# Appendix P

## MONITORING AND EVALUATION PLAN

# North and East Melton Mowbray Distributor Road

## Monitoring and Evaluation Plan

## October 2022

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# 1 Introduction

## 1.1 Background

This Monitoring and Evaluation Plan has been produced by WSP and Leicestershire County Council (LCC) for the North and East Melton Mowbray Distributor Road (NEMMDR). The NEMMDR is part of the Department for Transport (DfT) Major Road Network and Large Local Majors Programme, and to align with DfT requirements this Plan follows the guidelines set out in the Monitoring and Evaluation Framework for Local Authority Major Schemes (September 2012).

LCC recognise the importance of demonstrating the value for money of infrastructure projects and gathering evidence on whether they have delivered the anticipated impacts and whether there have been any unanticipated consequences. The data and evidence gathered as part of the Monitoring and Evaluation Plan also helps to fulfil and improve LCC's statutory function as a highway authority and inform future decisions relating to planning policy, infrastructure requirements, economic growth, and urban regeneration.

The DfT is responsible for demonstrating that the funding it provides to local-level investment represents value for money for the taxpayer, and to ensure that any lessons learnt are used to inform future decision making. The DfT approach to achieving this varies to reflect the nature and scale of the programme under consideration.

The funding of Local Authority Major Schemes represents a substantial investment for government. Evaluating the investment can satisfy the following objectives:

- Provide accountability for the investment;
- Evidence future spending decisions;
- Learn about which schemes deliver cost-effective transport solutions;
- Enhance the operational effectiveness of existing schemes or future schemes; and
- Improve future initiatives based on learning.

The 2011 National Audit Office Review of Local Authority Major Capital Schemes highlighted the importance of evaluation in ensuring transparent and accountable decision making. The report concluded that whilst the DfT has made advances in this area, there is still scope for improvement in the coverage, quality, and resourcing of evaluations. In September 2012, the DfT released an updated framework to meet its responsibilities for the evaluation of Local Authority Major Schemes, entitled "Monitoring and Evaluation Framework for Local Authority Major Schemes". A consistent monitoring approach across all Local Authority Major Schemes will facilitate programme level analysis, that can be carried out by the DfT on a regular basis, enabling dissemination of good practice and lessons learnt across the investment programme. The framework sets out:

- The expectations for monitoring and evaluation of Local Authority Major Schemes and engagement with the DfT;
- Standard monitoring requirements;
- Enhanced monitoring requirements;
- Fuller evaluation requirements;
- The schemes selected for fuller evaluation; and
- Monitoring and Evaluation Plan requirements.

This document sets out the Monitoring and Evaluation Plan for the NEMMDR, referenced through this document as the "Scheme."This Plan has been developed to support the Full Business Case submission (FBC) to the DfT for the NEMMDR. It builds on the approach included in the Outline Business Case (OBC) submitted to DfT in December 2017.

The DfT confirmed in July 2020 that a fuller evaluation should be completed for the Scheme. This is due to the overall cost, the DfT contribution, and the short and long term economic and development objectives of the Scheme (specifically, supporting the delivery of increased employment and the delivery of new homes in the area).

Fuller Evaluation builds on the evidence generated through standard and enhanced monitoring. It will triangulate this data with bespoke evaluation data collected to demonstrate the casual pathway between the Scheme and observed outcomes and impacts, in a proportional and cost-effective manner.

## 1.2 Sources of Information

The following documents have been consulted as part of the development of this Monitoring and Evaluation Plan:

- Melton Mowbray Distributor Road Outline Business Case;
- Monitoring and Evaluation Framework for Local Authority Major Schemes (DfT, 2012);
- Best Practice Guidance for Planning the Fuller Evaluations of Local Authority Major Schemes (DfT, 2013);
- Magenta Book (HM Treasury, 2020);
- Logic Mapping Hints and Tips (Tavistock Institute, 2010); and
- Guidance for Transport Impact Evaluations: Choosing an Evaluation Approach to Achieve Better Attribution (Tavistock Institute, 2010).

## 1.3 Monitoring and Evaluation during the Coronavirus Pandemic

At the time of preparing this Monitoring and Evaluation Plan, the global coronavirus pandemic of 2020 has affected most aspects of life in the UK. Traffic levels, which fell dramatically at various stages during the pandemic, are now approaching pre-pandemic levels, although public transport patronage is still below those levels in aggregate. Patterns of economic activity, travel to work and mode choice may have been affected for the long term, and there is the potential for an economic recession (possibly related to the pandemic but also other factors), but its severity and duration cannot be predicted.

For this Monitoring and Evaluation Plan it is assumed that the data collected pre and post scheme opening will be sufficiently representative and unaffected to enable meaningful before and after comparisons and support the evaluation process. It does, however, need to be recognised that this assumption may not hold depending on future circumstances, so the data and methods suggested in this report will need to be reviewed on a regular basis and may be subject to change.

## 1.4 Report Structure

The report is structured as follows:

- Chapter 1 Introduction
- Chapter 2 Scheme Background and Context
- Chapter 3 Scheme Objectives and Outcomes

- Chapter 4 Evaluation Objectives
- Chapter 5 Evaluation Approach
- Chapter 6 Data Requirements and Collection Methods
- Chapter 7 Resourcing, Governance and Dissemination

# 2 Scheme Background and Context

## 2.1 Background

The Scheme is designed to tackle longstanding congestion and traffic related problems in Melton Mowbray, enabling and facilitating the acceleration of significant housing and employment growth.

Melton Mowbray has an historic and constrained town centre network that is at the convergence of six major highway routes. Levels of congestion are some of the highest on a per mile basis in the county, with a significant cause of the congestion in the town being through and cross-town traffic; with high levels of LGV and HGV movements.

The Local Plan forecasts significant levels of growth, with over 4,500 dwellings and 6,000 jobs to be delivered in the plan period (2011 - 2036). Numerous planning applications, totalling 2,500 dwellings, are already approved, submitted, or coming forward in the town as part of the housing and employment growth in the Local Plan. Overall, this represents a growth in the town of over 35%, which, without the Scheme, will significantly exacerbate the current congestion levels in the town centre.

The Scheme aims to tackle these issues and enable delivery of the Northern and Southern Sustainable Neighbourhoods and associated employment land, which are the prime focus for growth in the town.

## 2.2 Scheme Description

The Scheme is part of the Melton Mowbray Transport Strategy ("MMTS"), which supports the Melton Mowbray Local Plan. The MMTS identifies future transport investment that is needed to support the Local Plan and is discussed in more detail in Section 2.3. The Scheme aims to reduce congestion in the town, enable and accelerate housing and employment delivery.

The Scheme entails construction of a single carriageway road, 7.1km in length, to the north and east of Melton Mowbray. The route extends from the A606 Nottingham Road at the north-western edge of the town to the A606 Burton Road in the south, crossing Scalford Road, Melton Spinney Road, A607 Thorpe Road and B676 Saxby Road to Burton Road. The Scheme will create new junctions with the radials on its route and provide crossings over the railway line and the River Eye. The Scheme includes a 3m wide combined cycle and footway along almost all its length.

The location of the proposed Scheme and of key adjoining roads is shown in Figure 2-1.

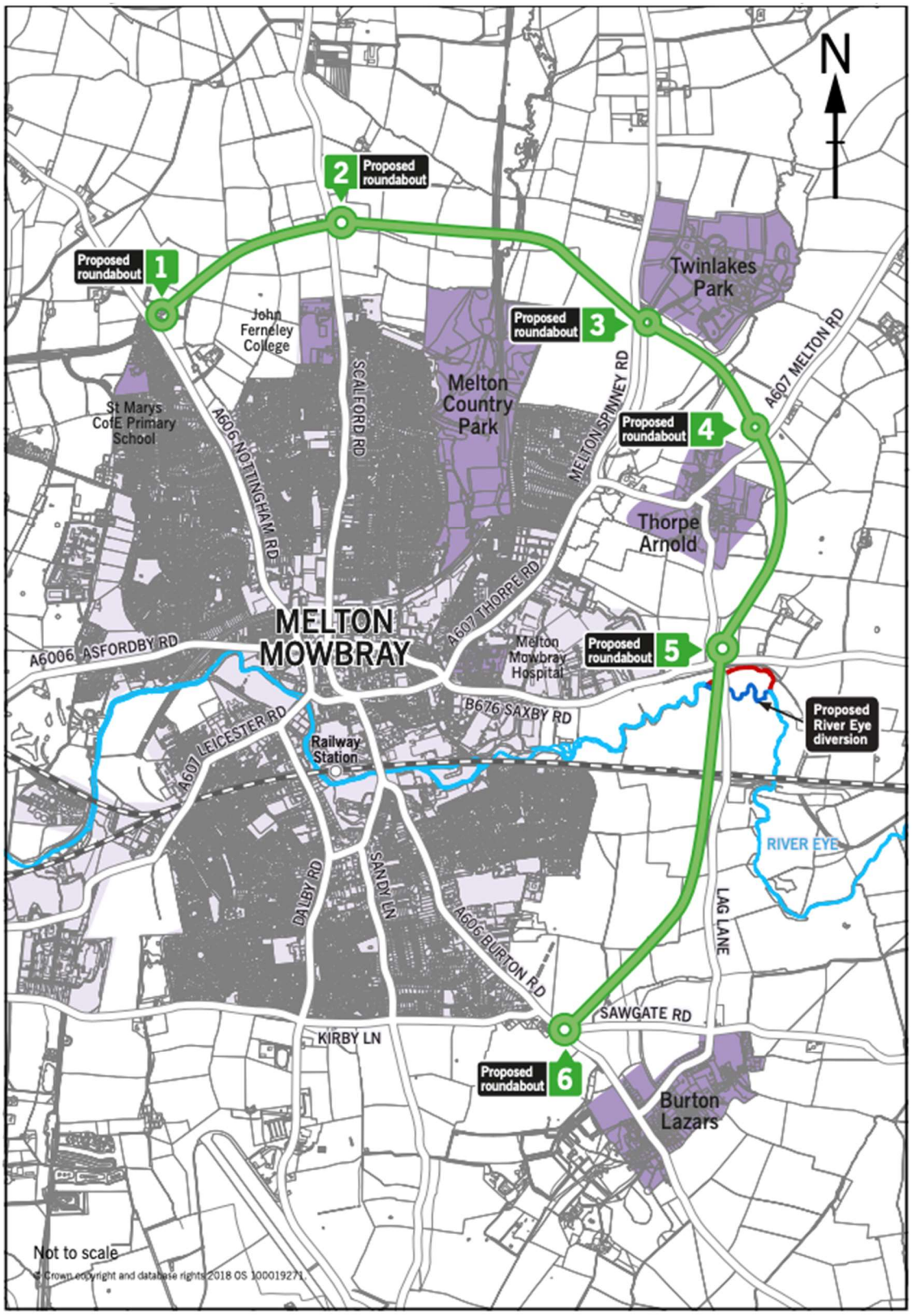


*Figure 2-1 Scheme layout and context*

## 2.3 Delivery Context

The Scheme is part of the MMTS, however it is recognised that the NEMMDR alone is not sufficient to support the planned growth in Melton Mowbray and the surrounding areas as set out in the Local Plan. The MMTS includes proposals for additional measures to support this growth including:

- MMDR Southern Link – discussed in more detail below;
- Reclassification and re-signing of roads, including a lorry routing strategy;
- Reconfiguration of the central ring road;
- A network of cycle routes and supporting infrastructure; and
- Public transport improvements including bus, rail, and flexible 'on-demand' transport services.

It is anticipated the full strategy will take several years to complete.

The Scheme will provide direct connection to a developer-led masterplan to the south of Melton Mowbray, which in turn connects to the A607 Leicester Road. The MMDR Southern Link section is shown in orange in Figure 2-2.

