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?					
Emissions from transport?	Unknown	Recommendations 5 and 7, that the Council should consider how green infrastructure assets in its estate can contribute to biodiversity strategies and targets and that ongoing changes to verge management should be expanded, might imply a fuel saving, from less intensive grounds and streets maintenance. This might avoid emissions from travel to site, petrol tools and diesel-fuelled, road going plant: however, the magnitude of any emissions impact is unknown and may be partly offset by changes in woodland management, which could nonetheless decrease net emissions,			Diesel use is monitored at all fuelled sites; fuel cards are used for petrol vehicles, plant and machinery; both are within scope of NZ30 emissions accounting, but a more focussed study would likely be needed to assess the marginal emissions impact of e.g., one cut instead of ten cuts per year, as per recent changes to some grass cutting schedules.

		by promoting increased carbon sequestration.			
Emissions from waste, or the quantity of waste itself?	Unknown		Recommendation 11 from the scrutiny review of nature's recovery in Rotherham proposes to support an increase in household composting. There are different ways to interpret and hence to implement the recommendation. Household composting is not necessarily composting at home: the Council's garden waste collection service collects households' compostable garden waste, which contributes to local recycling rates. Compared with garden waste collections, home composting may have less carbon impact, as emissions from transport are avoided. However, according to experimental statistics on the carbon impact of household waste in England (Defra, 2022) composting may have a greater, holistic carbon impact than anaerobic digestion or even than 'Energy from Waste'		Local household recycling rates are published by the Office for Local Government, 'Oflog'; marginal emissions impacts from increased household composting are unlikely to be detected by local area emissions statistics. A more sensitive measure of carbon impact might be available from monitoring take up of household composting; follow up surveys; garden waste weight analysis; and residual waste composition analysis… all of which may be too resource intensive, given the recommendation's intended emphasis on nature rich gardens.

			(incineration). In Rotherham, any garden waste that enters the household residual waste stream is anaerobically digested, at the BDR waste treatment facility. Hence, there may be unintended carbon impacts from an increase in household composting, which deserve further study.		
Emissions from housing and domestic buildings?					
Emissions from construction and/or development?	Unknown		A mandatory requirement that development should deliver Biodiversity Net Gain (BNG) of at least 10% was introduced by the Environment Act 2021. BNG may partly offset the carbon impact of construction from in-scope development, supported by scrutiny review recommendations: **1.** To resource the Council's response to the Environment Act 2021, including BNG. **5.** To manage the Council's estate for		S. 103 of the Environment Act introduces a new statutory duty for public authorities to produce a Biodiversity Report at least every five years. As a local planning authority, the Council must report details of its BNG activity, to include details of biodiversity gains resulting or expected to result from approved biodiversity gain plans in the Borough of Rotherham. A first Biodiversity Report must be published no later than 12 weeks after 1 January

			nature; hence, to create 'habitat banks' on Council land, from which offsite biodiversity units might be sold to developers, to attract private investment in nature's recovery in Rotherham. **9.** To apply planning policy tools to support nature's recovery: Cabinet approved a BNG supplementary planning document (SPD) in July 2023. Offsite biodiversity units can offset only a very small part of the carbon impact of development, within scope of the Council's 'Net Zero by 2040' climate change target. If an area of woodland established for 25 years were felled in 2025, then a 13x greater area of new woodland would need to be planted elsewhere, to sequester as much carbon as had already been stored and would have been captured by 2040, had the		2026 (i.e., by 26 March 2026).

			existing woodland been left undisturbed; to say nought of 'embodied' carbon in construction.		
Carbon capture (e.g., through trees)?	Unknown		Recommendation 7 proposes to 'expand' the Council's existing tree planting programme. There are significant challenges which may prevent the Council from expanding its existing programme, however there may be opportunities for carbon sequestration and nature's recovery, from bringing the Council's woodlands into positive management. Studies of woodland management techniques have indicated that selective removal of mature trees may increase semi-natural woodlands' capacity to capture and store carbon: in above ground biomass, in soils and in harvested wood products.		Changes to local woodland management will not be reflected in local area emissions statistics, which assign forest carbon flows according to Forest Research's CARBINE model. CARBINE does not predict carbon stocks well for local areas, where forest management differs from archetypal management practices: moreover, unmanaged and semi-natural woodland are both assumed to follow the growth patterns of un-thinned, productive forest. There might be opportunities jointly to commission academic research, to monitor the carbon impact of changes to woodland management in South Yorkshire. This would depend on the availability of funding, perhaps as one of three new 'National Forests' promised by the Labour

					Party's 2024 General Election manifesto.

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

Climate change adaptation is outside the scope of carbon impacts considered in the above table: increased resilience to extreme heat, interception of storm water flows and other ecosystem services provided by green infrastructure, such as woodland and urban trees, are wider environmental benefits which support the case for nature's recovery in Rotherham. Responsible authorities should consider actions which deliver wider environmental benefits, in respective local nature recovery strategies: the Council must have due regard to the South Yorkshire LNRS once it has been published next year.

As noted in response to recommendation 3 of the scrutiny review of nature's recovery in Rotherham, local, ward-level data on climate change, biodiversity and nature's recovery are needed to support these issues' reflection in ward priorities and plans.

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

In its motion of 25 May 2022 declaring a Nature Crisis in Rotherham, Council recognised that nature and climate crises were intrinsically linked, so that restoring nature could help to address climate change.

In response to scrutiny review recommendations on nature's recovery in Rotherham, four potential carbon impacts are identified: changes in fuel use, due to changes in the intensity of grounds and streets maintenance; emissions from waste, due to increased take up of household composting; emissions from development, partly offset by Biodiversity Net Gain and supported by scrutiny review recommendations; and increased carbon sequestration, which could be promoted by bringing the Council's woodlands into positive management.

Outturn emissions impacts will depend on objectives, policies and plans to be agreed by the Council, as it considers what actions it should properly take, to conserve and enhance biodiversity in the Borough of Rotherham.

Supporting information:	
Completed by: (Name, title, and service area/directorate).	Arthur King, Principal Climate Change Officer
Please outline any research, data, or information used to complete this [form].	• Department for Energy Security and Net Zero (2024). *UK local authority and regional greenhouse gas emissions statistics: 2005-2022*. Available from: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics> (Accessed July 2024)

	• Department for Environment, Food and Rural Affairs & Government Statistical Service (2022). *Experimental Statistics on the carbon impact of waste from households managed by local authorities in England*. Available from: <https://assets.publishing.service.gov.uk/media/63974500e90e077c329444f0/Statistics_on_carbon_emmisions_Waste_Households_England_v8_2018.pdf> (Accessed July 2024). • Forest Research (2022). *Quantifying the sustainable forestry carbon cycle: summary report*. Available from: <Quantifying the sustainable forestry carbon cycle (forestresearch.gov.uk)> (Accessed July 2024). • Woodland Carbon Code (2024). *Carbon Lookup Tables.* Available from: <https://woodlandcarboncode.org.uk/standard-and-guidance/3-carbon-sequestration/3-3-project-carbon-sequestration> (Accessed July 2024).
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.	
Tracking [to be completed by Policy Support / Climate Champions]	Tracking reference: CIA313 Katie Rockett, Climate Change Officer