

## Derby City Council Climate Change Impact Assessment (CCIA)

*Original CCIA developed by Chesterfield Borough Council 2021*

Derby City Council is taking the problem of climate change very seriously, and declared a climate emergency on 22 May 2019, with the stated goal of becoming a carbon neutral organisation by 2035. As part of our response to climate change, the council has committed to introduce Climate Change Impact Assessments for all reports where Key Decisions are made. This means that if you develop or change a policy, project, service, function, or strategy, you need to identify the impact of the activity regarding the climate. This will be done by conducting a Climate Change Impact Assessment (CCIA) using this document. It is similar to a risk assessment, or an equalities impact assessment - it is a structured report showing:

- What effects our activities have on the climate (mainly through our emissions of greenhouse gasses) and what we are doing to reduce these effects
- What impacts a changing climate may have on our services and functions and what actions we will take to become more resilient and less vulnerable.

The CCIA should be carried out as soon as possible during the development/change of any policy, project, service, function, or strategy. This will help identify strengths and weaknesses at the outset, to allow weaknesses to be addressed and the CCIA revisited to track improvements as the initiative progresses.

Below you will see the following tabs: Introduction, Instructions, Input, Report, Guidance and GHG emissions. First, familiarise yourself with the tabs as they explain the process. When you are ready, fill in the report details. This is done by going into the Input worksheet. The report chart will update as you go. Once you have completed the activity, the findings are shown in the [Report worksheet](#). You will be able to use this as a base for writing up a report; all you have to do is copy and paste it into your final document. Furthermore another worksheet, called [GHG emissions](#), can be used as a calculator of the actual emissions, when you know the amount of fuel/resource used, or the energy consumed. It is not essential that the GHG emissions tab is completed.

For further information on how to use this tool, see the guidance notes and video tutorials at:

<https://www.chesterfield.gov.uk/climate-change-impact-assessment-tool>

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## INSTRUCTIONS

### 1 Open up the Input worksheet.

### 2 Write notes in the relevant categories (column E).

If the category doesn't apply, leave it blank.

If you identify an impact that isn't otherwise covered, add it in the "Other" category on the Input worksheet.

For more details on each impact, hover over the impact cell (D).

### 3 Assign a score for each listed impact (column F).

Scores range from -5 (very strong negative impact) to 0 (no change) to +5 (a very strong positive impact).

To some degree, scoring is subjective. However, PLEASE SEE SCORING GUIDANCE document for details on how to assign scores and try to be as objective as you can.

A number of the categories are unlikely to generate negative results, as a failure to handle them on our part is likely to simply result in no change.

### 4 Add the diagram from the report tab into your Key Decision report.

Then use the rest of the information on the Report tab to create a short commentary summarising the key costs and benefits of the activity.

The full CIA must be appended to the Key Decision report before it can be presented to Council Cabinet.

## Derby City Council Climate Impact Assessment

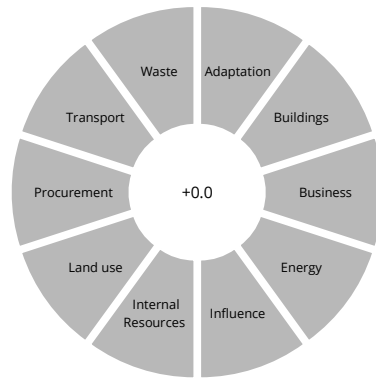
Report Name	Report Name	Market Rate Supplement Policy Update	
Report date	Date CIA is undertaken	24-Aug-23	
Report author	Your name(s)	Rebecca Hilton-Barber, Nicola Gerrard	
Project Notes	Use this space for a brief overview of the project and any extra notes on things that aren't covered below.	HR have recently updated the council's central and school's Market Rate Supplement policies last reviewed in 2017 to ensure they reflect how the Council and schools will consider and award Market Rate Supplements (MRS).	

