



Appendix U - Outline Monitoring and Evaluation Plan

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1 Monitoring and evaluation approach

1.1 Introduction

This document sets out an outline monitoring and evaluation plan for the Western Link scheme.

Warrington Borough Council have a responsibility to report on how funding secured for Western Link and its expenditure represents value for money to the taxpayer and how spending aligns with Western Link's main objectives. This document outlines the methodology to be used to monitor and evaluate the success of the proposed Western Link scheme.

1.2 Methodology

DfT guidance 'Monitoring and Evaluation Framework for Local Authority Major Schemes' forms the basis of this monitoring strategy.

Within this guidance, monitoring is defined as the collection of data to check progress against planned targets and benefits whilst evaluation is defined as the assessment of the scheme's effectiveness and efficiency during and after implementation; this includes measuring the causal effect of the scheme on planned outcomes and impacts and assessing whether the anticipated benefits and value for money have been realised.

The Framework provides a consistent approach to reporting a scheme's value for money and conducting a review in a proportionate and targeted approach. As such it outlines three tiers of monitoring and evaluation, these are:

- Standard monitoring (all schemes);
- Enhanced monitoring (schemes above £50m or which are anticipated to have a significant impact on particular indicators); and
- Fuller evaluation (schemes above £50m and where the scheme is considered to be either innovative, have an adjusted BCR of less than 2, or significant potential risks and sensitivities that may impact delivery or the realisation of benefits. The generation of evidence to inform key evidence gaps is also a criterion for fuller evaluation)

Western Link follows the enhanced monitoring practice as the scheme is greater than £50m in value but exhibits none of the criteria (innovation, low BCR, risks which may impact delivery) to warrant a fuller evaluation. In accordance with the guidance, the scheme will be monitored against a set of standard measures, these can be found in Table 1. The various monitoring measures are considered in terms of the key stages of the scheme, these are:

- Inputs (i.e. what is being invested in terms of resources, equipment, skills and activities undertaken to deliver the scheme).
- Outputs (i.e. what has been delivered and how it is being used, such as roads built, bus services delivered).
- Outcomes (i.e. intermediate effects, such as changes in traffic flows, modal shifts).
- Impacts (i.e. longer-term effects on wider social and economic outcomes, such as supporting economic growth).

Table 1: Components of enhanced monitoring

Item	Stage	Type of information provided	Data Collection timing	Rationale
Scheme build	Input	<ul style="list-style-type: none"> • Programme/project plan assessment • Stakeholder management approaches • A review of the risk register and assessment of the impacts • Assessment whether the scheme is on track 	During delivery	Knowledge
Delivered scheme	Output	<ul style="list-style-type: none"> • Full description of scheme outputs • Identification of the any changes to the scheme since funding approval. • Identification of any changes to assumptions. • Assessment of whether the scheme has reached the intended beneficiaries. • Identification of changes to mitigation measures. 	During delivery/post opening	Accountability
Costs	Input	<ul style="list-style-type: none"> • Outturn investment costs. • Analysis of risk in the elements of investment costs. • Identification of cost elements with savings. • Analysis for cost elements with overruns. • Outturn operating costs. • Outturn maintenance or other capital costs. 	During delivery/post opening	Accountability
Scheme Objectives	Input	<ul style="list-style-type: none"> • Identification of the main objectives. 	Pre or during delivery / post opening (up to 5 years)	Accountability
Travel demand	Outcome	<ul style="list-style-type: none"> • Road traffic flows on corridors of interest. • Patronage of the public transport system in the area. • Counts of pedestrians and cyclists. 	Pre or during delivery / post opening (up to 5 years)	Knowledge/ Accountability
Travel times and reliability	Outcome	<ul style="list-style-type: none"> • Travel times in the corridors of interest. • Variability in travel times in the corridors of interest. 	Pre or during delivery / post opening (up to 5 years)	Knowledge/ Accountability
Impact on the economy	Impact	<ul style="list-style-type: none"> • Travel times/accountability changes to businesses • Employment levels • Rental values 	Pre or during delivery / post opening (up to 5 years)	Knowledge/ Accountability
Carbon	Impact	<ul style="list-style-type: none"> • Effect of the scheme on carbon in the area of interest. 	Pre or during delivery / post opening (up to 5 years)	Knowledge/ Accountability
Noise	Impact	<ul style="list-style-type: none"> • Effect of the scheme on noise levels at important receptor locations. 	Pre or during delivery / post opening (up to 5 years)	Knowledge/ Accountability
Local air quality	Impact	<ul style="list-style-type: none"> • Effect of the scheme on local air quality in the area of interest. 	Pre or during delivery / post opening (up to 5 years)	Knowledge/ Accountability

