



# Sustainability Report

## Introduction 2014-15

This past winter was a tough one on the ski industry across most of the Western USA. Our total visitation was only half of last year (that's 200,000 fewer visits!), but that doesn't mean we could keep half of all slopes and buildings closed. A lot of infrastructure must be operational no matter what, which means a lot of sunk costs, regardless of the weather or visits.

Unpredictability like that is one reason to diversify the options up at Stevens Pass and prepare to operate without as much snow in the shoulder seasons. It also means summer activities become more important.

The popularity of the mountain bike terrain park –and trail network– both continue to grow. In summer 2014 we added additional trails and have plans to do the same in 2015.

Lower visitation in any service industry means belt tightening: at Stevens Pass, we're proud of our ongoing efforts to produce ever greater efficiencies through energy savings and other sustainability initiatives. These projects save significant dollars, often for a fraction of their implementation cost.

We still reckon that protecting and restoring the natural resources that have provided us our livelihood is the right thing to do, financially and philosophically. We have demonstrated that it's quite possible to live lighter on the landscape while focusing on the triple bottom line.

- *Environment and Sustainability Program*

## Purpose

This document describes our environmental philosophy, quantifies our annual impacts and consumption, identifies goals, and celebrates achievements big and small. Data are tracked by fiscal year: July 1-June 30. To learn more about our sustainability work, visit [www.StevensPass.com/Environment](http://www.StevensPass.com/Environment).

## Our Environmental Mission

*To enrich the mountain environment for generations to come by living and working in a sustained, healthy manner that does as little harm as possible while providing a rewarding alpine recreational experience.*

## Awards

After winning ever higher rankings year after year in the annual environmental performance survey conducted by the Ski Area Citizens' Coalition (a non-profit advocacy group), we have learned that the rankings have been discontinued. Meanwhile, the \$5,000 award we received last year to assess the financials of a comprehensive sustainability program led to a full report quantifying the savings and other benefits such as free advertising, guest loyalty, employee retention, etc. For more detail, visit the 'Awards and Recognition' section at [www.StevensPass.com/Environment](http://www.StevensPass.com/Environment).

## Climate Change & Mitigation

After last year's variable, but ultimately, fairly normal snowpack totals, we came back down to Earth this winter with some really tough conditions. The resort did not open until December 20, almost a full month after last season, and we drew just half of last year's skiers and snowboarders. The reasons were pretty clear: December 10, 2014 was the warmest December day ever on record at SeaTac Airport; overall, it was the warmest December on record; and 8 of the 12 months in 2014 were in the top ten warmest.

Typically, we can't predict a poor snow year more than a few months ahead, usually with significant uncertainty, but the longer-term trends are unmistakable. The scientific literature tells us that the average April 1 WA snowpack is expected to decrease 28% by 2020. The average PNW temperature rose 1.5°F between 1920 and 2003, and the 2014 National Climate Assessment projects that by 2050, snowmelt is likely to shift three to four weeks earlier than the 20th Century average.

There are operational changes we can make to mitigate for some of these changes, but we believe it's also important to get involved in the political solutions. To that end, Sustainability Program staff accepted the invitation to travel to Olympia during the Legislative Session to testify in support of Governor Inslee's proposed carbon pricing legislation. We also pay particular attention to transportation impacts and energy: the company pays for carbon offsets that represent 100% of our annual electricity and propane use, and hundreds of guests buy their own vehicle emissions offsets through a voluntary program. The following table summarizes our major emissions.

## Annual CO<sub>2</sub> Emissions July 1 2014–June 30 2015

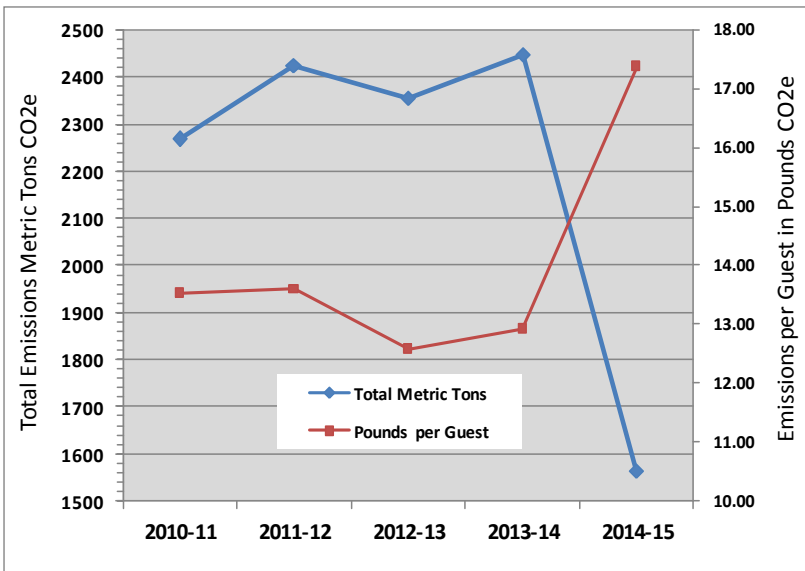
194,809 Visitors (includes Downhill, Nordic, Summer) (Ski season = 87 days)