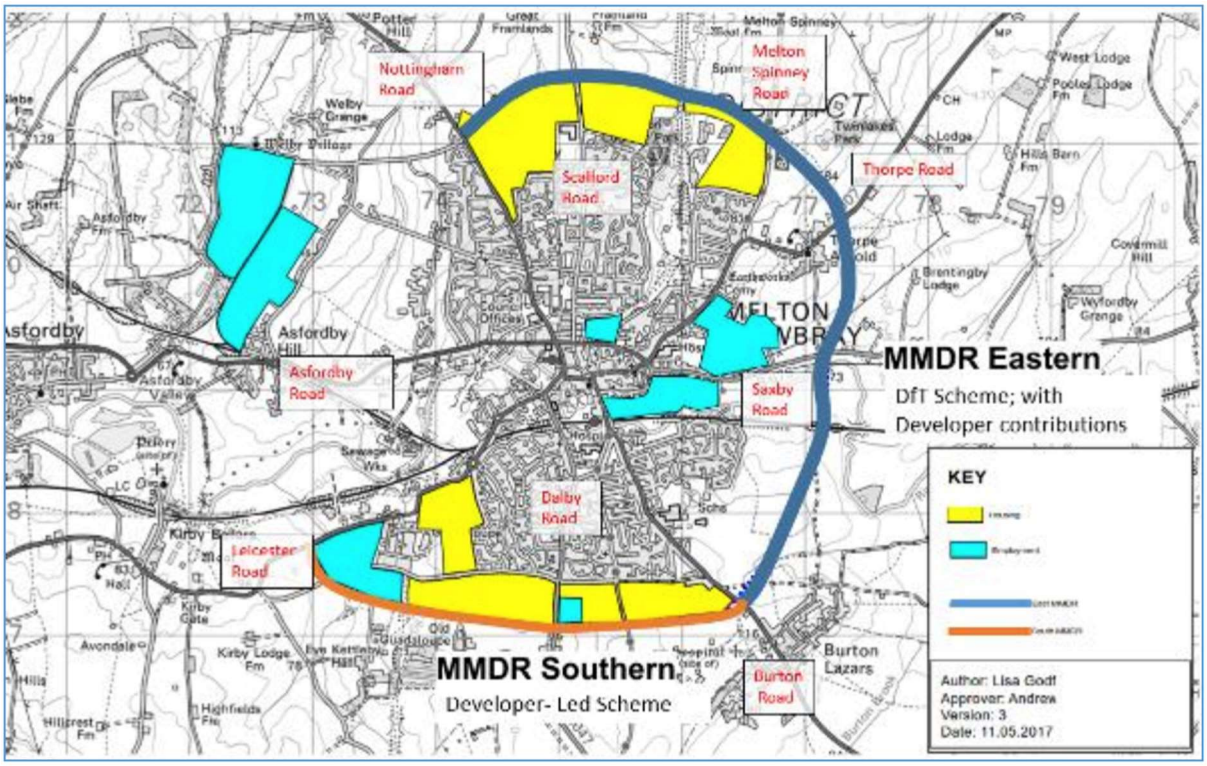


*Figure 2-2 Melton Mowbray Distributor Road – North, East and South*

The MMDR Southern Link is being developed under the Housing and Infrastructure Fund, promoted by Homes England. It is anticipated that programme and construction efficiencies as well as enhanced transport benefits to the Scheme will be realised by inclusion of the MMDR Southern Link within the wider network.

The addition of the MMDR Southern Link will lead to a further reduction in through traffic in Melton Mowbray, bringing additional benefits through an increased reduction in congestion on the local network and supporting housing delivery, with the A607 through the town reclassified. It is anticipated the Southern Link would facilitate more than 2,000 dwellings and additional primary and

secondary school places, together with a local centre and employment land. The current timeframe for delivery of the Southern Link is within the Scheme's monitoring period (expected start onsite March 2024, with the road opening in 2025). The evaluation of the Scheme in isolation may therefore be challenging. The approach proposed is to assess the Scheme in isolation where possible, however a holistic approach across both schemes will be necessary for elements of the evaluation. Details of the evaluation approach are set out in Chapter 5.

A Local Cycling and Walking Infrastructure Plan (LCWIP) is being prepared for Melton Mowbray which aims to increase cycling and walking activity in the town and reduce the rate of cyclists killed or seriously injured on the town's roads. The timeframe for delivery of the LCWIP is uncertain, but key government targets are in years 2025 and 2040. It is anticipated that the LCWIP would also be implemented within the Scheme's monitoring period. This provides opportunities and challenges. Delivering the schemes in parallel or consecutively should provide a greater increase in cycling and walking activity and reduce data collection costs because the evaluations of both schemes require similar data. However, as with the developer led Southern Link, evaluation of the Scheme's impact in isolation will be made more challenging.

## 2.4 Scheme Costs

The Scheme costs (April 2020 prices) are set out in Table 2-1.

*Table 2-1 Estimated Scheme costs*

| Cost Component | Estimate |
|---|---|
| Land Costs | £2,296,000 |
| Construction Costs | £66,805,458 |
| Preparation and Supervision Costs | £12,731,865 |
| Risk | £8,119,000 |
| **TOTAL** | **£89,952,323** |

The Scheme is funded by a £49.5m award from the DfT Large Local Majors Fund. The remaining costs are funded by LCC and it is expected these will be recouped in later years through developer contributions; to date secured contributions are in the region of £7m.

## 2.5 Delivery Timeframe

The Scheme milestones are set out in Table 2-2.

*Table 2-2 Estimated Scheme delivery milestones*

| Delivery milestones | Estimate |
|---|---|
| OBC submitted | December 2017 |
| Planning application made | October 2018 |
| Planning permission granted | May 2019 |
| Statutory Orders made | July 2020 |
| Works procurement | August 2020 |
| Public inquiry | September 2021 |
| Confirmation of orders | April 2022 |
| FBC submission | May - November 2022 |
| Works 'notice to proceed' issued | December 2022 |
| Main works commence | February 2023 |
| Works completed | April 2025 |
| Road opens to traffic | May 2025 |

# 3 Scheme Objectives and Outcomes

## 3.1 Objectives

The Scheme has eight objectives set out in the OBC (and will be carried through to the FBC). The objectives were derived from an evidence-led process. They were agreed through consultation undertaken between 2014 and 2016 with Local Authorities, the Local Melton Mowbray Transport Stakeholder Reference Group and workshops with local highways officers.

The Scheme objectives are:

1. Improve access to Melton Mowbray town centre enabling full growth potential: To improve accessibility to jobs and retail centre via significantly reducing current severe levels of congestion and journey time unreliability in the peaks;
2. Reduce congestion on the local network, in particular key pinch points in and around Melton Mowbray town centre: To divert the through traffic away from the town centre onto more suitable roads and therefore to improve the vitality and viability of the town centre;
3. Reduce impact on rat-run routes via improving the south-north connectivity;
4. Remove HGV and LGV through traffic in Melton Mowbray town centre;
5. Improve access to the areas of potential development in the Local Plan;
6. Promote a quality space in the town centre, suitable for non-transport uses and attractive to inward investment;
7. Increase levels of public transport, walking and cycling use within the Study Area; and
8. Improve highway safety for all road users within the Study Area.

## 3.2 Logic Mapping

Logic mapping is a systematic and visual way of presenting the key steps required to turn a set of resources or inputs into activities and outputs that are designed to lead to a specific set of changes or outcomes / impacts. The logic map is used to articulate the underlying causal theory based on the assumptions and evidence underpinning the rationale for the Scheme. Its components are defined as:

- Input – what is invested in terms of money, skills, people, activities;
- Output – what has been produced, e.g. roads built;
- Outcome – short- and medium-term results e.g. altered traffic flows; and
- Impact – long term outcomes e.g. socioeconomic effects, such as economic growth.

A logic map for the Scheme is presented in Figure 3-1 and has been used to aid the development of this Monitoring and Evaluation Plan.

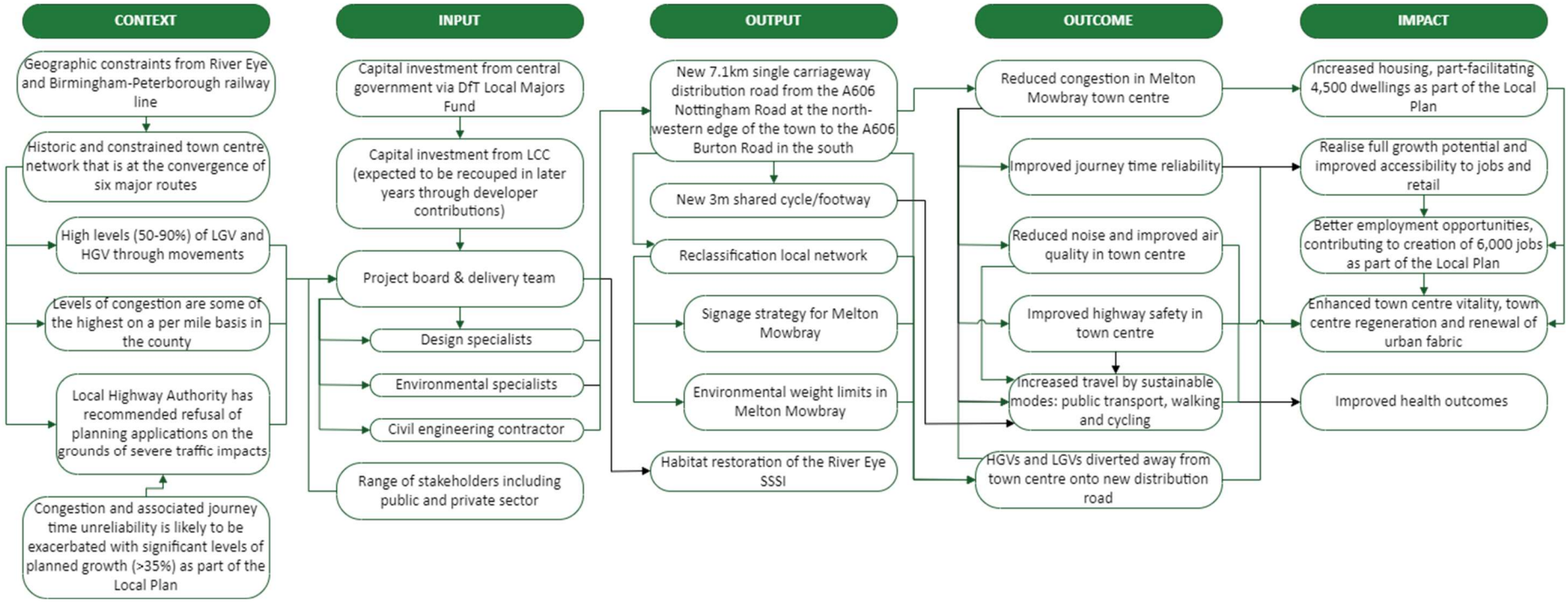


*Figure 3-1 NEMMDR Logic Map*

# 4 Evaluation Objectives

## 4.1 Defining the Audience

To ensure that the evaluation delivers optimum benefits it is important that the requirements of the anticipated users of its findings are considered. It is therefore important to understand who the users of the evidence will be, how they will be engaged and what will allow them to make effective use of the evaluation findings.

There will be several users of the evaluation's findings. The primary users will be LCC, represented through the Project Board, and the DfT. The findings will be made publicly available and are likely to be considered by other interested parties such as local residents and developers.

The Project Board provides accountability for LCC's investment. It monitors the Scheme's performance and measures success against a variety of metrics. The Project Board also acts as a hub for knowledge sharing and will facilitate sharing of this report's findings. Further details of the proposals for governance and dissemination of the evaluation findings are provided in Chapter 7.

## 4.2 Setting Evaluation Objectives

Setting the evaluation objectives informs the development of the research questions that will be considered in the evaluation process. Framing and presenting evaluation objectives should create a common understanding and consensus amongst stakeholders. The Scheme's objectives have been considered in the development of the evaluation objectives which also build on the aims set out in the DfT's guidance, specifically:

- Whether the Scheme was delivered effectively and efficiently;
- The casual effect of the Scheme on the anticipated outcomes and whether these have contributed to the intended impacts; and
- Whether the Scheme had any unintended adverse or positive effects.

The objectives of this evaluation are:

1. To provide accountability for how the Scheme has been delivered;
2. To assess whether the Scheme's intended outcomes have been realised and, where possible, to establish to what extent the Scheme contributed to those outcomes;
3. To assess whether the Scheme's intended economic/welfare impacts are being realised and, where possible, to establish to what extent the Scheme contributed to those impacts; and
4. To establish if the Scheme gave rise to any unintended outcomes or impacts.

