

Annual Sustainability Report



Eagle Wing Tours

2018

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Completed	5/4/2019

synergy 

Executive Summary

Eagle Wing Tours is a carbon neutral whale watching company based in Victoria, BC. The company has one small office/reception space at Fisherman's Wharf, three company vehicles, and five boats. 2018 marks the ninth year that Eagle Wing Tours has measured, reported, and offset their carbon footprint.

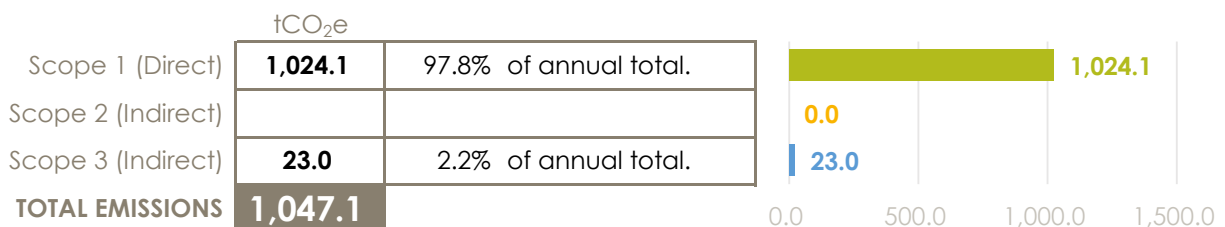
Total emissions in 2018 came to 1,051.7 tCO₂e, an increase of 10% over 2017. As passenger numbers continue to grow, Eagle Wing's fuel usage also grows, which is by far the greatest contributor to the overall footprint. Emissions per passenger came to 28 kgCO₂e, a decrease of 9.7% over 2017.

Total emissions per passenger has decreased by 44% since 2011 - Congratulations!

Company Information

Company Name	Eagle Wing Tours		
Contact Information	Brett Soberg	info@eaglewingtours.com	(250) 384-8008
Company Description	One office/reception building, five boats, three company vehicles.		
Reporting Period	December 1st, 2017 - November 30th, 2018		
Inventory Boundary	Scope 1 (Direct Emissions) - Gasoline, Marine Diesel (Fuel for boats and company vehicles)		
	Scope 2 (Indirect Emissions from Purchased Electricity) - Purchased Electricity (BC Hydro)		
	Scope 3 (Indirect Emissions from Other Sources) - Water, Waste, Stationery, Paper Products, Company Travel, Shipping, Service Calls, Staff Commuting		
Consolidation Approach	Operational Control: Accounting for 100% of emissions from operations over which the company has operational control.		
Primary Measurement	Carbon Dioxide Equivalent (CO ₂ e)		
Reporting Guidelines	Aligned with those defined in <i>The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition</i> (The GHG Protocol, www.ghgprotocol.org). Emissions factors reviewed & approved by Offsetters.		

Inventory Results



Carbon Footprint (Summary)

Eagle Wing Tours

2018 Report



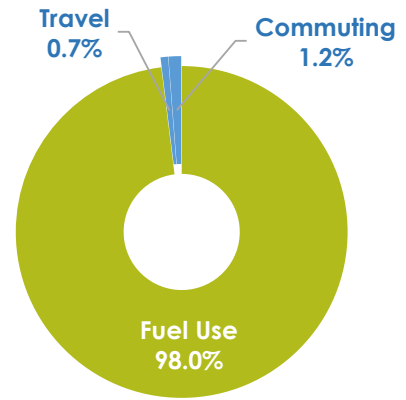
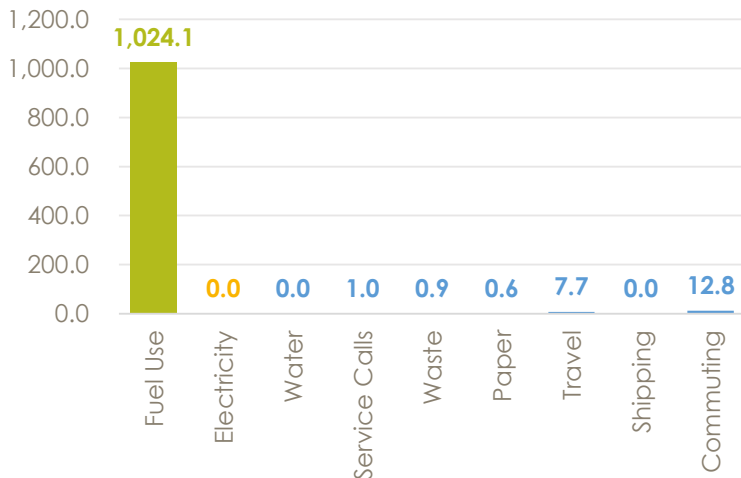
Total emissions: **1,047.1** tCO₂e

