WYCA Stage 1 (Activity 2) Carbon Assessment Guidance

September 2021

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
First draft	03/06/21	SS	HR	JM	First draft for client comment
Second Draft (v4)	27/08/21	SS			Second iteration to reflect feedback from client.
Third Draft (v5)	15/09/21	SS	HR	JM	Final draft

Contents

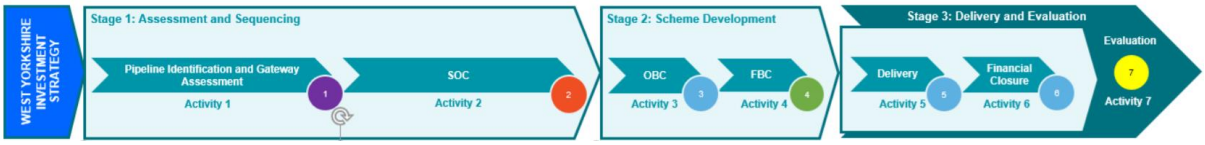
1 Introduction

1.1 What should this guidance be used for?

This guidance document provides instructions on how to conduct a high-level qualitative assessment of the potential environmental, economic and social impacts of schemes as part of the West Yorkshire Combined Authority (WYCA) Assurance Framework. The process, henceforth referred to as Activity 2, is part of a set of activities aimed at ensuring that there is a consistent approach to climate change impact assessment across the Combined Authority.

This guidance is intended for use by project promoters at the pipeline identification and gateway assessment within Stage 1 of the Assurance Framework, as shown in Figure 1 below.[1] At Stage 2 (OBC and FBC) separate guidance documents are provided which detail the requirements and assessment promoters must provide for a more detailed analysis of the carbon impacts the scheme will have, as it is developed and, moves through the assurance process.

Figure 1. Draft Assurance Process



1.2 What is the purpose of Activity 2?

WYCA has declared a Climate Emergency and set a target for the region to become a net zero carbon economy by 2038. WYCA's Climate and Environment Plan illustrates routes towards achieving a radical decrease in emissions, with significant progress to be made by 2030. WYCA's Climate and Environment Plan assumes that a wide range of actions must be taken across all sectors, with broad-ranging implications for society and the economy as well as the environment. Therefore, the key objectives of Activity 2 are:

1. To ensure that decision-making on investments in the region take account for their greenhouse gas (GHG) emissions and wider environmental impacts of those investments and their alignment to West Yorkshire's net zero target.
2. To demonstrate that WYCA's other priorities and policies have been considered from an early stage.

Although GHG emissions are a key focus of WYCA's Climate and Environment Plan, Activity 2 also gives the scheme promoter the opportunity to assess whether or not the scheme aligns with other plans/policies/strategies, notably: the LCR Energy Strategy, LCR Green and Blue Infrastructure Strategy, West Yorkshire Low Emission Strategy, LCR Housing Vision and Planning Policy Position Statement, and the West Yorkshire Transport Strategy.

Note: Activity 2 should only be conducted after the initial screening assessment (Activity 1) has been completed. A separate guidance document has been prepared for Activity 1.

[1] Figure 1 presented here refers to the draft update to the Assurance Process as presented to the West Yorkshire and York Investment Committee on the 5th November 2020.

