story that continues for Stevens Pass Resort is the astounding non-land fill achievement. Because of an amazing collaborative effort, the amount of garbage that would normally head to the landfill has been reduced or redirected. With an all-hands-on-deck mentality and attention to the smallest details, 64% of all generated waste has been either not purchased, repurposed, sold, recycled or composted. A feat that we are very proud of.

This year we were 3rd runner-up in two separate categories for the Golden Eagle Award: the award for Environmental Excellence and Innovation in Sustainability.



Stevens Pass Mountain Resort's Carbon Footprint for 2017-18

4,294 Metric Tons (mT)

Carbon Footprint by the Numbers

Annual CO ₂ e Emissions FY 2017/18				
Resource Category	Amount	Unit	Cost	Carbon footprint
Diesel	88,577	Gals	\$226,453	904.16 MT CO ₂ e
Gas	24,863		\$57,450	220.23 MT CO ₂ e
Electricity	6,078,344	Kwh	\$714,031	2542.82 MT CO ₂ e
Propane	108,038	Gals	\$197,916	626.96 MT CO ₂ e
Water	4,968,000	Gals	\$132,035	n/a
TOTALS >>			\$1,327,885	4,294 metric Tons

Landfill / No Landfill FY 2017/18				
Landfill	87 tons	\$22,032	CO ₂ creation	91 mT
No-landfill	154 tons	\$48,446	CO ₂ reduction	-116 mT

Carbon Footprint (CFP) is defined as the total amount of greenhouse gases produced by human activities, expressed in equivalent metric tons (mT) of carbon dioxide (CO₂). Stevens Pass' operational carbon footprint is calculated from its total electrical, propane and fuel use. The carbon footprint does not include guest transportation to and from the Pass, nor does it include any vendor or contractor carbon footprints. No-landfill refers to the amount of generated waste that is prevented from entering the landfill.