Category	Impact	Notes / justification for score	Score
<b>Adaptation</b>	Drought vulnerability		
	Flooding vulnerability		
	Heatwave vulnerability		
	Other (specify)		
<b>Buildings</b>	Building construction		
	Building use		
	Green / blue infrastructure		
	Other (specify)		
<b>Business</b>	Developing green businesses		
	Skills and training		
	Sustainability in business		
	Other (specify)		
<b>Energy</b>	Local renewable generation capacity		
	Reducing energy demand		
	Switching away from fossil fuels		
	Other (specify)		
<b>Influence</b>	Communication and engagement		
	Wider influence		
	Working with communities		
	Working with partners		
	Other (specify)		
<b>Internal Resources</b>	Material / infrastructure requirement		
	Staff time requirement		
	Staff travel requirement		
	External funding		
	Other (specify)		
<b>Land use</b>	Carbon storage		
	Improving biodiversity adaptation		
	Natural flood management		
	Other (specify)		
<b>Other</b>	Other 1		
	Other 2		
	Other 3		
	Other 4		
<b>Procurement</b>	Food and drink		
	Products		
	Single-use plastic		
	Services		
	Other (specify)		
<b>Transport</b>	Decarbonising vehicles		
	Improving infrastructure		
	Supporting people to use active travel		
	Other (specify)		
<b>Waste</b>	End of life disposal / recycling		
	Waste volume		
	Other (specify)		

## Report

Generated 19/10/23 v1.1



This infographic will change according to the scores entered on the Input tab. Please copy and paste the infographic into the 'Climate Implications' section of your DCC report when the CIA is complete.

Category	Impact	Notes / justification for score	Score
<b>Adapatation</b>	Drought vulnerability		0
	Flooding vulnerability	0	0
	Heatwave vulnerability		0
	Other (specify)		0
<b>Buildings</b>	Building construction		0
	Building use		0
	Green / blue infrastructure		0
	Other (specify)		0
<b>Business</b>	Developing green businesses		0
	Skills and training		0
	Sustainability in business		0
	Other (specify)		0
<b>Energy</b>	Local renewable generation capacity		0
	Reducing energy demand		0
	Switching away from fossil fuels		0
	Other (specify)		0
<b>Influence</b>	Communication and engagement		0
	Wider influence		0
	Working with communities		0
	Working with partners		0
	Other (specify)		0
<b>Internal Resources</b>	Material / infrastructure requirement		0
	Staff time requirement		0
	Staff travel requirement		0
	External funding		0
	Other (specify)		0
<b>Land use</b>	Carbon storage		0
	Improving biodiversity adaptation		0
	Natural flood management		0
	Other (specify)		0
<b>Other</b>	Other 1		0
	Other 2		0
	Other 3		0
	Other 4		0

Procurement	Food and drink		0
	Products		0
	Single-use plastic		0
	Services		0
	Other (specify)		0
Transport	Decarbonising vehicles		0
	Improving infrastructure		0
	Supporting people to use active travel		0
	Other (specify)		0
Waste	End of life disposal / recycling		0
	Waste volume		0
	Other (specify)		0

