

## Environmental Management System (EMS) Report Q3 2019/20<sup>1</sup>

### 1. Purpose

- This paper provides:
  - An overview of Zero Waste Scotland’s environmental impacts in Q3 of 2019/2020; and
  - An update on the company’s 2019/20 RES Pledges, and EMS objectives.

### 2. The organisation’s overall environmental impacts

#### • Summary

- Total climate change impacts, expressed in carbon dioxide equivalent, in Q3 of FY 2019/2020 were nearly 23 tonnes of CO<sub>2</sub> eq., *50% lower than the impacts of the same period in the previous year* (Figure 1). The majority of these savings can be attributed to a significant reduction in travel emissions (59%) and a considerable reduction in gas consumption and resultant emissions (25%).

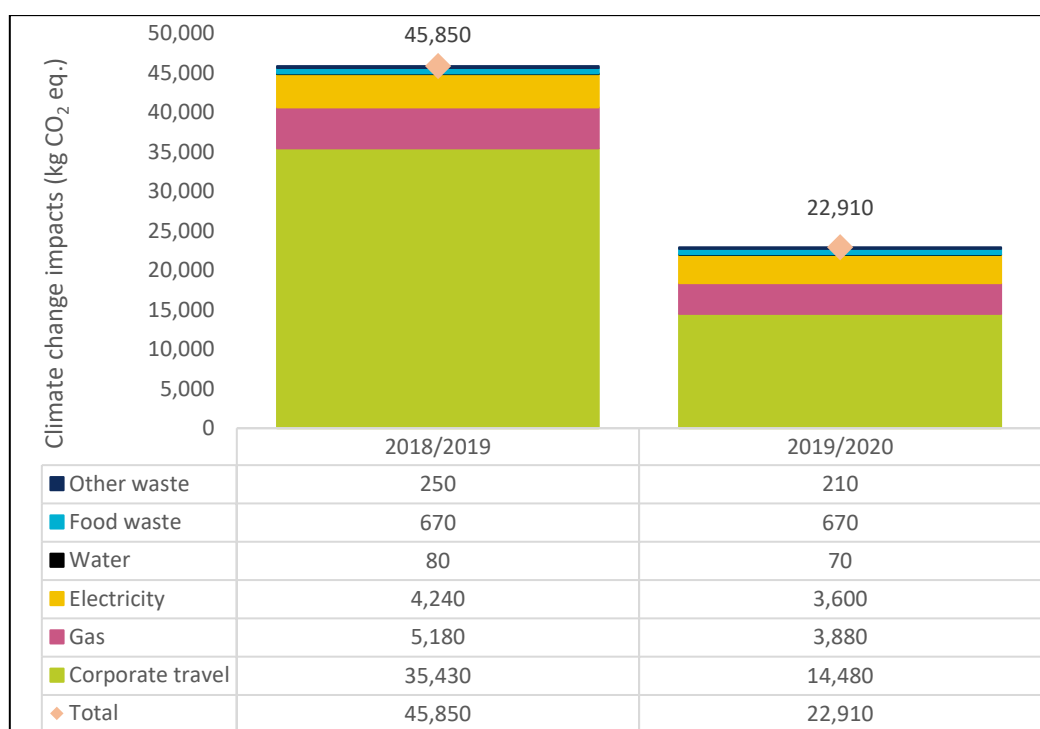


Figure 1 Breakdown of total climate change impacts by category for Q3 in 2018/19 & 2019/20.

#### • Corporate travel impacts

- Corporate travel impacts for Q3 were nearly 14.5 t CO<sub>2</sub> eq., *59% lower* than impacts reported in Q3 of the previous year.
- A breakdown of climate change impacts associated with corporate travel is shown in Figure 2. Our analysis shows that private-owned cars accounts for 44% of total impacts; and that air travel is associated with 33% of total impacts, whilst train travel (40% of miles travelled) accounts for only 14%.<sup>2</sup>

<sup>1</sup> This report is prepared by Fraser Millar and reviewed by Michael Lenaghan

<sup>2</sup> It has come to our attention that, with the exception of flights, travel booked on procurement cards is not currently included in the travel mileage data collated by Finance for use in EMS reporting. We believe the excluded mileage will be significant given the volume of travel booked using these cards. Currently, procurement card mileage is entered as a note

