Greater Manchester's Clean Air Plan to Tackle Nitrogen Dioxide Exceedances at the Roadside

Performance Management Plan

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Contents

1 Purpose of this Document

1.1.1 The Greater Manchester Clean Air Plan (GM CAP), also referred to as the Plan, is a package of measures to tackle nitrogen dioxide (NO_2) exceedances at the Roadside to bring them within legal limits in the shortest possible time and by 2026 at the latest.

1.1.2 The Performance Management Plan documents how the Greater Manchester (GM) Authorities will:

- Monitor the performance of the GM CAP and factors affecting the Plan;
- Review progress towards achieving compliance in the shortest possible time and minimising or mitigating disbenefits;
- Identify issues and make the case for change where appropriate and necessary; and
- Publish data / information in support of the GM CAP performance.

1.1.3 This document gives an overview of the data and evidence collected by the ten GM local authorities, Transport for Greater Manchester (TfGM), and the Joint Air Quality Unit (JAQU). It also explains how the effectiveness and suitability of GM CAP measures will be monitored and reviewed. Additionally, it outlines the Adaptive Planning Process (see section 9), which will be used if changes to the plan are needed.

2 Background to the Clean Air Plan

2.1.1 In 2017 the Secretary of State (SoS) for Environment, Food and Rural Affairs issued directions under the Environment Act 1995 requiring many local authorities to produce feasibility studies to identify the option which would deliver compliance with the requirement to meet legal limits for nitrogen dioxide (NO_2) in the shortest possible time, the legal limit being defined as the long-term annual mean legal limit of 40 $\mu g/m^3$.

2.1.2 In Greater Manchester, the ten local authorities, the Greater Manchester Combined Authority (GMCA) and TfGM are working together to develop a Clean Air Plan to tackle NO_2 exceedances at the roadside.

2.1.3 The development of the GM CAP is funded by government and is overseen by JAQU, the joint Department for Environment, Food and Rural Affairs (DEFRA) and Department for Transport (DfT) unit established to deliver national plans to improve air quality and meet legal limits. The costs related to the development, implementation and operation of the GM CAP are either directly funded or underwritten by government acting through JAQU and any net deficit over the life of the GM CAP will be covered by the New Burdens Doctrine, subject to a reasonableness test[1].

2.1.4 The primary focus of the plan is to achieve compliance with the legal limit value for NO_2 in a way that considers the current cost of living crisis and associated economic challenge faced by businesses and residents, through an investment-led approach. The evidence submitted in October 2024[2] showed that the Investment-led Plan is the only option tested which meets the legal requirement placed on the 10 GM Authorities to deliver compliance in the shortest possible time and by 2026 at the latest.

2.1.5 The plan set out that, building on the transformational Bee Network, GM's Investment-led Plan would target Clean Air funding already awarded by government to invest:

- £51.1m in 40 new zero-emission electric buses depot electrification in Manchester & Bolton and 77 OEM Euro VI buses.
- £30.5m for a Clean Taxi Fund to support GM-licensed owners to upgrade to cleaner vehicles.
- £5m to manage traffic flows on roads in Manchester and Salford.

2.1.6 The core objectives of the new GM CAP are:

- To reduce NO_2 concentrations to below the legal limits in the shortest possible time and by 2026 at the latest;

[1] The new burdens doctrine is part of a suite of measures to ensure Council Tax payers do not face excessive increases. New burdens doctrine: guidance for government departments - GOV.UK (www.gov.uk)

[2] https://cleanairgm.com/technical-documents/#updated-evidence-submission-for-a-new-greater-manchester-clean-air-plan

- To achieve compliance in a way that is fair to businesses and residents, and does not damage business or cause financial hardship to people in GM; and
- To ensure the reduction of harmful emissions is at the centre of GM's wider objective for delivering the Bee Network's core objectives.

2.1.7 The 'Case for a new Greater Manchester Clean Air Plan' proposed using the Clean Air funding that the government awarded to Greater Manchester to deliver an investment-led approach to invest in vehicle upgrades, rather than imposing daily charges and in particular through the delivery of zero-emission buses in the Bee Network (a London-style integrated transport network). The plan ensures that the reduction of harmful emissions is at the centre of GM's wider objectives.

2.1.8 Having submitted evidence to support Greater Manchester's Investment-led Plan in October 2024[3], on 23rd January 2025 the government confirmed it accepted the assessment that an investment-led, non-charging Greater Manchester Clean Air Plan will achieve compliance with nitrogen dioxide levels on the local road network in the shortest possible time[4]. As a result, Greater Manchester will not need to implement a charging Clean Air Zone (CAZ).

2.1.9 In February 2025 the government directed the 10 GM Local Authorities to take steps to implement the approved local plan for NO_2 compliance for the areas for which they are responsible and ensure that the local plan for NO_2 compliance is implemented so that:

- Compliance with the legal limit value for nitrogen dioxide is achieved in the shortest possible time, and by 2026 at the latest;
- Exposure to levels above the legal limit for nitrogen dioxide are reduced as quickly as possible[5].

2.1.10 Schedule 1 of the Direction specifies that the Clean Air Plan measures that are approved are as detailed in the appraisal report 'Evidence Submission for a new GM Clean Air Plan'[6] dated October 2024 and its supplement, a package of non-charging measures (then referred to as the 'Investment-led Plan'), specifically:

- Cleaner buses, provision of: Euro VI buses; zero emission buses; charging infrastructure and associated support.
- Local traffic management measures at:
    - A57 Regent Road and
    - A34 Quay Street/ Great Bridgewater Street, and additionally

[3] https://cleanairgm.com/technical-documents/#updated-evidence-submission-for-a-new-greater-manchester-clean-air-plan
[4] https://www.gov.uk/government/news/government-backs-local-plans-for-clean-air-in-greater-manchester--2
[5] https://assets.publishing.service.gov.uk/media/67b494c73e77ca8b737d380f/Direction_-_Greater_Manchester_Non_Charging_Plan.pdf
[6] https://cleanairgm.com/technical-documents/#updated-evidence-submission-for-a-new-greater-manchester-clean-air-plan

- Support for moving the hackney carriage fleet to cleaner vehicles.

