Appendix 2

Climate, Environment & Sustainability Impact Assessment Tool.

Guidance for users (31.03.22)

Introduction

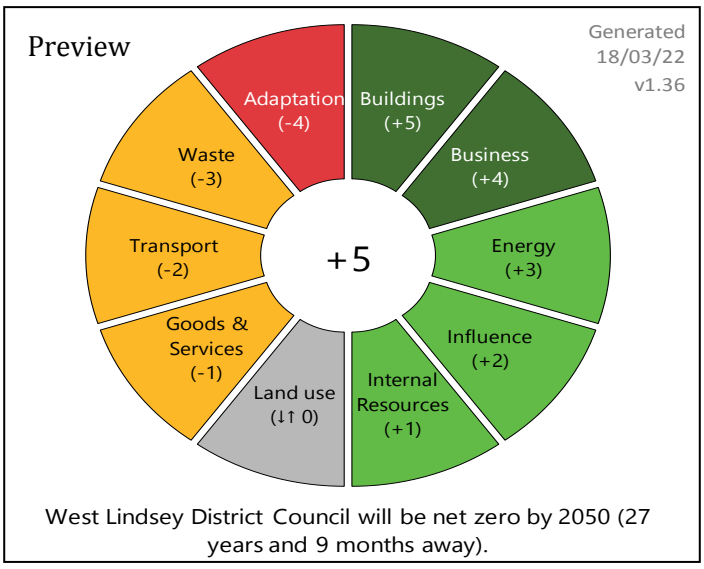
West Lindsey District Council is taking the problem of climate change and environmental degradation very seriously. We have recognised the UK government's climate emergency declaration and ratified an ambitious Environment and Sustainability Strategy and Action Plan at Council in June 2021. We have a stated goal of becoming a net zero carbon emission organisation and district before 2050. This is a huge challenge and so the council has committed to ensure climate, environment and sustainability matters are properly considered in all future reports and decisions.

This means that if you develop or change a policy, project, service, function, or strategy, you need to identify the impact of the activity in this area. Our preferred method for doing this is by conducting a Climate, Environment and Sustainability Impact Assessment (CESIA). This is similar to a risk assessment, or an equalities impact assessment: it is a structured report showing:

- What effects our activities have on the environment (especially 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.

How does it work?

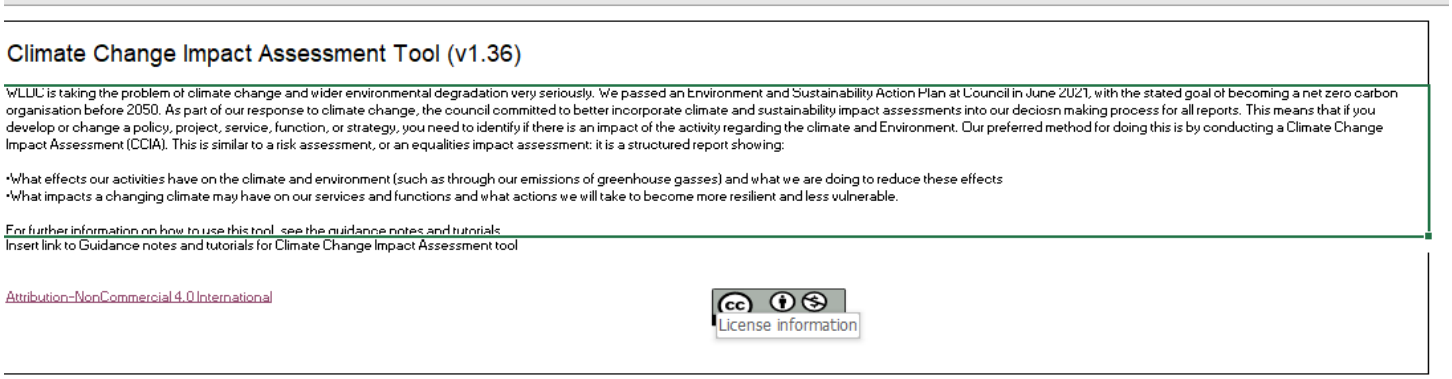
Accompanying this document is an excel-based decision support tool[1]. This is a form which generates an estimated climate impact score and a RAG rated infographic which can be attached to reports providing a quick visual summary as shown below. This document provides guidance notes for filling in the form, and how to use the infographic correctly.



