

Annual Sustainability Report



2016 Report

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Date	15/5/2017

synergy 

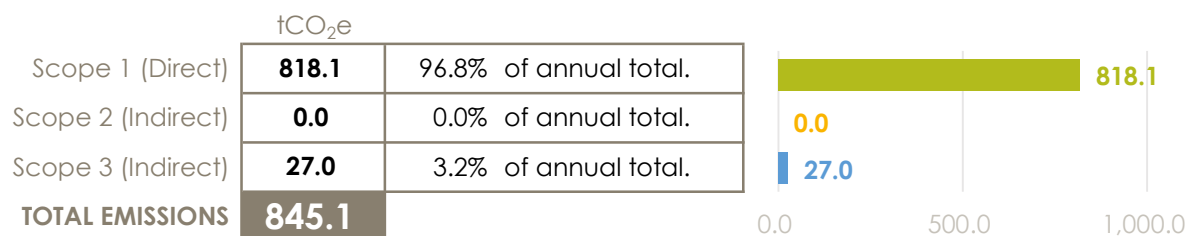
Executive Summary

Eagle Wing Tours is a carbon neutral whale watching company based in Victoria, BC, offering adventure tours around Southern Vancouver Island. The scope of this carbon footprint includes emissions and activities from one small office/reception space at Fisherman's Wharf, three company vehicles, and five boats. 2016 marks the seventh year that Eagle Wing Tours has measured, reported and offset their carbon footprint. In October 2014, Eagle Wing added a fuel efficient catamaran to their fleet (4 Ever Wild) which replaced tours in the smaller, less efficient boats and reduced their 2015 emissions per passenger by 39%. Total emissions in 2016 came to 845.1 tCO₂e, an increase of 16% over last year. Emissions per passenger came to 3.2 kgCO₂e, an increase of 7% over 2015. This was the result of an increase in total tours; the catamaran running at full capacity, and additional tours going out in the less efficient boats. In 2016, a second catamaran was purchased and is expected to be in the water for the 2017 season. These new boats hold up to 50 guests and use similar amounts of fuel per trip as their smaller vessels, making Eagle Wing Tours' fuel use more efficient, in line with the goal of reducing overall emissions per passenger.

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, 2015 - November 30th, 2016		
Inventory Boundary	Scope 1 (Direct Emissions) - Gasoline, Diesel/Marine Diesel (Fuel for boats + company vehicles)		
	Scope 2 (Indirect Emissions from Purchased Electricity) - Purchased Electricity (BC Hydro)		
	Scope 3 (Indirect Emissions from Other Sources) - Water, Waste, Stationary, 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 (The GHG Protocol, www.ghgprotocol.org)</i> . Emissions factors reviewed & approved by Offsetters.		

Inventory Results



Carbon Footprint (Summary)

Eagle Wing Tours

2016 Report



Total emissions: **845.1** tCO₂e

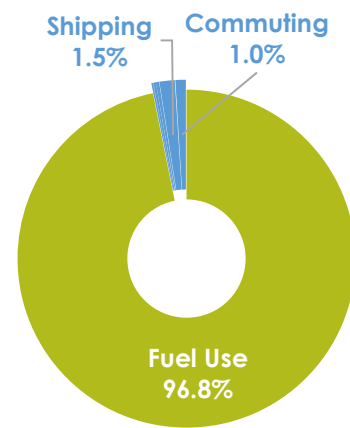
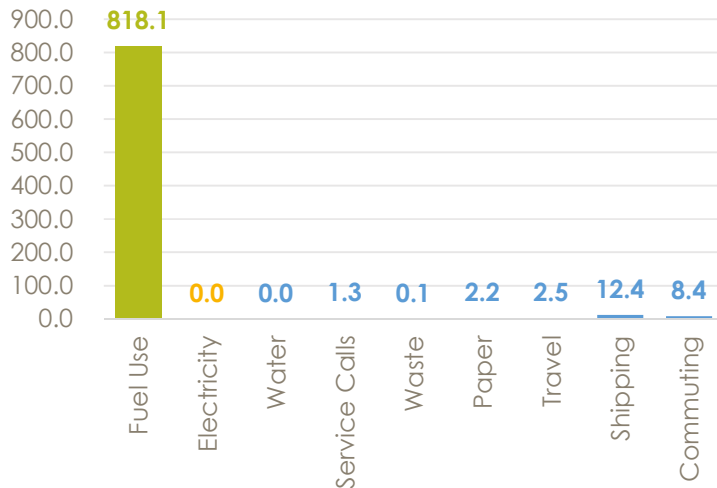
Offset cost*: **\$12,675**

Emissions in 2016 came to 845 tCO₂e, and increase of 16% over last year. Emissions per passenger have also increased slightly (7%) since 2015.