## 4.3 Research Questions

Research questions have been prepared to assess the effectiveness of the Scheme against the evaluation objectives. The questions have been grouped against each objective and are presented in Table 4-1:

*Table 4-1 Research questions*

| Evaluation Objective | Research questions |
|---|---|
| **To provide accountability for how the Scheme has been delivered** | • Was the Scheme delivered in line with the programme submitted at FBC and how well was the programme managed? If the programme was not met, what caused the delay and why?<br>• How did the Scheme outturn cost differ from the budget submitted at FBC and how well was the budget managed? If the costs diverged from the budget, what caused the cost changes and why?<br>• Did external factors impact implementation of the Scheme?<br>• What worked well and what are the key lessons learnt from the delivery of the Scheme? |
| **To assess whether the Scheme's intended outcomes have been realised, and, where possible, to establish to what extent the Scheme contributed to those outcomes** | • Has traffic congestion reduced in Melton Mowbray town centre and by how much?<br>• Has journey time reliability improved through Melton Mowbray and by how much?<br>• Have HGVs and LGVs diverted away from the town centre on to the NEMMDR and what is the size of this change?<br>• Has air quality improved and noise levels reduced in Melton Mowbray town centre?<br>• Has highway safety improved in Melton Mowbray town centre?<br>• Have levels of cycling and walking activity and public transport patronage increased, and by how much?<br>• Did external factors impact the outcomes of the Scheme and if so, what contribution did the Scheme have on the outcomes? |
| **To assess whether the Scheme's intended impacts are being realised, and, where possible, to establish to what extent the Scheme contributed to those impacts** | • Has house building increased and in particular have those areas identified in the Local Plan come forward for development? If so, how many houses have been built?<br>• Has access to jobs and retail improved?<br>• Have the number of new jobs created in Melton Mowbray increased and has the employment level increased? If so, how many jobs have been created and what is the percentage change to the employment level?<br>• Has there been a change in the urban fabric of Melton Mowbray and has town centre footfall changed, and if so by how much?<br>• Did external factors affect the impacts of the Scheme and if so, what contribution did the Scheme have on the outcomes? |

| | |
|---|---|
| **To establish if the Scheme gave rise to any unintended outcomes or impacts** | • Did the construction phase cause any temporary positive or negative effects and if so, what were these?<br>• Has traffic routing changed as expected and if not, where is it different and what impact has that had?<br>• Has the boost to economic performance held back other areas?<br>• Have residents, businesses, or the public commented or complained about the impacts of the Scheme? What impacts do those complaints relate to, and were they anticipated? |

# 5 Evaluation Approach

## 5.1 Fuller Evaluation

The monitoring and evaluation approach is objective-led and focuses on the realisation of the Scheme objectives. This Monitoring and Evaluation Plan sets out the data requirements and the timescales of the data collection processes to ensure that appropriate and accurate data is collected in an efficient and proportionate manner. The data requirements, collection methods and frequencies are set out in Chapter 6.

The approach to fuller evaluation builds on the standard and enhanced monitoring requirements and seeks to evaluate the way the scheme was implemented, demonstrating and quantifying the difference made by the scheme, and using that evidence to assess whether the outcomes and impacts generated by the scheme justify the investment. This will be done through process evaluation, impact evaluation, and economic evaluation.

All three types of evaluation are complementary; Figure 5-1 shows how they are interlinked and when in the project lifecycle they will be undertaken.

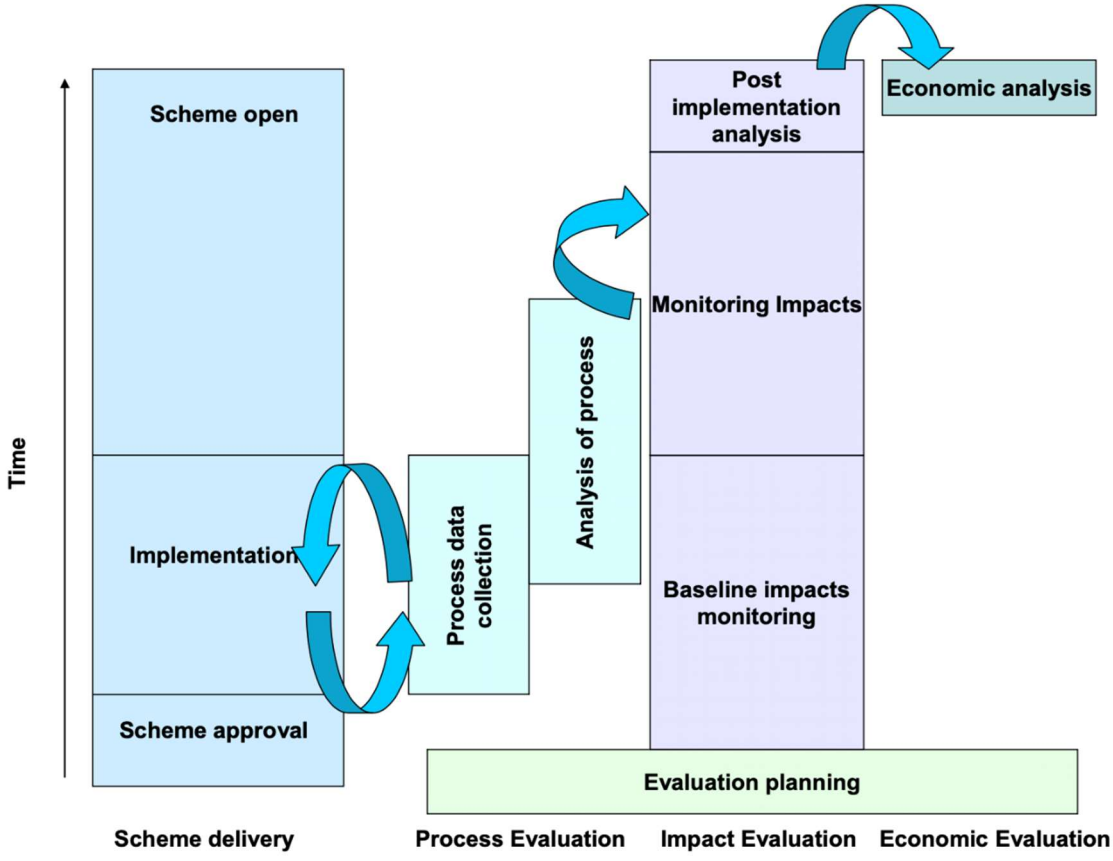


*Figure 5-1 Evaluation during project lifecycle*

## 5.2 Process Evaluation

The purpose of the process evaluation is to examine how the Scheme is delivered in practice and to understand why the scheme has resulted (or failed to result) in certain outcomes. This will be particularly useful for the impact evaluation because it will generate evidence as to why the scheme did or did not work and will test the logic map in Figure 3-1.

Data will be collected and analysed during the implementation stage, providing real-time feedback facilitating continuous improvement in delivery.

Details of the process evaluation are set out in Table 5-1 below.

*Table 5-1 Process Evaluation*

| Process | Details of the Evaluation |
|---|---|
| Was the Scheme delivered in line with the programme submitted at FBC and how well was the programme managed? | |
| **Programme (Scheme Build)** | The Scheme delivery process will be monitored against key milestones. This will be undertaken retrospectively against planned timeframes and will also identify any potential issues or delays as part of the management process. Proactive action taken to mitigate impacts will be recorded. The reasons for delay / change to the programme will be explored to identify if these could have been foreseen and mitigated. All learning will be recorded in a lessons learned log. |
| How did the Scheme outturn cost differ from the budget submitted at FBC and how well was the budget managed? | |
| **Costs** | Outturn costs (disaggregated as appropriate) will be monitored against budgets set out in the FBC. This will be undertaken retrospectively against planned budgets. Cost elements that experienced savings, and the reasons for those savings, will be identified. Similarly, those elements with cost overruns will be identified with the reasons ascertained. The reasons for cost change will be explored to identify if these could have been foreseen and mitigated. All learning will be recorded in a lessons learned log. |
| Did external factors impact implementation of the Scheme? | |
| **Delivery context** | The Scheme is likely to be impacted by other projects in the area, most noticeably the developer-led masterplan to the south of Melton Mowbray described in Chapter 2. The contextual impact of external factors will be identified in the evaluation including an assessment, as far as possible, of the impact of external factors. |
| What worked well and what are the key lessons learnt from the delivery of the Scheme? | |
| **Risk management** | A review of risks will be undertaken to ascertain if they were appropriately identified and mitigated, together with an assessment of the impact. A selection of successful and unsuccessful risk management approaches will be analysed in detail to understand what management approaches worked well and what did not, with learning added to the lessons learned log. |
| **Stakeholder management** | The stakeholder management plan will be reviewed to ensure it is up-to-date, appropriate and implemented including which stakeholders were engaged with, how and when, and whether that was planned or unplanned. The process will identify successful and challenging approaches, noting any learning in the lessons learned log. |

## 5.3 Impact Evaluation

The purpose of impact evaluation is to examine whether the scheme met its stated objectives and measure changes related to the outcomes identified in the logic map in Figure 3-1.

The impact evaluation will be a hybrid approach, using both outcome evaluations (before and after studies) and empirical evaluations (experimental approach) where appropriate. The outcome focussed evaluation aligns with the primary function of the evaluation which is to provide accountability for the investment and evidence for future spending decisions. Combined with the other elements of the evaluation plan, including empirical evaluation where appropriate and a comprehensive lessons learned log, this will help the DfT learn about which schemes deliver cost-effective transport solutions and will further enhance LCC's operational effectiveness on existing and future schemes.

Considering the Delivery Context, the outcome evaluation will be supplemented with a 'contribution analysis' where possible to estimate the impact attributable to the Scheme and the impact attributable to external factors. Use will be made of analytical evidence where possible and will be supplemented by consultation with stakeholders; however, it is recognised that there may be some difficulty in segregating impacts, given the potential similar timeline for delivery of the MMDR Southern Link which may have a significant impact on some Scheme outcomes and the potential impact of other interventions in the area (e.g. LCWIP). Where it is not possible to unpick impacts, a more holistic view across interventions will need to be taken. Finally, any unintended outcomes will be identified and assessed to understand their significance.

Data will be collected and analysed before and during implementation and post scheme opening. Data requirements are set out in Chapter 6.

Details of the impact evaluation are set out in this Chapter. The impacts evaluated are:

- Travel demand (highway traffic) – this relates to research questions regarding traffic congestion in Melton Mowbray town centre and the diversion of LGVs and HGVs away from the town centre onto the NEMMDR;
- Travel times and reliability – this relates to research questions regarding journey time reliability through Melton Mowbray town centre and access to jobs and retail opportunities.
- Public transport and active mode demand – this relates to research questions regarding levels of cycling and walking activity and public transport patronage;
- Carbon – this relates to research questions regarding carbon emissions related to transport in the Melton Mowbray area;
- Noise – this relates to research questions regarding the noise in Melton Mowbray;
- Air quality – this relates to research questions regarding the air quality in Melton Mowbray town centre;
- Accidents – this relates to research questions regarding highway safety in Melton Mowbray town centre; and
- Scheme objectives – this seeks to answer whether the wider Scheme objectives have been met and will include utilisation of data and analysis to measure economic impacts.

### 5.3.1 Travel Demand – Highway Traffic

Several of the Scheme objectives centre around removal of traffic from Melton Mowbray town centre including removing LGVs and HGVs and reducing rat running through the town centre. The evaluation of the impact of the Scheme on travel demand will therefore be of particular importance.

The evaluation will be undertaken using before and after scheme opening data. The data will cover appropriate locations in Melton Mowbray and will include traffic flows, pedestrian levels and cycle movements. The evaluation will include analysis of the difference between observed outturn results and forecasts contained in the NEMMDR Transport Assessment as illustrated in Figure 5-2 and Figure 5-3. This analysis will consider changes to travel demand in the town centre and on radial routes at the locations set out in Table 5-2. For ease of reference, the baseline flow and current forecast flow together with the expected change have been also been included in Table 5-2; however new base line data will be collected in Spring 2023 as set out in Chapter 6 which will include pedestrian and cycle movement data to supplement the traffic flow information (assessment of the impact on these active modes is discussed in more detail in Section 5.3.3. Data will be collected in a neutral month (February or March), providing 5 and 7 day average daily flows, together with average peak hour flows.