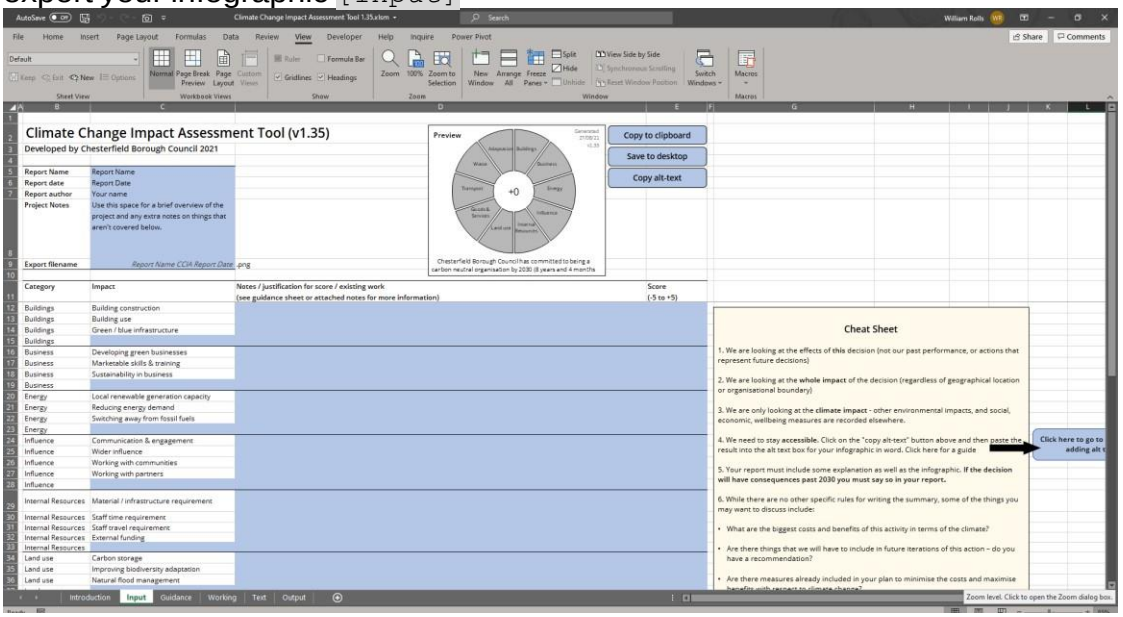
[1] CESIA Impact Assessment tool, and access to video tutorials about the tool will be available here