Offset cost: **\$20,940**

Emissions in 2018 came to 1,051.7 tCO₂e, an increase of 10% over 2017. Emissions per passenger have decreased by 9.7% to 28 kgCO₂e.

Carbon Footprint (By Activity)

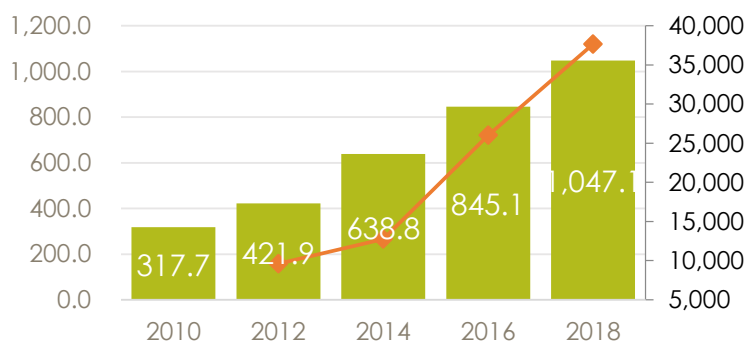
Emissions by Activity (tCO₂e)



Scope 1 | Scope 2 | Scope 3

Carbon Footprint (Historical)

Annual Emissions (tCO₂e)



Year	tCO ₂ e Per Year	Change since Baseline	
		tCO ₂ e	Percent
2010	317.7		
2011	408.7	91.0	28.7%
2012	421.9	104.2	32.8%
2013	496.0	178.4	56.1%
2014	638.8	321.1	101.1%
2015	731.1	413.4	130.1%
2016	845.1	527.4	166.0%
2017	958.0	640.4	201.6%
2018	1,047.1	729.4	229.6%



3,303.0

Barrels of Oil



279.6

Cars per Year



27.8

kgCO₂e/ passenger

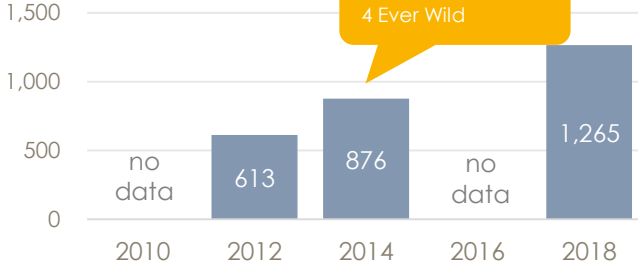
tCO₂e

(Total)