Item	Stage	Type of information provided	Data Collection timing	Rationale
Accidents	Impact	Effect of the scheme on traffic accidents in the area of interest.	Pre or during delivery / post opening (up to 5 years)	Knowledge/ Accountability

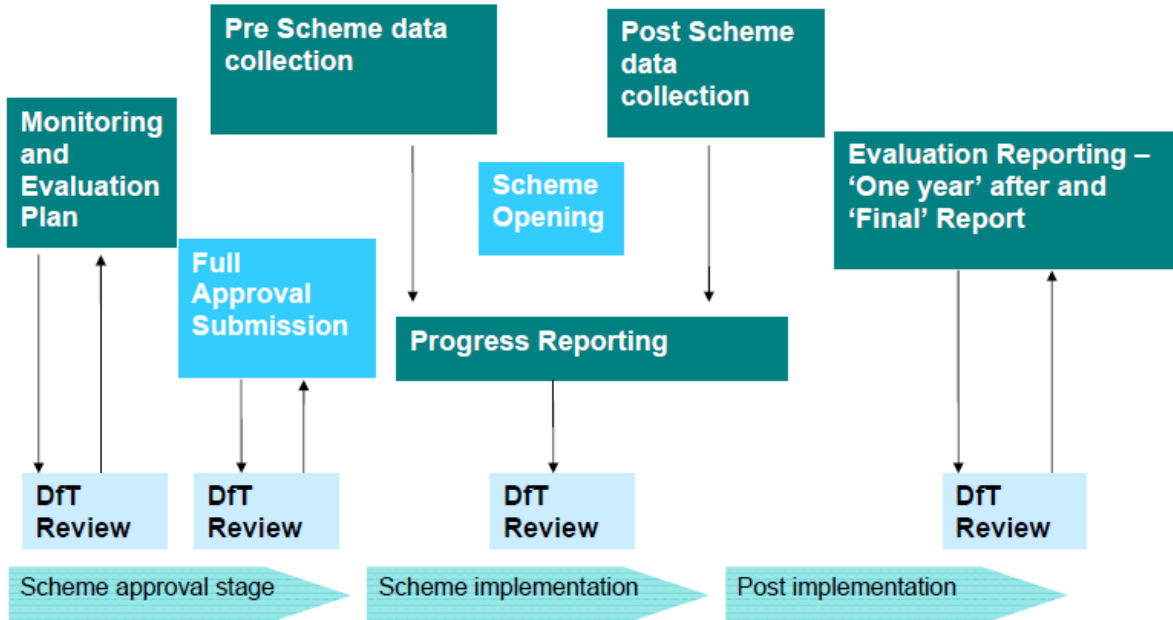
Source: DfT

Aligned with DfT monitoring guidance, Warrington Borough Council will also follow the guidance for engagement processes and will:

- Submit a detailed monitoring and evaluation plan to the DfT within 3-6 months prior to full approval submission.
- Monitoring and evaluation plans will be published on the Warrington Borough Council website and will be available to the public.
- Provide progress reports on the evaluation process to DfT.
- Provide an initial report based on data collection at least once a year following Western Link opening for a period of 5 years.
- Provide a final report based on 'one year after' data and data collected approximately after five years of Western Link opening and publish within six years of scheme opening.

This process for monitoring and evaluation engagement between Warrington Borough Council and DfT is illustrated below in Figure 1.

Figure 1: Monitoring and evaluation engagement process between Local Authority and DfT



