

TO: **JOINT WASTE DISPOSAL BOARD**  
4<sup>th</sup> July 2019

---

**REPORT ON CLIMATE CHANGE**  
**Report of the re3 Strategic Waste Manager**

**1 INTRODUCTION**

- 1.1 The purpose of this report is to brief the re3 Joint Waste Disposal Board on work aimed at helping to reduce the impact on climate change from the treatment of waste within the re3 area.

**2 RECOMMENDATION**

- 2.1 **That Members note the contents of this report.**

**3 ALTERNATIVE OPTIONS CONSIDERED**

- 3.1 None for this report.

**4 REASONS FOR RECOMMENDATION**

- 4.1 The purpose of this report is to brief Members on steps to identify measures to reduce re3 contributions to climate change, through the delivery of waste services.

**5 PROGRESS IN RELATION TO WASTE MANAGEMENT**

**Background**

- 5.1 It is extremely likely that human activities are the dominant cause of Global Warming. Global Warming, or Climate Change, is leading to detected environmental impacts, such as<sup>1</sup>:
- Warming of the lower atmosphere
  - Increased CO<sub>2</sub> levels causing acidification of the oceans
  - Rising sea levels (since C19th global sea level has risen up to 20cm)
  - Declining glaciers and sea ice (see Appendix 1 as an illustration)
  - Slowing increases in crop productivity in some parts of the planet.
- 5.2 The Climate Change Act 2008 requires Government to reduce UK greenhouse gas emissions by 80% of the 1990 levels by 2050. It establishes a pathway for delivery of the 2050 target. Progress is monitored and informed by the evidence-based advice of the Committee on Climate Change (CCC), established in the Act.
- 5.3 The United Nations Framework Convention on Climate Change (UNFCCC) was established in 1992. Its aim is to '*achieve...stabilization of greenhouse concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system*'.
- 5.4 The UNFCCCs work led, in December 2015, to what is widely referred to as the Paris Agreement. The Paris Agreement pledges to manage the growth in average temperature to 'well below 2<sup>0</sup>c above pre-industrial levels and to pursue efforts to limit

---

<sup>1</sup> [The science and impacts of climate change - Committee on Climate Change](#)

warming to 1.5<sup>0</sup>c. The Paris Agreement is signed by 160 countries, including the US, China and the UK.

- 5.5 More recently, on May 2<sup>nd</sup> 2019, the Committee on Climate Change (CCC) published a report, 'Net Zero: The UK's contribution to stopping global warming<sup>2</sup>', which advocates a net zero greenhouse gas target for the UK for 2050.
- 5.6 The CCC report identifies that net-zero is necessary, feasible and cost-effective. A net-zero achievement would end the UK contribution to rising global temperatures.
- 5.7 On 12<sup>th</sup> June 2019, UK Prime Minister, Theresa May, announced<sup>3</sup> that the UK will eradicate its net contribution to climate change by 2050. This will be underpinned by an amendment to the Climate Change Act 2008.
- 5.8 The re3 Strategy, adopted by each of the re3 Councils in 2018, highlights the increasing need to support decision-making with information on the carbon impact of activities, alongside established indicators such as cost and recycling rate. A similar principal is referenced in the UK Government 'Waste and Resources Strategy', published in December 2018.

### **re3 and Climate Change**

- 5.9 It is important to recognise that the impacts of choices which result in the generation of waste, which is ultimately managed by re3, are far wider than those addressed by this outline proposal. For example, food waste consisting of produce grown or reared on another continent may:
  - Have been raised on, or at the expense of, important sources of vegetation.
  - Be transported long distances by air or sea, resulting in the burning of fuel.
  - Be hauled by road within the continent and UK, stored in refrigerated conditions, presented in carbon-based, single use, packaging, and displayed in supermarkets who may consume relatively high levels of energy.
  - Carry embodied water - in effect, importing water from areas which may have water shortages.
- 5.10 Those impacts are important because we know that: (i) deforestation can displace vegetation which would otherwise photosynthesise carbon dioxide, (ii) water shortages can exacerbate climate driven water scarcity, contribute to migration and political insecurity, and (iii) transport is a considerable source of atmospheric CO<sub>2</sub>.
- 5.11 The re3 Partnership should support efforts to highlight environmentally sustainable purchasing and lifestyle choices by residents, the councils themselves and other local stakeholders (businesses, regional anchor institutions, contractors and suppliers). Such efforts should help to reduce wastage and could also support the local and national economy.
- 5.12 However, for the purposes of this initiative, it is proposed that the re3 Partnership should seek to reduce its impact from the point that waste is presented, either at the kerb, at the re3 facilities or via services such as street cleansing or fly-tip clearance. This choice is important and is proposed because it focuses efforts and available resources in those areas in which the council partnership can genuinely exert most agency.