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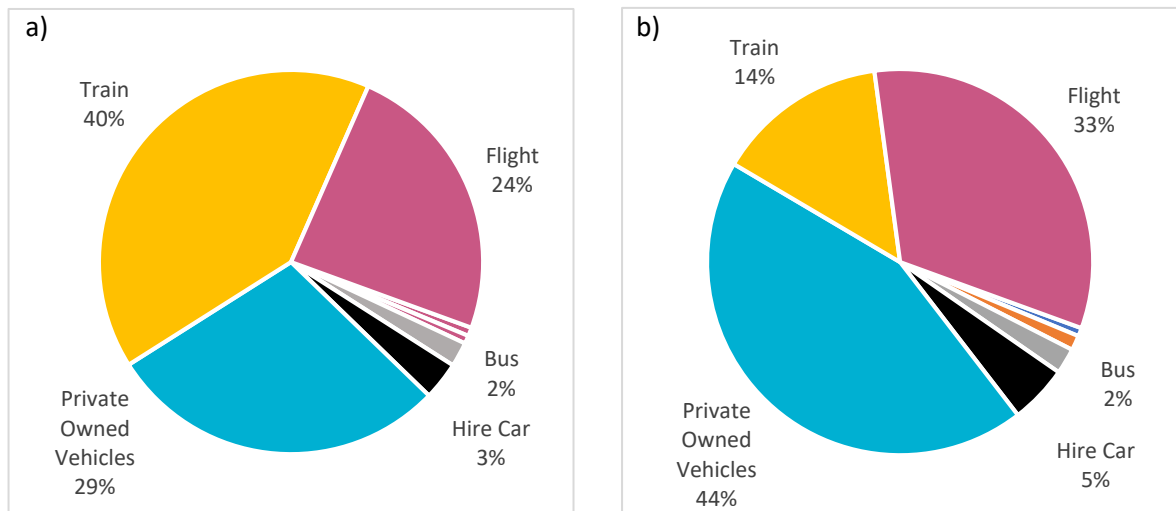


Figure 2 Breakdown of corporate travel mileages (a), and climate change impacts (b) by the mode of transport.

- **Flights mileages**

Q3 of FY 2019/20 was a busy period for air travel within Zero Waste Scotland, accounting for 22,753 total miles, however this volume still undercuts the imposed quarterly cap by 2,605 miles. Staff flew a total of 44,598 miles in Q1-3 of FY 2019/20 – *this is 31,475 miles under the current Q1-Q3 mileage cap*. There are currently no flights booked for Q4, therefore if the current total remains unchanged, *Zero Waste Scotland will undercut the imposed annual mileage cap (101,430 miles) by 56,832 miles. (56%)* (Figure 3).

In July 2019, the company extended its ‘no-fly zone’ policy beyond mainland UK to cover Belgium, the Netherlands, Luxemburg and Paris in order to help us to meet our cap target. The sharp reduction in flight miles can be attributed to the implementation of this measure and the flight cap; along with a general organisational shift away from emissions-heavy air travel.

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alongside purchase lines and cannot be easily extracted. We deem this a priority and are working with Finance to address this issue. Any amendments will be updated retroactively to ensure accuracy of year-on-year analysis.

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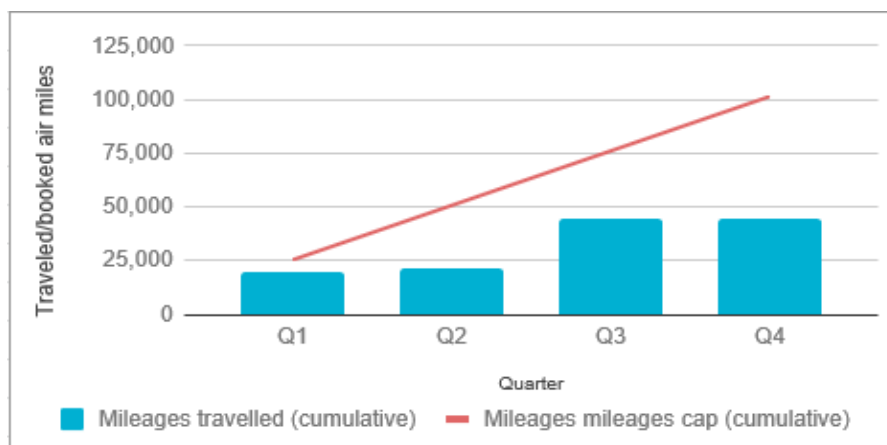


Figure 3 Air miles vs the annual cap for 2019/20.