The impact of the MMDR Southern Link is likely to be significant (certainly in relation to vehicular movements, both radial and through the town), and it is unlikely to be possible to assess the impact of the Scheme independently. The approach taken will therefore be holistic and consider the impact of the whole MMDR scheme, although may include the initial impact of the NEMMDR and, as best as possible, a contribution analysis will attempt to isolate the impact of the Scheme in the medium term. Whilst the delivery timeframe for the MMDR Southern link isn't fully certain, it is possible that the 1-year and 5-year post opening reports for the schemes will differ, in that the MMDR Southern Link may complete in the interim period of the NEMMDR evaluation. The 1-year post opening report for the NEMMDR may therefore capture the impact of the Scheme in isolation, with a contribution analysis required at the 5-year post opening point, identifying the impact of the Scheme in isolation so far as is possible. This contribution analysis will be achieved by comparing the data collected in support of the transport analysis and evaluation of the Southern Link and identifying the changes caused by the Southern Link. This will give an indication of the impact caused by the Scheme separately from the Southern Link.

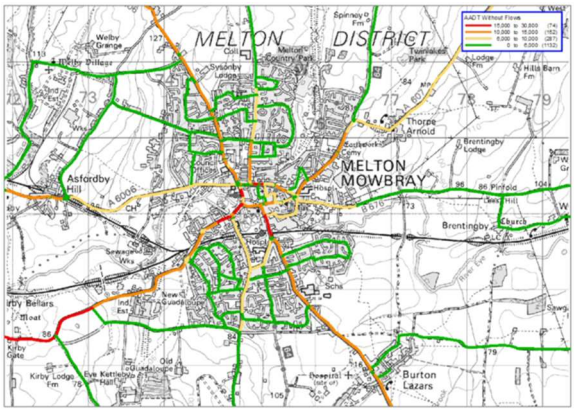


*Figure 5-2 Forecast AADT in 2021 on existing highway network (without NEMMDR)*

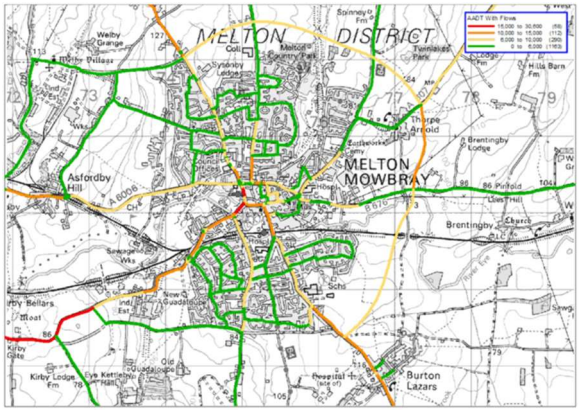


*Figure 5-3 Forecast AADT in 2021 on proposed highway network (with NEMMDR)*

*Table 5-2 Town Centre Travel Demand Changes - AADT*

| Key Roads | Baseline Flow | Forecast Flow | Change (%) |
|---|---|---|---|
| A606 Burton Street / Burton Road | 12,731 | 9,348 | -26.6% |
| A606 Leicester Street | 12,545 | 10,191 | -18.8% |
| A606 Sherrard Street | 12,122 | 9,793 | -19.2% |
| A606 Thorpe End | 5,678 | 4,083 | -28.1% |
| A606 Wilton Road | 14,614 | 12,479 | -14.6% |

| | | | |
|---|---|---|---|
| **A606 Nottingham Road** | 9,926 | 8,508 | -14.3% |
| **A607 Leicester Road** | 10,436 | 10,001 | -4.2% |
| **A607 Thorpe Road** | 9,728 | 5,624 | -42.2% |
| **A607 Norman Way** | 8,076 | 6,615 | -18.1% |
| **B676 Saxby Road** | 6,319 | 5,328 | -15.7% |
| **A606 Asfordby Road** | 7,342 | 6,730 | -8.3% |
| **Scalford Road** | 5,737 | 5,157 | -10.1% |
| **Average** | 9,605 | 7,821 | -18.6% |

The evaluation reporting will summarise pre-opening and post opening traffic conditions, identify flow changes, identify pedestrian and cycle movement changes, adjust for the Delivery Context, and summarise the impact of the Scheme on travel demand. The reporting will compare observed outturn and forecast traffic flows, identifying if any material differences are seen and consider the reasons for any discrepancies.

Once opened, the five main orbital sections of the NEMMDR will be monitored to understand the level of usage of the new road and a comparison with forecast traffic flows will be made. Monitoring of the six main radial routes that cross the NEMMDR, listed below, both within and outside the scheme, will be undertaken.

- A606 Nottingham Road
- Scalford Road
- Melton Spinney Road
- A607
- B676
- A606 Burton Road

### 5.3.2 Travel Times and Reliability

The evaluation of the impact of the Scheme on travel times and reliability provides an important evidence base for the effectiveness of the Scheme. A key objective of the Scheme is to improve access to jobs and retail by removing congestion from pinch points and improving journey time reliability. This is achieved by the Scheme, in part, by providing an alternative route for the A606 Nottingham-Oakham/Stamford, taking in the A607 to Grantham. Measuring journey time along the A606 corridor will therefore be important along with other radial routes. Variability in journey time will also be measured (probably using a standard deviation as the main metric) to provide an evidence base for journey time reliability. The routes that will be analysed in the evaluation are shown in Figure 5-4 and described in Table 5-3. The routes identified also include east-west routes along the A607 corridor. These are important in terms of meeting the Scheme objectives to improve access to retail and jobs but are particularly important when considering the Delivery Context, notably the developer led masterplan to the south of Melton Mowbray and the associated MMDR Southern Link.

The impact of the Scheme in isolation may be captured by the 1-year post opening data (assuming that the MMDR Southern Link is still under construction at that time). Accurately separating the impact of the MMDR Southern Link from the Scheme using an empirical approach at the 5-year after point is unlikely to be possible; any assessment at that point will consider the overall impact the Scheme and the developer led master plan to the south of Melton Mowbray and the associated MMDR Southern Link.

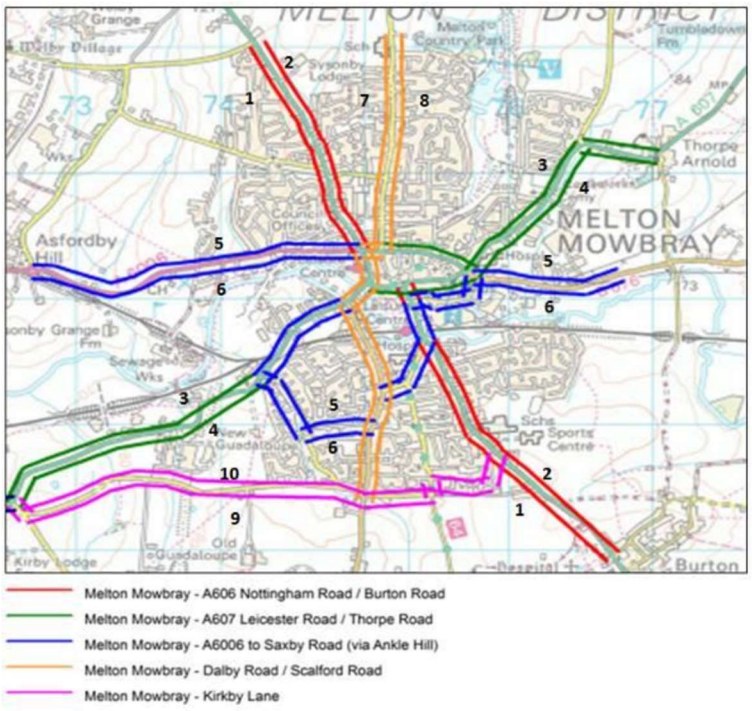


*Figure 5-4 Journey Time Survey Routes*

*Table 5-3 Journey Time Survey Route Descriptions*

| Ref | Route | Route Description |
|---|---|---|
| 1 | A606 – A606 | A606 Nottingham Road at its junction with St Bartholomew's Way to the A606 Melton Road at its junction with Cross Street |
| 2 | A606 – A606 | A606 Melton Road at its junction with Cross Street to A606 Nottingham Road at its junction with St Bartholomew's Way |
| 3 | A607 – A607 | A607 Leicester Road at its junction with Kirby Road to A607 Thorpe Road at its junction with Lag Lane via A606 Leicester Street |
| 4 | A607 – A607 | A607 Thorpe Road at its junction with Lag Lane to A607 Leicester Road at its junction with Kirby Road via A606 Leicester Street |
| 5 | A6006 – B676 | A6006 Asfordby Road at its junction with Welby Road to B676 Saxby Road at its junction with Saxby Road industrial estate, via A607 Wilton Road, B6047 Dalby Road, Warwick Road, Ankle Hill, A606 Burton Street and A607 Thorpe Road |
| 6 | B676 – A6006 | Saxby Road at its junction with Saxby Road industrial estate to A6006 Asfordby Road at its junction with Welby Road via A607 Thorpe Road, A606 Burton Street, Ankle Hill, Warwick Road, B6047 Dalby Road and A607 Wilton Road |
| 7 | Scalford Road – B6047 Dalby Road | Scalford Road at its junction with John Ferneley College to B6047 Dalby Road at its junction with Kirby Lane via A607 Park Road, A606 Wilton Road and A607 Leicester Road |
| 8 | B6047 Dalby Road – Scalford Road | B6047 Dalby Road at its junction with Kirby Lane to Scalford Road at its junction with John Ferneley College via A607 Leicester Road, A606 Wilton Road and A607 Park Road |
| 9 | Kirby Road – Norfolk Drive | Kirby Road at its junction with A607 Leicester Road to Norfolk Drive at its junction with A606 Burton Road via Kirby Lane and Sandy Lane |
| 10 | Norfolk Drive – Kirby Road | Norfolk Drive at its junction with A606 Burton Road to Kirby Road at its junction with A607 Leicester Road via Sandy Lane and Kirby Lane |

The evaluation will use Trafficmaster (or similar) data to demonstrate the existing journey times and journey time reliability along each of the routes and to identify changes to journey times and reliability both one year and five years after the Scheme has opened.

The evaluation reporting will summarise pre-opening and post opening journey times and reliability, identify time changes, average speed changes, and reliability changes, making indicative assessments relating to the Delivery Context, summarising the impact of the Scheme on journey times and journey time reliability. The reporting will compare observed and outturn journey times, identifying if any material differences are seen and consider the reasons for any discrepancies.

### 5.3.3 Public Transport and Active Mode Demand

One of the Scheme objectives is to increase levels of public transport, walking and cycling use, by removing traffic from the town centre and improving opportunities for an integrated transport network. Evaluation of these potential Scheme impacts needs to account for the Delivery Context, and in particular the proposed Melton Mowbray LCWIP that will impact walking and cycling usage.

Whilst forecast pedestrian and cyclist movements did not form an explicit part of the planning process or OBC/FBC analysis, any change identified through analysis of before and after data is likely to be impacted by the Delivery Context, in particular the LCWIP. To account for this impact, and to attempt to isolate the impact of the Scheme on pedestrian and cycle movements, an empirical approach will be taken. Comparable towns within the county delivering LCWIPs will be identified and considered for use as a 'control'. The transferability of the findings from the control locations will consider the comparability of the control area(s) in terms of population, infrastructure, and baseline use, with the premise being that the percentage change in these locations can be used to make an appropriate adjustment to the data collected in Melton Mowbray to separate out, as far as possible, the impact of the Scheme in isolation from LCWIP impacts.

Whilst the Delivery Context gives rise to some challenges, conversely it provides an opportunity to undertake more detailed monitoring than would otherwise be proposed, based on sharing resources with the programme of works for the Melton Mowbray LCWIP. Walking and cycle movements will be monitored by use of counters at strategic locations. Whilst subject to change due their inclusion in the Melton Mowbray LCWIP, the currently proposed counter locations are shown in Figure 5-5 and described in Table 5-4; noting usage data on the scheme itself will also be collected.

To assess the impact on public transport patronage, it will be necessary to engage with the bus operators, Arriva and Centrebus, to obtain before and after data on levels of patronage. In addition, qualitative feedback will be obtained from the bus operators to establish if the Scheme has provided opportunities to improve their network in other ways such as routes, frequency, reliability, and profitability.