2.1.11 The Secretaries of State letter[7] confirmed they are to provide up to £86m to support the following elements of GM's proposal, as they considered these are needed to achieve compliance in the shortest possible time, comprising:.

- Bus investment for 77 Euro VI buses, 40 zero emission buses and associated charging infrastructure (£51.1m);
- Local traffic management measures in central Manchester (£5m);
- Support to move the hackney carriage fleet to cleaner vehicles (£8m); and
- Administration, delivery, monitoring and other associated costs (up to £21.9m).

2.1.12 In July 2025, GM submitted a change request[8] to JAQU to adjust some elements in the Plan, specifically, the bus measures and the local highway measures[9]. The change request did not include any adjustments to taxi measures.

2.1.13 In December 2025 JAQU agreed the change request and **Section 3** sets out the adjusted summary of funded measures that make up the Plan.

[7] GM_Clean_Air_Plan_government_approval_31_1_25.pdf
[8] Change_Request_001_-_Approved_-_CleanAirGM_Version.pdf
[9] https://democracy.greatermanchester-ca.gov.uk/documents/b16666/Supplemental%20Agenda%20GM%20Air%20Quality%20Adminstration%20Committee%2031st-Jul-2025%2010.00%20Greater%20Manchester%20.pdf?T=9

3 Summary of GM CAP Measures

3.1.1 The summary of the funded GM CAP measures, as approved as part of the July 2025 change request (Change Request 001) are outlined in **Table 1**.

Table 1 GM Clean Air Plan Summary of Measures

Clean Air Plan	Description
GM-Wide Measures	
Cleaner Buses - ZEBs	Funding to purchase ZEBs that operate on services that pass remaining exceedance sites to achieve compliance in the shortest possible time and by 2026 at the latest. The funding allocated to this measure is £46.4 million for 78 ZEBs.
Bus Electric Charging	Funding to provide electric charging infrastructure to support: • the additional 78 ZEBs at Bolton depot, and • the City Centre Free Bus at Manchester Picadilly Approach The ZEB services using this infrastructure are required to operate on modelled exceedance routes to achieve compliance at these locations, alongside other CAP measures. Funding to support the City Centre Free Bus charging. The City Centre Free Bus fleet will be housed at Queens Road depot and will be charged at an alternative depot. The funding allocated to these measures is £4.4 million.
Additional Bus Operational Costs	Funding to cover operational inefficiencies to the optimal bus fleet deployment plan as a result of changes required for Clean Air purposes. The funding allocated to this measure £0.3 million.
Taxi Measures - Hackney Carriages	Funding to provide grant contributions for the upgrade of hackney carriages licensed in GM to cleaner vehicles. Eligible applicants will be offered a grant as a contribution towards a replacement vehicle. The funding allocated to this measure is £8 million. The per-vehicle funding amounts are split into funding for upgrade to wheelchair accessible vehicles (WAVs) and funding for upgrade to non-wheelchair accessible vehicles (non-WAVs), as follows: <u>Upgrade to WAV</u> • £12,560 towards [*the running costs of*] a new purpose-built WAV ZEC replacement vehicle; or • £12,560 towards a second-hand purpose-built WAV ZEC replacement vehicle; or • £6,280 towards a compliant purpose-built WAV replacement vehicle (Euro 4 or higher petrol, or Euro 6 diesel). <u>Upgrade to non-WAV</u> • £7,530 towards [*the running costs of*] a new ZEC replacement vehicle; or • £7,530 towards a second-hand ZEC replacement vehicle; or • £3,770 towards a compliant replacement vehicle (Euro 4 or higher petrol, or Euro 6 diesel); or • £6,280 towards a compliant replacement 6+ seater vehicle (Euro 4 or higher petrol, or Euro 6 diesel). All funding is subject to meeting eligibility criteria.

Clean Air Plan	Description
Local Measures	
A57 Regent Road - Signal Optimisation	Funding to adjust signal timing to A57 Regent Road applied at the junctions of A57 Regent Road / Oldfield Road and M602 J3 West arm approach to the junction. Supplementary adjustments are to be applied to parallel routes, namely: Oldfield Road / Middlewood Street, Ordsall Lane / Middlewood Street / Hampson Street and Hampson Street / Trinity Way. By implementing these signal changes, traffic flow will become steadier, reducing unnecessary accelerations and deceleration, and leading to a reduction of emissions through the exceedance site.
A57 Regent Road - Speed Reduction	Funding for the implementation of a speed reduction from 40mph to 30mph on A57 Regent Road between Oldfield Road and M602. This measure would influence trips outside of the peak periods, during free-flow conditions, making Regent Road a less attractive route and therefore reducing traffic flow leading to a reduction in emissions.
A57 Regent Road - Yellow Box Enforcement	Funding for the implementation and operation of yellow box enforcement along the A57 Regent Road. The aim of this measure is to minimise blocking of junctions and improve traffic flows leading to a reduction in emissions and better reflect modelled performance and providing robustness to the Plan.
St John's Area - Yellow Box Enforcement	Funding for the implementation and operation of yellow box enforcement along the A34 Quay Street corridor in the St John's area. The aim of this measure is to minimise blocking of junctions and improve traffic flows leading to a reduction in emissions and better reflect modelled performance and providing robustness to the Plan.
Local Measures – Total	The funding allocated to the package of local measures at the A57 Regent Road and the A34 Quay Street (in the St John's area) is £3.0 million.