---

<sup>2</sup> [Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf](#)

<sup>3</sup> [PM-we-will-end-uk-contribution-to-climate-change-by-2050](#)

- 5.13 The graph at appendix 2 illustrates the relative emissions for waste management, based on UK Government estimates. It reflects only the impact from treating waste but provides an interesting baseline exercise. As may be predicted, landfill proves to be the greatest proportionate contributor of greenhouse gas.
- 5.14 Accordingly, officers from the re3 Partnership are engaging with expert advisors and colleagues to seek ways to achieve the following:
- 5.14.1 As accurately as practically possible, identify the greenhouse gas impacts of existing waste management treatments, policies and activities for the re3 partnership. This should include the treatment of waste and also the relative energy usage for the treatments.
  - 5.14.2 As accurately as practically possible, identify deliverable alternative treatments, policies, activities and/or mitigations to reduce (and ideally remove) the greenhouse gas impacts from existing waste management practices.
  - 5.14.3 Identify appropriate and effective messaging and practical measures that can be communicated internally, to Contractors and suppliers, and not least to re3 residents which helps reduce the contribution of re3 waste services to climate change.
- 5.15 Given the partnership wide consensus on the importance of this work, in the first instance, the re3 Project Team will seek to fund the costs of this work through the shared management budget. However, in the event that additional funding is required, Officers will liaise with the senior officers at each council (mindful of the fact that we are, at the same time, undertaking detailed work on essential contract savings).
- 5.16 If we're able to commission and complete the proposed work, it has the potential to be invaluable to the re3 Partnership in planning and delivering service changes in line with the environmental commitments of the individual councils and the aforementioned underpinning intentions of the re3 Strategy.
- 5.17 Supporting wider efforts to reduce and seek to eradicate the causes of climate change, from within the waste service area, should help to increase the reach and engagement that re3 enjoys with residents.
- 5.18 It will be critical that the respective Contractor's, FCC and the individual waste collection providers, contribute appropriately. As identified in the re3 Strategy, and subject to the measures ultimately proposed, there may be some resistance on commercial grounds. That being said, there is also some cause for optimism that measures proposed on grounds of climate impact should result in savings for all parties.

## **6 ADVICE RECEIVED FROM ADMINISTERING AUTHORITY**

### Head of Legal Services

6.1 None for this report.

### Corporate Finance Business Partner

6.2 None for this report.

### Equalities Impact Assessment

6.3 None.

Strategic Risk Management Issues

None

**7 CONSULTATION**

7.1 Principal Groups Consulted  
Not applicable.

7.2 Method of Consultation

Not applicable.

7.3 Representations Received

Not applicable.