*Assuming \$15/tCO₂e

Carbon Footprint (By Activity)

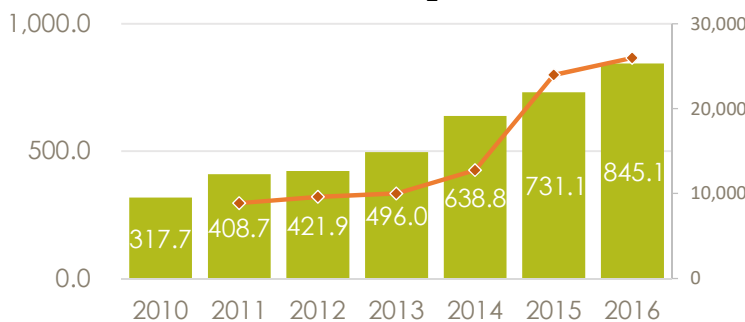
Emissions by Activity (tCO₂e)



Scope 1 Scope 2 Scope 3

Carbon Footprint (Historical)

Annual Emissions (tCO₂e)



	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%



2,665.8

Barrels of Oil



224.5

Cars per Year



32.5

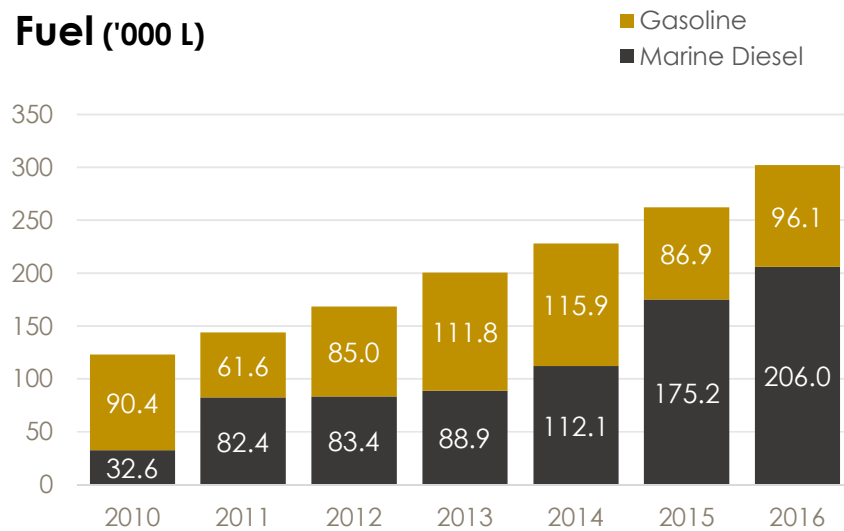
kgCO₂e/ passenger

tCO₂e
(Total)

845.1

Fuel Use

Fuel ('000 L)



Analysis

Fuel use continues to increase as Eagle Wing expands and conducts longer tours, in increasing numbers. Total emissions from fuel have increased by 164% since 2010. Between 2015 and 2016, fuel use increased 15%. In 2016, 37% of passengers went out on open boats while 63% went out on the fuel efficient catamaran. Emissions per passenger increased 7% over last year.