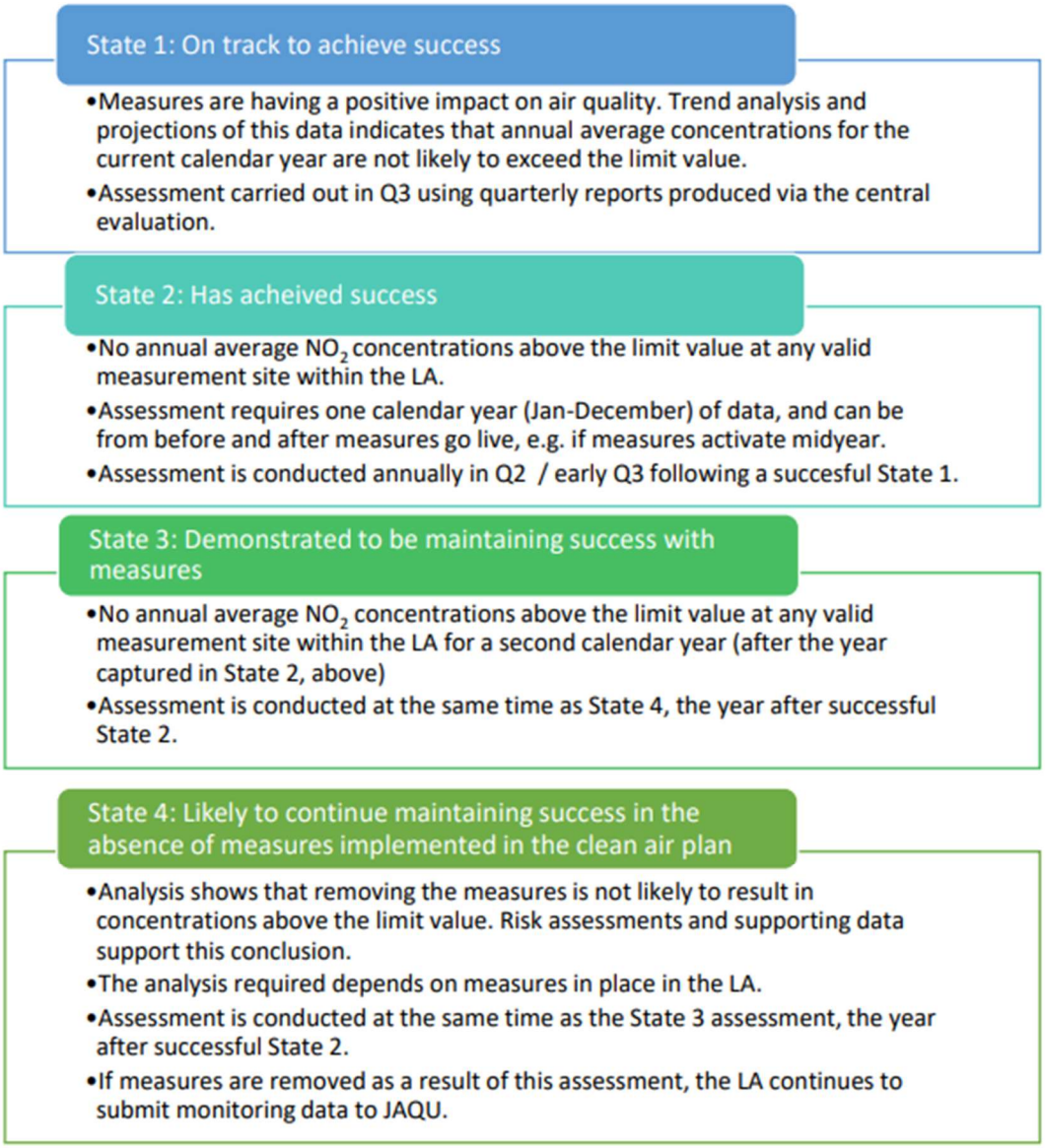
3.1.2 In addition to the funded measures set out in the table above, there are bus service routes on which it has been stipulated to operate OEM Euro VI buses and ZEBs to support the GM CAP to achieve compliance in 2026.

4 JAQU Exit Guidance

4.1.1 JAQU's technical guidance for assessing successful reduction of NO_2 concentrations and exiting the programme, released in October 2023, provides local authorities with the evidence requirements to demonstrate CAP measures have achieved and will continue to deliver compliance with the legal limits.

4.1.2 To determine whether the introduction of measures has led to the achievement of the requirement to "reduce NO_2 concentrations to within legal limits", local authorities are envisaged to progress along a four-state road map to exit the NO_2 programme[10]. This is set out in **Figure 1**.