Resource Category	Cost	Amount	Unit	Per Guest	CO <sub>2</sub> Equiv in Metric Tons				
					2014-2015	2013-2014	2012-2013	2011-2012	2010-2011
Fuel Gas	\$56,843	16,807	Gals	0.29	149	188	132	149	110
Fuel Diesel <sup>1</sup>	\$115,328	39,415			400	935	949	969	935
Electricity <sup>2</sup>	\$168,069	4,679,031	kWh	24.02	605	725	695	723	626
Propane <sup>3</sup>	\$127,799	74,337	Gals	0.38	410	601	580	584	598
Water <sup>4</sup>	\$97,595	4,803,000	Gals	24.65	n/a	n/a	n/a	n/a	n/a
<b>TOTALS &gt;&gt;</b>	<b>\$1,030,067</b>				<b>1564</b>	<b>2449</b>	<b>2356</b>	<b>2425<sup>5</sup></b>	<b>2269<sup>6</sup></b>

**Total Electricity and Propane Offsets Purchased = 1015 Metric Tons**

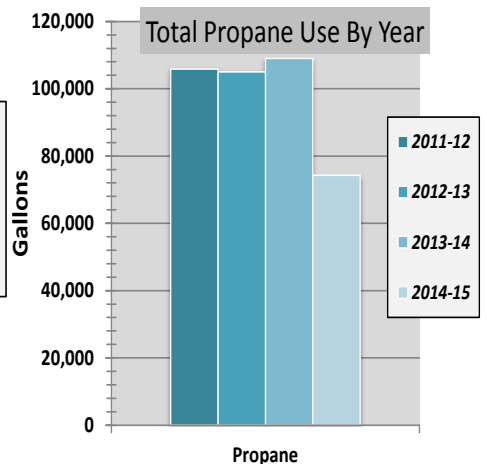
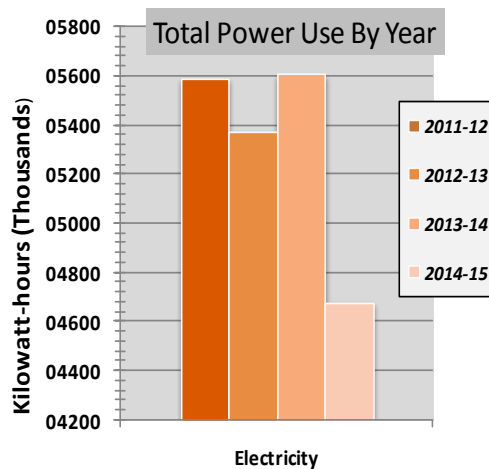
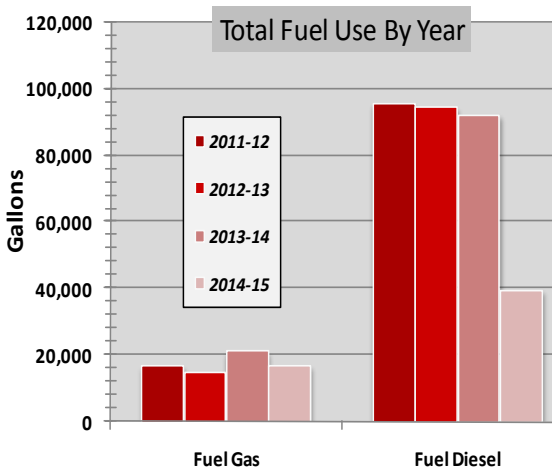
**Notes:** <sup>1</sup> Employee bus transit was 15% of total diesel use, but has been outsourced starting summer 2012; <sup>2</sup> Most of WA electricity is hydropower; <sup>3</sup> Stevens Pass has no Natural Gas service; <sup>4</sup> Potable Water from our on-site water plant; <sup>5</sup> Twelve-month tracking began in 2011-12; <sup>6</sup> In 2010-11 (our inaugural report), emissions were tracked only during the ski season.

