

Environmental Management System (EMS) Report Q4 2018/19

1. Purpose

- This paper provides:
 - An overview of Zero Waste Scotland’s overall annual environmental impacts (including paper prints and staff commuting data);
 - An update on the company’s 2018/19 RES Pledges, and EMS objectives; and
 - A list of proposed RES pledges and EMS objectives for 2019/20.

2. The organisation overall environmental impacts

• Summary

- Total climate change impacts, expressed in carbon dioxide equivalent, in FY 2018/2019 were 281 tonnes of CO₂ eq., 15% higher than the previous year impacts. Despite absolute increase in staff commuting (+13%) and corporate travel impacts (+55%), total impacts per employee fell 3% YoY. This is due to a 19% increase in staff number (see Figure 1).

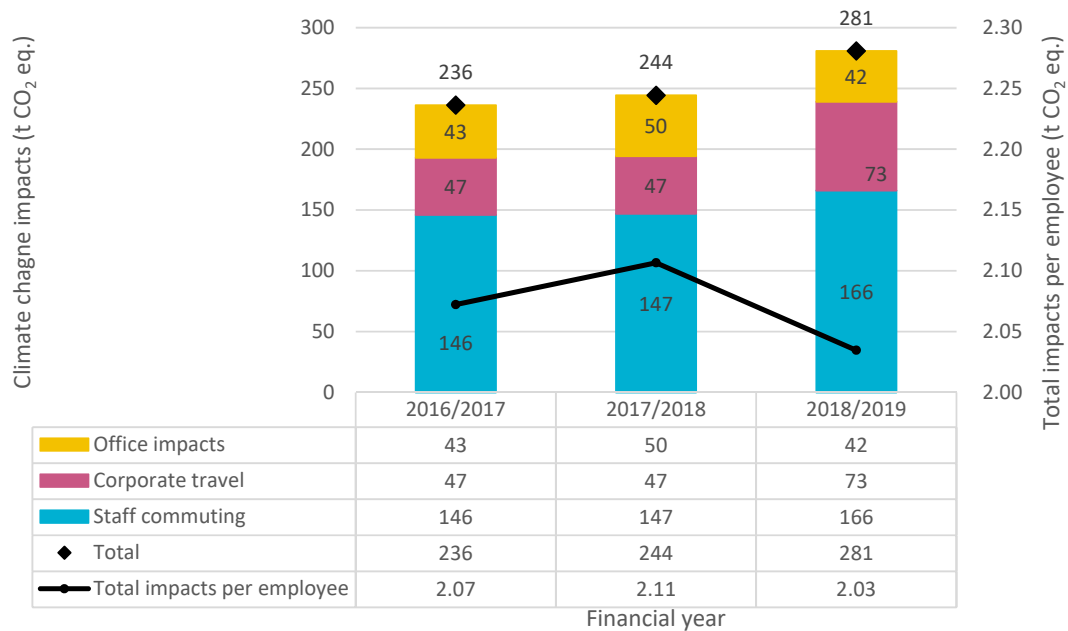


Figure 1 Total climate change impacts.

• Corporate travel impacts

- Figure 2 shows that the 2018/19 corporate travel impacts per employee is nearly 530 kg CO₂ eq., 30% higher than impacts reported in the previous year. This is primarily due to a significant increase in the number of flights made in 2018/19.
- A breakdown of climate change impacts associated with corporate travel is shown in Figure 3. Our analysis shows that air travel accounts for nearly 60% of total impacts reported whilst train travel (i.e. 30% of mileage travelled) accounts for only 10%.

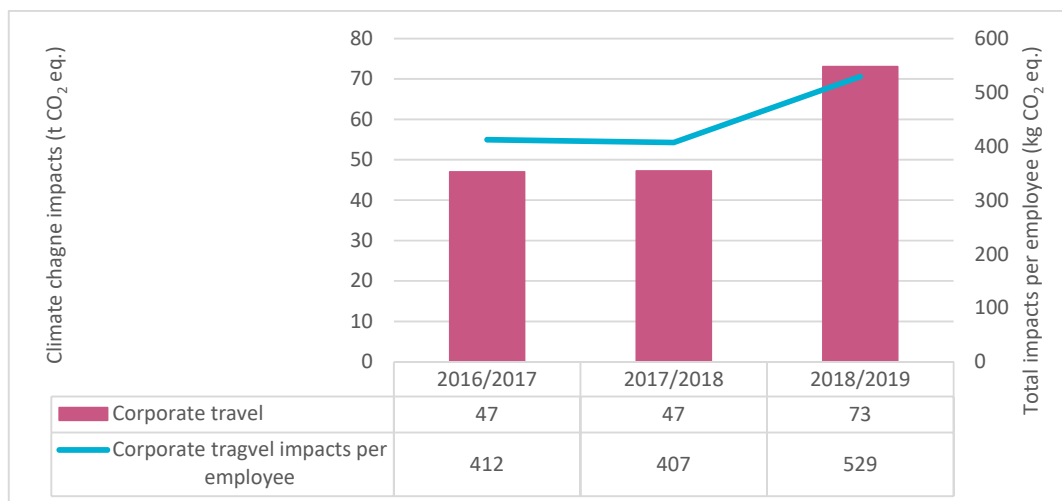


Figure 2 The company corporate travel: total vs per employee.