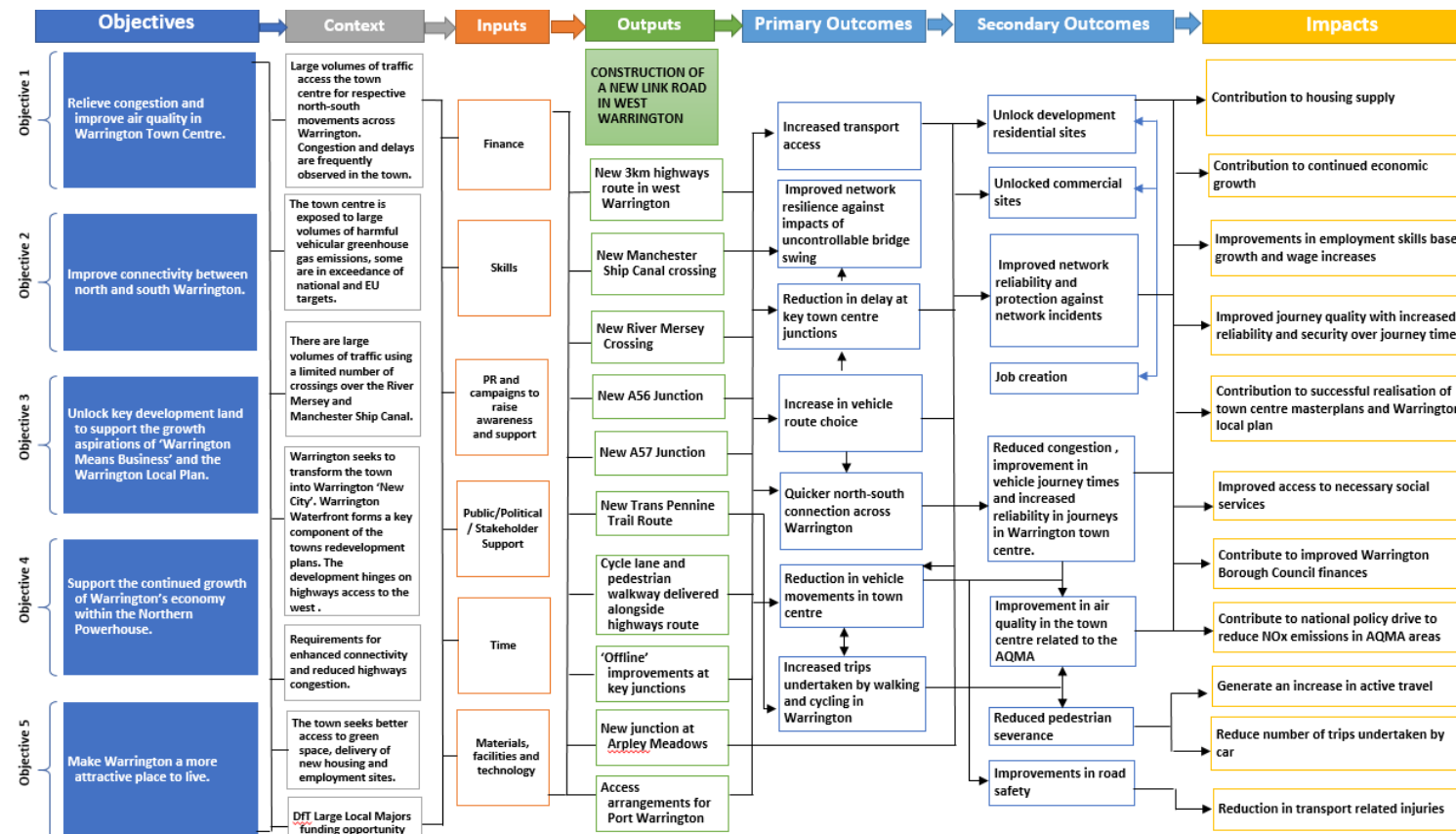
Source: DfT

2 Scheme objectives and outcomes

2.1 Causal pathway

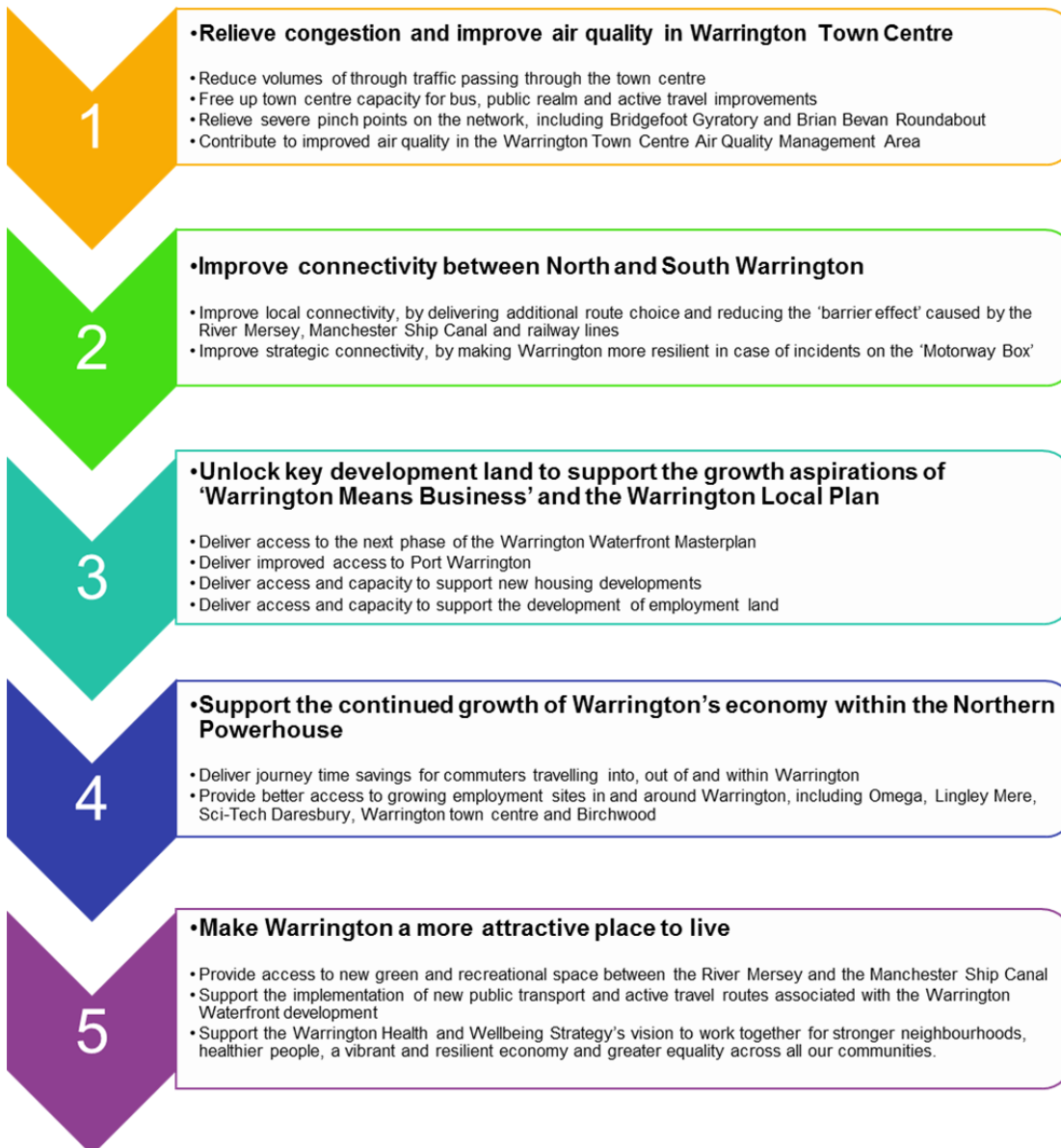
The delivery and likely benefits of the Western Link scheme are demonstrated below in a logic map which shows causal pathway between the objectives of the scheme and expected outcomes and impacts that this monitoring and evaluation plan will address.

Figure 2: Western Link logic map



Each of the 5 objectives in the above logic map has a set of enabling objectives which are more specific and measurable and relate directly to the desired scheme outcomes. These are noted in Figure 3, and this plan provides a process for monitoring and evaluation to enable understanding as to whether progress has been made in achieving these enabling objectives / outcomes.

Figure 3: Strategic and enabling objectives



3 Western Link Monitoring and Evaluation Plan

3.1 Monitoring and evaluation plan

To evaluate the success of the scheme, and whether the objectives defined for the Western Link have been met, a structured outline monitoring and evaluation plan has been established. This will be updated for the full Major Scheme Business case submission. Monitoring and evaluation has been divided into two parts:

1. Monitoring of project delivery, which focuses on scheme inputs and outputs; and
2. Monitoring of the achievement of the scheme objectives, which focuses on impacts and outcomes.

The monitoring and evaluation of the project’s construction and delivery is set out in Table 2..