Total Trips



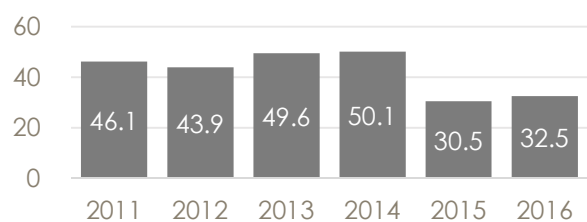
Total Passengers



kgCO₂e/Trip*



kgCO₂e/Passenger*



* based on total company emissions

2016 KPI's	All boats	Change since 2014	
		Amount	Percent
Total 2016 Passengers	26,004	13,242	104%
kgCO ₂ e/Passenger	32	-18	-35%

Litres / Day

828

tCO₂e **818.1**

% of Total

96.8%

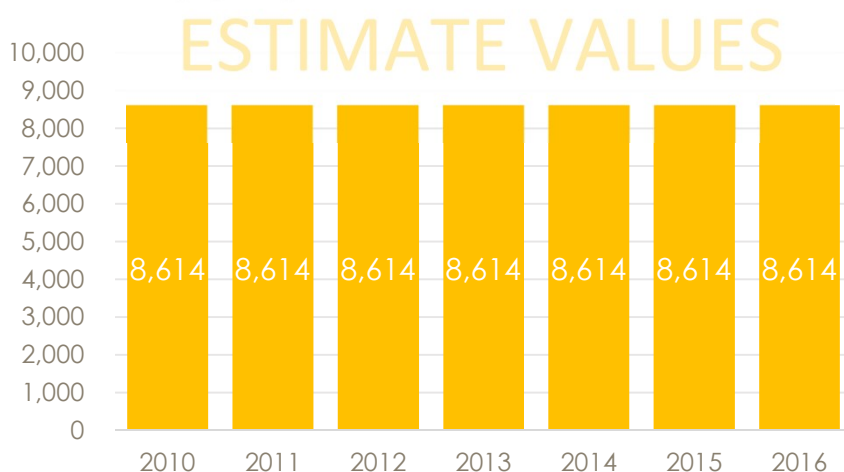


217.3

Cars / Year

Electricity

Electricity (kWh)



Analysis

Eagle Wing's electricity is estimated based on square footage, since it is not metered separately from other tenants at Fisherman's Wharf. While usage changes will not be reflected in this report, the company has made efforts to minimize use, including turning off equipment at night and reducing phantom loads.

**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

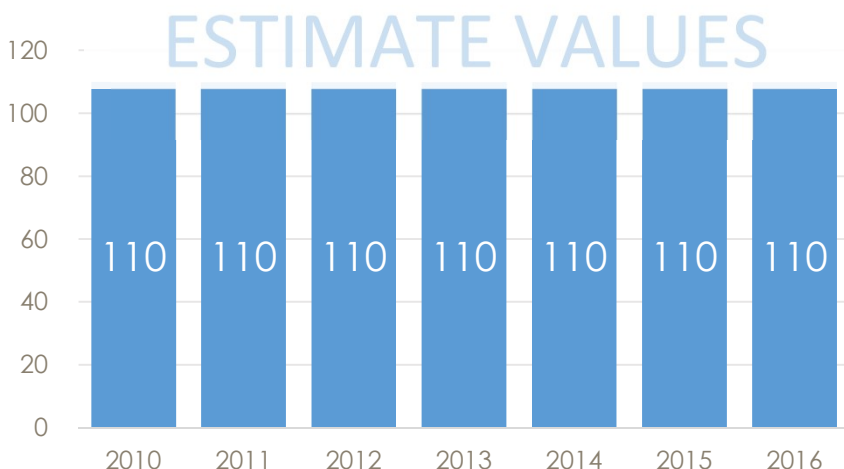
N/A*



0.8
Houses

Water

Water (m³)



Analysis

Minimal water is used in Eagle Wing's office. It is measured based on square footage, and is not metered separately from surrounding businesses. As such, changes in use will not be seen.