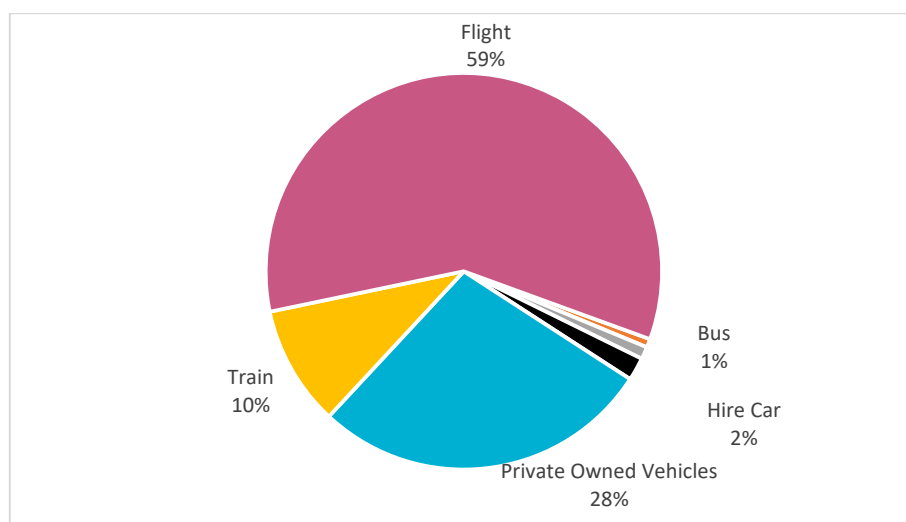


Figure 3 Breakdown of corporate travel climate change impacts in 2018/19 by mode of transport.

- **Office impacts**

- **Electricity**

- Impacts of electricity consumption in 2018/19 were ~24 tonne of CO₂ eq., 24% below the previous year (i.e., 31 tonne CO₂ eq.). The reduction is attributed largely to the installation of the server cooling fan which was activated in October.

- **Heating (Gas)**

- The impacts of gas consumptions dropped by 7% YoY, from 15 tCO₂ eq. to 14 tCO₂, due to the relatively milder weather in 2018/19.

- **Resources loss and waste management**

- Full-time employees (FTEs) increased from 114 to 138 FTEs (+21%)¹, resulting in increased water consumption and waste generation. Annual data, plotted in Figure 4, shows that water and food waste increased by 14% and 10% respectively. A slight reduction, non-statistically significant, of 6% was reported for non-food waste generation. This reduction

¹ This is a rough estimate based on data collected by the Environmental Analyst as part of the company Prints C&T scheme.

might be attributed to the introduction of the 'Glass Milk Bottle' scheme though a further analysis is yet to be completed to confirm our observation (see the next section for approximate environmental savings).

- Normalising carbon impacts per employee shows water consumption, food waste, and non-food waste generations fell by 4%, 8%, and 21% respectively YoY.

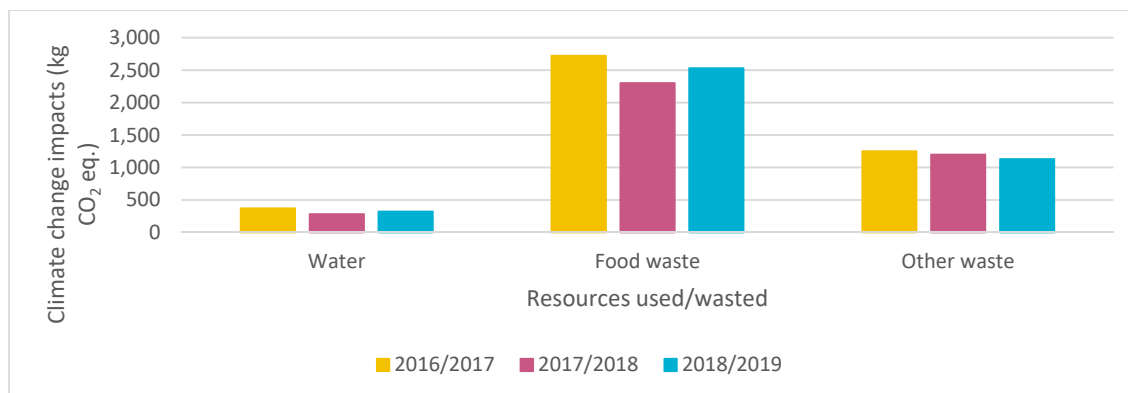


Figure 4 Climate change impacts of water and waste management (Year to Year).