Getting started

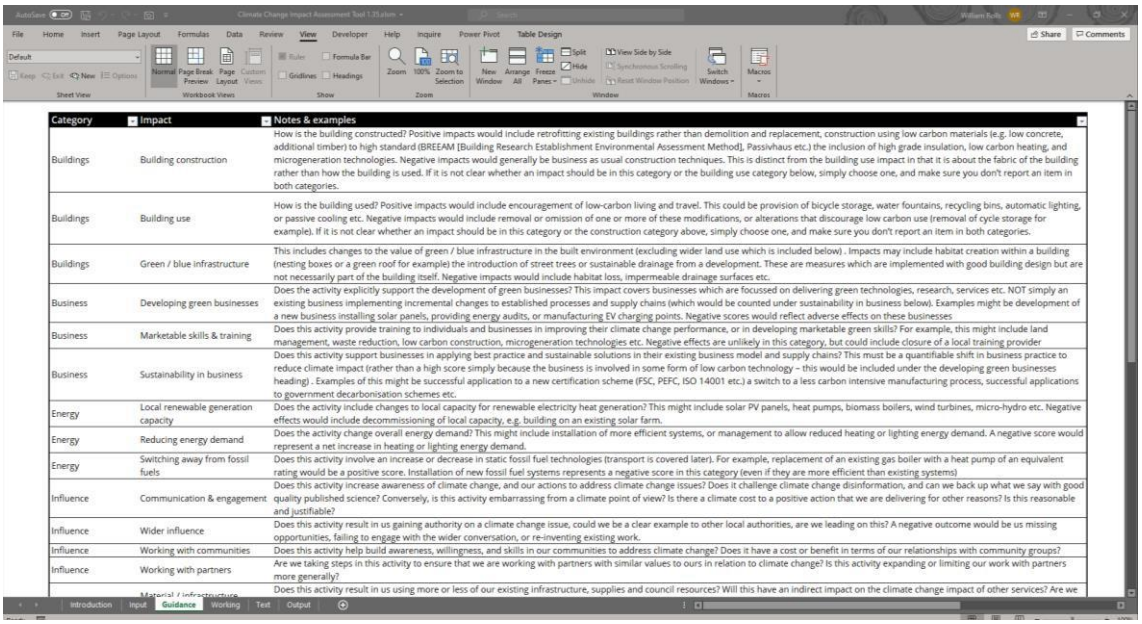
1. Make sure that you are using the latest version of the calculator (v1.36). We don't anticipate making a lot of changes, but if modifications are requested, new categories are added, or errors appear, we will be keeping the calculator up to date. The version number is at the top of the input screen and is watermarked on the output. We will announce new versions on Minerva and you'll always find the latest version on our site there. Link to site
2. Make sure that macros are enabled on the worksheet, it should be saved as an .xlsxm file, and Excel should prompt you for permission when you open it. The macros are needed to format the infographic correctly and save the result.
3. There are three worksheets in the book.
    a. An introductory sheet with a bit of an explanation of that it is for and how to use it `[introduction]`:



b. A data input screen. This is the main worksheet where you can add data and export your infographic `[Input]`



c. And a sheet with some more detailed guidance notes on the categories and impacts and how to fill them in `[Guidance]`.



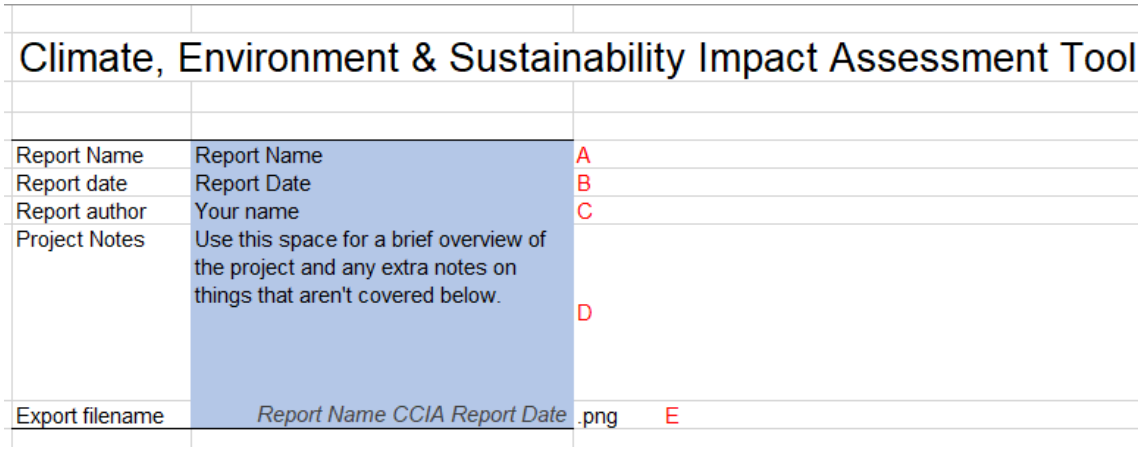
Category	Impact	Notes & examples
Buildings	Building construction	How is the building constructed? Positive impacts would include retrofitting existing buildings rather than demolition and replacement, construction using low carbon materials (e.g. low concrete, additional timber) to high standard (BREEAM [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 provider
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)
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?
		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