m³ /
ft²

0

tCO₂e

0.0

% of
Total

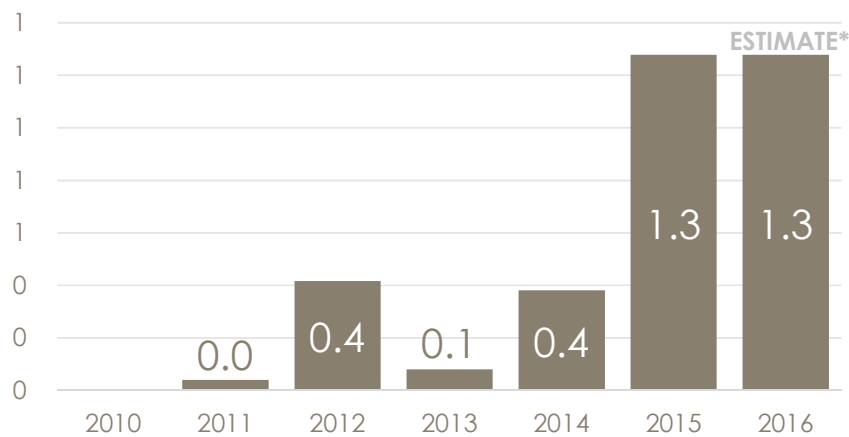
0.0%



501
Baths (50gal)

Service Calls

Emissions (tCO₂e)



Analysis

Service calls account for less than 1% of Eagle Wing's total carbon footprint. They include trips made by Eagle Wing mechanics to the docking station in Sidney BC, where the boats are serviced.

Service calls increased in 2015 when the new boat was added to the fleet.

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

Visits / Day **2.7**

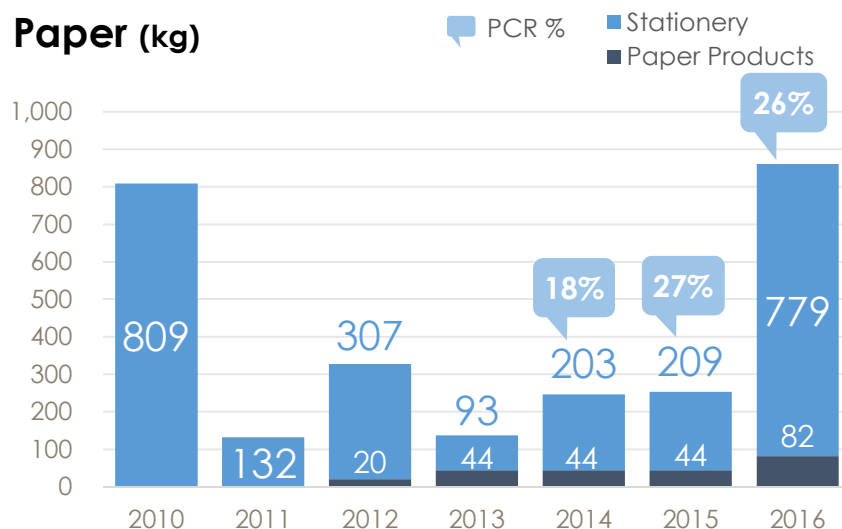
tCO₂e **1.3**

% of Total **0.2%**

 **0.3**
Cars / Year

Paper

Paper (kg)



Analysis

Total kg of paper products purchased increased significantly from 2015 to 2016. This is the result of an increase in paper use and in paper products tracked. Total brochures (now 81% of all stationary) doubled, while total waivers increased by 87%. The current scope now includes all posters, fact sheets and banners.

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

Treeless Content **26%**

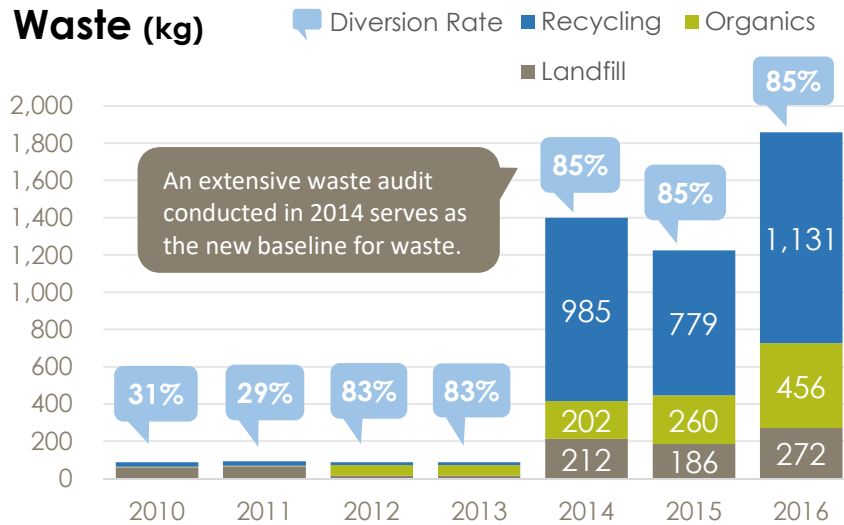
tCO₂e **2.2**

% of Total **0.3%**

 **16.8**
Trees / Year

Waste

Waste (kg)