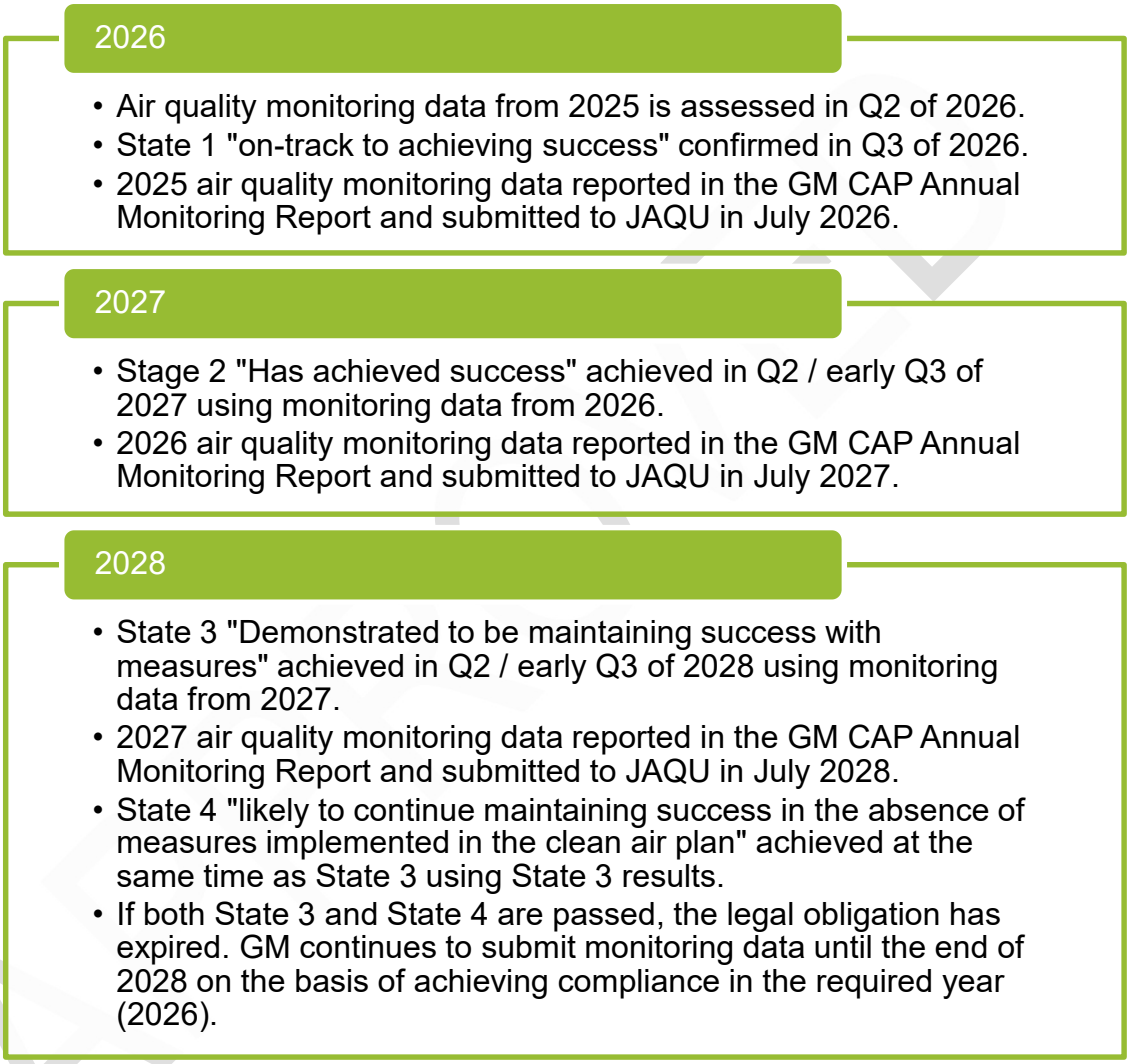
Figure 1 JAQU Four-State Assessment Process for Exiting the NO_2 Programme



[10] Based on the Exiting the NO_2 programme – technical evidence guidance v2.1 (2023), JAQU define success as All measured NO_2 concentrations at valid locations within the geographical extent of the LA clean air plan are below or equal to the annual average limit value of 40µg/m3

4.1.3 Based on JAQU's identified timescales for compliance and the four-state assessment process (as shown in **Figure 1**), an indicative compliance assessment timeline, following agreement of the change request, has been set out in **Figure 2**. The exact activities and timescales will be further developed and agreed with JAQU.

Figure 2 GM CAP – Anticipated Compliance Assessment Timeline



4.1.4 It is not anticipated that further modelling is required to assess the scenario of removing measures following the GM CAP achieving compliance with the legal limits due to the nature of the Investment-led Plan. Cleaner buses deployed and cleaner taxis upgraded as part of the Plan are irreversible, unlike a charging Clean Air Zone, and will be further complemented by other planned upgrades that provide air quality benefit over and above the CAP funded measures. An assessment will be made on whether the local highway measures are removed at the A57 Regent Road and St John's Area as part of the State 4 assessment.

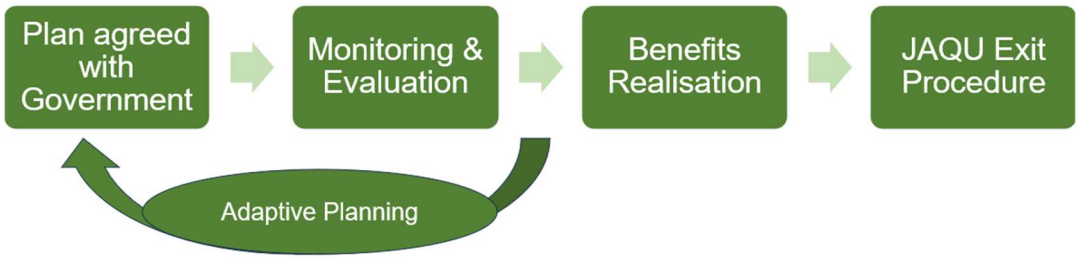
5 Performance Management Plan Overview

5.1.1 JAQU guidance provided to local authorities identifies the necessary steps for confirming that local NO_2 Air Quality Plans have been successful in delivering NO_2 concentrations to the level of or below the legal limit (40µg/m3) and whether the obligation under the legal direction has been met, as summarised in **Section 3**.

5.1.2 **Figure 3** sets out a simple diagram of the performance management process. This shows how evidence collected in the Monitoring and Evaluation process (as set out in **Appendix A: Monitoring and Evaluation Plan**) will be used to inform a review under the Benefits Realisation process of whether the Plan is performing as expected; whether it is on track to succeed; and any risks to compliance have emerged.

5.1.3 The monitoring and benefits review process is intended to identify issues with the performance of the measures that form the Plan, or substantive changes to the assumptions underpinning the Plan that may affect its performance. If issues are identified, the Adaptive Planning Process (in discussion with JAQU) will be activated, to enable GM Authorities to determine if adjustments to any elements of the Plan would help in delivering compliance.