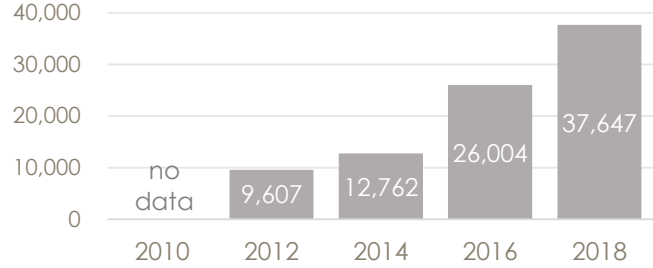
1,047.1

Intensity Metrics

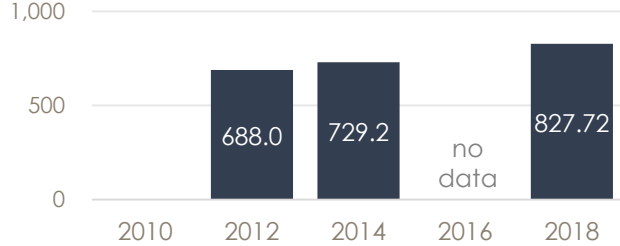
Total Trips



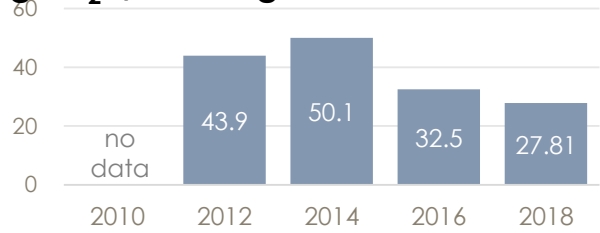
Total Passengers



kgCO₂e/Trip*



kgCO₂e/Passenger*

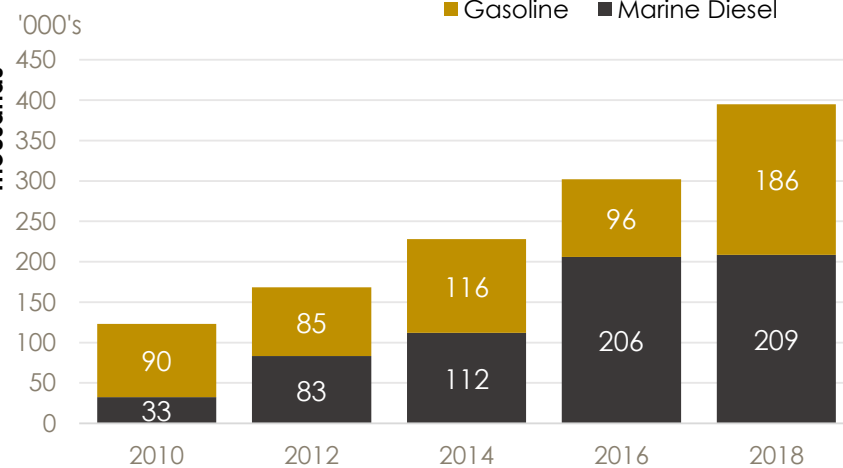


* based on total company emissions

2018 KPI's	All boats	Change since 2014	
		Amount	Percent
Total 2018 Passengers	37,647	24,885	195%
Total 2018 Trips	1,265	389	44%
kgCO ₂ e/Trip	828	99	14%
Average Passengers/Trip	29.8	15.2	104%
kgCO ₂ e/Passenger	27.8	-22	-44%

Fuel

Fuel (L)



Analysis

Fuel use continues to have the greatest impact on Eagle Wing's carbon footprint, accounting for 97.8% of total emissions.

EWT has seen a 23% growth in passenger numbers with fuel use and associated emissions increasing only 10% over 2017. Average kgCO₂e per passenger has decreased by 9.7% - Congratulations!

Litres/
Day

1,082.3

tCO₂e

1,024.1

% of
Total

97.8%

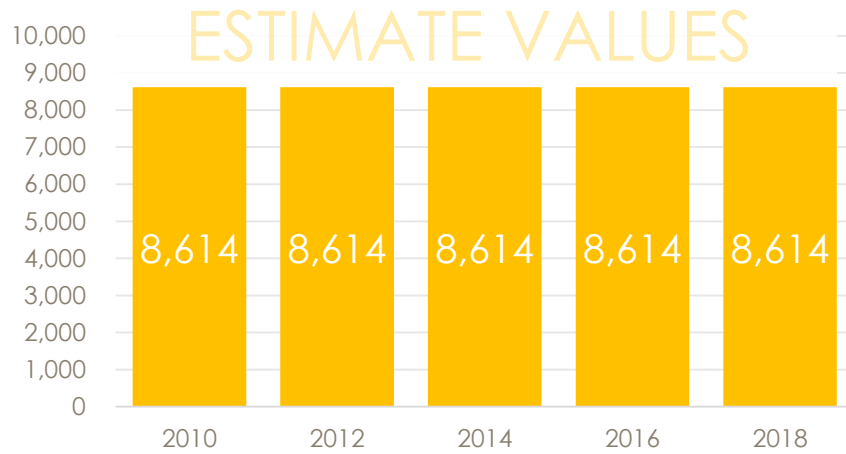


273.5

Cars / Year

Electricity

Electricity (kWh)



Analysis

Eagle Wing Tour's electricity is estimated based on square footage, as it is not metered separately from other tenants at Fisherman's Wharf. As such, any conservation improvements will not be seen, but are very much encouraged. Setting up an electricity meter would be helpful for more accurate data down the road.