*Figure 5-5 Proposed LCWIP counter locations*

*Table 5-4 Proposed LCWIP counter location descriptions*

| General Location | Road Name |
|---|---|
| Melton Mowbray | Burton Road |
| Melton Mowbray | Wilton Road |
| Melton Mowbray | Asfordby Road |
| Melton Mowbray | Noman Way |
| Melton Mowbray | Scalford Road |
| Melton Mowbray | Thorpe Road |
| Melton Mowbray | Saxby Road |
| Melton Mowbray | Snow Hill |
| Sysonby | Leicester Road |
| Melton Mowbray | Scalford Road |
| Melton Mowbray | Dalby Road |
| Melton Mowbray | Leicester Street |
| Melton Mowbray | Burton Road |
| Melton Mowbray | Nottingham Road |
| Thorpe Arnold | Ferneley Crescent |
| Asfordby Hill | Asfordby Road |
| Melton Mowbray | Thorpe End |
| Melton Mowbray | NEMMDR |

The evaluation report will summarise pre-opening and post opening public transport, walking and cycling use, identify changes, and make an assessment relating to the Delivery Context as required. The impact of the Scheme on public transport, walking and cycling use at the 1-year after stage will be summarised with the wider impact of the full MMDR covered at the 5-year after stage. The reporting will compare observed and forecast changes to usage, identifying if any material differences are seen between forecast and outturn results and consider the reasons for any discrepancies.

### 5.3.4 Carbon

The evaluation of the impact on carbon emissions will be made on the basis that there is a correlation between carbon emissions in Melton Mowbray and both travel demand and travel time. The linkage to travel demand and travel time is considered to provide a robust assessment of the relative change in carbon emissions as a result of the Scheme noting the impact of the scheme in isolation at the 5-year after point will not be possible due to the Delivery Context, and the impact of the MMDR Southern Link.

To calculate the impact of the Scheme on carbon emissions a before and after assessment of the road-based fuel consumption will be made using the Design Manual for Roads and Bridges ("DMRB") Volume 11 Section 3 Air Quality Screening. This will utilise the observed traffic flows and journey times described in Sections 5.3.1 and 5.3.2.

The evaluation reporting will summarise pre-opening and post-opening carbon emission levels, identify changes, summarising the impact of the Scheme on carbon at the 1-year after stage and covering the wider impact of the full MMDR at the 5-year after stage. Overall comparisons of observed changes will be made with forecast changes in emissions (noting the forecast changes are assessed using a different methodology, i.e. using TUBA).

### 5.3.5 Noise

The evaluation of the impact of noise will be made through analysis of before and after data to measure the change in noise at important receptor locations. Although there are no Scheme objectives relating to noise it is an important element in improving the vitality of the town centre, attracting inward investment and therefore increasing its viability. Measuring changes in noise is also important for other reasons, for example to assist with the assessment of compensation claims under Part 1 of the Land Compensation Act 1973. Sensitive receptors and forecast changes in noise were included in the Environmental Statement ("ES") as part of the planning application so it will also be possible to identify any differences between forecast changes and actual changes. A baseline noise survey was completed in late 2017 / early 2018 to verify the noise model. As a minimum, these locations would be re-surveyed post opening to validate the forecasts; this may be supplemented with additional locations. The baseline locations are shown in Figure 5-6 and described in Table 5-5 and were chosen to focus on some of the very closest receptors to the Scheme. An illustration of the change in traffic noise levels is shown in Figure 5-7 and reference to the noise assessment submitted as part of the planning application will be made for the evaluation.

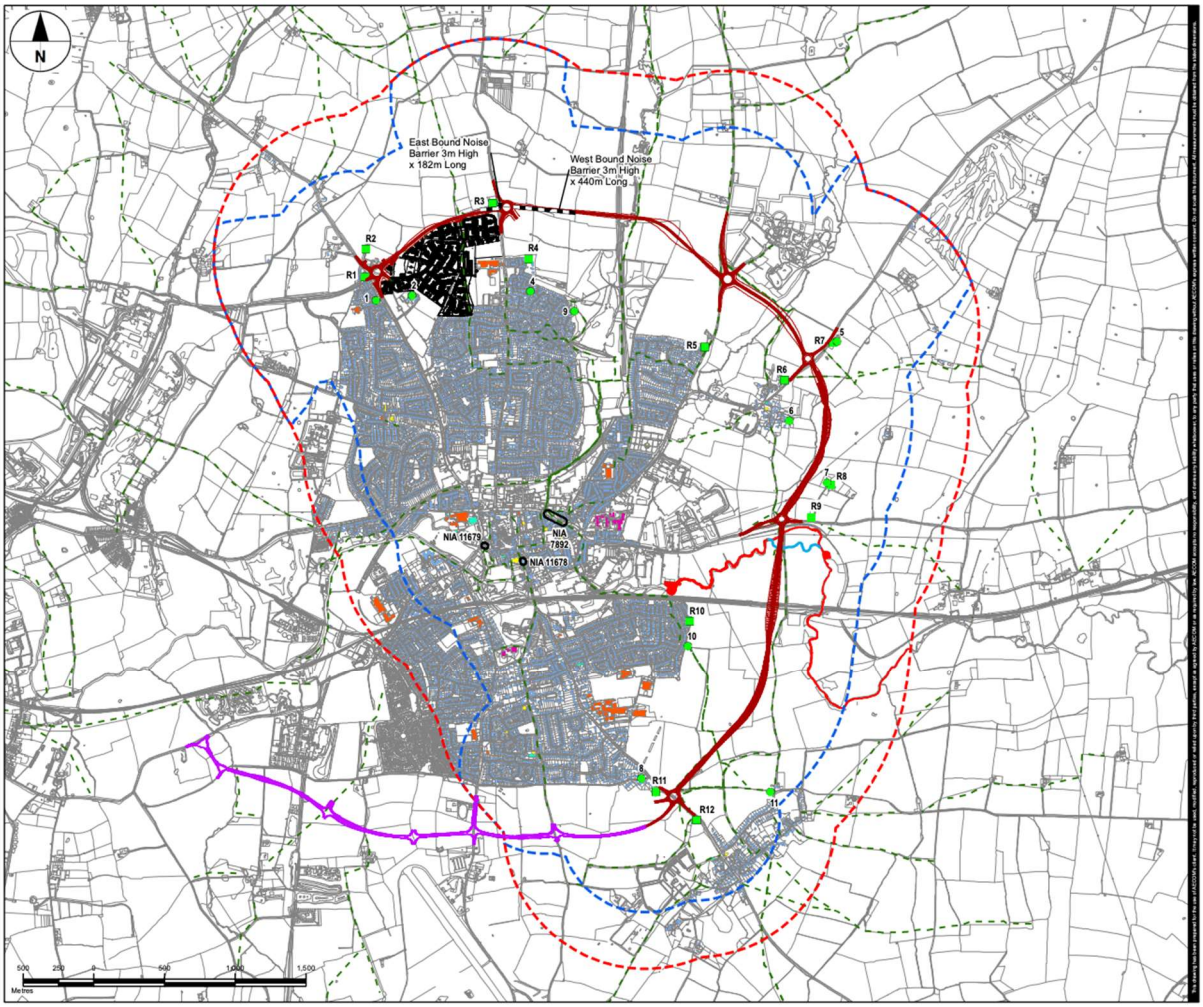


*Figure 5-6 Noise Monitoring Locations*

*Table 5-5 Baseline Noise Monitoring*

| Ref | Description | ST/LT | Measured $L_{A10,18h}$ dB free-field | Predicted $L_{A10,18h}$ dB free-field |
|---|---|---|---|---|
| 1 | Canterbury Drive (NW end of scheme off A606) | LT | 55.2 – 56.1 | 57.4 |
| 2 | Sysonby Lodge (NW end of scheme east of A606) | LT | 45.8 – 49.9 | 49.7 |
| 4 | Mason Road (new houses east of Scalford Road) | LT | 40.4 – 44.9 | 39.5 |
| 5 | A607 NE of Thorpe Arnold | LT | 55.7 – 58.0 | 53.6 |
| 6 | Lag Lane, Thorpe Arnold | LT | 43.1 – 45.7 | 48.7 |
| 7 | Shipmans Barn Stud, Saxby Road | LT | 45.4 – 52.1 | 45.8 |
| 8 | Burton Road (A606 S end of scheme) | LT | 55.5 – 56.6 | 57.5 |
| 9 | Melton Country Park | ST | 43.3 | 41.4 |
| 10 | Footpath east of Grange Drive (SE edge of Melton) | ST | 41.7 | 43.2 |
| 11 | Cross Lane/Sawgate Road, Burton Lazars | ST | 47.8 | 43.1 |

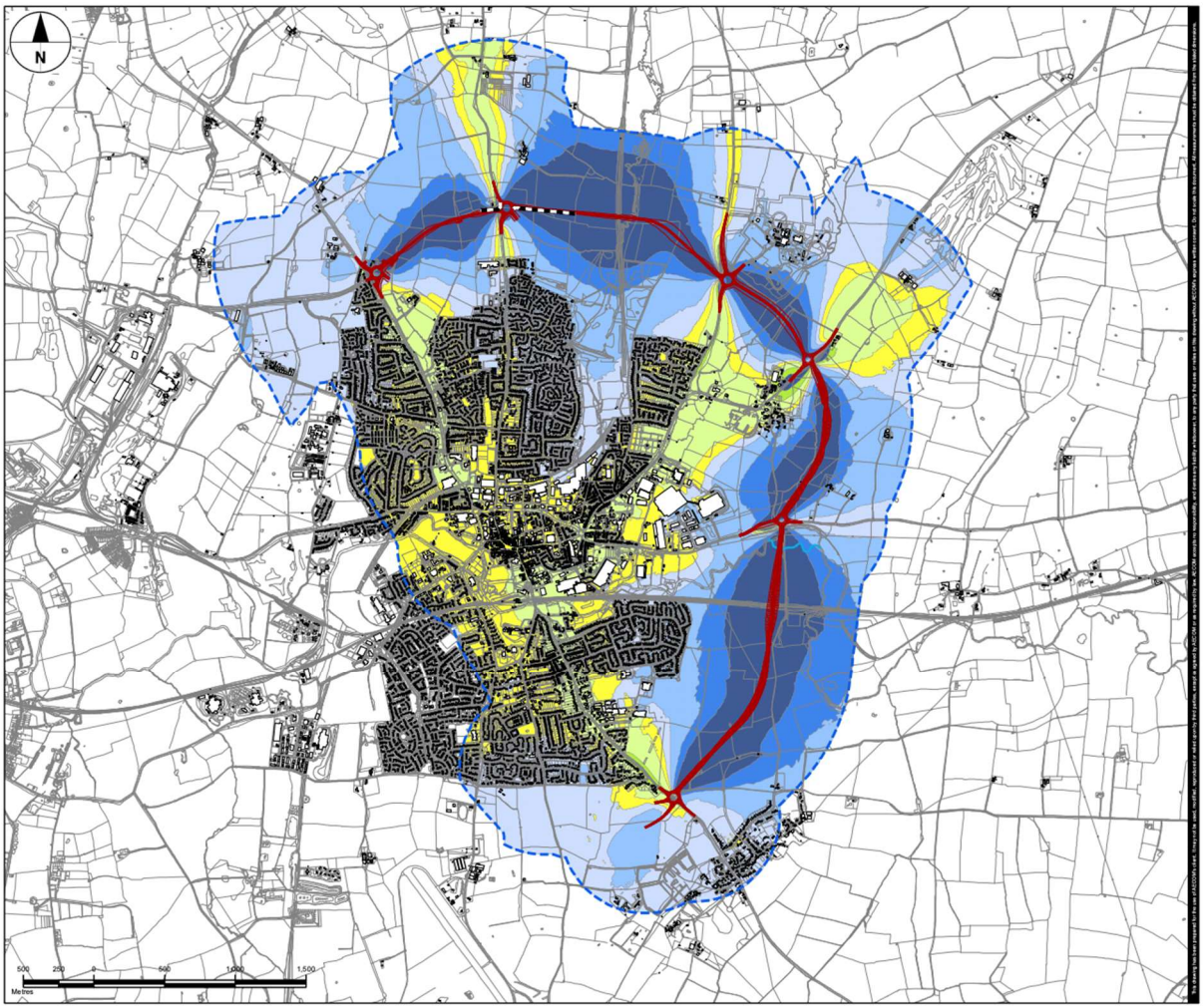


*Figure 5-7 Forecast change in noise levels at opening*

The evaluation reporting will summarise pre-opening and post opening noise levels, identify changes, and as necessary make indicative assessments relating to the Delivery Context, summarising the impact of the Scheme on noise levels at the 1-year after stage and covering the wider impact of the full MMDR at the 5-year after stage. The reporting will compare observed and outturn changes to noise levels, identifying if any material differences are seen between forecast and outturn results and consider the reasons for any discrepancies.