- **Glass Milk Bottle**
 - The organisation adopted a new milk delivery system using reusable glass bottles. Prior to this system, the organisation had milk delivered in 2L single-use plastic bottles (16 bottles a week).
 - The new delivery system will avoid the disposal of 832 plastic milk bottles a year, reducing plastic waste by 33.5 kg and the organisation's carbon footprint by nearly 90 kg of CO2 eq.
- **Staff commuting impacts**
 - Staff survey results show total commuter mileages of nearly 1,100,000 miles, resulting in nearly 167 tonnes of CO2 eq., 14% higher than the last financial year.
 - Normalised results show commuting carbon impacts/FTE fell 6% despite a 7% increase in mileage (see Table 1).

Table 1 Results of relative comparison of staff commuting data.

Item	2017/18	2018/19	Difference
Number of employees	116	138	22
Carbon	1,263	1,208	-6%
Mileages	7,166	7,801	7%

- Figure 5 shows the contribution of mileages and their associated impacts. Unsurprisingly, private car is highest contributor with 75% of the total environmental impacts. Trains, used to travel 28% of total mileages, is responsible for 13% of total impacts.
- The organisation has now adopted a flexible working policy which is expected to reduce staff commuting activities. Moreover, the organisation signed a contract to trial 2 satellite workspaces in Glasgow and Edinburgh with a total capacity of 16 desks.

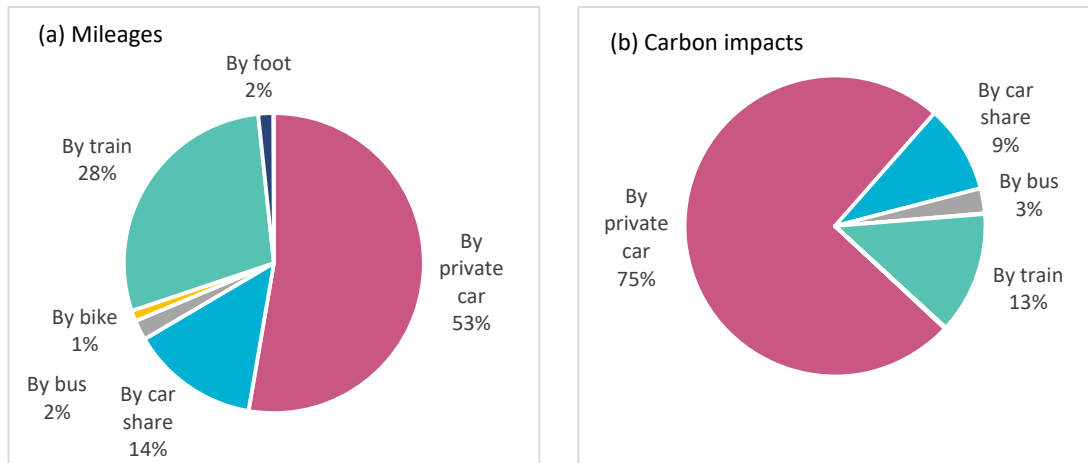


Figure 5 Breakdown of staff commuting activities by (a) mileages and (b) their associated climate change impacts.

○ **Prints analysis**

- Zero Waste Scotland has achieved a reduction in paper use for the third consecutive year. In 2018/19, staff printed 35,687 sheets, 14% less than last year (see Figure 6).
- The ‘icing’ on the cake is that the average prints per employee in 2018/19 is even 21% lower than last year’s average.