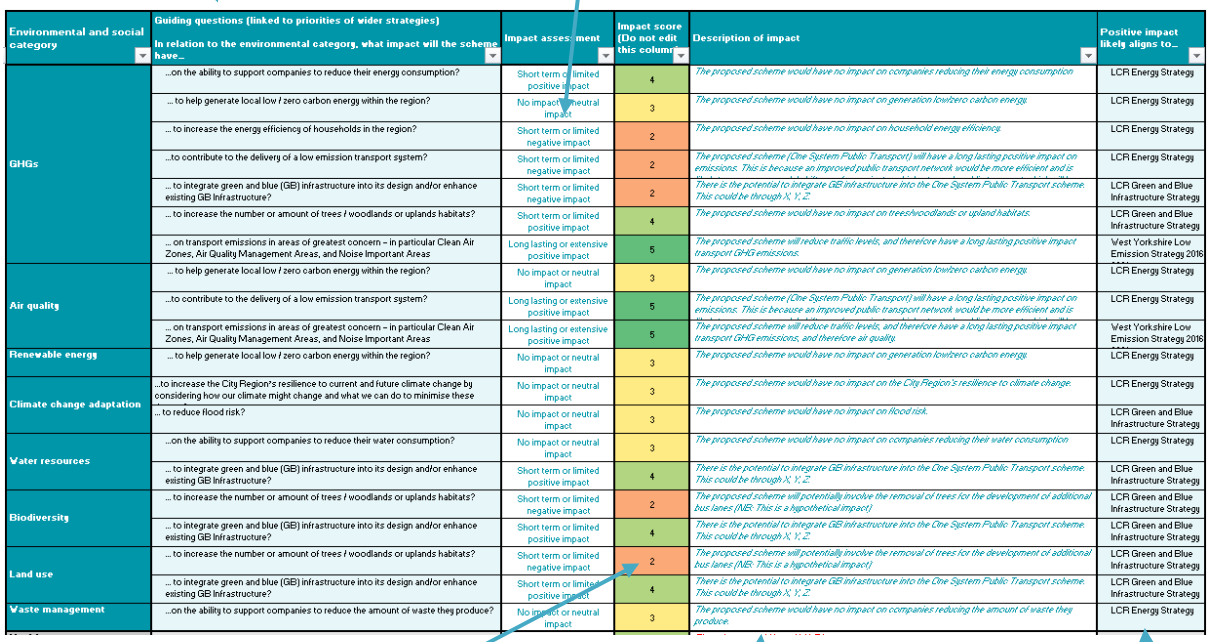
2 Process for undertaking Activity 2

2.1 Overview

Activity 2 comprises a simple Excel-based tool, shown in the screenshot below. Users must respond to a series of guiding questions that are intended to help them think holistically about the potential scale and duration of the project's impacts across different topic areas.

Guiding questions are derived directly from key regional policies and strategies.

Users select from drop-down menus to **qualitatively** assess the potential **direction** of the impact (positive or negative) and the **magnitude** of the impact (i.e. a long lasting/extensive impact, or a short term/limited impact).