Figure 3 GM CAP Performance Management Plan Process



5.1.4 Data from the GM CAP Monitoring Dashboard (see **Section 7** for details) is collated on a quarterly basis to track the performance of the Plan. Regular technical calls between GM and JAQU are used to assess the data presented in the dashboard. Where an issue is identified as part of the ongoing monitoring and evaluation that needs further investigation, the Adaptive Planning Process will be activated in discussion with JAQU (see **Section 9** for details).

5.1.5 The GM CAP Performance Management Plan ensures that uncertainty is kept under review and managed throughout the operational phase.

6 Success Criteria for the GM CAP

6.1 Background

6.1.1 The 'Case for a new Greater Manchester Clean Air Plan'[11] outlined a set of core objectives which were applied in the development of the GM CAP. As part of this Performance Management Plan, the core objectives are retained as metrics to assess the success of the Plan.

6.2 Core Objectives for the GM CAP

6.2.1 The core objectives for the GM CAP are:

- To reduce NO_2 concentrations to below the legal limits in the shortest possible time and by 2026 at the latest;
- To achieve compliance in a way that is fair to businesses and residents, and does not damage business or cause financial hardship to people in GM; and
- To ensure the reduction of harmful emissions is at the centre of GM's wider aim for delivering the Bee Network's core objectives.

6.2.2 The core objectives have been used to shape the requirements to monitor and test the effectiveness of the GM CAP measures and will be reported in the GM CAP Annual Monitoring Report.

[11] https://democracy.greatermanchester-ca.gov.uk/documents/s22246/Appendix%201%20-%20Case%20for%20a%20new%20Greater%20Manchester%20Clean%20Air%20Plan.pdf

7 Monitoring and Evaluation Plan Overview

7.1.1 JAQU guidance[12] stipulates that Local Authorities are responsible for monitoring air quality, traffic flows and Automatic Number Plate Recognition (ANPR) data. GM's approach in this regard are set out in this Performance Management Plan.

7.1.2 The Monitoring and Evaluation Plan sets out to address issues where uncertainty remains into the implementation and operation phase as discussed in the *Analytical Assurance Statement*[13]. The full Monitoring and Evaluation Plan is shown in **Appendix A**.

7.1.3 JAQU's Central Evaluation team are responsible for providing monitoring and oversight of CAPs as part of the four-state process for exiting the NO_2 programme summarised above. As part of this role, a central monitoring dashboard has been developed by JAQU to collate high-level air quality and traffic data, providing an indication of the performance of CAPs nationally. Air quality and traffic data from the GM CAP will be provided to JAQU on a quarterly basis which will be fed into the JAQU dashboard.

7.1.4 The Monitoring and Evaluation Plan outlines the outcomes, indicators and metrics to track the GM CAP's performance against the core objectives in a timely, specific and proportionate manner. This is provided through the GM CAP Monitoring Dashboard, which contains supplementary monitoring beyond data collated as part of the JAQU dashboard. The GM CAP Monitoring Dashboard includes:

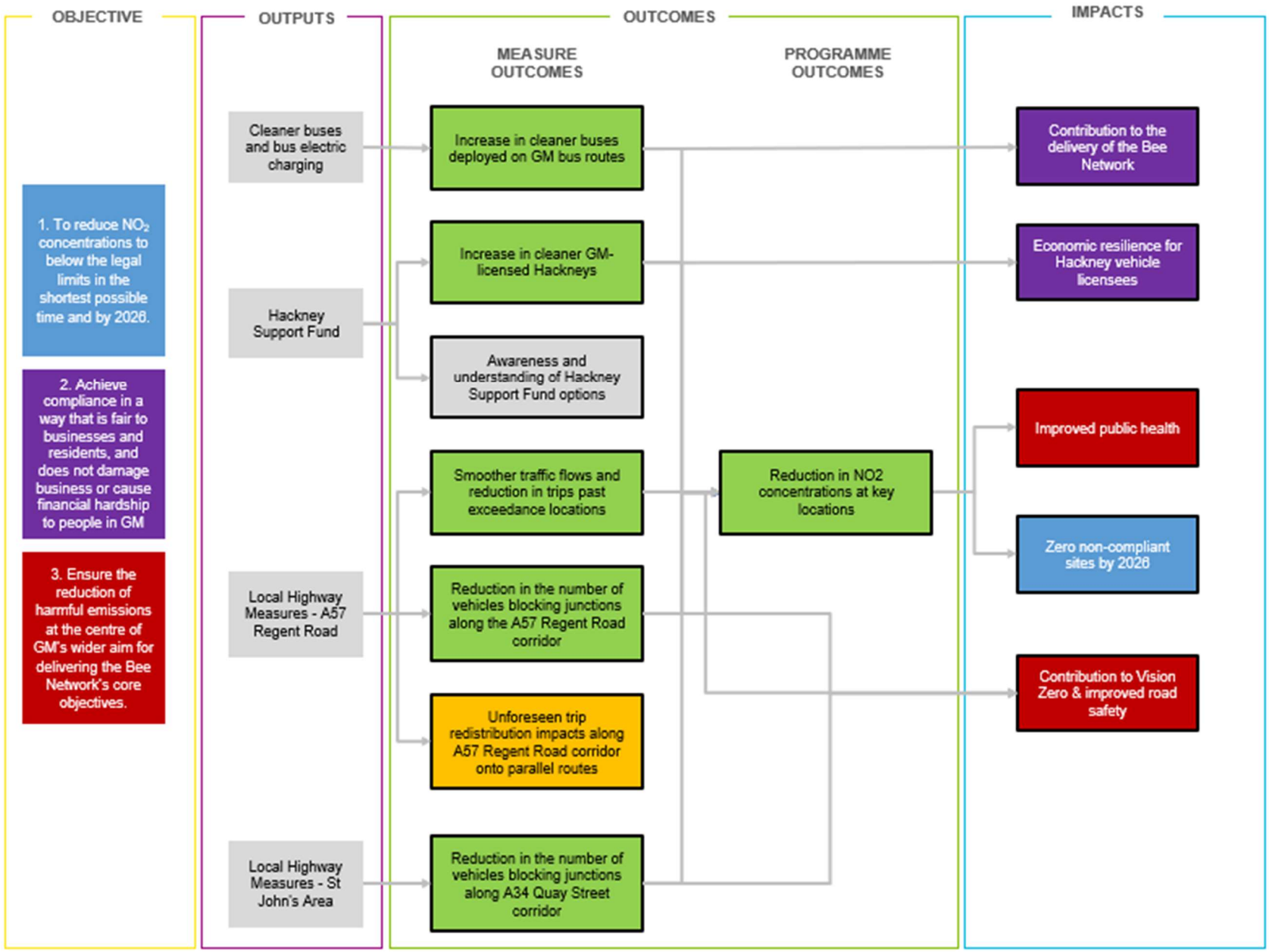
- **Bus:** this will help to understand fleet compliance on CAP specified routes and at other sites of interest and includes data covering bus services by frequency, route, euro standard and fuel type.
- **Taxi:** this will be compiled to understand taxi fleet compliance by taxi type, local authority and to track upgrades.
- **Local Highway Measures:** this will be compiled using traffic and enforcement data to track the performance of each measure component on the A57 Regent Road and the A34 Quay Street corridors.
- **Site specific:** this will be compiled using air quality monitoring and modelling datasets to identify exceedance sites and sites at risk of exceedance (Sites between 38 ug/m3 and 40.4 ug/m3).