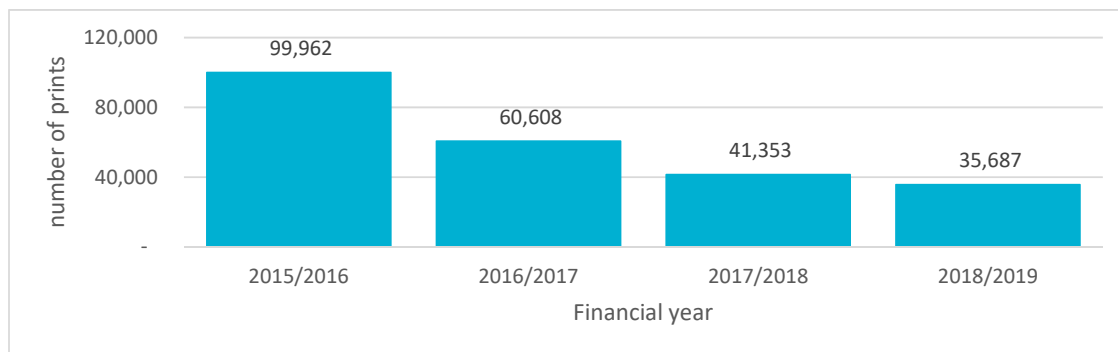


Figure 6 Total number of prints by financial year.

3. Update on 2018/19 RES pledges

- The Resource Efficiency Pledge is a nationwide scheme backed by Scottish Government to help Scottish businesses use energy, water and raw materials more efficiently throughout their operations. Table 2 below lists pledges made in 2018/2019, supporting actions, and final status.

Table 2 2018/19 RES pledges, supporting actions, and final status (as of End of Year 2018/19).

No.	Pledge	Action	Status
1	Organise two group volunteer events.	a) Create a ZWS volunteering policy. b) EMS group to develop list of volunteering opportunities. c) Organise 2 group volunteer events.	a) Complete b) Complete c) Complete
2	Transition to and promote the company Green Team.	a) Create terms of reference . b) Refresh the ZWS Green Team training pack.	a) Complete b) Complete c) Complete

		c) Refresh the relevant sections on the intranet and internal notice-board.	
3	Hold 3 internal engagement events.	a) Recycle Week (September). b) EWWR - Food Waste Week (November). c) Pass It On Week (March).	a) Complete b) Complete c) Complete

4. Update on 2018/19 EMS Objectives

- Table 3 lists the company's 2018/19 EMS objectives, supporting actions delivered, and final status (as of End of Year).

Table 3 2018/19 EMS objectives, implemented actions, and final status (as of End of Year).

No.	Impact Area	Actions	Status
1	Food	ZWS event procurement documents have been amended to request low-carbon meal options (aiming for vegetarian options, with seasonal and local food, if available) as a requirement at all catered ZWS events.	Complete
2	Materials	ZWS event procurement documents have been amended to request no single-use catering items as a requirement at all catered ZWS events.	Complete
3	Materials	ZWS internal milk consumption is transitioning from single-use plastic bottles to a glass bottle return service – the glass milk bottle trial is complete and has been deemed a success. This model will continue business as usual.	Complete
4	CE Business Models	The adoption of a circular approach to procurement is being reviewed and has not yet been implemented – this requires some further discussion.	Under Review

5. Recommended RES Pledges for 2019/2020

- Less frequent meat consumption has significant environmental benefits including reduced carbon emissions (livestock production accounts for 14% of global emissions). Many organisations have demonstrated environmental leadership by committing to vegetarian-only catering (e.g. KSB CCF events, Young Leaders Development Programme etc.), on the basis that everyone can go one meal without meat. Vegetarian catering is already recommended in the organisation's event checklist, however it is often not followed, and a formal commitment would cement our leadership on this issue.
- The second pledge focuses on ensuring any satellite offices adhere to environmental best practices (e.g. waste separation and recycling).
- The third pledge is to relaunch a revamped Staff Marketplace on Yammer so that it is more user friendly.

Table 4 2019/20 Zero Waste Scotland recommended RES pledges.

No.	Pledge	Status
1	To transition to vegetarian-only catering for all meetings and events organised by Zero Waste Scotland.	Proposed
2	To ensure that satellite offices (post pilot phase) comply with the company's Environmental Policy.	Proposed
3	To redevelop and relaunch the staff marketplace.	Proposed

6. Recommended EMS objectives for 2019/2020

- Travel is the highest contributing factor to the organisation's overall environmental impacts and hence this year's proposed EMS objectives aim to tackle the significant impacts of corporate travel.

Table 5 2019/20 Zero Waste Scotland recommended EMS objectives and proposed actions.

No.	Impact Area	EMS objectives / actions	Status
1	Corporate flights	Reduction in per employee flight miles by 42% relative to 2018/19 to return to 2017/18 flight miles per employee (i.e., 690 miles per empl.)	Proposed
2	Staff commuting	Reduction the per-employee carbon impacts of commuting activities by 5% below 2018/19 levels by 31st March 2020. Key activities to achieve this objective are: <ul style="list-style-type: none">• promote internal and external transport loans;• update and promote the company car share map; and• ensure satellite office/agile working practices align with the company's objective to reduce commuting impact of all staff.	Proposed