**Note: Eagle Wing's electricity has no associated carbon emissions, since it is purchased through Bullfrog Power*

kWh /
ft²

18

tCO₂e

N/A*

% of
Total

N/A*

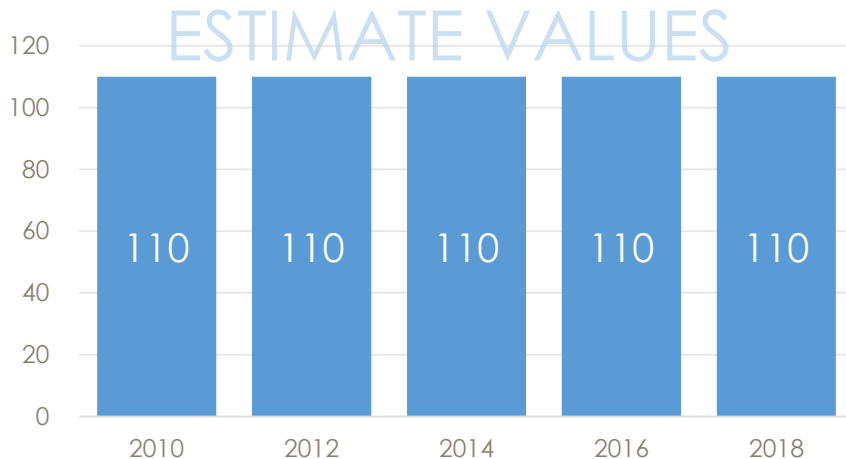


0.8

Houses

Water

Water (m³)



Analysis

Minimal water is used in Eagle Wing Tour's office. It is measured based on square footage, and is not metered separately from surrounding businesses. As such, any conservation improvements will not be seen, but are very much encouraged.

m³ / ft²

0.2

tCO₂e

0.0

% of
Total

0.0%

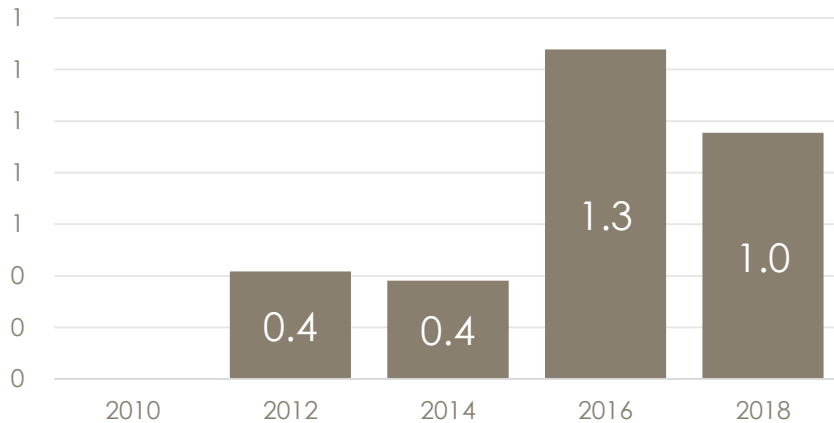


501

Baths (50gal)

Service Calls

Emissions (tCO₂e)



Analysis

Service calls consist of the trips made by Eagle Wing mechanics to the docking station in Sidney, BC where the boats are serviced.

Service calls increased significantly in 2018, as there were 60 days of collective commuting from Victoria to Sidney. Each trip was 70 km long - 35 km one-way - in two cars when boats were out of the water in Sidney.

*Note: Data for Service Calls was unavailable for 2016, and was assumed to be the same as 2015.

