

Appendix 2 – Carbon Impact Assessment

| Will the decision/proposal impact... | Impact | If an impact or potential impacts are identified | | | |
|--|--------------------|--|---|--|--|
| | | Describe impacts or potential impacts on emissions from the Council and its contractors. | Describe impact or potential impacts on emissions across Rotherham as a whole. | Describe any measures to mitigate emission impacts | Outline any monitoring of emission impacts that will be carried out |
| Emissions from non-domestic buildings? | No impact | | | | |
| Emissions from transport? | Decrease emissions | Additional emissions may be expected from travel related to the development and construction of projects in the Transport Capital Programme. | <p>This will depend on each project taken forward. Generally, schemes which reduce demand for travel, or facilitate active travel and/or public transport may be expected to reduce emissions. Measures which facilitate car ownership or use, or additional travel more generally, may be expected to increase emissions.</p> <p>The likely greatest impact is associated with the reallocation of Clean Air Plan monies to support accelerated deployment of electric buses - saving 70% of emissions on treated routes at 2019 grid average electricity, which could</p> | Where possible scheme PMs will be expected to provide estimates of changes in carbon emissions consequential to the schemes. | <p>To be determined once projects and their impacts are understood in more detail.</p> <p>It is proposed to investigate outcomes from the Sheffield Road cycleways and Rotherham - Maltby bus corridor schemes. Evaluation of these completed projects may increase the Council's understanding of their respective carbon emissions impacts and inform the development of future schemes.</p> |

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| | | | increase up to 100% with fully renewable electricity. | | |
| Emissions from waste, or the quantity of waste itself? | Increase emissions | Most schemes will result in excavations and/or disposal of materials as part of construction, with consequential one-off increase in waste and associated emissions. | There may be a waste implication depending on the decisions of commercial operators as to how ICE buses remaining in the fleet are utilised or scrapped. | Scheme PMs will be expected to work with designers and contractors to ensure carbon emissions are minimised as far as practicable, including actively seeking opportunities to cut emissions from existing operation. | |
| Emissions from housing and domestic buildings? | No impact | | | | |
| Emissions from construction and/or development? | Increase emissions | All highway schemes have construction emissions arising from the supply, installation, maintenance and operation of the schemes. The scale and nature of these cannot be confirmed until schemes | No impact expected beyond the contribution from RMBC and its contractors. | Scheme PMs will be expected to work with designers and contractors to ensure carbon emissions are minimised as far as practicable, including actively seeking opportunities to cut | |

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| | | are identified and more developed. | | emissions from existing operation. | |
| Carbon capture (e.g. through trees)? | Impact unknown | It is possible schemes will be identified involving removal of small numbers of trees. | No impact expected. | Impacts on trees will be avoided in the first instance. The advice of arboriculturists will be sought in respect of replacement planting in the event of tree impacts being identified. | To be determined once projects and their impacts are understood in more detail. |
| Identify any emission impacts associated with this decision that have not been covered by the above fields: | | | | | |

Please provide a summary of all impacts and mitigation/monitoring measures:

In summary, the following impacts are expected, with the scale and balance of emissions unknown until projects are further developed -

- A one-off increase in emissions associated with development and construction of the projects;
- An ongoing increase in emissions associated with the maintenance and operation of the projects;
- Potential but as yet unknown change in emissions from transport resulting from the schemes;
- A likely ongoing reduction in carbon emissions from operation of services buses in Sheffield and Rotherham, arising from the accelerated deployment of electric buses.

The increases associated with development, construction, maintenance and operation reflect the systemic nature of the carbon emissions problem; whilst the energy and construction systems are emitters of carbon, any additional activity utilising these systems can be expected to result in increases in emissions.

The changes are thought likely to be very small in the context of overall transport emissions in Rotherham, and very small in the context of the NZ30 and NZ40 targets.

Mitigation will principally consist of emissions estimates being prepared as schemes are developed, PMs being required to ensure emissions are reduced as far as practicable in the design and construction of the projects, and this feeding into scheme development.

| Supporting information: | |
|--|---|
| Completed by: (Name, title, and service area/directorate). | Nat Porter Interim Head, Transportation Infrastructure Service Regeneration & Environment |
| Please outline any research, data, or information used to complete this [form]. | |
| If quantities of emissions are relevant to and have been used in this form please identify which conversion factors have been used to quantify impacts. | Project report MIS072 - Low Emission Bus Scheme monitoring programme (TRL, 2022) |
| Tracking [to be completed by Policy Support / Climate Champions] | Tracking reference: CIA 414 Arthur King Principal Climate Change Officer Finance and Customer Services |