- **Office impacts**

- **Electricity**

- Impacts of electricity consumption amounted to 3.6 tonnes<sup>3</sup> of CO<sub>2</sub>e, *nearly 15% below Q3 levels for last financial year* (Figure 4). This is a considerable year-on-year reduction, much of which can be attributed to the ongoing decarbonisation of the national grid, 10% below 2018 levels. ZWS used 4,107 kWh of electricity in Q3; a 34% reduction on usage from the same period last year.

- **Heating (Gas)**

- The impacts of *gas consumption decreased by 25% in Q3 of this year from the same period last year*, from 5.2 tCO<sub>2</sub> eq. to 3.9 tCO<sub>2</sub> eq. (Figure 4).
- The Moray House building has now been connected to a new district heating network (DHN) which supplies ZWS with most of its heat requirements.<sup>4</sup>
- Calculating the total carbon impact of office heating now requires detailed reports being obtained from the DHN operator. At time of writing, no reports have yet been received, thus the total gas consumption of ZWS was calculated using all available data and by estimating the emissions impacts of gas supplied by the DHN based on consumption in previous years.

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<sup>3</sup> Zero Waste Scotland analysts are investigating an apparent discrepancy between our OWL electricity monitor reading and consumption figures provided by our energy supplier. If the latter, higher figures are correct, an upward adjustment of our electricity impacts will be required and backdated accordingly.

<sup>4</sup> At times when the District heating Network cannot supply the required energy to the ZWS heating system; the conventional gas boiler unit activates to handle any shortfalls with no loss of service.

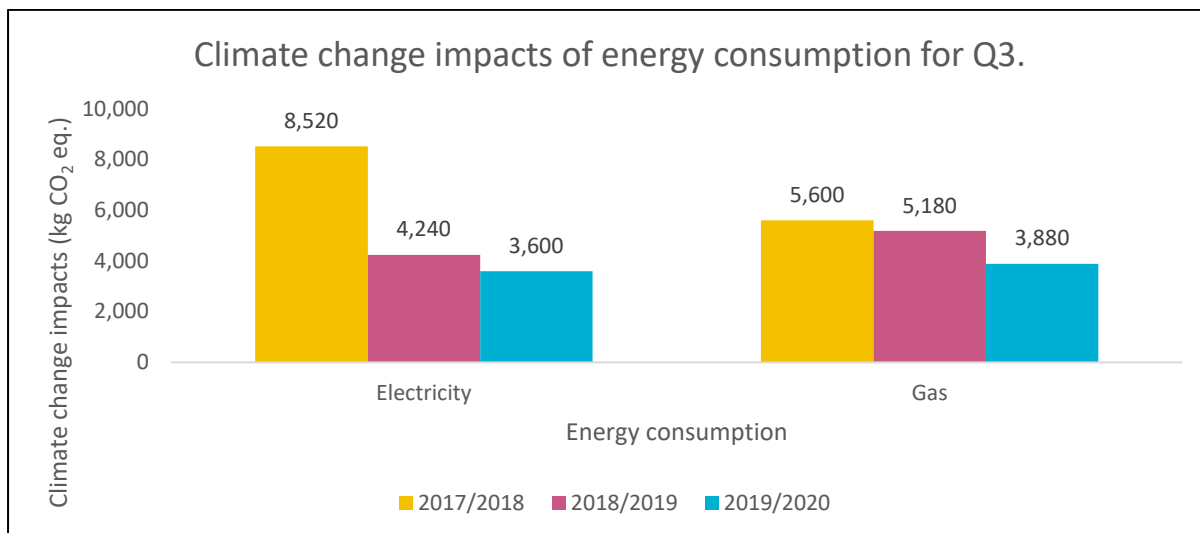


Figure 4 Climate change impacts of energy consumption in Q3.

o **Resource loss and waste management**

- In Q3 of 2019/20, carbon impacts of water and other waste decreased by 13% and 16% respectively. Carbon impacts of food waste remained consistent when compared with the same period last year (Figure 5), despite a 19% increase in ZWS staff<sup>5</sup> in the same period.
- Normalising carbon impacts per employee, results show that carbon impacts of food waste in Q3 of 2019/20 decreased 16% in comparison to Q3 of 2018/19. This is due to a 17% reduction in per capita food waste generation.