Visits / Day

11.5

tCO₂e

1.0

% of Total

0.1%

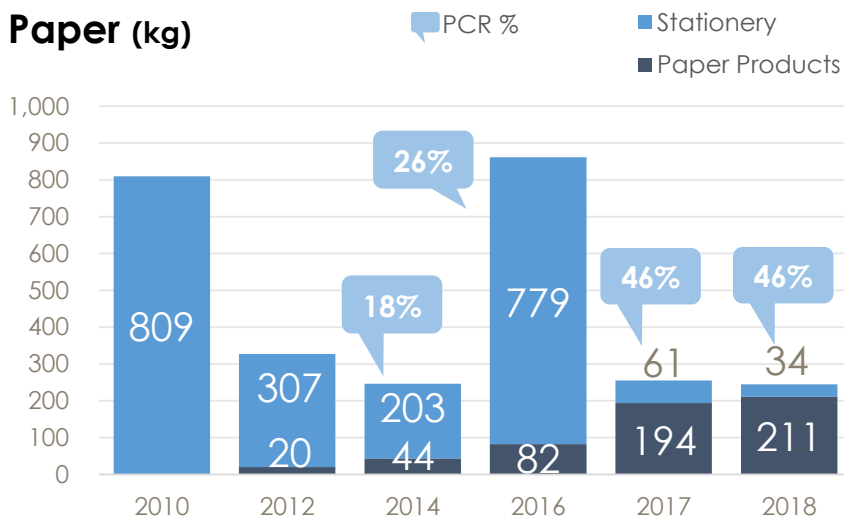


0.3

Cars / Year

Paper

Paper (kg)



Analysis

Stationery ordering at Eagle Wings is not done on a standard schedule. This leads to fluctuations in high and low purchasing years.

Post Consumer Recycled Content (%PCR) increased between 2016 and 2017 when paper was switched to wheat sheet. Waivers were still being printed on virgin paper, but this practice is set to change in 2019.

Note: Stationery includes brochures, waivers, office paper, business cards, flyers, and posters; and paper products includes toilet paper, paper towels, and facial tissue.

Treeless Content

46%

tCO₂e

0.6

% of Total

0.1%

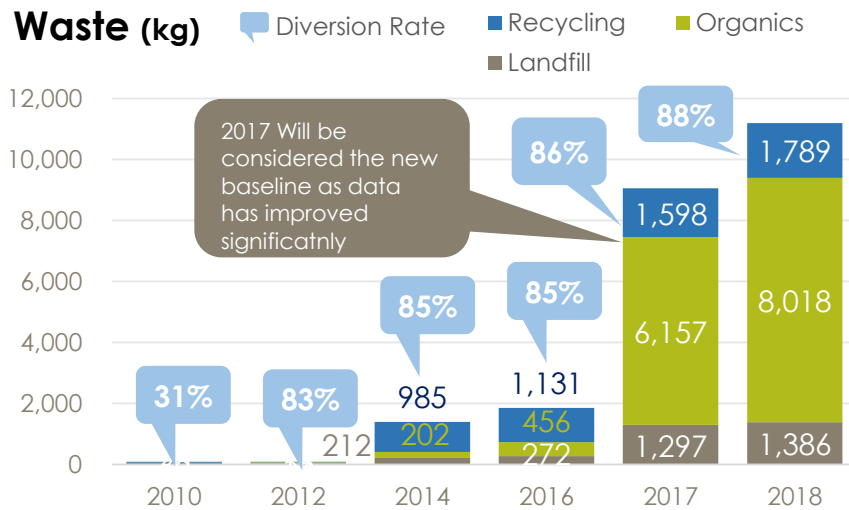


3.5

Trees / Year

Waste

Waste (kg)



Analysis

Waste diversion increased from 86% to 88%. Total waste in 2018 increased by 23.64% over the previous year. There was a significant increase with organics by 30.21%, which can be attributed to the increased number of guests, composting practices within the boats and main office, as well as the Winter Season waste audit which was not included in previous years.