[12] JAQU Monitoring and evaluation note 23.10.18
[13] Accessible at: https://assets.ctfassets.net/tlpgbvy1k6h2/3QZj8BNHpVDLUY0oBCwKyS/5b18052b55e60e28abfc29b4fe9b7c59/Analytical_Assurance_Statement_-_Approved.pdf

7.1.5 The GM CAP Monitoring Dashboard acts as the primary local tool to assess whether the GM CAP is on track to achieve compliance in 2026. The dashboard interprets the latest air quality monitoring data, forming the basis of detailed analysis on locations of risk. This allows for early consideration of whether adaptive planning is required, ahead of the formal central evaluation process which would be expected to be determined in Q3 2026.

7.1.6 The Monitoring and Evaluation Plan includes monitoring of the outputs and outcomes of the GM CAP and evaluation of the programme outcomes and impacts and whether the core objectives have been met. The mapping of outputs and outcomes has been undertaken via a logic map, as shown in **Figure 4**. Outcomes have been aligned to benefits (shown in 'green') or disbenefits (shown in 'amber') or a neutral benefit (shown in 'grey') where no positive or negative benefits are experienced.

Figure 4 GM CAP Logic Map



8 Benefits Realisation Plan Overview

8.1.1 A benefit (or disbenefit) is defined by the government as “a measurable improvement (or decline) resulting from an outcome perceived.”[14] For the GM CAP, one of the core objectives is “to reduce NO2 concentrations to below the legal limits in the shortest possible time and by 2026”. This directly links to the legal direction on the 10 GM Authorities. Achieving this objective brings associated health benefits, but these cannot easily be measured or quantified.

8.1.2 The government advises that disbenefits are an “expected negative consequence that should be managed and mitigated after implementation, whereas risks may occur and should be managed and mitigated throughout.”[15]

8.1.3 The purpose of the Benefits Realisation Plan is to set out the processes to ensure that the potential benefits and disbenefits of the GM CAP are kept under review and that those benefits are realised and disbenefits are minimised and mitigated. This process involves a quarterly review, in conjunction with the GM CAP Monitoring Dashboard, that will investigate if the GM CAP has delivered the outcomes as expected. The full Benefits Realisation Plan is shown in **Appendix B.**

8.1.4 The assessment of the GM CAP benefits will be included in the GM CAP Annual Monitoring Report.

[14] https://shura.shu.ac.uk/15299/34/Breese%20Appendix%203%20Government%20Body%20Literature%20Review.pdf

[15] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/671452/Guide_for_Effective_Benefits_Management_in_Major_Projects.pdf

9 Adaptive Planning Process

9.1.1 The Adaptive Planning Process is the mechanism by which GM considers adjustments to the Plan.

9.1.2 This process is shaped by monitoring and evaluation outputs which will provide an early indication whether or not the GM CAP is on-track to deliver compliance in the shortest possible time and by 2026 at the latest, in-line with meeting the GM CAP's core objectives.