Category	Impact	Notes & examples
Adaptation	Drought vulnerability	By 2050 we expect drier summers. This could mean 34% less rain, with watercourses 65% lower than the current average. How vulnerable is the activity to drought?
Adaptation	Flooding vulnerability	By 2050 we expect the biggest rainfall events to be up to 20% more intense than current extremes (peak rainfall intensity). Average winter rainfall may increase by 29% on today's averages. This means that at their highest, the flow in watercourses could be 30% greater than current extremes. How vulnerable is the activity to flooding both from rivers and surface water?
Adaptation	Heatwave vulnerability	By 2050 we expect summer daily maximum temperature may be around 6°C higher compared to average summer temperatures now. Winter daily maximum temperature could be 4°C more than the current average, with the potential for more extreme temperatures, both warmer and colder than present. How vulnerable is the activity to heatwaves?
Buildings	Building construction	How is the building constructed? Positive impacts would include retrofitting existing buildings rather than demolition and replacement, construction using low carbon materials (e.g. low concrete, additional timber) to high standard (BREEAM (Building Research Establishment Environmental Assessment Method), Passivhaus etc.) the inclusion of high grade insulation, low carbon heating, and microgeneration technologies. Negative impacts would generally be business as usual construction techniques. This is distinct from the building use impact in that it is about the fabric of the building rather than how the building is used. If it is not clear whether an impact should be in this category or the building use category below, simply choose one, and make sure you don't report an item in both categories.
Buildings	Building use	How is the building used? Positive impacts would include encouragement of low-carbon living and travel. This could be provision of bicycle storage, water fountains, recycling bins, automatic lighting, or passive cooling etc. Negative impacts would include removal or omission of one or more of these modifications, or alterations that discourage low carbon use (removal of cycle storage for example). If it is not clear whether an impact should be in this category or the construction category above, simply choose one, and make sure you don't report an item in both categories.
Buildings	Green / blue infrastructure	This includes changes to the value of green / blue infrastructure in the built environment (excluding wider land use which is included below) . Impacts may include habitat creation within a building (nesting boxes or a green roof for example) the introduction of street trees or sustainable drainage from a development. These are measures which are implemented with good building design but are not necessarily part of the building itself. Negative impacts would include habitat loss, impermeable drainage surfaces etc.
Business	Developing green businesses	Does the activity explicitly support the development of green businesses? This impact covers businesses which are focussed on delivering green technologies, research, services etc. NOT simply an existing business implementing incremental changes to established processes and supply chains (which would be counted under sustainability in business below). Examples might be development of a new business installing solar panels, providing energy audits, or manufacturing EV charging points. Negative scores would reflect adverse effects on these businesses
Business	Marketable skills & training	Does this activity provide training to individuals and businesses in improving their climate change performance, or in developing marketable green skills? For example, this might include land management, waste reduction, low carbon construction, microgeneration technologies etc. Negative effects are unlikely in this category, but could include closure of a local training
Business	Sustainability in business	Does this activity support businesses in applying best practice and sustainable solutions in their existing business model and supply chains? This must be a quantifiable shift in business practice to reduce climate impact (rather than a high score simply because the business is involved in some form of low carbon technology - this would be included under the developing green businesses heading) . Examples of this might be successful application to a new certification scheme (FSC, PEFC, ISO 14001 etc.) a switch to a less carbon intensive manufacturing process, successful applications to government decarbonisation schemes etc.
Energy	Local renewable generation capacity	Does the activity include changes to local capacity for renewable electricity heat generation? This might include solar PV panels, heat pumps, biomass boilers, wind turbines, micro-hydro etc. Negative effects would include decommissioning of local capacity, e.g. building on an existing solar farm.
Energy	Reducing energy demand	Does the activity change overall energy demand? This might include installation of more efficient systems, or management to allow reduced heating or lighting energy demand. A negative score would represent a net increase in heating or lighting energy demand.
Energy	Switching away from fossil fuels	Does this activity involve an increase or decrease in static fossil fuel technologies (transport is covered later). For example, replacement of an existing gas boiler with a heat pump of an equivalent rating would be a positive score. Installation of new fossil fuel systems represents a negative score in this category (even if they are more efficient than existing systems)
Goods & services	Food & Drink	Are we working to ensure that we specify lower carbon options when we buy in food and drink? Typically, we want to use food that is less land and carbon intensive to produce, process, and transport. This means we should ideally be reducing red meat and dairy consumption, and keeping supply chains as short as possible (i.e. buying locally produced food where possible). How is the food packaged? Is it wrapped in foil or plastic? Are we increasing the quantities we buy, or decreasing?
Goods & services	Products	Are we increasing overall consumption of products or decreasing them? External businesses providing products have their own carbon emissions. Is the product absolutely necessary? Does the supplier have an environmental policy? Is it better than their competitors?
Goods & services	Single-use plastic	We are committed to phasing out single use plastic where possible. Does purchase of this product increase or decrease our reliance on single use plastic? Is there an effective alternative? What does the supplier pack the product in?
Goods & services	Services	Are we increasing overall consumption of services or decreasing them? External businesses providing services have their own carbon emissions. Does this activity increase or decrease our indirect emissions created by relying on these services? Is the service absolutely necessary? Does the supplier have an environmental policy? Is it better than their competitors?
Influence	Communication & engagement	Does this activity increase awareness of climate change, and our actions to address climate change issues? Does it challenge climate change disinformation, and can we back up what we say with good quality published science? Conversely, is this activity embarrassing from a climate point of view? Is there a climate cost to a positive action that we are delivering for other reasons? Is this reasonable and justifiable?
Influence	Wider influence	Does this activity result in us gaining authority on a climate change issue, could we be a clear example to other local authorities, are we leading on this? A negative outcome would be us missing opportunities, failing to engage with the wider conversation, or re-inventing existing work.
Influence	Working with communities	Does this activity help build awareness, willingness, and skills in our communities to address climate change? Does it have a cost or benefit in terms of our relationships with community groups?
Influence	Working with partners	Are we taking steps in this activity to ensure that we are working with partners with similar values to ours in relation to climate change? Is this activity expanding or limiting our work with partners more generally?
Internal resources	Material / infrastructure requirement	Does this activity result in us using more or less of our existing infrastructure, supplies and council resources? Will this have an indirect impact on the climate change impact of other services? Are we taking the appropriate steps to ensure that we are using the minimum necessary resource, and that it is at the highest possible environmental standard? Is there a clear constraint stopping us from doing more?
Internal resources	Staff time requirement	Council emissions are directly influenced by the amount of time members of staff have to work on an activity - does this activity require more staff time or less? What are the indirect effects? Does this mean that another project will have more or less resources?
Internal resources	Staff travel requirement	Does this activity mean that staff will need to travel more or less? Can this be reduced? Can we modify the project to change the mode of transport (public transport, cycling, walking, remote working etc.) If not, why not?
Internal resources	External funding	Are we able to leverage additional support for the activity from external funders? Does this mean we can achieve more than we could originally? Would support for this project preclude support for something else? How can we use external funding to help us reach our climate goals?
Land use	Carbon storage	Does this project result in a net increase or decrease in land carbon storage? This is likely to be directly correlated with the amount of timber (or mature trees) on the site, but may also be affected by peat formation, wetlands, or peat use as a horticultural medium. Remember that trees take a long time to grow (!) so simply replacing a mature tree with a newly planted one would still result in a loss of carbon.
Land use	Improving biodiversity adaptation	Does this activity help or hinder the natural world's ability to cope with climate change? Are we creating, destroying, or modifying habitats? Are we joining up species rich areas or cutting that connectivity? Are there measures we could be taking to minimise the damage of our activities?
Land use	Natural flood management	Is this activity reducing or increasing the risk of flooding due to changes in land use? Rough vegetation, woodland, and artificial flood storage areas will decrease the risk, impermeable surfaces, open ground, and drainage directly into watercourses will increase it. Are there modifications we could make to the activity to improve its performance?
Transport	Decarbonising vehicles	Does this activity increase or decrease the use of fossil-fuelled vehicles?
Transport	Improving infrastructure	Does this activity increase or decrease the opportunities within the borough for low carbon forms of travel? This may include increased provision of paths, cycle storage and repair facilities, lighting on public rights of way etc. Conversely, does this activity make active forms of travel more difficult? Does it divert traffic, or block access, does it result in a net loss of training and facilities.
Transport	Supporting people to use active travel	Does the activity provide support for people to use active forms of travel (mainly cycling and walking). This may include training and improvements to general health and fitness. Removal of any of these services would result in a negative score.
Waste	End of life disposal / recycling	Do you expect this activity to increase or decrease the <b>proportion</b> of waste which is recycled? Does it increase the amount of mixing of otherwise recyclable material? Does it make recycling easier and more efficient?
Waste	Waste volume	Will this activity increase or decrease the <b>total volume</b> of waste?