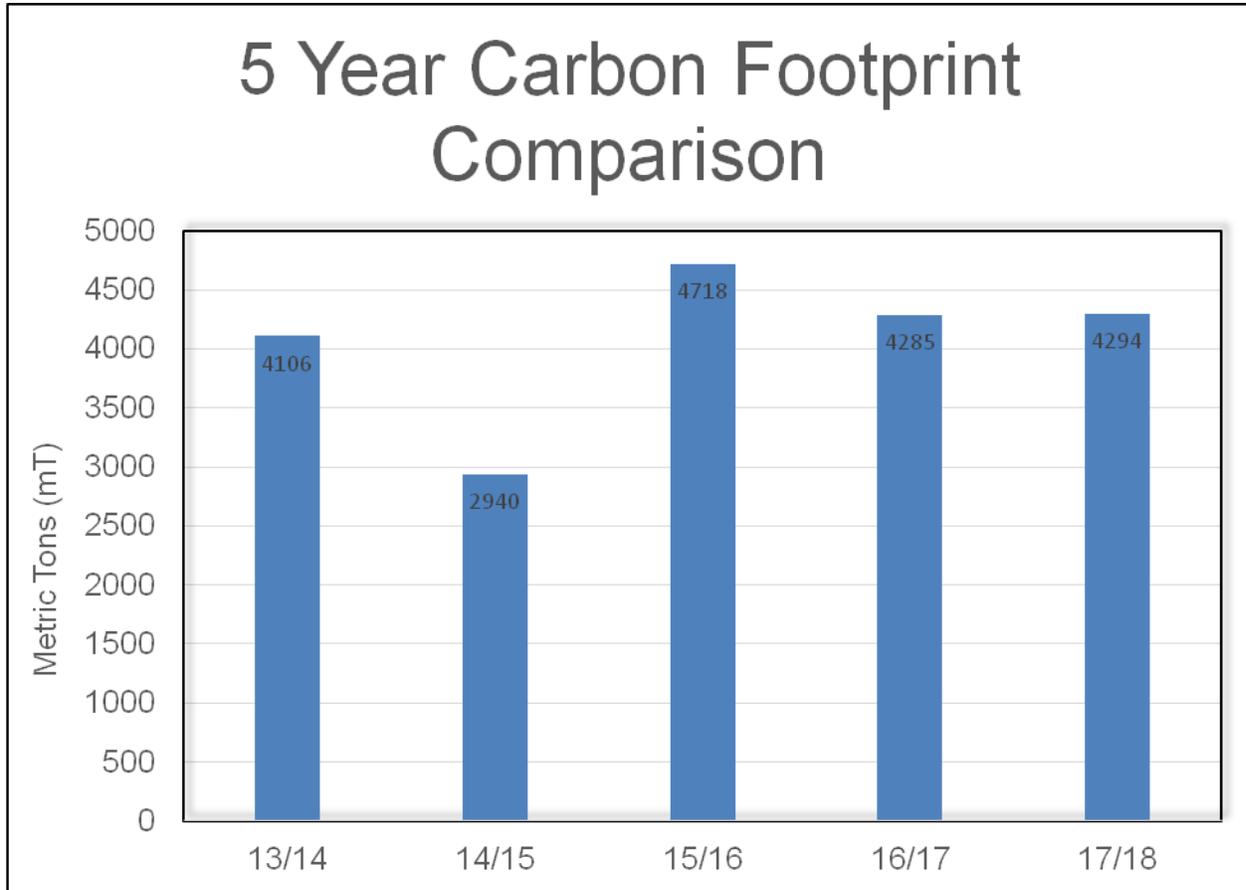
Carbon Management Programs

- Stevens Pass offsets 2,850mT of carbon through Bonneville Environmental Foundation (BEF)
- Onsite solar panels produce approximately 2,000Kwh annually
- Steel recycling, pound for pound, is the highest return for carbon reduction
- Composting amounts (by the ton) continue to outpace landfill and recycling

According to Greenhouse Gas Protocols, landfill diversion does not get reported as a direct emission avoidance of the overall carbon footprint. Travel time, mode and destination of diverted material add to the complexity, but the energy profile of landfill reduction is positive.



Operational Carbon Footprint Historical Trend



Trend Analysis

The resorts main energy consumption units are electricity, fuel (gas and diesel) and propane. The energy footprint was virtually flat with a minor increase. The grooming, snow removal and transit fleets comprise most of the diesel consumption. An increase has been observed due to aging equipment and operator turnover. Increased bike park trail work has also contributed to the increase in diesel. Gas (credit cards) consumption has also increased with more use of off-mountain travel.