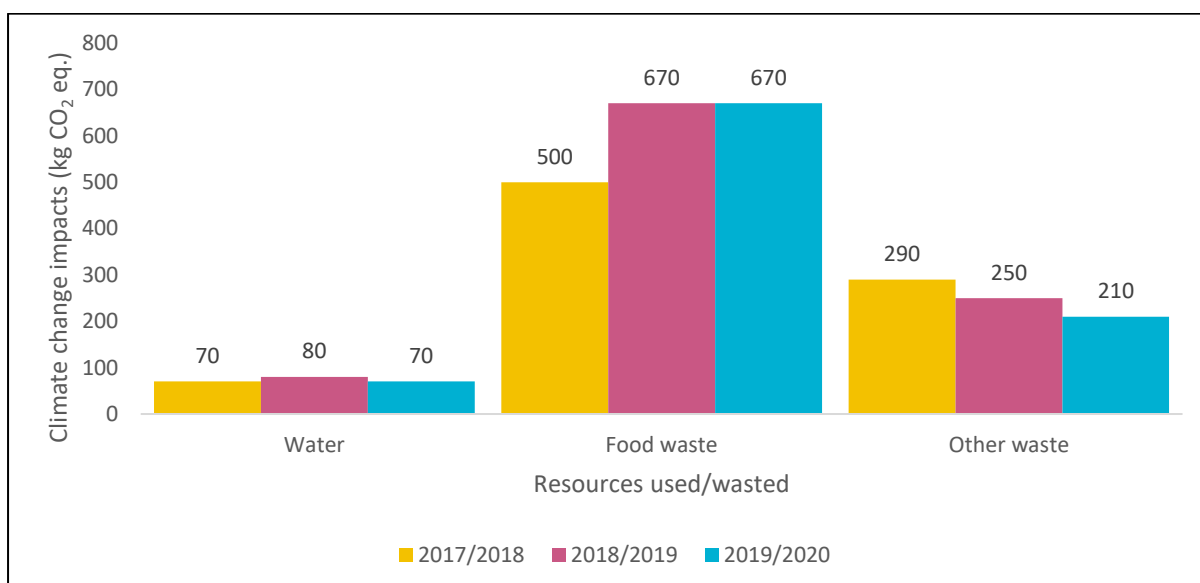


Figure 5 Climate change impacts of water and waste management in Q3.

o **Paper use: printing & copying**

- The total number of sheets printed in Q3 was 6,506 bringing the total cumulative prints for Q1, Q2 and Q3 to 21,026. This is a reduction of 22% compared to the same period last year (Figure 6), and represents a 34% per capita reduction in paper use.
- An average of 73 employees per month didn't print anything in Q3.

<sup>5</sup> Average number of staff employed by the company in 2018/19 and 2019/20 is 138 and 164 respectively. These figures are based on the ZWS Prints Cap & Trade model.

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- The Green Team continues monitoring ZWS prints and testing different communication methods to nudge staff to print less and record their prints.
- Not only has the number of prints gone down, but the company's overall reporting accuracy has increased due to the introduction of these changes.