Using the calculator

When you have read the introduction go to the `input sheet`

Report metadata

First you need to add a report name (A) the report date (B), your name (C) and any notes about what the report covers (D). These notes are not included in the final report, they are there so that you can identify what the CESIA is about and who the report is for etc. if you come to look at it later. The file name (E) will automatically generate as `[report name] CESIA [report date].png`. If you want to, you can overwrite this default setting by editing cell `C10`. Please note that the only output format supported by the tool is portable network graphic (.png). Changing cell `D10` will have no effect on the export format.



Adding data

Below the metadata section there are a series of categories (A) and associated climate impacts (B). They will (probably) not all apply to your report, but it is good practice to double check them anyway.

For each row, write some notes (C) describing the impacts of the decision and what evidence / logic you're using to back it up. This is for your benefit. The notes are there to describe why you scored each impact as you did. If you have to answer questions about the infographic you will need to know how you arrived at the answer. If there is no impact in a category, then simply leave it blank.

Category A	Impact B	Notes / justification for score / existing work (see guidance sheet or attached notes for more information) C	Score (-5 to +5) D
Buildings	Building construction		
Buildings	Building use		
Buildings	Green / blue infrastructure		
Buildings			
Business	Developing green businesses		
Business	Marketable skills & training		
Business	Sustainability in business		
Business			
Energy	Local renewable generation capacity		
Energy	Reducing energy demand		
Energy	Switching away from fossil fuels		
Energy			
Influence	Communication & engagement		
Influence	Wider influence		
Influence	Working with communities		
Influence	Working with partners		
Influence			
Internal Resources	Material / infrastructure requirement		
Internal Resources	Staff time requirement		
Internal Resources	Staff travel requirement		
Internal Resources	External funding		

The score for each row (D) represents an estimate of the scale of the impact you're talking about. All scores are based on an estimate of impact on a sliding scale from -5 to +5, based on the landmarks in the rubric below. Remember you don't have to score on the intervals outlined, the system will work using any values between -5 and +5 (including half points)

Score	Definition
5	A major climate cost which affects the whole of WLDC and our neighbours, the entire district, or which will continue for at least a decade. This might be a decision which has one or more of the following: • A serious impact on our ability to reach our net zero target by 2050 • A significant impact increasing emissions at a district level • A long-term increase in district emission of more than 100 tonnes of carbon dioxide equivalent per year (approximately 450,000 miles of petrol car travel) • A substantial reduction in our ability to store carbon or manage climate change adaptations within the district (felling woodland for example.)

-3	A significant climate / sustainability cost which affects the whole of WLDC, an entire electoral ward (orequivalent), or which lasts longer than five years. For example: • A multi-year project with a large energy requirement • A significant increase in waste through refurbishing a large number of buildings • A permanent or long-term increase in district emission of more than 10 tonnes of carbon dioxide equivalent per year (approximately 45,000 miles of petrol car travel) • A substantial reduction in our ability to store carbon or manage climate change adaptations within the district, e.g. building on a greenfield site.

0	No measurable effect. Negligible change.

+3	A significant climate benefit which affects the whole of WLDC, an entire electoral ward(or equivalent), or which lasts longer than five years. For example: • Installation of renewable energy generation capacity within WLDC buildings • Reduction of fleet use, or requirement for fossil fuel powered vehicles. • A permanent or long-term decrease in district emission of more than 10 tonnesof carbon dioxide equivalent per year (approximately 45,000 miles of petrol car travel) • A substantial increase in our ability to store carbon or manage climate change adaptations within the district, e.g. the development of a natural flood management scheme.