Table 2: Monitoring of project delivery (scheme inputs and outputs)

Aspect of project delivery	Method of monitoring	Timeframe	Responsibility
Delivery of Western Link to timeframe	<ul style="list-style-type: none"> ● Programme/project plan assessment ● Review of risk register and assessment of impacts ● Project review during scheme design and build. ● Site inspections 	Ongoing throughout delivery and construction	Warrington Borough Council
Delivery of Western Link to budget	<ul style="list-style-type: none"> ● Programme/project plan assessment ● Identification of any changes to assumptions. ● Analysis of risk in the elements of costs. ● Project review during scheme design and build. ● Site inspections 	Ongoing throughout delivery and construction	Warrington Borough Council
Delivery of Western Link to specification	<ul style="list-style-type: none"> ● Programme/project plan assessment ● Review of risk register and assessment of impacts ● Project review during scheme design and build. ● Site inspections 	Ongoing throughout delivery and construction	Warrington Borough Council

Source: Mott MacDonald

Table 3 shows how the scheme objectives and related enabling objectives, (which are effectively non-target based outcomes) will be measured. Each enabling objective has a performance indicator which acts as a proxy for the success of the scheme. The methodology for the associated data collection is also listed, the resourcing and cost of each method of data collection is discussed in Section 3.2.

Table 3: Western Link outline monitoring and evaluation plan: achieving objectives (scheme outcomes and impacts)

Objective	Enabling objective/outcome	Performance indicator	Methodology	Timing	Responsibility
Relieve congestion and improve air quality in Warrington Town centre	Reduce volumes of through traffic passing through the town centre	<ul style="list-style-type: none"> A percentage reduction in traffic flows entering the town centre 	<ul style="list-style-type: none"> Pre & post implementation ATC counter 	<ul style="list-style-type: none"> Pre or during delivery / post opening (up to 5 years) 	<ul style="list-style-type: none"> Warrington Borough Council
	Free-up town centre capacity for bus, public realm and active travel improvements	<ul style="list-style-type: none"> Increase in active travel in town centre Delivery of town centre regeneration proposals Reduction in bus travel times through the town centre 	<ul style="list-style-type: none"> Non-motorised user counts Land value change assessments Monitoring of completed regeneration projects Traffic master analysis 	<ul style="list-style-type: none"> Pre or during delivery / post opening (up to 5 years) 	<ul style="list-style-type: none"> Warrington Borough Council
	Relieve severe pinch points on the network, including Bridgefoot Gyratory and Brian Bevan Roundabout	<ul style="list-style-type: none"> A percentage reduction in traffic flows at key town centre pinch points A percentage reduction in queue lengths at pinch points A percentage reduction in traffic delay at pinch points 	<ul style="list-style-type: none"> Pre & post implementation ATC counter Pre & post implementation queue lengths Traffic master data analysis 	<ul style="list-style-type: none"> Pre or during delivery / post opening (up to 5 years) 	<ul style="list-style-type: none"> Warrington Borough Council
	Contribute to improved air quality in the Warrington Town centre Air Quality Management Area	<ul style="list-style-type: none"> Reduction in vehicular emissions within the town centre and AQMA 	<ul style="list-style-type: none"> Pre & post air quality monitoring using air quality measurement facilities 	<ul style="list-style-type: none"> Pre or during delivery / post opening (up to 5 years) 	<ul style="list-style-type: none"> Warrington Borough Council
Improve connectivity between North and South Warrington	Improve local connectivity, by delivering additional route choice and reducing the 'barrier effect' caused by the River Mersey, Manchester Ship Canal and railway lines	<ul style="list-style-type: none"> A percentage reduction in travel times when travelling across Warrington and to the town centre. Reduction in queue lengths and delay at existing crossing points. 	<ul style="list-style-type: none"> Traffic master data analysis Pre & post implementation queue lengths 	<ul style="list-style-type: none"> During delivery/post opening Pre or during delivery / post opening (up to 5 years) 	<ul style="list-style-type: none"> Warrington Borough Council
	Improve strategic connectivity, by making Warrington more resilient in case of incidents within the 'Motorway Box'	<ul style="list-style-type: none"> A percentage reduction in travel times when travelling between west Warrington, Warrington town centre and identified locations on the surrounding motorway network. 	<ul style="list-style-type: none"> Traffic master data analysis Highways England Data analysis 	<ul style="list-style-type: none"> During delivery/post opening Pre or during delivery / post opening (up to 5 years) 	<ul style="list-style-type: none"> Warrington Borough Council
Unlock key development land to support the growth aspirations of	Deliver access to the next phase of the Warrington Waterfront Masterplan	<ul style="list-style-type: none"> Number of planning applications submitted as part of the Waterfront development. Number of jobs created 	<ul style="list-style-type: none"> Business surveys & economic evaluation surveys 	<ul style="list-style-type: none"> During delivery/post opening 	<ul style="list-style-type: none"> Warrington Borough Council