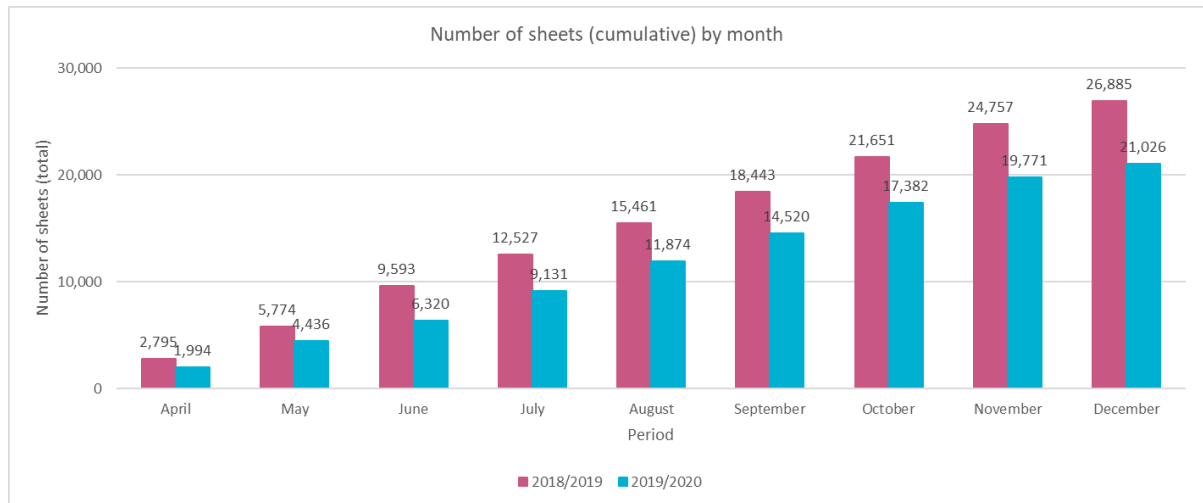


Figure 6 Total number of prints (cumulative) by month in Q1, Q2 and Q3 for current (2019-20) and previous (2018-19) financial years

- The Net-Zero Carbon initiative

The carbon sources and data contained within this EMS report all contribute to the total carbon output of Zero Waste Scotland. As part of a bold new strategy to attain net-zero carbon status as directed by Scottish Government, the organisation is currently working to implement a range of decisive and robust measures designed to streamline carbon output over the coming years. Selected measures will work in tandem with a range of carefully selected carbon offsetting schemes in order to facilitate absolute, year-on year emissions reductions across Zero Waste Scotland. Future EMS reports will provide further detail on specific measures once they have been finalised.

- Offsetting

Zero waste Scotland fully acknowledges the prevailing issues and uncertainty regarding the offsetting of emissions, however we also recognise that a measure of offsetting is necessary in order to achieve net-zero carbon status. As such we will always prioritise reduction ahead of offsetting and will only aim to mitigate residual emissions by use of Gold standard accredited schemes, or schemes governed by the Woodland Carbon Code.<sup>6</sup> 100% of organisational emissions will be mitigated through reduction measures, which reduce the volume of carbon entering the atmosphere. A further 100% of emissions will be offset through sequestration schemes that remove carbon already present within the atmosphere. This will ensure a holistic approach to offsetting that will seek to maximise the total environmental benefit.

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<sup>6</sup> Gold Standard was founded by WWF and 80 other NGOs to safeguard the sustainability of carbon offset credits and is regularly portrayed as a high-quality carbon standard. The Woodland Carbon Code is the voluntary standard for UK woodland creation projects and provides independent validation and verification to ensure validity projects falling under its remit.

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### 3. Update on 2019/20 RES pledges

Table 1 2019/20 RES pledges, supporting actions, and current status (as of Q1 2019/20).

No.	Pledge	Status
1	To choose only low carbon catering for all meetings and events organised by Zero Waste Scotland and to ensure no disposable cutlery and crockery.	Complete
2	To ensure that satellite offices (post pilot phase) comply with the company's Environmental Policy. <ul style="list-style-type: none"> <li>ZWS facilities management team had a meeting with SPACES and discussed various issues, including recycling facilities and the use of disposable cups in their café.</li> </ul>	In progress
3	To redevelop and relaunch the staff marketplace.	Complete

### 4. Update on 2019/20 EMS Objectives

Table 2 2018/19 EMS objectives, implemented actions, and current status (as of Q1 2019/20).

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.) <ul style="list-style-type: none"> <li>The travel booking system is now well established and continues to monitor flight booking and track our performance against the new target. &lt;talk about accuracy compared with finance&gt;</li> </ul>	In progress & On Track
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"> <li>Actions have been identified.</li> <li>2019/20 staff commuting survey to be undertaken in Q4 of 2019/20</li> </ul>	In progress & On Track
3	Procurement	Continue to review and integrate sustainable best practice into our procurement. Key tasks: <ul style="list-style-type: none"> <li>review external examples of sustainable procurement; and</li> <li>take steps to integrate sustainable best practice into our procurement</li> </ul>	In progress