

## Eco Impact Checklist

<b>Title of report: Combined E-scooter and E-bike rental scheme</b>
<b>Report author: Matthew Barrett</b>
<b>Anticipated date of key decision – 24<sup>th</sup> January 2023</b>
<p><b>Summary of proposals:</b></p> <ol style="list-style-type: none"> <li>To approve implementing a combined e-scooter and e-bike on-street rental scheme for Bristol, which will form part of a wider regional scheme co-ordinated by the West of England Combined Authority (WECA). This scheme will incorporate the next phase of the government’s e-scooter trials and will cover rental operations up until the legalisation of e-scooters and new powers are granted to manage micromobility rental schemes in the longer-term.</li> <li>To approve a move to formalised rental parking managed by Bristol City Council, including the principle of on-road parking hubs, and to start to deliver formalised parking subject to available funding, and to bid for funding for a large-scale rollout of parking hubs where opportunities arise.</li> </ol> <p>1)</p>

Will the proposal impact on...	Yes / No	+ive or -ive	If Yes...	
			Briefly describe impact	Briefly describe Mitigation measures
Emission of Climate Changing Gases?	yes	unclear	<p>Net emissions associated with transport within Bristol may be positively or negatively impacted depending on how many ICE car, walking, and cycling journeys are displaced by e-scooter/bike trips.</p> <p>Emissions associated with production and disposal of E-scooters/bikes represent the majority of CO2e arising from their use. The journey intensity and total CO2e will depend on the</p>	<p>WECA / UWE are evaluating usage data to understand modal shift and overall impact, which will inform future mitigation. It is desirable that data collected in this project determine modal shift and length of journey in combination. This proposal will help to determine the overall impact of e-scooters/bikes in the city. Until the completion of this project, interim calculations may be based on an assumed rate of 12% of e-scooter trips made displace ICE car journeys <a href="#">ey-micromobility-moving-cities-into-a-sustainable-future.pdf</a></p> <p>Existing and new contracts must actively monitor and report to BCC on the quantity of equipment sent for recovery, recycling or disposal arising from ongoing operation of the Bristol/WECA scheme. This</p>

			manufacturing and operational choices used by the scheme provider, as well as rates of vehicle damage, loss or theft of e-scooters/bikes.	data should supplement the mode shift study being undertaken by UWE and used to assess the overall carbon impact against the latest available independent life cycle assessment data (currently the <a href="#">2020 life cycle assessment</a> )
Bristol's resilience to the effects of climate change?	N			
Consumption of non-renewable resources?	Y	-ve	Use of resources to build scooters /bikes and batteries, energy to power them and to service operations.	<p>Existing and new contracts must actively monitor and report to BCC on the quantity of equipment sent for recovery, recycling or disposal arising from ongoing operation of the Bristol/WECA scheme.</p> <p>It is desirable to have built into a new contract, stringent requirements around traceability of end-of-life recycling and disposal of e-waste components and materials.</p> <p>It is desirable that future contract specifications include requirements for providers to charge e-scooters/bikes via renewable energy tariffs that are classed as either <i>investment</i> or <i>partnership</i> tariffs, avoiding <i>certificate backed</i> tariffs.</p>
Production, recycling or disposal of waste	Y	Potentially -ve	<p>Issues surrounding use of high-capacity lithium batteries- end of life disposal and disposal of damaged batteries (e.g fire)</p> <p>Volume and expected</p>	<p>Disposal in line with guidelines. Processes for dealing with fire damage currently under review (WECA is contract holder not BCC)</p> <p>Existing and new contracts</p>

			lifetime of equipment associated with schemes can lead to significant quantities of waste with the potential to be handled in a way that causes harm to the environment. This is particularly true of lithium ion batteries. <a href="#">Environmental impacts, pollution sources and pathways of spent lithium-ion batteries - Energy &amp; Environmental Science (RSC Publishing)</a>	<p>must actively monitor and report to BCC on the quantity of equipment sent for recovery, recycling or disposal arising from ongoing operation of the Bristol/WECA scheme.</p> <p>It is desirable to have built into a new contract, stringent requirements around traceability of end-of-life recycling and disposal of e-waste components and materials.</p>
The appearance of the city?	Y	-ve	Rental parking causes significant street clutter.	BCC taking on management of parking to address some issues. Work underway to look at on-road parking solutions, to avoid cluttering pavement. But limited options to reduce visual impact.
Pollution to land, water, or air?	Y	unclear	<p>Likely improvements in local air quality for trips made by scooters instead of cars, buses or taxis.</p> <p>Potential for contamination caused by battery fires or rental vehicles in rivers / docks</p>	<p>The findings of the UWE study will be used to evaluate the overall impact on air quality in Bristol.</p> <p>WECA and operator to review emergency response procedures, response procedures for locating and retrieving abandoned scooters, and procedures for disposal / and remediation of contamination.</p> <p>Existing and new contracts must include provision requiring the scheme operators to take reasonable steps to prevent vehicles entering waterways and to recover in a timely manner any that do enter waterways.</p>
Wildlife and habitats?	no			

**Consulted with:****Summary of impacts and Mitigation - to go into the main Cabinet/ Council Report**

The significant impacts of this proposal are not easy to quantify at this point in the e-scooter trial and for the inclusion of e-bikes, however determining this is an intended outcome of the next phase of the rental scheme managed by WECA. Many of the net impacts will depend on to what extent e-scooter /e-bike trips are replacing trips that would otherwise have been made by ICE vehicles, and this is difficult to predict at this stage. There are also potential issues of contamination arising from abandoned or damaged lithium-ion batteries.

The proposals include the following measures to mitigate the impacts – to monitor e-scooter/e-bike usage and impacts as part of the trial and WECA to report to DfT, and for WECA to work with the operator to improve procedures around management of batteries.

The net effects of the proposals are currently unclear.

**Checklist completed by:**

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Date:	21/10/22
Verified by Environmental Performance Team	Daniel Shelton 25/10/2022