Note: Previous years did not take into account Eagle Wing's winter season waste audits. These will be encouraged down the road for accuracy.

kg /
Day

31

tCO₂e

0.9

% of
Total

0.1%

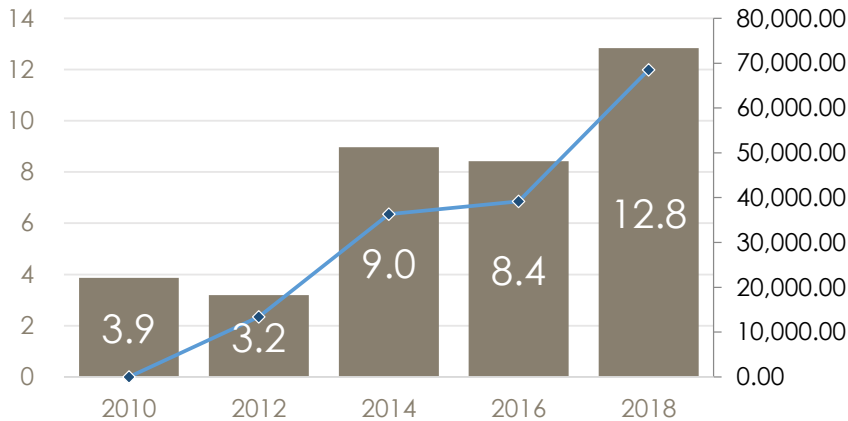


87.6%
Diversion Rate

Commuting

Emissions (tCO₂e)

◆ Distances Travelled ('000 km)

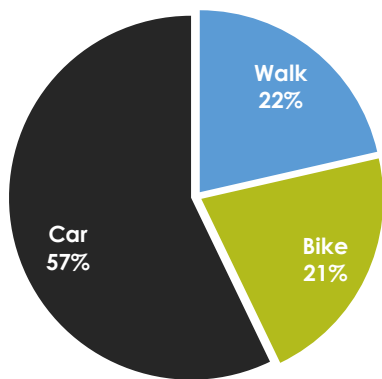


Analysis

Emissions from car use equate to 12.8 tCO₂e of the total carbon footprint. Commuting is also the second largest contributor to overall emissions at 1.2%, a 20% increase from 2017.

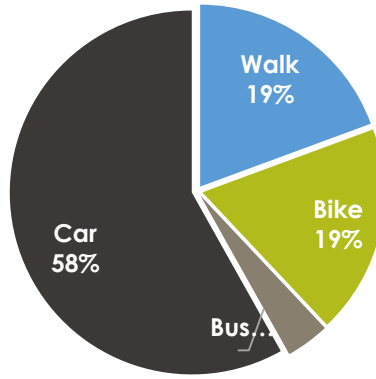
*Note: The Staff Commuting Survey received a 74% response rate.

Commuting Percentages by Method per Day



Baseline (2012)

Average kgCO ₂ e/km	0.238
Low-Emission Commuting %	43%



Current (2018)

Average kgCO ₂ e/km	0.187
Low-Emission Commuting %	41.9%

Analysis (Breakdown)

The most common commuting method is through personal vehicle use due to excessive distance and a lack of transit infrastructure to Fisherman's Wharf. Out of the 26 respondents, only 7% claimed to carpool during the year. Staff indicated interest in opportunities to carpool.

Low-emission commuting for the year totaled 41.9%. This is a slight 2.6% reduction from the 2012 base year due to more staff commuting by car.

Note: The staff commuting survey received a 74% response rate. In future years we should push for 100% response rates for more accurate representation of staff commuting habits.

tCO₂e / FTE **0.338**

tCO₂e **12.8**

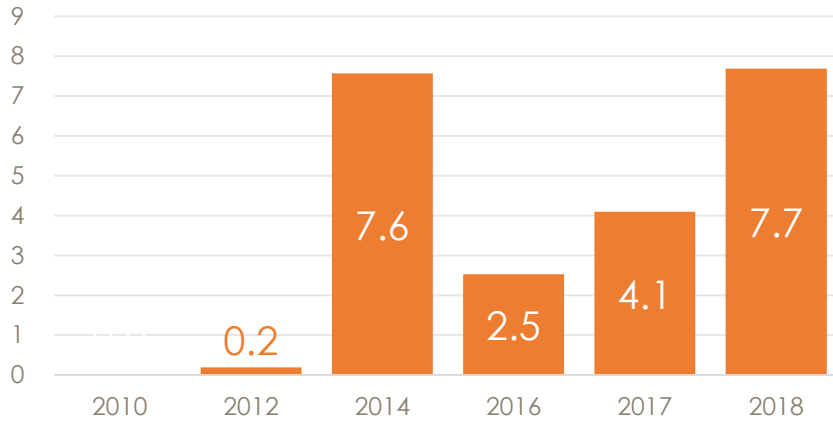
% of Total **1.2%**



3.4
Cars / Year

Travel

Emissions (tCO₂e)