**CO<sub>2</sub> Conversion Factors:** Propane = 12.17lbs/gal; Gasoline = 19.6lbs/gal; Diesel = 22.38lbs/gal; Electricity (WA avg.) = 0.285lbs/kWh.



Since sustainability reporting began five years ago, we have seen year-over-year increases in visitation (peaking at 417,632 in FY2013-14), until this year. Throughout these gains, we'd managed to keep carbon emissions per guest steady, but this year was a challenge (see graph at left) and we saw a 35% rise, from 13lb/guest to 17+ lbs.

As the three graphs below reveal, this year also clearly demonstrated how a 50% decline in guest numbers does not lead to 50% less usage in all fuel and energy categories: it's far from a consistent 1:1 relationship! We still need to find better ways to improve the scalability of resource use. The same was true for water use.



The lack of any large capital projects did help keep fuel costs down for summer 2014. To simplify the data depiction, we have omitted FY2010-2011 from these three graphs because fuel and energy use was tracked only for the winter season that year. Note also that the electricity graph does not start at zero.

We continue to operate extensive recycling, composting, and reuse/surplus programs to minimize our impacts and help shrink the carbon footprints. We see the same pattern, where total garbage and construction waste rose on a per guest basis, but thankfully, total compost and recycling per guest increased too. We retired the resort's own garbage truck two years ago and that decision continues to prove itself through cost savings. The table below itemizes some of the most common waste and recycling programs at Stevens Pass, along with total CO<sub>2</sub>e (Greenhouse Gas) reductions.

<b>Annual Waste &amp; Recycling FY2014–15</b>									
194,809 Visitors (includes Downhill, Nordic, Summer) (Ski season = 87 days)									
Resource Category	Cost	Quant.	Unit	CO <sub>2</sub> Equiv metric ton	Per Guest				
					2014-2015	2013-2014	2012-2013	2011-2012	2010-2011
Garbage <sup>1</sup>	\$18,859	79.75	tons	39	.819lbs	.636lbs	.722lbs	.727lbs	.768lbs
Construction Waste <sup>8</sup>	\$4,323	25.78	tons	(-13)	.265lbs	.098lbs	.385 <sup>2</sup> lbs	.091lbs	.083lbs
Food Compost	\$3,583	25.50	tons	(-21)	.262lbs	.173lbs	.144lbs	.119lbs	.138lbs
Mixed Recycling	\$4,492	18.35	tons	(-59)	.188lbs	.151lbs	.136lbs	.153lbs	.165lbs
Cardboard Recy. <sup>3</sup>	-\$310	12.02	tons	(-43)	.123lbs	.090lbs	.070lbs	.077lbs	.086lbs
Rubber Recycling <sup>4</sup>	\$456	222	items	(-1)	.001	<.001	.001	<.001	n/a <sup>6</sup>
Scrap Metal <sup>3</sup>	-\$2,853	18.71	tons	(-84)	.192lbs	.061lbs	.072lbs	.069lbs	n/a <sup>6</sup>
Cooking Oil <sup>5</sup>	\$0	600	gal	n/a	.002gal	.002gal	.002gal	.002gal	.002gal
Hazmat Liquid/Solid	\$1,203	825	gal	n/a	.004gal	.002gal	.001gal	.003gal	.002gal
Hazmat Light Bulbs	\$125	134	bulbs	n/a	<.001	<.001	<.001	<.001	<.001
Hazmat Batteries	\$189	289	lbs	n/a	.001lbs	<.001lbs	<.001lbs	<.002lbs	<.001lbs
E-waste <sup>7</sup>	\$0	100	items	(-3)	<.001	<.001	<.001	<.001	<.001
<b>Sum of CO<sub>2</sub>Equivalent due to current practices = -185 metric ton reduction</b>									
<p><b>Table Notes:</b> <sup>1</sup>From 2013 onwards, Waste Mgmt covered all service year-round; <sup>2</sup>Included 52tons from several large construction &amp; demolition projects; <sup>3</sup>We sell our recycled cardboard &amp; scrap metals; <sup>4</sup>Includes tires &amp; chairlift wheels; <sup>5</sup>Waste cooking oil collected for free by a biodiesel refiner; <sup>6</sup>n/a = not tracked this report; <sup>7</sup>Large electronics, computers, TV's, etc; <sup>8</sup>Mixture of standard solid waste &amp; unrecyclable plastics, drywall, unusable or treated lumber, broken furniture, remodel materials. <b>CO<sub>2</sub> Conversion Factors:</b> derived from EPA Waste Reduction Model (WARM).</p>									