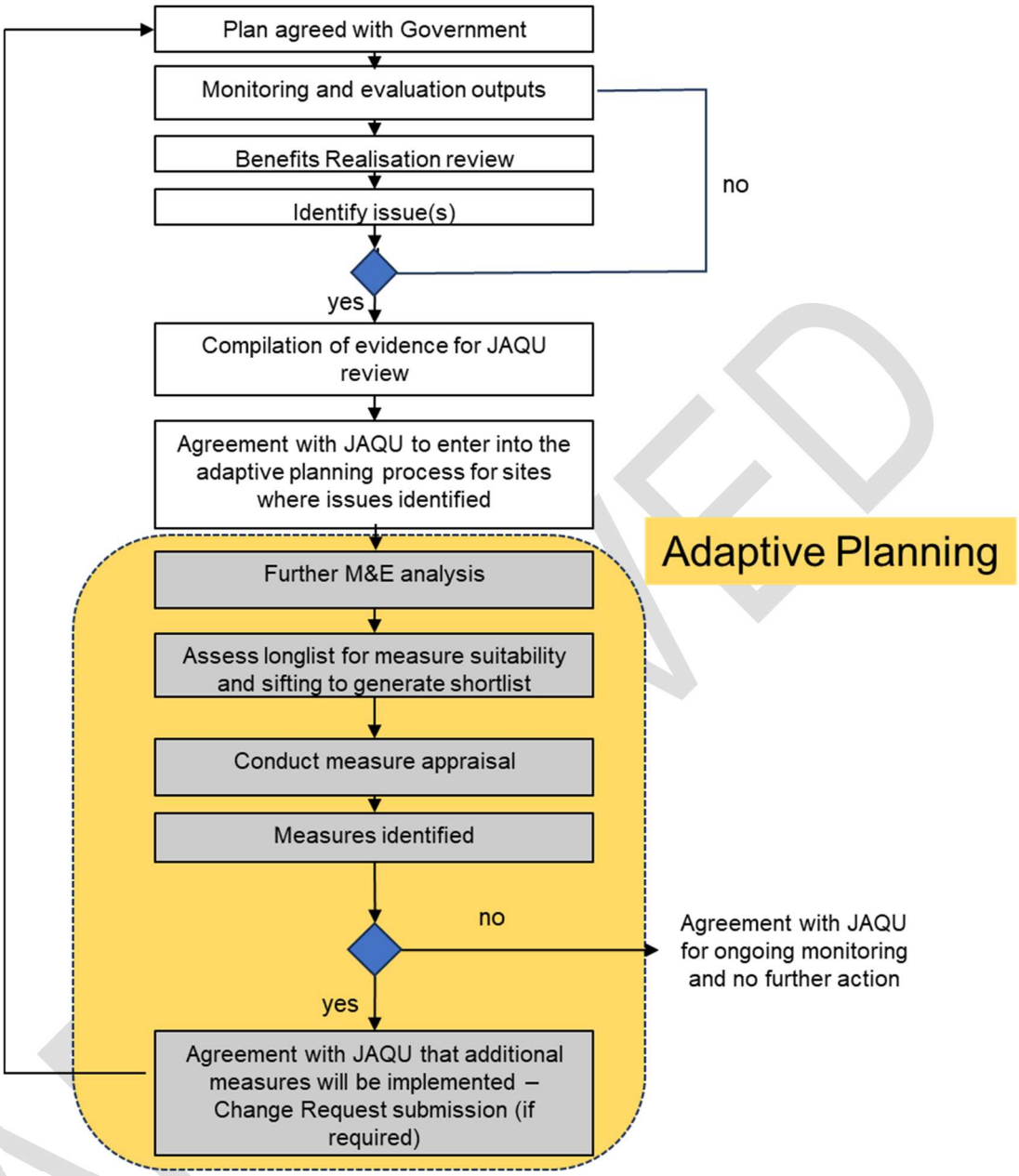
9.1.3 Data from the GM CAP Monitoring Dashboard is collated on a quarterly basis to track the performance of the Plan. Regular technical calls between GM and JAQU are used to assess the data presented in the dashboard. Where an issue is identified as part of the ongoing monitoring and evaluation that needs further investigation, the Adaptive Planning Process will be activated in discussion with JAQU.

9.1.4 Issues that could trigger the Adaptive Planning Process could include:

- Measured NO_2 air quality concentrations being higher than expected, GM-wide or in specific locations;
- Elements of the GM CAP being found to be not performing as expected, for example the rollout of ZEB fleet, poor uptake of the Hackney Support Fund (formerly known as the Clean Taxi Fund), or local traffic measures resulting in unintended consequences to routing and flow;
- Changes to the delivery implementation and outcomes from committed schemes which are assumed to be delivered as part of the Do Minimum modelling;
- Changes to other factors affecting the GM CAP, including changes that affect vehicle fleets, traffic flow or speeds, vehicle emissions or the level of hardship and need**;**
- Divergence between modelled and monitored NO_2 exceedance sites leading to higher than forecast monitored NO_2 results; or
- Other new and unanticipated issues emerging that are affecting or risk affecting the performance of the GM CAP.

9.1.5 **Figure 5** provides an overview of the Adaptive Planning Process whereby an identified issue progresses to an agreed resolution.

Figure 5: Adaptive Planning Process



9.1.6 Once it has been agreed with JAQU to enter into the Adaptive Planning Process, the following will be identified:

- The methodology to be used to better understand the issue and identify the causal factors;
- The process for identifying possible solutions, and the appraisal methodology that will be applied to assess them and select a preferred option;
- Any formal process such as completion and submission of a change request form;
- The process for delivering the operational or policy change(s) that may be required to mitigate this issue; and

- The implications of benefits not being delivered as planned.

9.1.7 Adaptations to the Plan, identified through the Adaptive Planning Process, may involve modifications to the bus service fleet or, where issues are location-specific, implementation of targeted local measures that are both practical and effective to deliver the required air quality improvement in 2026.

9.1.8 Each site will be evaluated individually considering the precise circumstances, and for every site undertaking a comprehensive review of potential solutions through collaborative workshops, aiming to identify feasible adjustments within the required timeframe. This process will involve JAQU officials to ensure a diversity of perspectives and expertise to inform GM's decision-making.