Environmental and social category	Guiding questions (linked to priorities of wider strategies) In relation to the environmental category, what impact will the scheme have…	Impact assessment	Impact score (Do not edit this column)	Description of impact	Positive impact likely aligns to…
GHGs	…on the ability to support companies to reduce their energy consumption?	Short term or limited positive impact	4	*The proposed scheme would have no impact on companies reducing their energy consumption*	LCR Energy Strategy
	… to help generate local low / zero carbon energy within the region?	No impact or neutral impact	3	*The proposed scheme would have no impact on generation low/zero carbon energy.*	LCR Energy Strategy
	… to increase the energy efficiency of households in the region?	Short term or limited negative impact	2	*The proposed scheme would have no impact on household energy efficiency.*	LCR Energy Strategy
	…to contribute to the delivery of a low emission transport system?	Short term or limited negative impact	2	*The proposed scheme (One System Public Transport) will have a long lasting positive impact on emissions. This is because an improved public transport network would be more efficient and is*	LCR Energy Strategy
	… to integrate green and blue (GB) infrastructure into its design and/or enhance existing GB Infrastructure?	Short term or limited negative impact	2	*There is the potential to integrate GB infrastructure into the One System Public Transport scheme. This could be through X, Y, Z.*	LCR Green and Blue Infrastructure Strategy
	… to increase the number or amount of trees / woodlands or uplands habitats?	Short term or limited positive impact	4	*The proposed scheme would have no impact on trees/woodlands or upland habitats.*	LCR Green and Blue Infrastructure Strategy
	… on transport emissions in areas of greatest concern – in particular Clean Air Zones, Air Quality Management Areas, and Noise Important Areas	Long lasting or extensive positive impact	5	*The proposed scheme will reduce traffic levels, and therefore have a long lasting positive impact transport GHG emissions.*	West Yorkshire Low Emission Strategy 2016
Air quality	… to help generate local low / zero carbon energy within the region?	No impact or neutral impact	3	*The proposed scheme would have no impact on generation low/zero carbon energy.*	LCR Energy Strategy
	…to contribute to the delivery of a low emission transport system?	Long lasting or extensive positive impact	5	*The proposed scheme (One System Public Transport) will have a long lasting positive impact on emissions. This is because an improved public transport network would be more efficient and is*	LCR Energy Strategy
	… on transport emissions in areas of greatest concern – in particular Clean Air Zones, Air Quality Management Areas, and Noise Important Areas	Long lasting or extensive positive impact	5	*The proposed scheme will reduce traffic levels, and therefore have a long lasting positive impact transport GHG emissions, and therefore air quality.*	West Yorkshire Low Emission Strategy 2016
Renewable energy	… to help generate local low / zero carbon energy within the region?	No impact or neutral impact	3	*The proposed scheme would have no impact on generation low/zero carbon energy.*	LCR Energy Strategy
Climate change adaptation	…to increase the City Region's resilience to current and future climate change by considering how our climate might change and what we can do to minimise these	No impact or neutral impact	3	*The proposed scheme would have no impact on the City Region's resilience to climate change.*	LCR Energy Strategy
	… to reduce flood risk?	No impact or neutral impact	3	*The proposed scheme would have no impact on flood risk.*	LCR Green and Blue Infrastructure Strategy
Water resources	…on the ability to support companies to reduce their water consumption?	No impact or neutral impact	3	*The proposed scheme would have no impact on companies reducing their water consumption*	LCR Energy Strategy
	… to integrate green and blue (GB) infrastructure into its design and/or enhance existing GB Infrastructure?	Short term or limited positive impact	4	*There is the potential to integrate GB infrastructure into the One System Public Transport scheme. This could be through X, Y, Z.*	LCR Green and Blue Infrastructure Strategy
Biodiversity	… to increase the number or amount of trees / woodlands or uplands habitats?	Short term or limited negative impact	2	*The proposed scheme will potentially involve the removal of trees for the development of additional bus lanes (NB: This is a hypothetical impact)*	LCR Green and Blue Infrastructure Strategy
	… to integrate green and blue (GB) infrastructure into its design and/or enhance existing GB Infrastructure?	Short term or limited positive impact	4	*There is the potential to integrate GB infrastructure into the One System Public Transport scheme. This could be through X, Y, Z.*	LCR Green and Blue Infrastructure Strategy
Land use	… to increase the number or amount of trees / woodlands or uplands habitats?	Short term or limited negative impact	2	*The proposed scheme will potentially involve the removal of trees for the development of additional bus lanes (NB: This is a hypothetical impact)*	LCR Green and Blue Infrastructure Strategy
	… to integrate green and blue (GB) infrastructure into its design and/or enhance existing GB Infrastructure?	Short term or limited positive impact	4	*There is the potential to integrate GB infrastructure into the One System Public Transport scheme. This could be through X, Y, Z.*	LCR Green and Blue Infrastructure Strategy
Waste management	…on the ability to support companies to reduce the amount of waste they produce?	No impact or neutral impact	3	*The proposed scheme would have no impact on companies reducing the amount of waste they produce.*	LCR Energy Strategy

Based on the drop-down selection, these cells auto-populate a **qualitative** impact rating.

Users can add free text to these boxes to justify the response they have given.

Users can indicate the wider policies and strategies that the scheme links to.

The project promoter's inputs are then used to generate diagrams that help visualise the results. These are based on Kate Raworth's doughnut economics theory[2] (see illustration in Figure 2), an approach that has been used by Cornwall Council, Amsterdam City, Wales and other institutions for reporting the environmental, economic and social impacts of projects.

[2] https://www.kateraworth.com/doughnut/

2.2 Step by step guidance

Before you begin: Project promoters should familiarise themselves with WYCA's Climate and Environment Plan, which provides more context and information about the vision for a net zero future. Project promoters should also consider links with other policies and strategies that will have a leading role in tackling the climate emergency, which include, but are not limited to:

- LCR Green and Blue Infrastructure Strategy
- West Yorkshire Low Emission Strategy 2016-21
- LCR Energy Strategy and Delivery Plan
- WYCA's Climate and Environment Plan

Step 1: Within the Activity 2 spreadsheet, project promotors must select the anticipated impact of the project from the drop-down menus . These are grouped by theme (e.g. GHG emissions, air quality, climate change adaptation, biodiversity, and so on). Users must respond to each guiding question.

