

Housing Delivery Programme – Developments at Far Lane, East Dene
Appendix 5 – 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 on emissions				
Emissions from transport?	Increased emissions / impact unknown	<p>Vehicle movements to and from site generated during construction will create emissions, through the movement of building and waste materials and personnel.</p> <p>Addition of the homes to the Council's maintenance programme will also result in increased transport emissions in future years.</p>	<p>While it is possible that new households will increase vehicle movements, they may also reduce them, depending on where new residents work and access services. The development is within reasonable walking distance of shops and public transport stops. We do not know before a development is built where new residents will move from and whether this move will increase or decrease vehicle movements. However, it should be noted that the housing provision within this development includes provision for car parking as per planning policy. This does not in itself discourage car use, but this issue is outside of the remit</p>	<p>Where appropriate, prospective contractors will be required to demonstrate how they will minimise and mitigate emissions from vehicle movements as part of the construction, during the tendering process. All new housing developments are subject to planning controls and the planning process at the plan and policy development and planning application stages takes into account vehicle movements.</p>	<p>Assessment of whether the new households increase or decrease carbon emissions through vehicle movements is not monitored at this time. Overall Borough emissions are reported annually but are subject to a 2 year lag.</p>

			of this carbon impact assessment.		
Emissions from waste, or the quantity of waste itself?	Increased emissions	Construction will generate waste materials through demolition, exporting of materials from groundworks and waste construction materials.	Although new households may not necessarily mean more people living in the Borough, they are likely to create a small increase in the overall volume of waste created and, in the distance travelled by waste collection vehicles.	Where appropriate, prospective contractors will be required to produce a plan demonstrating how they will minimise and mitigate vehicle emissions from the movement of waste, during the tendering process. This will include the recycling / re use of materials on site where possible.	Where appropriate, we will monitor contractor's implementation of wastes minimisation and management plans.
Emissions from housing and domestic buildings?	Increased emissions	No direct emissions increase for the council.	This is a "no gas" development utilising Air-Source Heat Pumps (ASHP) therefore the carbon emissions will be greatly reduced and the development will be far more environmentally friendly than a traditional gas boiler. Properties designed using the Future Homes Standard should decarbonise as the grid becomes more renewable without additional retrofit and are estimated to be 75% more efficient than part L building regulations. However, as these are new builds, there	The Council will ensure that the new homes are high quality, energy efficient and able to meet the challenge of climate change. The use of modern methods of construction will be considered, where value for money can be demonstrated as well as carbon reduction.	Construction will be monitored to ensure that specifications are met and, where appropriate, the energy performance of new buildings will be monitored once occupied to ensure that the stated performance standards are met.

			will still be additional emissions until the National Grid becomes decarbonised and as part of the buildings' embodied carbon.		
Emissions from construction and/or development?	Increased emissions	<p>Emissions will be increased from on-site vehicles and equipment and the lighting of the sites. Also, from the heating lighting and powering of site offices and cabins. The manufacture of construction materials will increase emissions.</p> <p>It is possible that some mature trees will be removed as part of the development of new sites</p>	<p>The emissions produced in the short term through construction and materials used will impact on Borough wide emissions. However, some of the building materials will be manufactured within the Borough, reducing emissions associated with transportation.</p> <p>Removal of trees without replacement could, depending on how they are disposed of, increase carbon emissions. This activity will also reduce the carbon sequestration capacity of the Borough.</p>	<p>The use of modern methods of construction will be considered for all new schemes, where value for money can be demonstrated as well as carbon reduction.</p> <p>Where trees are present on a development site they will be retained where possible. The planning process deals with protection of trees on development sites and where it allows their removal usually requires equivalent or better replacement.</p>	This will be monitored through the procurement process.
Carbon capture (e.g. through trees)?	Unknown	It is possible that some semi-mature trees will be removed as part of the development of new sites which will impact on the borough's ability to capture carbon. Some of the Council's own construction projects will include the planting of trees as part of any landscaping schemes.	The balance between removal of mature trees and replanting as part of landscaping is not currently known.	As above.	Unknown

Identify any emission impacts associated with this decision that have not been covered by the above fields: N /A

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

Emissions will be generated from energy use associated with construction sites, the vehicle movements associated with construction personnel, materials and waste. The manufacture of construction materials will also generate emissions. New homes will generate new emissions mainly through lighting and heating and the powering of domestic appliances. These increases will be mitigated through the requirement for prospective contractors to demonstrate how they will reduce emissions from the above and monitored through the construction period. The Council will continue to ensure that new homes are as energy efficient as possible and employ the use of modern methods of construction where value for money can be demonstrated as well as carbon reduction. The actual energy performance of new homes will be monitored to ensure that they meet expected standards.

Supporting information:

Completed by: (Name, title, and service area/directorate).	Nick Ward, Place and Quality Manager, Strategic Housing and Development Service, Adult Care, Housing and Public Health
Please outline any research, data, or information used to complete this [form].	No relevant data or research used.
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.	No relevant data or research used.
Tracking [Completed by Climate Change Officer]	Tracking reference: CIA 278 Arthur King, Principal Climate Change Officer, Property and Facilities Services, Finance and Customer Services