## Carbon emissions calculations (not mandatory)

\*GHG Factors for 2023 <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

A comprehensive set of factors can be found on this government spreadsheet. Some common examples are given below.

Energy or resource	Insert amount here	Carbon emissions (kgCO <sub>2</sub> e)	Greenhouse gas factor*	Notes
Electricity consumption (kWh) inc. supply and distribution	0	0	0.224994	
Gas use (kWh)	0	0	0.18	
Gas use (m3)	0	0	2.04	
Oil use (kWh)	0	0	0.27	
Oil use (litres)	0	0	3.17	
LPG use(kWh)	0	0	0.21	
LPG use (litres)	0	0	1.56	
<b>Resource use</b>				
Bricks (tonnes)	0	0	1.234	Primary source (not recycled)
Concrete (tonnes)	0	0	1.234	Primary source (not recycled)
Metals (tonnes)	0	0	1.264	Average of all metals and sources
Wood (tonnes)	0	0	925.245	Primary source (not recycled)
Plasterboard (tonnes)	0	0	71.95	Primary source (not recycled)
<b>Waste generation</b>				
Average construction (tonnes)	0	0		Waste generation GHG factors depend on method of disposal.
Wood (tonnes)	0	0		See full list of factors using link at top of page.
Scrap metal (tonnes)	0	0		
Average plastics (tonnes)	0	0		
Organic food and drink waste (tonnes)	0	0		
<b>Transport</b>				
Diesel (litres)	0	0	2.66	
Petrol (litres)	0	0	2.35	