## Fiscal Year 2014-2015 Goals Recap:

- 1) Develop better ways to adapt to a changing climate, and continue to expand summer operations
- 2) Install consumption gauges on individual building water inflows, and on our largest propane tank
- 3) Implement extensive base area and slope light replacements with high efficiency LED lights
- 4) Launch long-term planning for a plaza extension and new Ski Patrol building with sustainable architecture
- 5) Reduce our carbon footprint by 180 metric tons (i.e. return to 2010-11 levels) via fuel & energy efficiency
- 6) Reduce waste costs by 1 cent/pound via new centralized purchasing and source reduction efforts

## Did We Accomplish Our Goals?

1) We are expanding summer operations notably: the tough winter meant an early melt and big jump in summer visitors (approx. 70% over previous year). Other adaptations are underway, such as mowing and vegetation management to allow early operations on less snow. Very minor use of a mobile snowgun helped us build chairlift ramps when extra snow was lacking, but of course this leads to a small increase in power use.

2) In March 2014, the Lifts Department acquired two LED 1000-watt equivalent slopelights for testing and the results were very positive. Since then, limited funds have prevented a full conversion, but every broken lamp is now replaced with a new LED bulb. (As costs drop, we are using LED technology to replace indoor T-12 fluorescent tubes across the resort too).

3) Due to low visitation numbers and downsized operations, the total footprint was reduced by 885 tons this Fiscal Year, but emissions per guest actually went up 35%. However, every year we offset 100% of our electricity and propane use with a renewable energy surcharge, funding new windpower, equivalent to a 1015 metric ton reduction. Various recycling and waste programs also led to a GHG reduction of 185 metric tons compared to conventional alternatives (i.e. landfilling and wood-burning)

4) Construction Waste costs dropped 2 cents/pound (since no large projects occurred), while garbage dumpster costs actually rose by 2.5 cents/pound vs. last year, potentially due to billing errors and the inability to scale down service as efficiently as possible – i.e. near-empty dumpsters don't receive a cheaper rate.

### **2014-15 Highlight Initiative:**

One of our new pilot projects this season was to focus on better tracking for “difficult” recycling items such as plastic food wrappers, plastic bags and film, polystyrene foam, bubble wrap, etc. In partnership with the mail-in TerraCycle program, regional foam recyclers, and our Coca-Cola distributor, we were able to tally some impressive numbers. We avoided landfilling 36x55-gallon bags of foam products, 69x55-gallon bags of pallet wrap and shrink packaging, and over 5,000 energy bar wrappers from the employee lunchroom. We'll be collecting more plastic and rubber items next season, as well as looking for new ways to recycle un-donatable ski equipment.



*Summer brush cutting helps us open on less snow*

### **Upcoming 2015-16 Sustainability Goals**

In the next fiscal year, we intend to maintain the goals set for this year, especially the reduction targets for carbon footprint and waste costs, as well as expansion of summer operations (Goal #5, 6, & 1). In addition, we plan to focus on the following:

-Increased capture volumes for composting and recycling, by adding new venues, and adding additional “difficult” plastics to the waste stream. By switching restaurant supply contractors, we will also be able to access new lines of compostable single-use products.

-Establishing better real-time tracking mechanisms, leading to better awareness of conservation achievements and opportunities. Currently, sustainability data is tabulated in Aug-Nov, following the conclusion of the fiscal year and long after most seasonal staff have departed; helpful operational changes are therefore delayed.

-Rebuilding our internal training programs to enhance the grassroots employee support that we need both to perpetuate the best practices and to create enthusiastic sustainability ambassadors.

-Strategies to increase carpooling by adding two additional vans to the employee transit program, and raising the public cost for the premium parking lots while allowing any vehicle with 4 passengers to park for free.

**Learn more about our Environment & Sustainability Department at: [www.stevenspass.com/environment](http://www.stevenspass.com/environment)**