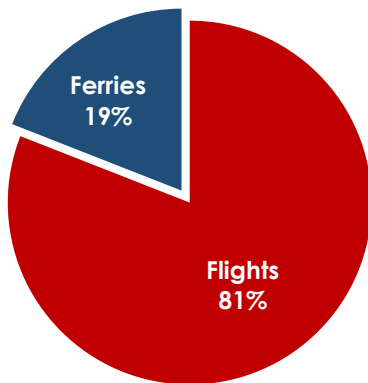


Analysis

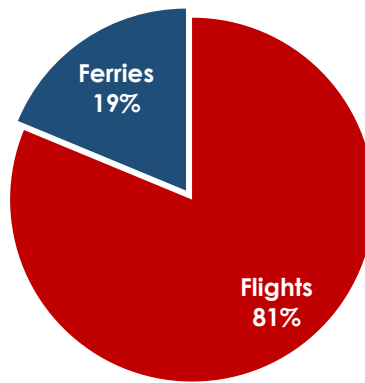
Flight travel emissions for 2018 increased substantially due to international sales trips in Europe during the year.

Emissions from flight travel have increased by 88.2% over 2017, contributing 7.65 tCO₂e of Eagle Wing's carbon footprint.

Travel Percentages by Number of Trips



Previous (2017)



Current (2018)

Analysis (Breakdown)

A total of 26 flights and 6 ferry trips were taken in 2018, compared to 17 flights and 4 ferry trips in 2017.

At 7.7 tCO₂e, travel is the third largest contributor to Eagle Wing's overall footprint. Continuing to limit travel will keep emissions low.

Average kgCO ₂ e/km	0.106
Low-Emissions Travel %	19.0%

Average kgCO ₂ e/km	0.106
Low-Emissions Travel %	18.8%

	Distances Travelled (km)	
	Flights	Ferries
2014	34,894	423
2015	80,622	0
2016	24,116	141
2017	38,315	188
2018	72,288	278

tCO₂e / FTE

0.201

tCO₂e

7.7

% of Total

0.7%

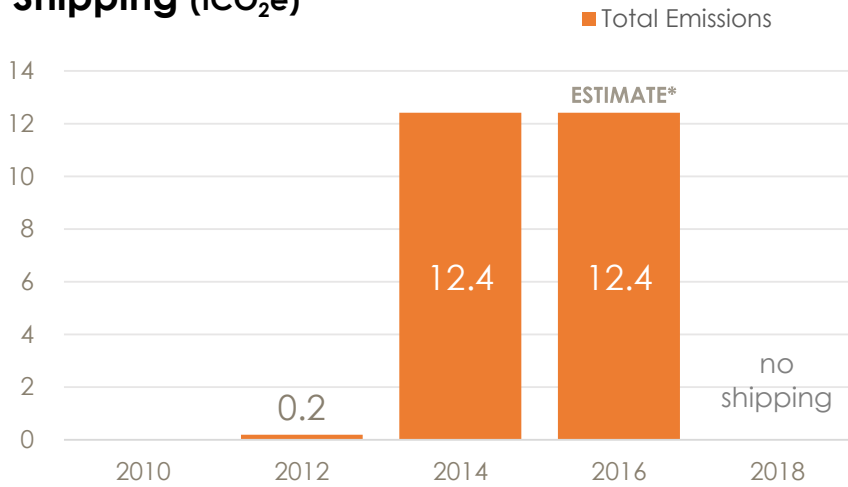


2.1

Cars / Year

Shipping

Shipping (tCO₂e)



Analysis

Shipping at Eagle Wings has been associated with purchasing new boats. The scope for shipping has been set to include anything over 50lbs.