+5	A major climate benefit which affects the whole of WLDC and our neighbours, the entire WLDC, or which will continue for at least a decade. This might be a decision which has one or more of the following: • A significant reduction in emissions that requires no additional emissions to realise (no regrets changes) • A project or decision which could be considered an exemplar project for other local authorities • A significant project decreasing emissions at a district level • A long-term **decrease** in our emission levels of more than 100 tonne of carbon dioxide equivalent per year (approximately 450,000 miles of petrol car travel) • A substantial increase in our ability to store carbon or manage climate change adaptations within the district (planting more than 1ha of woodland for example).

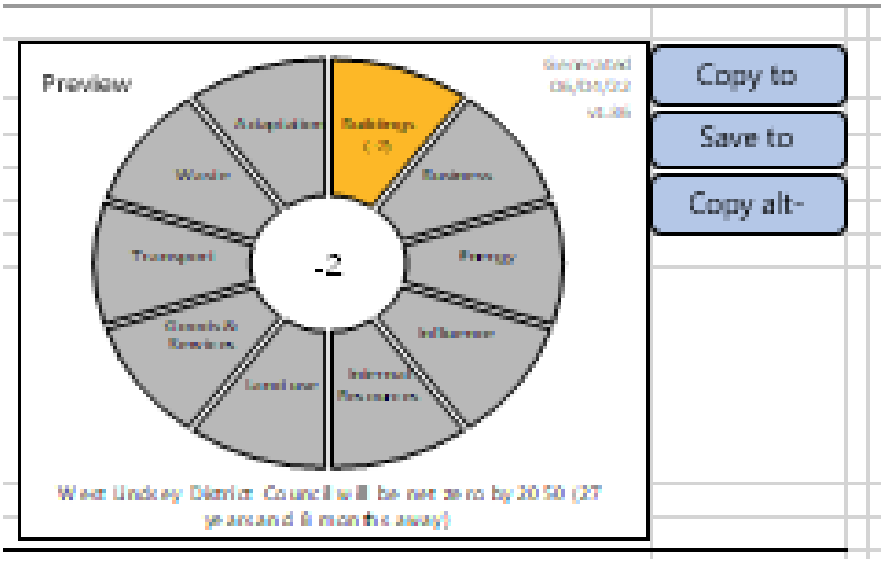
The key things to remember as you fill these out are:

Decision scope	We are looking at the effects of **this** decision (not our past performance, or actions that represent future decisions). The thing to focus on when doing this is to address **what changes**? If nothing changes, then there's no score.
Scope of impacts	We are looking at the **whole impact** of the decision (regardless of geographical location or organisational boundary). For example, this means that • A scheme of giving residents trees for planting in their back gardens would still show a positive score under land use even though WLDC doesn't own the land that they will be planted on. • A promotional event giving out plastic gifts would result in a negative score for waste, even though the items would go in someone else's bin. • Development of a natural flood management scheme would result in a positive score for adaptation even if the work was carried out upstream and fell outside our borders. • A programme of developing marketable green skills and training would score highly within the business category even if these skills were used outside the district.
Type of impact	We are only looking at the **climate and selected environment and sustainability impacts** - other environmental impacts, and social, economic, wellbeing measures are recorded elsewhere. You might wantto draw attention to them in the report, but they are not included in your score.

As you fill in the scores, the infographic will populate showing where the significant costs and benefits lie, and colour code the infographic. There is a detailed description of what is included in the categories and impacts in Appendix 1 below.

Exporting the infographic

Once all the data has been filled in, **save the spreadsheet** using a filename that will make sense later (not just `CESIA.xlsxm`…). Next, click on the buttons at the top right of the input worksheet to either **copy** your infographic to the clipboard (A), or **save** it to your desktop (using the filename we generated earlier (B). You can then add it to your report.



Then click to copy the alt (alternative) text (C) and add that to the picture in your word document. **This is not an optional step.** We have to do it to ensure that the infographic is readable to screen-readers and does not disadvantage those unable to use screens in the normal way. If you aren't sure how, [there's an article here on how to add alternative text to a shape, picture, chart, SmartArt graphic, or other object](#).