### 5.3.6 Air Quality

There are no scheme objectives related to air quality and the route does not pass through any Air Quality Management Areas. The ES stated that, "no further air quality monitoring is recommended to assess operational impacts as there are no significant effects anticipated." Therefore, there are no proposals (or existing infrastructure) to directly measure air quality in Melton Mowbray. A baseline for road traffic pollutants $NO_2$ and $PM_{10}$ was established in the ES, using Defra's 2015 based background maps and onsite monitoring using $NO_2$ diffusion tubes at 6 locations during 2017/18. The air quality impact evaluation will use a road-based assessment in line with DMRB Volume 11 Section 3 and subsequent Interim Advice Notes. This will utilise the observed traffic flows and speeds described in Sections 5.3.1 and 5.3.2, as well as road type and background pollutants, to assess pollutant levels before and after the Scheme opening.

The evaluation reporting will summarise pre-opening and post opening air quality levels, identify changes, and as necessary make indicative assessments relating to the Delivery Context, summarising the impact of the Scheme on air quality at the 1-year after stage and covering the wider impact of the full MMDR at the 5-year after stage. The reporting will compare observed and outturn changes to air quality, identifying if any material differences are seen between forecast and outturn results and consider the reasons for any discrepancies.

### 5.3.7 Accidents

The impact of the scheme on accidents will be assessed using before and after data collected over a 5 year period both before and after Scheme opening (as assessment of data over a shorter timeframe is unlikely to be robust due to the variability of the data). The results of the accident analysis will be reported in the 5-year after report only.

The appraisal results included in the OBC (to be updated in the FBC) suggested that the Scheme would reduce accidents in Melton Mowbray town centre, whilst introducing new accidents along the length of the Scheme, providing an overall dis-benefit. This spatial impact of the Scheme on accidents will be measured using the observed before and after data to compare with the forecast, noting that the MMDR Southern Link is likely to have an impact on the data, so results are likely to indicative.

The evaluation report will set out the pre-opening position (using data available pre-construction over a 5-year period) and the observed position 5 years after Scheme opening to provide an indication of the impact of the Scheme on accidents, although noting the potential impact of the MMDR Southern Link. The impact of the scheme on the spatial distribution of accidents will be assessed, identifying any divergence away from the forecast Scheme impact of reduced accidents in the town whilst introducing new accidents along the length of the new route.

### 5.3.8 Scheme Objectives

The evaluation will assess whether the scheme has achieved three of the objectives set out in the OBC. The scheme objectives that will be evaluated have been set in consultation with key stakeholders and are tailored to meet DfT requirements, reflect the overarching scheme objectives including long term economic impacts, and draw upon the logic map in Figure 3-1.

The objectives set for evaluation are:

1. Reduce congestion on the local network;
2. Support economic growth; and
3. Increase levels of sustainable transport usage.

To assess the impact of the scheme against these three objectives, the evaluation will utilise data and analysis gathered for the impact evaluation relating to travel demand, travel time and reliability, and accidents, together with further data and analysis related to the local economy.

To fully evaluate the effectiveness of the scheme against these objectives, a sub-set of research questions have been prepared. The questions have been grouped against each objective and are presented in Table 5-6.

*Table 5-6 Research questions sub-set*

| Objective to be evaluated | Research questions |
|---|---|
| **Reduce congestion on the local network** | • Has the scheme improved north-south journey times along the A606 corridor?<br>• Has there been a reduction in congestion in Melton Mowbray town centre?<br>• Has the proportion of HGV and LGV through traffic reduced? |
| **Support economic growth** | • Have journey times and access to key locations for employment been improved?<br>• Have new jobs been created?<br>• Have housing completions increased?<br>• Have development sites come forward as anticipated |
| **Increase levels of sustainable transport** | • Has public transport patronage in Melton Mowbray increased?<br>• Has levels of walking and cycling activity in and around Melton Mowbray town centre increased?<br>• Has highway safety in Melton town centre been improved, particularly for pedestrians and cyclists? |

#### *5.3.8.1 Objective 1 – Reduce congestion on the local network*

The assessment of Objective 1 will draw on the travel demand and travel time and analysis discussed in 5.3.1 and 5.3.2 above.

To identify whether there has been an improvement in journey time along the A606 corridor, the data collected pre and post opening (at 1 and 5 years) along the routes referenced 1 and 2 in Table 5-3 will be used to identify travel time and average speed changes and compare these with forecasts.

To address the question whether there has been a reduction in congestion in Melton Mowbray Town Centre, analysis will focus on the data collected pre and post opening (at 1 and 5 years) for the following routes:

- A607 Norman Way
- A607 Wilton Road
- A606 Leicester Street
- A606 Sherrard Street

This analysis will be supplemented with additional before and after data collection on junction delay at nine key junctions in Melton Mowbray, illustrated in Figure 5-8 and described in Table 5-7. This will include delay duration and queue length at each approach for the AM peak, PM peak and average daily values.

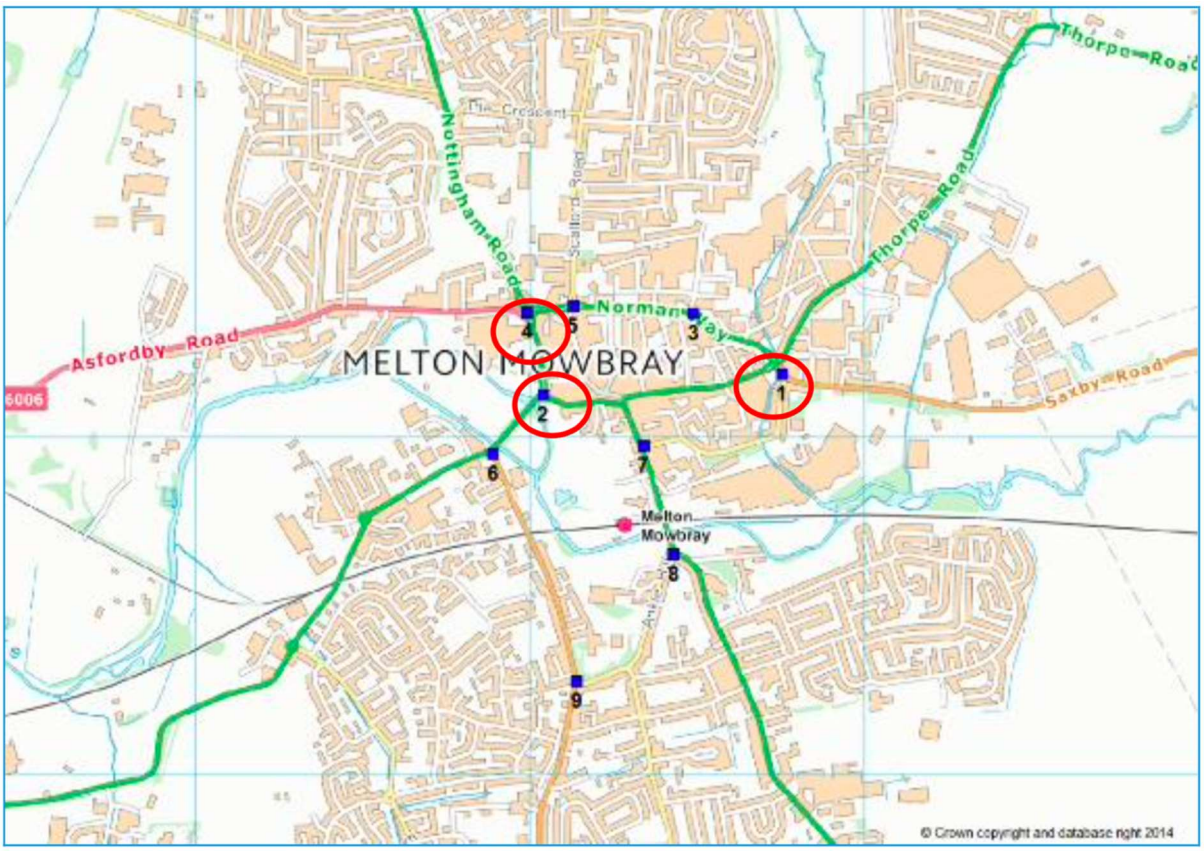


*Figure 5-8 Map of Melton Mowbray town centre, showing key traffic pinch points*

*Table 5-7 Key traffic pinch point location description*

| Ref | Location |
|---|---|
| 1 | Junction of A607 Thorpe Road / A607 Norman Way / A606 Thorpe End / B676 Saxby Road |
| 2 | Junction of A607 Leicester Road / A606 Wilton Road / A606 Leicester Street |
| 3 | Junction of A607 Norman Way / Snow Hill |
| 4 | Junction of A606 Nottingham Road / A606 Wilton Road / A607 Norman Way / A6006 Asfordby Road |
| 5 | Junction of A607 Norman Way / Scalford Road |
| 6 | Junction of A607 Leicester Road / B6047 Dalby Road |
| 7 | Junction of A606 Burton Road / Mill Street |
| 8 | Junction of A607 Burton Road / Ankle Hill |
| 9 | Junction of B6047 Dalby Road / Warwick Road |

To assess whether the proportion of HGV and LGV through traffic reduced has reduced the analysis will focus on the traffic data collected pre and post opening (at 1 and 5 years) to assess the proportional change in HGV and LGV use on:

- A607 Norman Way
- A607 Wilton Road
- A606 Leicester Street
- A606 Sherrard Street

The evaluation report will summarise the Scheme impact on Objective 1 at both the 1-year after and 5-year after stages, noting the Delivery Context, and introduction of the MMDR Southern Link, will make full attribution at the 5- year after stage more difficult. The reporting will compare observed

and outturn changes to usage and journey times, identifying if any material differences are seen and consider the reasons for any discrepancies.

#### *5.3.8.2 Objective 2 – Support economic growth*

The Scheme is expected to have a positive impact on the economy by improving access to planned development sites, providing additional capacity to accommodate growth, making it easier for people to get to work by a range of modes, and by improving the perceptions of the town (by reducing congestion and attracting inward investment). These are likely to be long-term impacts, and it is unlikely that significant change will be observed within one year of the Scheme opening, hence this will be covered at the 5-year after opening stage only (noting the metrics will be affected by the Delivery Context and in particular the MMDR Southern Link, and associated developments).

To assess the impact on the economy the following data will be monitored over the 5 years after scheme opening: number, location and size of new employment sites delivered in the study area, and the number of jobs associated with these; new business start-ups and closures in the study area; local employment statistics; Gross Value Added (GVA) headline data; indices of multiple deprivation (IMD).

Data on the economy and employment will be obtained from national ONS statistics with planning data from LCC and Melton Borough Council. In most cases the information is available annually. Generally, data is available for the whole of the county and Melton Borough. Some employment data and IMD data may be available at Local Super Output Area level. Local planning data is, of course, available for individual sites.

The evaluation report will summarise the Scheme/broader MMDR impact on Objective 2 at the 5-year after stage. The reporting will identify delivery of developments and changes in job statistics (by comparison to national statistics) and other metrics associated with the local economy.

#### *5.3.8.3 Objective 3 – Increase levels of sustainable transport*

The assessment of the Objective 3 will use the data described in Sections 5.3.3 and 5.3.7 above related to public transport and active mode usage and the safety of the network.

The assessment will use the pre and post-scheme opening data to assess the impact of the scheme on public transport patronage. The data used will be obtained in discussion with the bus operators, Arriva and Centrebus, and with analysis of 1-year and 5-year after data undertaken.

The assessment of the impact of the scheme on walking and cycling will draw on the analysis described in Section 5.3.3, using walking and cycle data collected pre and post (1-year and 5-year after) Scheme opening at strategic locations.

The evaluation will also draw on the analysis of accident impacts described in Section 5.3.7. This analysis will be supplemented with an in-depth analysis of accident type and nature (such as distributional impact) to understand how the safety impact of the Scheme relates specifically to active modes. Note that it is considered that 1-year of accident data would not be representative.