No new boats were purchased in 2018, thus having no effect on Eagle Wing's total carbon footprint this year.

**Note: 2015 Shipping data was unavailable for the new catamaran. Estimate based on 2014 shipping data when the first catamaran was purchased and retrofitted.*

kgCO₂e/
km

0.0

tCO₂e

0.0

% of
Total

0.0%



0.0

Cars / Year

Carbon Reduction Strategy

Over the last several years, Eagle Wing Tours has made great efforts to mitigate their environmental impact while expanding their operations. With a 23% growth in passenger numbers, fuel use and associated emissions have increased by 10% over 2017. This growth in emissions continues to be addressed with overall company growth. The introduction of two larger, high-efficiency catamarans has contributed to reducing the total emission per passenger from 32.5 kgCO₂e to 28 kgCO₂e, a 44% reduction overall and a 9.7% reduction between 2017 and 2018.

Eagle Wing Tours is committed to operating as a carbon neutral business, offsetting 100% of their carbon footprint each year.

To help increase data accuracy in future reports, Eagle Wing should strive to improve their data recording methods. Waste amounts continue to increase each year waste, particularly within composting due to the increase number of passengers and composting practices on the boats.

Achievements

- Carbon Neutral for nine years
- Reduced emissions per passenger by 44% since 2011 and 9.7% between 2017 and 2018.
- Waste diversion rate of 88%

Moving Forward

- Switch waiver printing to 100% Tree Free paper
- Conduct a waste assessment during the summer months to improve accuracy of waste data

Information on Inventory Uncertainty

* Electricity and Water use are estimates based on billing and square footage, as Eagle Wing is not independantly metered for these utilities.

Emissions References

1. 2016/17 B.C. Best Practices Methodology for Quantifying Greenhouse Gas Emissions
<http://www2.gov.bc.ca/gov/content/environment/climate-change/policy-legislation-programs/carbon-neutral-government/measure>
2. Environment Canada's National Inventory Report (1990-2015); Part 2 & 3.
http://unfccc.int/files/national_reports/annex_i_ghg_inventories/national_inventories_submissions/applications/zip/can-2017-nir-13apr17.zip
3. Department for Environment, Food & Rural Affairs (UK) Carbon Factors
<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2017>
4. Intergovernmental Panel on Climate Change (Global Warming Potentials)
http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html

All emissions factors are reviewed and approved by Offsetters (www.offsetters.ca) on an annual basis.

Policy for Base Year Recalculation:

Base year emissions, and other previous emissions, shall be retroactively recalculated if a change in organisational structure or data quality is expected to exceed a significance threshold of 10% of base year emissions. These changes may arise from structural changes such as mergers, acquisitions, divestments, outsourcing or insourcing, changes in calculation methodology and improvements in accuracy, or discovery of significant errors.

Glossary of Terms

Term	Description
CFL	Compact Fluorescent Light
GHG	Greenhouse Gas (emissions): Atmospheric gasses contributing to the greenhouse effect, including Carbon Dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O), etc.
GJ	Gigajoule: Unit of natural gas equal to 26.137 m ³ or 0.947 MMBtu
HVAC	Heating, Ventilation & Air Conditioning
kWh	Kilowatt-Hour: Common unit for measuring electrical consumption
LED	Light Emitting Diode: A form of highly efficient lighting technology
m ³	Cubic Meter: Unit of measurement equal to 1,000 Litres
PCR%	Post-Consumer Recycled Content (as a percentage)
psg-km	Passenger-Kilometer: Unit separating total emissions between passengers per km
Ream	Standard unit of paper measurement equal to 500 sheets (with 10 reams in one box)
tCO ₂ e	Tonnes of Carbon Dioxide Equivalent: GHGs have different warming potentials, measured collectively as CO ₂ equivalent (hence "e")
t-km	Tonne-kilometer: A unit of measurement used in shipping

Verified By	Kayli Anderson & Christian Munoz Mejia
Email	Kayli@synergyenterprises.ca
Completed	5/4/2019



The logo for Synergy Enterprises, featuring the word "synergy" in a lowercase, sans-serif font. A small green leaf icon is positioned above the letter 'y'.