Using the infographic in a report

The infographic is only half of the story. It provides an indication of what the main climate costs and benefits of the decision are, but to make sure it's informative, you need to provide a bit more information.

Summarise your results in a paragraph explaining the key costs and benefits associated with your activity. If it helps, you may want to do a before and after CESIA to show the effect of the action with and without measures to mitigate negative consequences. **If the decision in your report will have long consequences (more than 5 years) you must say so in your report.** If the council is to reach its goal of carbon neutrality by this 2050, we must make it clear to elected members which decisions will have the furthest reaching consequences.

While there are no other specific rules for writing the summary, some of the things you may want to discuss include:

- What are the biggest costs and benefits of this activity in terms of the climate?
- Are there things that we will have to include in future iterations of this action – do you have a recommendation?
- Are there measures already included in your plan to minimise the costs and maximise benefits with respect to climate change?

- Are there other costs and benefits which are outside the scope of the CESIA? For example, does the project have high value in terms of economic or social benefit which outweighs the climate cost? Is this a valuable climate action which has a cost elsewhere?
- What are your ambitions for this activity – what is technically feasible and what do you think we should be aiming for? If we were to carry out the activity in the best possible way for the climate, what would that look like?
- What method(s) if any are available to monitor our climate performance on this activity? This might include internal data (electricity bills, milage claims etc.) or an external verification process. Is this feasible? If not, why not?
- What are the constraints which stop you doing more? Time, money, expertise, political support, partner buy in, something else?

Reporting

When you have completed your CESIA, send a copy of your spreadsheet, and any additional text from the climate and environment section of your report to climate@west-lindsey.gov.uk . We would like all reports to follow this path for the first few months. This is to make sure we can address any errors, or things that need better explanation for future versions before we present information to the elected members. It will also help us establish a mechanism of tracking and monitoring helps with our long-term reporting of what actions we are taking on climate change issues.

If you do get stuck, it doesn't make sense, or you find an error please let us know. The calculator is a new tool and while we have tested it, there is always a danger that undetected bugs exist, something is missing, or that some of the guidance is not as clear as we think. Please send any reports of errors or problems to climate@west-lindsey.gov.uk.

Modifying the tool

This climate change impact assessment tool has been developed by Chesterfield Borough Council (CBC) and shared with us for our internal use. CBC are happy to share this tool free of charge, under a Creative Commons, non-commercial licence.

They are more than happy that we are modifying the tool as long as we abide by the terms of the creative commons licence. Our intention in the future is to network with other councils who are doing the same to share experiences, learning and best practice

Appendix 1 – impact by impact details and examples

This section provides additional guidance notes for how to fill in the form, with more comprehensive definitions of what fits in each category.

Categories

Buildings

Impact	**Notes & examples**
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 (Building Research Establishment Assessment Method [BREEAM], 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.
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.
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

Impact	Notes & examples
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
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 provider
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

Impact	Notes & examples
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.
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.
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)

Influence

Impact	**Notes & examples**
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?
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.
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?
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

Impact	**Notes & examples**
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?
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?
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?
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

Impact	**Notes & examples**
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.
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?
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?

Goods & services

Impact	**Notes & examples**
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?
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?
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?
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?

Transport

Impact	**Notes & examples**
Decarbonising vehicles	Does this activity increase or decrease the use of fossil-fuelled vehicles?
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.
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

Impact	**Notes & examples**
End of life disposal / recycling	Do you expect this activity to increase or decrease the **proportion** 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 volume	Will this activity increase or decrease the **total volume** of waste?

Adaptation

Impact	Notes & examples
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?
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?
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?

Impacts that don't fit

While we have tried to be as clear as possible about the structure and issues to consider, you may encounter an impact which does not fit clearly within the form. You can either add this within one of the existing categories (in the light blue cells in column C) or set up your own in the "other" category at the end of the form. If an impact could reasonably be added in more than one place, then it is up to you to decide where it should go. It will then be included in the calculation, just make sure you are not double-counting impacts. Please highlight any modifications made when you send your report to climate@west-lindsey.gov.uk