Analysis

Eagle Wing Tours has an impressive diversion rate of 85% and as such, emissions from waste account for an insignificant portion of Eagle Wing Tour's overall emissions. Most waste comes from boat guests. By improving purchasing practices and providing comprehensive signage for guests, Eagle Wing can continue to improve their diversion rate both on land and at sea.

kg / Day

5.1

tCO₂e

0.1

% of Total

0.0%

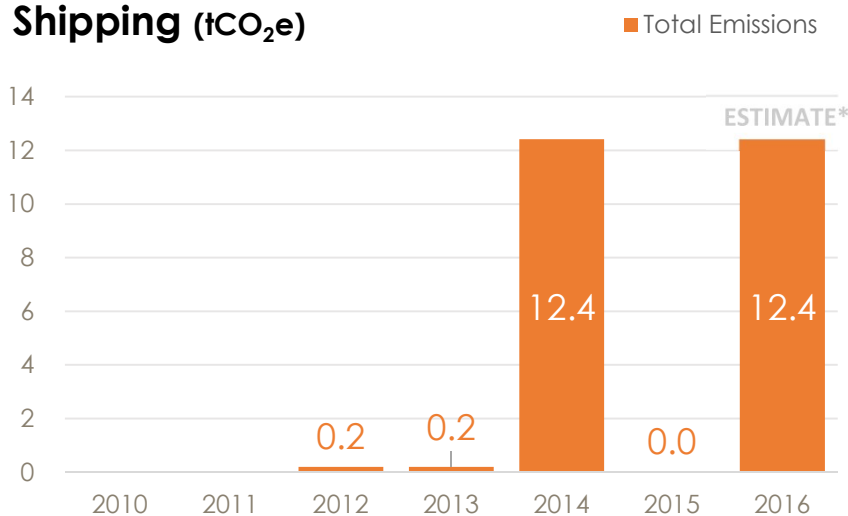


85.4%

Diversion Rate

Shipping

Shipping (tCO₂e)



Analysis

Shipping is the second largest contributor to Eagle Wing Tours' emissions, at 1.5% of the total. Shipping emissions arise from the air shipment of engine parts. In 2016, Eagle Wing Tours purchased Wild 4 Whales, a new 60 foot, 50-passenger catamaran with jet drives, making it safer for wildlife. Shipping emissions were assumed to be the same as in 2014, when the last boat was purchased.

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

kgCO₂e / km

1.180

tCO₂e

12.4

% of Total

1.5%

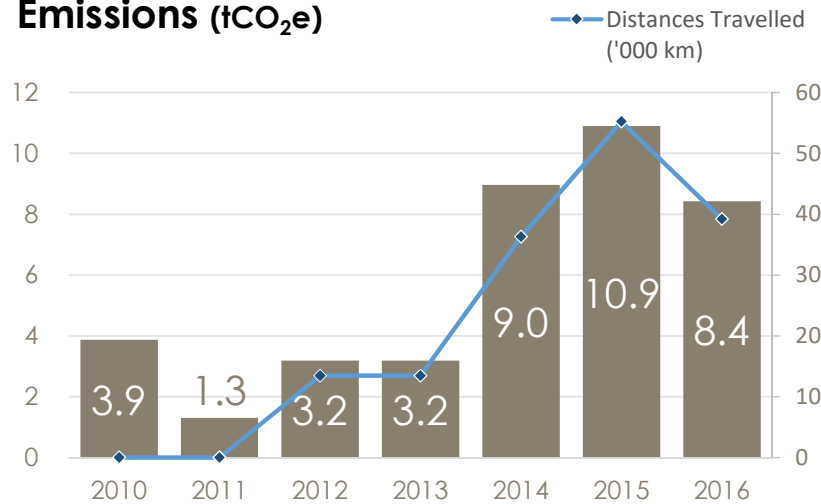


3.3

Cars / Year

Commuting

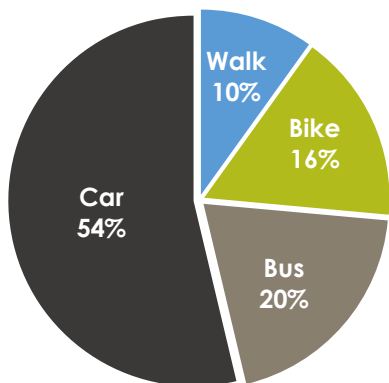
Emissions (tCO₂e)