The evaluation report will summarise the Scheme impact on Objective 3 at both the 1-year after (excluding accidents) and 5-year after stages, noting the Delivery Context will need to be accounted for, particularly for active mode use due to the implementation of the LCWIP but also the MMDR Southern Link. The reporting will compare observed and outturn changes to usage, identifying if any material differences are seen and consider the reasons for any discrepancies.

## 5.4 Economic Evaluation

The Economic Case which forms part of the OBC included a calculation of an anticipated benefit cost ratio (BCR) for the Scheme, which was 3.1 for the central case scenario (noting this will be updated in the FBC). This was based on estimates of the costs and forecast monetised benefits of the Scheme over (in the main) a 60-year appraisal period. The Value for Money (VfM) category for the Scheme was assessed as "high" in line with DfT guidance.

The benefits were calculated from forecast changes in traffic patterns and the resulting changes in journey times and reliability, operating costs, accidents, physical activity, wider impacts and environmental impacts due to the Scheme. The journey time and operating cost impacts were forecast to be substantially the largest benefits, followed by wider impacts, with other impacts being more marginal.

An assessment will be made of the extent to which the Scheme delivers the VfM that was anticipated in the OBC (and updated in the FBC). This will be done by re-calculating the BCR and comparing it to the BCR calculated in the FBC to determine whether it would have resulted in a different VfM category for the Scheme.

**Initial review of VfM**

For the 1-year after report, this will be done simply by re-calculating the present value of costs, PVC, based on the actual out-turn costs which by then will be available. The present value of benefits (PVB) will not be adjusted, as it will be too soon to determine the longer-term traffic impacts on which this depends.

An updated BCR will be calculated as:

$BCR_{(Updated)} = PVB / PVC_{(actual)}$

An updated VfM category will be determined according to the DfT criteria:

| | |
|---|---|
| Very Poor | less than or equal to 0 |
| Poor VfM | if $BCR_{(Updated)}$ is between 0 and 1.0 |
| Low VfM | if $BCR_{(Updated)}$ is between 1.0 and 1.5 |
| Medium VfM | if $BCR_{(Updated)}$ is between 1.5 and 2 |
| High VfM | if $BCR_{(Updated)}$ is between 2.0 and 4.0 |
| Very High VfM | if $BCR_{(Updated)}$ is greater than 4.0 |

In the event of a change in the VfM category from what was anticipated, this will be reported in the 1-year after report, together with a qualitative discussion of the possible reasons, based on the other measures that have been monitored (especially traffic changes) and any known external factors (such as development and economic growth).

**Final review of VfM**

For the final (5-year after) report, the approach to recalculating the BCR will depend on whether other monitoring shows that the traffic impacts of the Scheme appear to be significantly different from those that were forecast. The key metrics to determine this will be:

- The volume of traffic using the route (peak and inter-peak);

- The volume of traffic using the main 'A' roads into and through Melton Mowbray; and
- Travel times between key origins and destinations

This data set will give a good overall picture of the main traffic movements in and around the town, and on the Scheme. It will be compared with the modelled opening year traffic flows, adjusted using the growth factors assumed in the original economic assessment, and with the forecast journey times.

**If no significant change in traffic impacts**

If it is clear that the observed traffic patterns five years after opening are a good fit with those forecast in the Scheme appraisal, the original value of PVB will be assumed to be reliable and will not be changed unless adjustments are required to account for revised valuations published by DfT in the interim. The $PVC_{(actual)}$ will be re-calculated (as in the 1-year after report, with any further adjustments to costs) and the $BCR_{(Final\ updated)}$ will be calculated.

In the event of a change in the VfM category from what was anticipated, this will be reported in the final report.

**If there is a significant change in the traffic impacts**

If the observed traffic patterns five years after opening are not a good fit with those forecast in the Scheme appraisal, it will be necessary to re-calculate the PVB. It would not be cost-effective to repeat the full economic appraisal with the benefit of hindsight, and to attempt to do so would not be proportionate. The objective, in this situation, would be to understand the reasons why things had not worked out as expected, and to learn how future appraisals can be made more reliable. The approach taken will therefore be to examine the underlying traffic patterns to determine:

- whether the differences observed are likely to be associated with an increase or a decrease in Scheme benefits. For example, if the time savings for users of the Scheme are greater than forecast, or experienced by a larger number of users, it is reasonable to assume that the benefits would be greater. The converse is also true.
- whether the observed data shows a different overall rate of traffic growth than forecast, and whether this is in line with national trends, or is a result of unexpected levels of local growth and development.
- whether the observed data suggests that the Scheme is not performing in the way that was forecast. For example, if users are continuing to use to use the town centre, rather than diverting to the Scheme, or if the expected journey time savings are not occurring.

Depending on what can be learnt from the basic traffic data, a proportionate approach will be taken to the re-calculation of the PVB to determine a new BCR. This could involve adjusting the rate of assumed traffic growth for the first five years after opening and taking a view on the rate to be applied thereafter. Or, it could involve factoring PVB to reflect a more, or less, optimistic view of the monetised benefits resulting from the Scheme. Noting any updates to the valuation of benefits will also be taken into account in adjusting the PVB.

In effect, the approach taken would be analogous to the use of sensitivity tests in the original appraisal, but with the benefit of a degree of hindsight afforded by the data collected over the first five years of operation.

A final updated BCR will be calculated as:

$BCR_{(Final\ updated)} = PVB_{(Adjusted\ as\ described\ above)} / PVC_{(actual)}$

An updated VfM category will be determined according to the DfT criteria noted above

In the event of a change in the VfM category from what was anticipated, this will be reported in the final report, together with a detailed discussion of the possible reasons, based on the other measures that have been monitored (especially traffic changes) and any known external factors (such as development and economic growth). Any limitations or uncertainties in the conclusions that can be drawn will be highlighted, together with any recommendations for:

- improvements to the way schemes are assessed in future; and
- work to identify possible remedial measures which might address deficiencies in the Scheme.

# 6 Data Requirements and Collection Methods

In accordance with the DfT's guidance, Table 6-1 sets out the measures for monitoring, along with the methodology/frequency and the rationale for the data collection (i.e. whether the objective of the data collection is to support accountability or development of knowledge). Table 6-1 includes scheme specific amendments and is structured to reflect the evaluation approach detailed in Chapter 5.

.

*Table 6-1 Scheme Monitoring Measures*

| Measure | Data | Stage | Rationale | Data Collection Method | Data Collection Frequency |
|---|---|---|---|---|---|
| **Programme (Scheme Build)** | • Progress against milestones<br>• Identification of delayed activities and mitigating action<br>• Analysis of delay to establish cause | Input | Accountability / Knowledge | • Monitoring by contractor during delivery. | • Monthly reporting during delivery<br>• *Reported in: One Year After Report* |
| **Costs** | • Outturn costs (divided into elements)<br>• Identification of cost elements with savings with reasons<br>• Analysis of cost elements with cost overrun | Input | Accountability | • Financial reporting by contractor. | • Monthly reporting during delivery<br>• *Reported in: One Year After Report, Final Report* |
| | • Outturn operating costs with reasoned identification of differences<br>• Outturn maintenance costs with reasoned identification of differences | | | • Highway maintenance programme. | • Annual review<br>• *Reported in: Final Report* |
| **Delivery Context** | • Identification of changes to context<br>• Assessment, so far as is reasonably possible, of the effect of contextual changes | Input / Output / Outcome / Impact | Accountability / Knowledge | • Monitoring by project delivery team. | • Monthly reporting during delivery<br>• Reviewed at 1 and 5 years post opening<br>• *Reported in: One Year After Report, Final Report* |
| **Risk Management** | • Risk management effectiveness<br>• Analysis of successful and unsuccessful risk management approaches | Input | Accountability / Knowledge | • Monitoring by contractor during delivery. | • Monthly reporting during delivery<br>• *Reported in: One Year After Report* |
| **Stakeholder Management** | • Stakeholder management approach<br>• Identification of success and challenges | Input | Knowledge | • Monitoring by contractor during delivery. | • Monthly reporting during delivery<br>• *Reported in: One Year After Report* |

| | | | | | |
|---|---|---|---|---|---|
| **Delivered Scheme** | • Output tracker<br>• Benefit tracker with assessment of (dis)benefit realisation<br>• Identification of changes to scheme<br>• Identification of changes to mitigation | Output | Accountability | • Monitoring by contractor.<br>• Observation of scheme outputs.<br>• Consultation with stakeholders. | • Post scheme opening<br>• *Reported in: One Year After Report* |
| **Scheme Objectives** | **Reduce congestion on the local network**<br>• Traffic flows – see travel demand<br>• Junction analysis at:<br>  ○ A607 / A607 / A606 / B676<br>  ○ A607 / A606 / A606<br>  ○ A607 / Snow Hill<br>  ○ A606 / A606 / A607 / A6006<br>  ○ A607 / Scalford Road<br>  ○ A607 / B6047<br>  ○ A606 / Mill Street<br>  ○ A607 / Ankle Hill<br>  ○ B6047 / Warwick Road<br>• Proportion of HGV / LGV through traffic – see travel demand | Outcome | Accountability | • Automatic Traffic Counts – see travel demand.<br>• Junction delay. | • Reviewed at 1 and 5 years post opening<br>• *Reported in: One Year After Report, Final Report* |
| | **Support economic growth**<br>• Housing development<br>• Commercial development | Impact | | • MBC Annual Monitoring & Development Department:<br>  ○ number of new dwellings<br>  ○ GFA of new employment sites<br>  ○ Employment statistics<br>  ○ GVA statistics<br>  ○ IMD statistics. | • Reviewed 5 years post opening<br>• *Reported in: Final Report* |

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| | **Increase levels of sustainable transport**<br>• Road traffic accidents in Melton Mowbray town centre<br>• Public transport patronage<br>• Cycling and walking activity | Outcome | | • Accident statistics from LCC.<br>• Automatic Traffic Counts.<br>• Cycle and pedestrian counts.<br>• Consultation with public transport operator(s). | • Reviewed at 1 and 5 years post opening<br>• *Reported in: One Year After Report (except accidents), Final Report* |
| **Travel Demand – Highway Traffic** | • Traffic flows on:<br>1. A606 Burton Street / Burton Road*<br>2. A606 Leicester Road<br>3. A606 Sherrard Street<br>4. A606 Thorpe End<br>5. A606 Wilton Road<br>6. A606 Nottingham Road*<br>7. A607 Leicester Road<br>8. A607 Thorpe Road*<br>9. A607 Norman Way<br>10. B676 Saxby Road*<br>11. A606 Asfordby Road<br>12. Scalford Road*<br>13. Melton Spinney Road*<br>14. NEMMDR between A606 and Scalford Road<br>15. NEMMDR between Scalford Road and Melton Spinney Road<br>16. NEMMDR between Melton Spinney Road and A607<br>17. NEMMDR between A607 and B676<br>18. NEMMDR between B676 and A606 (Burton Road)<br>19. * (data collection inside and outside NEMMDR with the scheme in place) | Outcome | Accountability / Knowledge | • Automatic Traffic Counts (using existing data where available) collected prior to construction and post construction. To be collected in a neutral month and providing 5 and 7 day 12 and 24hr flows and average peak hour flows. | • Prior to Scheme construction<br>• At 1 and 5 years post opening<br>• *Reported in: One Year After Report, Final Report* |

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| | • Cycling and walking activity on:<br>1. A606 Burton Street / Burton Road<br>2. A606 Leicester Road<br>3. A606 Sherrard Street<br>4. A606 Thorpe End<br>5. A606 Wilton Road<br>6. A606 Nottingham Road<br>7. A607 Leicester Road<br>8. A607 Thorpe Road<br>9. A607 Norman Way<br>10. B676 Saxby Road<br>11. A606 Asfordby Road<br>12. Scalford Road | | | • Cycle and pedestrian counts collected prior to construction and post construction. To be collected in a neutral month. Data to be collected alongside that required for the proposed LCWIP. | |
| **Travel Times and Reliability** | • Trafficmaster data on:<br>1. A606 – A606<br>2. A606 – A606<br>3. A607 – A607<br>4. A607 – A607<br>5. A6006 – B676<br>6. B676 – A6006<br>7. Scalford Road – B6047 Dalby Road<br>8. B6047 Dalby Road – Scalford Road<br>9. Kirby Road – Norfolk Drive<br>10. Norfolk Drive – Kirby Road | Outcome | Accountability / Knowledge | • Trafficmaster (or similar) data obtained from DfT collected prior to construction and post construction. To be collected in a neutral month. | • Prior to Scheme construction<br>• At 1 and 5 years post opening<br>• *Reported in: One Year After Report, Final Report* |