When considering impacts, the project promoter should make a judgement as to the **potential order of magnitude** relative to other WYCA projects. It is assumed that the assessment will be qualitative. The aim is to ensure that project promoters consider the relative impacts in a holistic manner.

Drop-down selection	Description	Rating
Long lasting or extensive positive impact	A long-lasting impact could be defined as an impact that will last for > 5 years. At this stage, the magnitude of the impact is subjective.	5
Short term or limited positive impact	A short-term impact will be immediate and lasting > 5 years. At this stage, the magnitude of the impact is subjective.	4
No impact or neutral impact	The scheme may have no relevance to the parameter, or the impact will be neither positive or negative.	3
Short term or limited negative impact	A short-term impact will be immediate and lasting > 5 years. At this stage, the magnitude of the impact is subjective.	2
Long lasting or severe negative impact	A long-lasting impact could be defined as an impact that will last for > 5 years. At this stage, the magnitude of the impact is subjective.	1

The spreadsheet will then auto-populate a cell to allocate an impact score based on the user inputs; this score feeds into a visual output of the scheme's environmental impacts.

Note: The ratings are used solely to generate visual outputs. Activity 2 does not provide any quantitative assessment of environmental impacts. More detailed quantitative assessments will be undertaken at Stage 2 and subsequently.

Step 2: Provide a description of why a particular impact level has been selected, with reference to information about the design of the scheme. Consider whether the scheme could have indirect impacts – for instance, the design of a new development can indirectly affect the way that people travel to the neighbourhood, potentially increasing their reliance on cars, or their likelihood of accessing the site using public transport, cycling or walking.

Step 3: Review the 'Relevant policies or strategies' column of the table, which is pre-populated to show the WYCA priorities and strategies that the guiding question topics are likely to relate to. If

necessary, update this column to include any other relevant policies and strategies. Project promoters should seek to ensure that the design of the scheme accounts for these going forward.

Step 4: If relevant, add further information. This could include, for example: details of how exactly the scheme does or does not align with individual policies; a description of other policies that are considered more relevant; or other supporting evidence that is being used to justify the scheme.

2.3 Results

Doughnut diagram - This presents the assessment in the classic 'doughnut' shape and uses colour-coding to easily identify the most important impacts. Environmental parameters are on the outer edge of the doughnut while Social/Economic parameters are on the inner edge. Parameters with positive impact scores will be green while parameters with negative impact scores will be orange/red.

This style of presentation is particularly effective for providing a visual and easy-to-interpret high level summary of impacts.

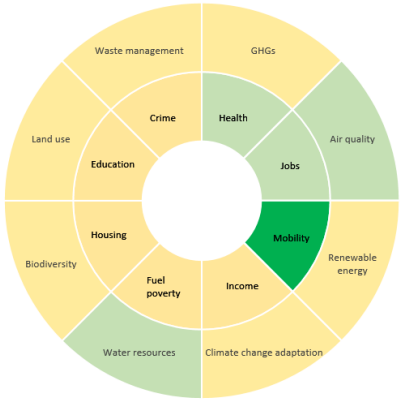


Figure 2. Illustrative doughnut diagram

3 Further guidance

Once the user has completed Activity 2 under Stage 1: Assessment and Sequencing, the user can use these results to identify:

- 'hot spots' where the scheme can make a strong positive contribution towards one of the region's strategic priorities – these could be enhanced as part of the scheme design.
- potential adverse impacts – these should be reviewed further and mitigated as part of the scheme design.

The results from both Activities 1 & 2 can help inform discussions on how to enhance the carbon reduction benefits derived from a scheme and/or how to mitigate a carbon increase resulting from the scheme. These discussions must be considered at the design/development stage to ensure all avenues have been explored and guarantee all future schemes are compatible with WYCA's net zero future.

Refer to Table 1 in the Activity 1 Guidance for high-level mitigation measures that could help minimise GHG emissions for projects that are considered either conditionally compatible or at risk of being non-compatible with the Climate and Environment Plan. In such cases, these mitigation options may be considered by the project promoter to feed into the design plans for the scheme in question.