Objective	Enabling objective/outcome	Performance indicator	Methodology	Timing	Responsibility
'Warrington Means Business' and the Warrington Local Plan		<ul style="list-style-type: none"> Number of business start-ups associated with the Warrington Waterfront development. 		<ul style="list-style-type: none"> Pre or during delivery / post opening (up to 5 years) 	
	Deliver improved access to Port Warrington	<ul style="list-style-type: none"> Number of jobs generated by Port Warrington Increase in business occupancy 	<ul style="list-style-type: none"> Business surveys & economic evaluation surveys Ex-post economic impacts study on impact of scheme 	<ul style="list-style-type: none"> During delivery/post opening 	<ul style="list-style-type: none"> Warrington Borough Council
	Deliver access and capacity to support new housing developments	<ul style="list-style-type: none"> Number of houses built 	<ul style="list-style-type: none"> Land surveys Market Analysis study 	<ul style="list-style-type: none"> During delivery/post opening 	<ul style="list-style-type: none"> Warrington Borough Council
	Deliver access and capacity to support the development of employment land	<ul style="list-style-type: none"> Number of jobs created Number of business start-ups Increase in business occupancy 	<ul style="list-style-type: none"> Business surveys & economic evaluation surveys 	<ul style="list-style-type: none"> During delivery/post opening Pre or during delivery / post opening (up to 5 years) 	<ul style="list-style-type: none"> Warrington Borough Council
Support the continued growth of Warrington's economy within the Northern Powerhouse	Deliver journey time savings for commuters travelling into, out of and within Warrington	<ul style="list-style-type: none"> A percentage reduction in journey times between Warrington's strategic network and Warrington town centre A percentage reduction in travel times when travelling across Warrington A percentage reduction in journey times between Warrington and town centre 	<ul style="list-style-type: none"> Traffic master data analysis 	<ul style="list-style-type: none"> Pre or during delivery / post opening (up to 5 years) 	<ul style="list-style-type: none"> Warrington Borough Council
	Provide better access to growing employment sites in and around Warrington, including Omega, Lingley Mere, Sci-Tech Daresbury, Warrington town centre and Birchwood	<ul style="list-style-type: none"> A percentage reduction in journey times from strategic network & across Warrington to the following employment destinations: <ul style="list-style-type: none"> Omega; Lingley Mere; Sci-Tech Daresbury; Warrington town centre; and Birchwood. 	<ul style="list-style-type: none"> Traffic master data analysis 	<ul style="list-style-type: none"> Pre or during delivery / post opening (up to 5 years) 	<ul style="list-style-type: none"> Warrington Borough Council
Make Warrington a more attractive place to live	Provide access to new green and recreational space between the River Mersey and the Manchester Ship Canal	<ul style="list-style-type: none"> Number of people using redeveloped Arpley and Gatewarth tip areas Increase in active travel in Warrington 	<ul style="list-style-type: none"> Active travel surveys Non-motorised user counts 	<ul style="list-style-type: none"> During delivery/post opening 	<ul style="list-style-type: none"> Warrington Borough Council

Objective	Enabling objective/outcome	Performance indicator	Methodology	Timing	Responsibility
	Support the implementation of new public transport and active travel routes associated with the Warrington Waterfront development	<ul style="list-style-type: none"> ● Number of bus services routing to and within Warrington Waterfront ● Increase in cyclists using the Trans Pennine trail ● Increase in active travel in Warrington 	<ul style="list-style-type: none"> ● Active travel surveys ● Non-motorised user counts 	<ul style="list-style-type: none"> ● During delivery/post opening 	<ul style="list-style-type: none"> ● Warrington Borough Council
	Support the Warrington Health and Wellbeing Strategy's vision to work together for stronger neighbourhoods, healthier people, a vibrant and resilient economy and greater equality across all our communities.	<ul style="list-style-type: none"> ● Increased cycling levels and Walking within west Warrington ● Increase in business occupancy rates and business start-ups west Warrington ● Number of houses built ● Reduction in highways accidents in town centre 	<ul style="list-style-type: none"> ● Non-motorised user counts ● Active travel surveys ● Business surveys ● Land surveys ● Assessment of road traffic collision 	<ul style="list-style-type: none"> ● Pre or during delivery / post opening (up to 5 years) 	<ul style="list-style-type: none"> ● Warrington Borough Council

Source: Mott MacDonald

It should be noted that targets relating to percentage reduction in traffic flows will be defined at full Major Scheme Business Case stage and a definitive percentage reduction will be set in inception meetings.