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| **Public Transport and Active Mode Demand** | • Cycling and walking counts at:<br>1. A606 Burton Street<br>2. A607 Leicester Road<br>3. A6006 Asforby Road<br>4. A606 Nottingham Road<br>5. Scalford Road<br>6. Snow Hill<br>7. A607 Thorpe Road<br>8. B676 Saxby Road<br>9. A607 Leicester Road<br>10. Scalford Road<br>11. B6047 Dalby Road<br>12. Footpath north of Regent Street<br>13. A606 Burton Road<br>14. A606 Nottingham Road<br>15. Fleming Drive<br>• Public transport patronage | Outcome | Accountability / Knowledge | • Automatic Counts (combined resource with Melton Mowbray LCWIP) collected prior to construction and post construction. To be collected in a neutral month.<br>• Consultation with bus operators Arriva and Centrebus. | • Prior to Scheme construction<br>• At 1 and 5 years post opening<br>• *Reported in: One Year After Report, Final Report* |
| **Impact on the Economy** | • Employment levels<br>• Rental values | Impact | Accountability / Knowledge | • ONS employment statistics.<br>• ONS residential rental statistics. | • Reviewed at 5 years post opening<br>• *Reported in: Final Report* |
| **Carbon** | • Traffic flows – see Travel Demand<br>• Vehicle speeds – see Travel Times and Reliability | Impact | Accountability / Knowledge | • Automatic Traffic Counts – see Travel Demand.<br>• Trafficmaster (or similar) data – see Travel Times and Reliability. | • Reviewed at 1 and 5 years post opening<br>• *Reported in: One Year After Report, Final Report* |

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| **Noise** | • Noise levels, as a minimum at:<br>1. Canterbury Drive (NW end of scheme off A606)<br>2. Sysonby Lodge (NW end of scheme east of A606)<br>4. Mason Road (new houses east of Scalford Road)<br>5. A607 NE of Thorpe Arnold<br>6. Lag Lane, Thorpe Arnold<br>7. Shipmans Barn Stud, Saxby Road<br>8. Burton Road (A606 S end of scheme)<br>9. Melton Country Park<br>10. Footpath east of Grange Drive (SE edge of Melton)<br>11. Cross Lane/Sawgate Road, Burton Lazars | Impact | Accountability / Knowledge | • Noise monitoring at important locations. | • Use of existing baseline data<br>• Collected at 1 and 5 years post opening<br>• *Reported in: One Year After Report, Final Report* |
| **Local Air Quality** | • Traffic flows – see Travel Demand<br>• Vehicle speeds – see Travel Times and Reliability | Impact | Accountability / Knowledge | • Automatic Traffic Counts – see Travel Demand.<br>• Trafficmaster (or similar) data – see Travel Times and Reliability. | • Reviewed at 1 and 5 years post opening<br>• *Reported in: One Year After Report, Final Report* |
| **Accidents** | • Road traffic accidents in Melton Mowbray town centre<br>• Road traffic accidents along the length of the new route | Impact | Accountability / Knowledge | • Accident statistics from LCC (STATS 19). | • Prior to scheme construction<br>• At 5 years post opening<br>• *Reported in: One Year After Report, Final Report* |

# 7 Resourcing, Governance and Dissemination

The Project Governance Structure for any scheme undertaken by LCC consists of a three-tier structure as follows:

- MMTS Programme Board – Provides an overview at a strategic level in relation to the MMTS as a whole;
- NEMMDR Project Board – Provides governance for the specific MMDR delivery project and is the decision-making body for the purpose of delivery of the scheme; and
- Delivery Teams – Responsible for specific issues, topic areas or activities.

## 7.1 MMTS Programme Board

MMTS Programme Board is at the top of the proposed structure and provides/includes:

- A strategic steer and overview, monitoring programme-wide progress of the overall Melton Mowbray Transport Strategy;
- Overall MMTS projects programme, including high-level milestones and budgets for component projects; and
- An overall Programme Coordinator, who receives written reports from the MMDR Project Manager to inform the Programme Board Meetings.

## 7.2 NEMMDR Project Board

The Scheme is delivered through the NEMMDR Project Board, which reports to the overall Programme Board for the MMTS through the Programme Coordinator.

The Project Board is responsible for, and has direct decision-making powers over:

- Managing progress;
- Agreeing/quality assuring key Project products;
- Managing Project-level risks;
- Managing Project-level issues;
- Managing Project finance;
- Managing dependencies between the Scheme and other projects in the MMTS;
- Committing (or sourcing from elsewhere) resources required by the Project to enable the activities to be successfully achieved; and
- The Project Board will ensure reciprocal line of communication between the NEMMDR Project Board and the MMTS Programme Board.

The Project Board comprises a number of stakeholders which not only allows for effective governance but also knowledge sharing. This ensures lessons learnt are transferred to other ongoing and future projects through reporting at the Project Board.

The key members of the Project Board are set out in Table 7-1 below and it is intended that the Monitoring and Evaluation workstream will continue to form part of the NEMMDR project and be subject to the existing project governance arrangements.

*Table 7-1 – Project Board*

| NEMMDR Project Board | Name |
|---|---|
| Senior Responsible Owner | Janna Walker |
| Senior Supplier (s) | Dave Collis (LCC) |
| Senior User (s) | Andy Yeomanson (LCC), Sarah Legge (MBC) |
| Project Communications | Steve Pumfrey (LCC) |
| Project Finance | Susan Baum (LCC), Tim Finn (LCC) |
| LCC Project Manager | Adam Lakin |
| Principal Designer | Martyn Glossop (AECOM) |
| Principal Contractor | Rob Walsh (Galliford Try) |
| Project Support | Alex Taylor (LCC), Peter Coates (LCC) |

The client Project Manager for the Monitoring and Evaluation workstream will be Alex Taylor, LCC. It is anticipated that a contractor who will be appointed to manage the technical delivery of the Monitoring and Evaluation workstream; this appointment will follow LCC's standard procurement procedures. Further support to the process will be provided by LCC officers and LCC's Design and Construction partners AECOM and Galliford Try.

The client Project Manager will report to the NEMMDR Project Board on monitoring and evaluation activities as appropriate, with formal reporting included at key activity points (e.g. commencement of data collection, prior to reporting/publication).

Figure 7-1 shows the anticipated governance structure for the Monitoring and Evaluation workstream.

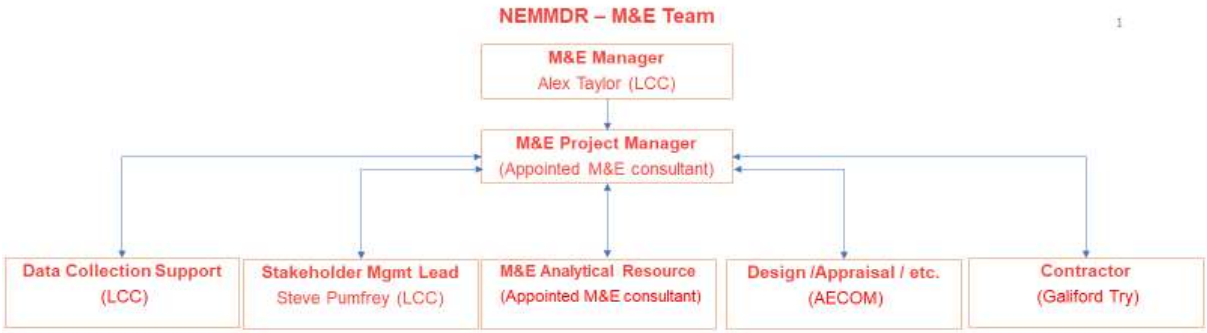


*Figure 7-1 - M&E Team Structure*

## 7.3 Monitoring & Evaluation Costs

Using industry benchmark costs for the required survey types and the number of surveys described in Section 6, a cost estimate has been produced for the Monitoring and Evaluation programme. This is shown in Table 7-2. The assessment of travel times, reliability, carbon, air quality and accidents are assumed to be desktop analysis of datasets that will be readily available. The estimates include an assumption for future inflation of survey costs and reporting.

*Table 7-2 – Monitoring and Evaluation Costs*

| Evaluation | Details | Total cost |
|---|---|---|
| **Travel Demand (Highway)** | 2 week Automatic Traffic Count x3 years, 29 sites | £18,976 |
| **Travel times and Reliability** | Analysis of Trafficmaster/Highways Analyst, 10 routes | £2,159 |
| **Public Transport and Active Mode demand** | 2 week classified video counts x 3 years, 11 sites.<br><br>Permanent cycle counters, 9 sites. | £75,582 |
| **Carbon** | Analysis of travel demand data | £2,159 |
| **Noise** | Long term monitoring, 11 sites | £52,623 |
| **Air Quality** | Analysis of travel demand data | £2,159 |
| **Accidents** | Analysis of STATS19 data | £2,159 |
| **Reduce Congestion** | Single day Manual Classified Junction counts x9, x3 years, 9 sites.<br><br>Automatic Number Plate Recognition counts, 7 days, x 3 years, 10 sites. | £60,596 |
| **Increase levels of sustainable transport** | Analysis of Public Transport Patronage | £2,159 |
| **Reporting** | Baseline, 1 and 5 year post opening reports. | £21,743 |
| **M&E Total costs** | | **£240,317** |

## 7.4 Delivery Plan

The Monitoring and Evaluation Plan is owned by LCC, specifically the SRO for the NEMMDR. The client Project Manager for the Monitoring and Evaluation workstream will report to the NEMMDR Project Board as described above. The costs will be funded by LCC.

The monitoring process will be split into three stages:

- **Pre-construction and during construction**
  - Baseline data will be collected before Scheme construction starts (Spring 2023).
  - Data to monitor Scheme delivery will be collected during construction.
- **One year after report**
  - Data to monitor Scheme performance will be collected at least one year after Scheme opening.
  - An initial "One Year After"' report will be published within two years of Scheme opening, focusing on the Scheme's outcomes.
- **Final report (5 years after)**
  - Further data will be collected up to approximately five years after Scheme opening

- A final report will be published within six years of Scheme opening based on all data sets, including an assessment of the wider impacts of the Scheme.

The programme for Monitoring and Evaluation is set out in Table 7-3 below.

*Table 7-3 – Monitoring and Evaluation Programme*

| Evaluation Stage | | Indicative Start Date | Indicative End Date |
|---|---|---|---|
| **Monitoring & Evaluation - Pre Construction Assessment** | | | |
| **Pre-Construction Assessment** | Impact Evaluation Data Collection | Feb-23 | Mar-23 |
| | Scheme Delivery Data Collection | Feb-23 | Sep-25 |
| | Baseline Report | Apr-23 | Jun-23 |
| **Monitoring & Evaluation - Post Construction Assessment** | | | |
| **1 Year Post Construction Assessment** | Impact Evaluation | May-26 | Jun-26 |
| | One Year After Report | Jul-26 | Aug-26 |
| **5 Years Post Construction Assessment** | Impact Evaluation | Mar-31 | Apr-31 |
| | Final Report | May-31 | Jul-31 |

## 7.5 Dissemination

This Monitoring and Evaluation Plan will be agreed with the DfT prior to the approval of the FBC. It will be published on LCC's website for the purposes of local accountability and transparency. The DfT may also provide links to it from their own website.

Monitoring will be undertaken before and during construction, and after the opening of the Scheme. A "One Year After"' evaluation report will be produced within two years of the Scheme opening, followed by a "Five Years After" report within six years of the Scheme opening.

The aim of the reports will be to demonstrate that value for money has been achieved implementing the scheme, demonstrate the impacts the scheme has given rise to, including meeting the scheme's objectives, and ensure that lessons learned are applied to future projects.

The reports will be presented to the NEMMDR Project Board and agreed with DfT to ensure the aims of the evaluation are met and the research questions identified in this report are answered as fully as possible.

Following approval, the evaluation reports will be published on LCC's website, and disseminated through other channels (as identified through the stakeholder engagement strategy for the Scheme). The DfT may provide links to it from their own website and may publish meta-analysis of evaluation reports from time to time.