Background Papers

None

Contacts for further information

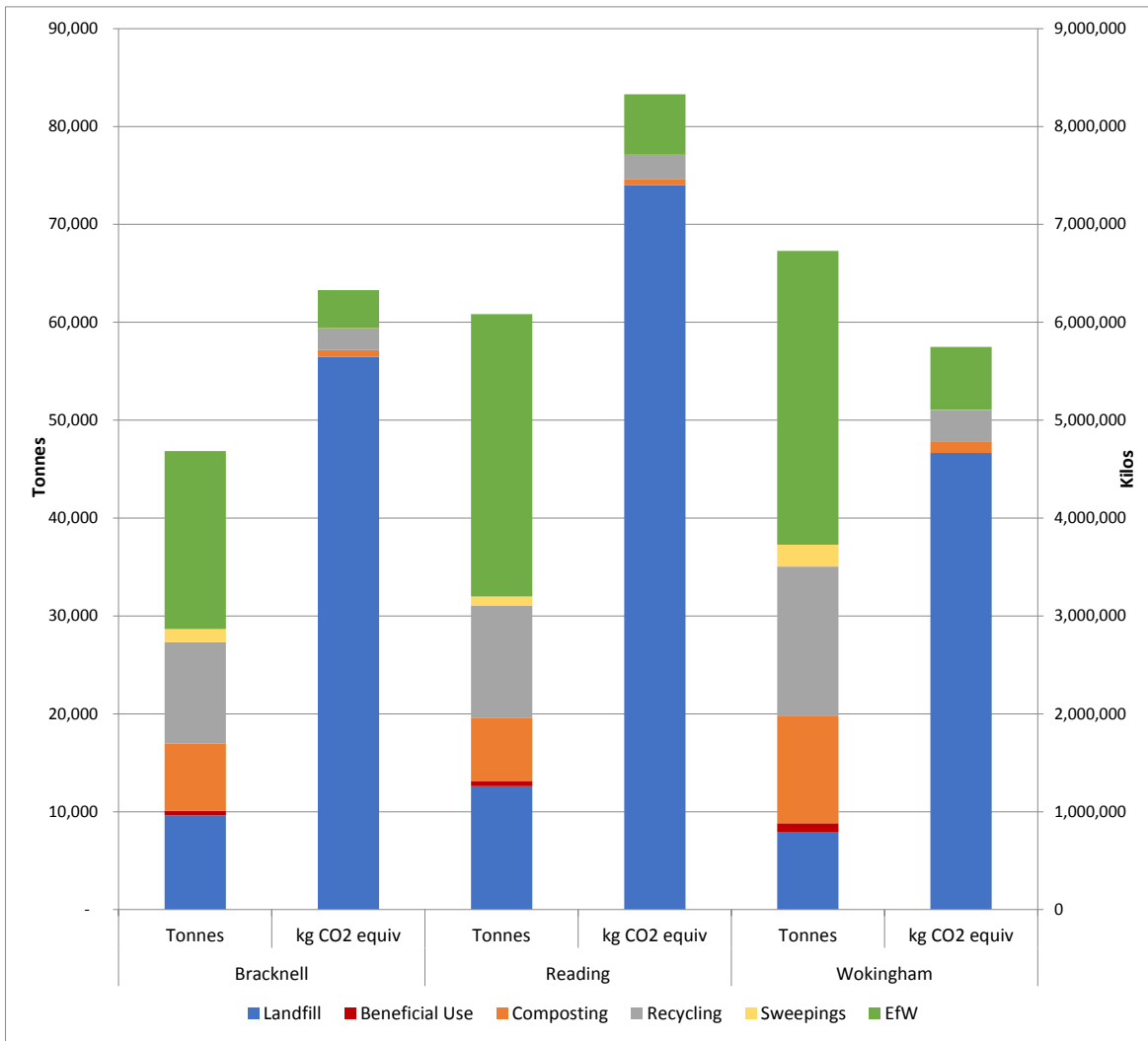
Oliver Burt, re3 Strategic Waste Manager  
0118 937 3990  
oliver.burt@reading.gov.uk

Appendix 1 – Example of Decline in Arctic Ice.



Source: #schoolstrike4climate (Instagram)

Appendix 2 – Greenhouse Gas impact from waste management



Source: re3 Waste Data and UK Government Greenhouse Gas Conversion Factors for Company Reporting

The graph above is designed to illustrate the estimated relative contributions of greenhouse gas (GHG) emissions, represented here as an equivalent kilograms of CO2 (which is only one of the principal GHGs).

For each council the left-hand column relates to the left-hand axis and shows tonnage of waste treated via 6 principal categories, as shown in the legend at the bottom. The right-hand column, in each case, relates to the right-hand axis and shows the kilograms of GHG emitted as a result of the way waste is managed.

It is revealing to compare the relative scale of the individual sections between the tonnage (left) and GHG (right) columns for each council. While the shared re3 contract has enabled the councils to vastly reduce their reliance on landfill it is clear that landfill constitutes the majority of the GHG impacts directly attributable to waste management. In seeking to reduce the GHG impact of waste, landfill is an important area. It is also clear to see that recycling, composting and Energy from Waste (EfW) make a far smaller relative contribution. It is worth taking a cautious perspective on those activities, however, as they are (EfW and recycling) energy intensive treatment types – this is something we’ll look to take in to account in the further work described in this report.