3.1.1 Data collection

Several methodologies are identified in Table 2 are identified to measure performance of the scheme; these are summarised below.

Traffic master data

Traffic master data is used to identify journey time data. The data is generated through in-vehicle GPS trackers. The Data is GPS sourced and is obtained from the Department for Transport. GPS data is disaggregated and assigned to links on the network, these links are divided into 15minute segments across the data collection period.

The scope of the data collection exercise will be defined in future inception meetings. Principally, the data will be used to identify changes to travel times across the highways network and changes in congestion as a result of Western Link.

ATC counter data

Annual traffic counters will be utilised to calculate changes in traffic flows. Warrington Borough Council already have a network of annual traffic counters installed across the local highways network. ATC data will be obtained before the scheme is implemented and post scheme implementation to evaluate Western Link's impact.

Land change value assessments

Western Link will have a direct impact on land use change. The link road has the potential to deliver highways access to new residential and commercial units associated with the Warrington Waterfront and Arpley Meadow developments. Land assessments will provide an indication of the number of properties realised through the scheme.

Air quality monitoring

Warrington Borough Council already has designated sites where air quality is monitored. This is conducted through a mix of diffusion tubes and real-time monitoring. Transport emissions will also be measured in Warrington AQMA to detect any changes to the environmental impact of Western Link.

Non-motorised user counts

Western Link will see the implementation of new cycle paths alongside the highway. In order to account for the change in active travel users associated with the new link road, non-motorised user counts will be deployed to measure changes in cyclists and pedestrians. The specific count methodology will be determined in future inception meetings.

Business surveys and economic evaluation summaries

These methodologies will be used to calculate the direct and indirect economic value that Western Link has generated. The following indicators will be considered: job growth; GVA; business occupancy rates; business start-up and survival; and gross weekly pay.

Road traffic collision data review

Road traffic collision data will be reviewed in Warrington to evaluate whether Western Link has reduced the number of traffic accidents in Warrington town centre.

3.1.2 Data collection period

Most data collection is required before and post scheme delivery to evaluate Western Link's relative impact to the baseline position.

3.2 Resourcing

A project assurance team has been included within the project structure to ensure that independent officers/consultants are available to provide scrutiny on project activities. They will provide expert advice and questioning on key decisions and undertake project auditing activities on behalf of the Project Board.

Through the Warrington Borough Council Frameworks for consultancy procurement, the council has access to organisations that provide project auditing services. WSP have been selected for this role. In addition, Warrington Borough Council contains an in-house organisation termed 'Audit Warrington' that provides assurance services. The assurance team will be responsible for ensuring monitoring and auditing occurs at key project management stages.

The budget identified for future monitoring and evaluation activity related to Western Link is found in the table below:

Table 4: Monitoring and evaluation budget

Stage	Activity	Cost
Data collection	Interim (during construction) process evaluation	£5,000
	Economic evaluation surveys	£5,000
	Trafficmaster data	NA
	ATC counter data	NA
	Land value change assessments	£10,000
	Air quality monitoring	£5,000
	Stakeholder satisfaction survey	£5,000
	Dependant development survey	£5,000
	Non-motorised user counts	£5,000
	Analysis and reporting:	Reporting and management
Baseline report		£10,000
Annual reports		£5,000
End of construction report		£10,000
Plus one year completion report		£20,000
Four year post completion report		£20,000
Total		£125,000

Source: Mott MacDonald/ WBC

3.3 Reporting

Monitoring and evaluation will be reported in three stages:

1. Scheme delivery – reporting on scheme build, scheme delivered and cost measures.
2. One year after scheme delivery – primary aim to understand the impact of Western Link on journey times and travel patterns.

3. Up to five years after the scheme – reporting on the longer-term impacts, this includes the economy (jobs and development), accidents, travel patterns and review in line with the scheme objectives.