Analysis

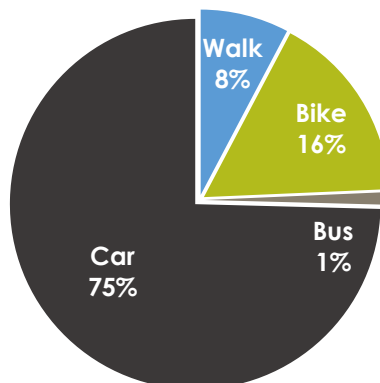
Commuting is the third largest contributor to Eagle Wing Tours' carbon footprint, accounting for 1% of the total. Current commuting emissions have the impact of 8.4 tCO₂e, equivalent to just over two cars per year. Commuting emissions have been reduced 23% since 2015, due to a decrease of 29% in the distances travelled to work by staff.

Commuting Percentages by Method per Day



Previous (2012)

Average kgCO ₂ e/km	0.20
Low-Emission Commuting %	46%



Current (2016)

Average kgCO ₂ e/km	0.22
Low-Emission Commuting %	25%

Analysis (Breakdown)

The % of low-emission commuting has dropped 21% this year, due to more staff reporting driving to work, over more sustainable methods such as walking, bussing or biking. Despite this shift, the total distance travelled by staff reduced from 55,000 to 39,000 km, leading to an overall reduction in emissions.

As indicated by staff, the most common reason for the use of personal vehicles were excessive distance, and a lack of transit infrastructure to Fisherman's Wharf.

* The staff commuting survey was conducted in the summer season to get a more accurate representation of staff commuting habits. This year, the survey received a 100% response rate.

tCO₂e / FTE **0.32**

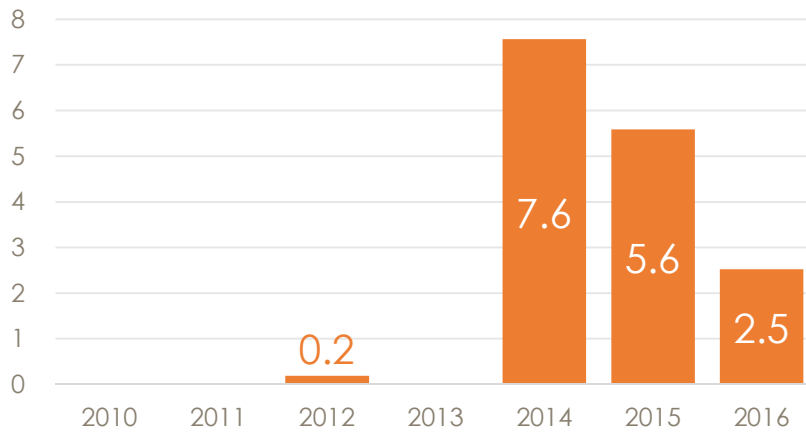
tCO₂e **8.4**

% of Total **1.0%**

 **2.2**
Cars / Year

Travel

Emissions (tCO₂e)

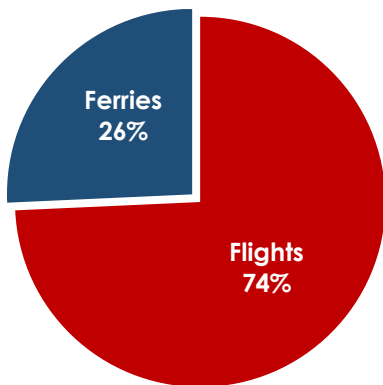


Analysis

Eagle Wing Tours does not conduct much business travel as part of general operations. Over the past three years, several trips were made to research, view and purchase new boats.