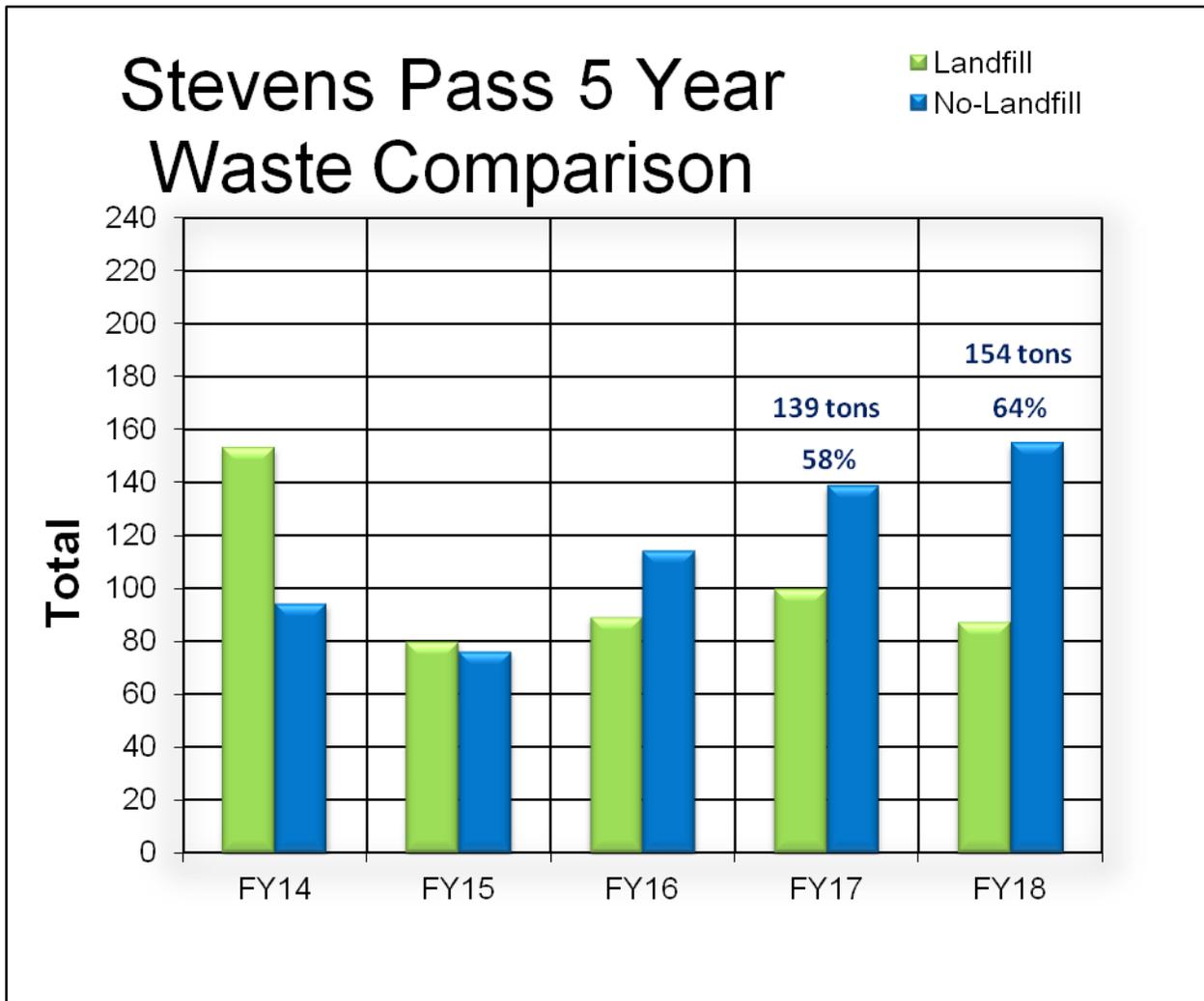
For the Planet

The voluntary carbon offsets purchased by the resort are used to support many different types of clean energy and carbon-reducing innovations throughout the world.

- Protecting 500,000 acres of rainforest in Kenya
- Support for new schools in conservation and ecosystem management in the Congo wetlands
- Methane capturing projects in Georgia
- Waste heat capturing for clean energy in Montana
- Mixed, agriculture and grazing land with 82 wind turbines in Oklahoma



Landfill vs. No-landfill 64% Landfill Free



Trend Analysis

We are the closest we've ever been to zero waste in all the restaurants. The Cascadian restaurant is at zero waste for the Front of the House. The last two landfill items that were eliminated were condiment wrappers and little black drinking straws. There is a new station in the restaurant for the new condiment pumps (that replaced the individual wrappers) that was made with old employee lockers and laminate. This one step closer to resort wide zero waste is a huge leap forward compared to the way it was just a couple of seasons ago.

Stevens Pass landfill diversion percentages continue to rise with 64% of generated waste kept from the landfills. Waste volumes have increased with the increase in visitations, but are still significantly lower than prior to 2013. While there are infrastructure limitations to increasing no-landfill volumes, efforts continue to drive composting and recycling over landfill.

The Food and Beverage department continue its efforts in leveraging environmental values with vendors. Product life cycle, packaging, compostable wares, recycling, and waste reduction are all at the forefront of product choice and purchasing.



Vail Resort's and Stevens Pass' Epic Environmental Promise:

Zero net emissions by 2030

Zero waste to landfill by 2030

Zero net operating impacts to forest and habitat

The Green Filter

Historical trends and integrated environmental processes continue to be part of everyday existence for the Stevens Pass culture. Repurposing, recycling, and composting are well established and are expected to continue its positive trend. The next frontier is the planning, investment, and management of the entire resort's energy and fuel infrastructure. The implementation of the "green filter" as part of everyday decisions by all levels is imperative to a successful environmental program.

Fuel

Fuel cost and consumption have increased slightly; this is due to an aging grooming and snow removal fleet, increase in summer bike park development and an increase in employee transit programs. In order to target future diesel and fuel reductions, an investment in efficient machines and highly trained operators are needed. A Tier 4 or even 5 snow cat rental is a step in the right direction. Putting resources and planning into purchasing, hiring, training, and retention of the grooming and snow removal operations will equate to a better product while reducing fuel and maintenance cost as well lowering the company carbon footprint.

Energy

Lodge efficiency and maintenance have also suffered under an aging infrastructure and rising fix-it/replace-it cost. Electrical and propane cost will continue to increase unless efforts to invest in efficient and sustainable equipment become a focus area for the building infrastructure. High-cost propane consumption continues to be a major player in carbon production and air quality in and around the Granite Peaks Lodge. There are significant environmental and economic benefits to convert most of the Granite Peaks lodge's propane infrastructure to electricity.

The Mountain

With the growth of summer operations, careful management of the ecological process of "the mountain" is another successful part of the Stevens Pass environmental story. Fortunately, Stevens has an experienced and well-trained bike park crew and slope management (saw) crew that pride themselves in the careful consideration for water, wildlife and vegetation. Resource protection such as canopy retention, riparian protection, stream sediment control, invasive weed control and the rehabilitation of disturbed areas are commonly used as best practices.

Footprint Reduction

Management of emissions, electricity, and fuel and gas usage will need more focus. Specific initiatives that will lead to real reductions in the resorts carbon footprint can be achieved by specific attention to daily operational energy, gas and fuel waste.

The Culture of Snow

With snow being the ski/snowboard industry's prime commodity, it is imperative that we do all we can to help slow the effects of climate change. Stevens Pass Mountain Resort's (SPMR) is partnered with Bonneville Environmental Foundation, offsetting 100% of its annual electricity and propane. SPMR is also working with the Protect Our Winters (POW) climate advocacy group in order to join in the fight for the preservation of snow. Moving forward, our future will rely on the commitment to carbon footprint reductions. Without it, we will not thrive.