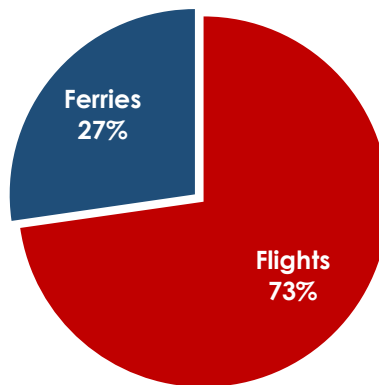
In 2016, one traveller took return flights to Calgary and Quebec, and two travellers took return flights to Montreal.

Travel Percentages by Number of Trips



Previous (2014)

Average kgCO ₂ e/km	0.214
Low-Emissions Travel %	25.7%



Current (2016)

Average kgCO ₂ e/km	0.104
Low-Emissions Travel %	27.3%

Analysis (Breakdown)

A total of eight flights and three ferry trips were taken in 2016, compared to 14 flights and zero ferries in 2015.

Travel accounts for just 0.3% of Eagle Wing's total carbon footprint at 2.5 tCO₂e.

Continuing to limit travel will keep emissions low.

	Distances Travelled (km)	
	Flights	Ferries
2014	34,894	423
2015	80,622	0
2016	24,116	141

* Note: The reduction in emissions in 2015 was due to changes in emissions factors associated with air and ferry travel.

tCO₂e / FTE **0.096**

tCO₂e **2.5**

% of Total **0.3%**

 **0.7**
Cars / Year

Carbon Reduction Strategy

Over the last five years, Eagle Wing Tours has made great efforts to mitigate their environmental impact while continuing to grow their business. Since 2011, passenger numbers have tripled, increasing from 8,886 to 26,004, while the average emissions per passenger is down by 24%. This has been achieved by the purchase of larger capacity, fuel efficient catamarans. In 2016, a second fuel-efficient catamaran was purchased and will be in the water for the 2017 season. It is expected to further reduce emissions per passenger.

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

In 2016, Eagle Wing Tours launched the Wild For Whales Foundation to continue their efforts in advocating for and protecting the marine wildlife in the Salish Sea. Eagle Wing Tours is a member of 1% For The Planet, donating close to 2% of sales to local environmental non-profits. In 2017, Eagle Wing Tours will be focusing on measuring the underwater acoustic footprint of their boats.

Achievements

CLIMATE ACTION

- Carbon Neutral for seven years
- Reduced emissions per passenger by 24%
- Replaced Goldwing motors with larger, more efficient motors
- Waste diversion rate of 85%
- Two fuel efficient catamarans added to fleet

CONSERVATION

- Victoria's first whale & wildlife watching company to implement a \$2 wildlife fee
- 1% For the Planet members
- Founding members of ViSTA
- Coordinated World Oceans Day
- Launched the Wild For Whales Foundation

CULTURE

- Developed Victoria's first Cultural Tour in partnership with Songhees First Nations

Moving Forward

- Researching opportunities to convert motors to biodiesel, hybrid and/or electric
- Measure acoustic footprint. Create baseline for noise levels of all boats

Awards

- 2016 Sustainable Tourism Business Award TIAC
- 2016 EcoStar Award for Experiential Tourism
- 2013 Tourism VI Sustainable Tourism Business Award
- Green Tourism Canada - GOLD 2013 & 2015
- 2015 TIAC Traveller Experience Award, Finalist
- 2014 Sustainable Tourism Business Award TIAC

Information on Inventory Uncertainty

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

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

Emissions References

1. 2016/17 B.C. Best Practices Methodology for Quantifying Greenhouse Gas Emission
<http://www2.gov.bc.ca/gov/content/environment/climate-change/policy-legislation-programs/carbon-neutral-government/measure>
2. Environment Canada's National Inventory Report (1990-2014); Part 2 & 3.
http://unfccc.int/files/national_reports/annex_i_ghg_inventories/national_inventories_submissions/application/zip/can-2016-nir-14apr16.zip
3. Department for Environment, Food & Rural Affairs (UK) Carbon Factors
<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2016>
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.

Glossary of Terms

Term	Description
CFL	Compact Fluorescent Light
GHG	Greenhouse Gas (emissions): Atmospheric gases 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
KPI	Key Performance Indicators (Highlights)
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)
pgs.-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)
T12/T8/T5	Models of common fluorescent tube lighting
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

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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'.