10 Reporting

10.1.1 The GM CAP programme will provide updates on performance management, monitoring and evaluation and benefits realisation of the Plan via the GM CAP Annual Monitoring Report. This will be supported by required governance reports as part of the wider GM CAP, bus franchising, depot electrification and local highway authority requirements. The GM CAP Annual Monitoring Report will be structured to provide updates on the individual GM CAP elements, namely:

- Cleaner buses – the number of cleaner vehicles that have been procured and deployed onto clean air required routes.
- Depot electrification – the current status of each depot that is being electrified for clean air purposes.
- Taxi – the number / authority of applicants, those accepted/rejected/in process, the committed funding and funding paid out via the Hackney Support Fund.
- Local Measures – Status report from each local highway authority for the A57 Regent Road measures and the St John's Area, monitoring the impact of the speed limit change and signal optimisation on the A57 Regent Road corridor and the yellow box enforcement measures at both sites.
- CAP Monitoring Data – the annual air quality monitoring data, a review of air quality risk and an assessment of the benefits.
- CAP Expenditure – This report will provide an annual expenditure update on the GM CAP. This update will include the latest position on vehicle upgrade funding and administration, and development, implementation, operation and decommissioning costs.
- Equality Impacts – Annual statement on any feedback that has been received on each of the local measures, any unintended consequences and summaries of the engagement activities and statutory consultation, where required.

10.1.2 The GM CAP Annual Monitoring Report will be drafted in July each year (with the first being in July 2026) and once approved by the Air Quality Administration Committee will be provided to JAQU.

Appendix A – Monitoring and Evaluation Plan

A.1 Purpose of this Document

A.1.1 This document sets out the monitoring and evaluation activities throughout the delivery for the GM CAP to monitor progress towards NO_2 compliance in the shortest possible time. It also sets out the reporting requirements to government, the 10 GM Authorities and the public on the evaluation and monitoring of the GM CAP.

A.1.2 The approach to monitoring and evaluation of the GM CAP is in line with requirements for major transport schemes and specific monitoring guidance issued by JAQU. It covers:

- an overview of the evaluation approach which details how the evaluation will take place, programme logic and measuring attribution;
- how data collection will take place to monitor outputs and outcomes;
- an overview of how the impacts and subsequently the programme objectives will be measured; and
- reporting

A.2 Local monitoring and evaluation

A.2.1 Monitoring is required to ensure that the measures contained in the GM CAP remain appropriate throughout the lifetime of the GM CAP.

A.2.2 This GM CAP Monitoring and Evaluation Plan sets out to address issues where uncertainty remains into the implementation and operational phase, as identified in the sensitivity testing, and for example in terms of vehicle fleets, travel patterns and the provision of bus services, and reported in the *Analytical Assurance Statement*. If the monitoring reveals issues that the GM CAP is not on-track to achieve NO_2 compliance, the Adaptive Planning Process will be activated in discussion with JAQU.

A.3 Approach to monitoring and evaluation

A.3.1 Monitoring and evaluation are central to ensuring GM CAP is delivering as expected and has the intended outcomes and impacts. It is vital to understand the effect that the programme is having on NO_2 compliance, to determine whether desired impacts and benefits are met.

A.3.2 Data from the GM CAP Monitoring Dashboard is collated on a quarterly basis to track the performance of the Plan. Regular technical calls between GM and JAQU are used to assess the data presented in the dashboard. Where an issue is identified as part of the ongoing monitoring and evaluation

that needs further investigation, the Adaptive Planning Process will be activated in discussion with JAQU.

A.3.3 The GM CAP Benefit Realisation Plan (**Appendix B**) will be used to ensure benefits are realised through the implementation of the measures.

Monitoring

A.3.4 Monitoring is being undertaken for each GM CAP measure, referred to as 'outputs'. This will demonstrate what has been delivered, and to what quantities, for example, the number of bus charging posts installed, or value of hackney grants administered.

A.3.5 In addition to output data being collected; quantitative and qualitative data on outcomes (such as the results in the short to medium-term) and impacts (long-term results) will be collected for monitoring and evaluation purposes. Alignment has been sought between outcomes and benefits/disbenefits where a positive or negative outcome is expected as a result of the implementation and operation of the measure. The progress of outcomes, impacts, and the meeting of objectives will be tracked, and this data will form the basis for monitoring.

A.3.6 The GM CAP Monitoring Dashboard monitors the effectiveness of the GM CAP, it will form the basis of the GM CAP Annual Monitoring Report, and allow for a deeper dive of exceedances and locations at risk. The data requirements for the GM CAP Monitoring Dashboard can be summarised into the areas as below:

- **Bus:** this will help to understand fleet compliance on CAP specified routes and at other sites of interest and includes data covering bus services by frequency, route, euro standard and fuel type. Forecast and observed fleet deployment will be identified. This will help to inform the performance of the bus measure and highlight any divergence between forecast and observed fleets.
- **Taxi:** this will be compiled to understand taxi fleet compliance by taxi type, local authority and to track upgrades. The main dataset to derive this information is the taxi licensing database held by the 10 GM Authorities which is supplemented by open source and JAQU/DVLA out of area taxi data. Data from the Hackney Support Fund will be used to track the number and type of hackney upgrades.
- **Local Highway Measures:** this will be compiled using traffic and enforcement data to track the performance of each measure component on the A57 Regent Road and the A34 Quay Street corridors. The yellow box enforcement measures on both corridors will be monitored through the number of penalty notices issued. Smoother traffic flows and any potential redistribution impacts associated with the change in speed and signal optimisation for the A57 Regent Road corridor will be tracked using a combination of traffic flow and traffic speed information.

- **Site specific:** this will be compiled using air quality monitoring and modelling datasets to identify exceedance sites and sites at risk of exceedance (Sites between 38 ug/m3 and 40.4 ug/m3). The site-specific data will also assess traffic and bus data to inform the NO_2 performance of each site. This will be complemented by qualitative information on observed and modelled factors which could influence performance.

A.3.7 In addition to the GM CAP Monitoring Dashboard, JAQU's Central Evaluation team are responsible for providing monitoring and oversight of CAPs as part of the four-state process for exiting the NO_2 programme. As part of this role, a central monitoring dashboard has been developed by JAQU to collate high-level air quality and traffic data, providing an indication of the performance of CAPs nationally. Air quality and traffic data from the GM CAP will be provided to JAQU on a quarterly basis which will be fed into the JAQU dashboard.

Evaluation

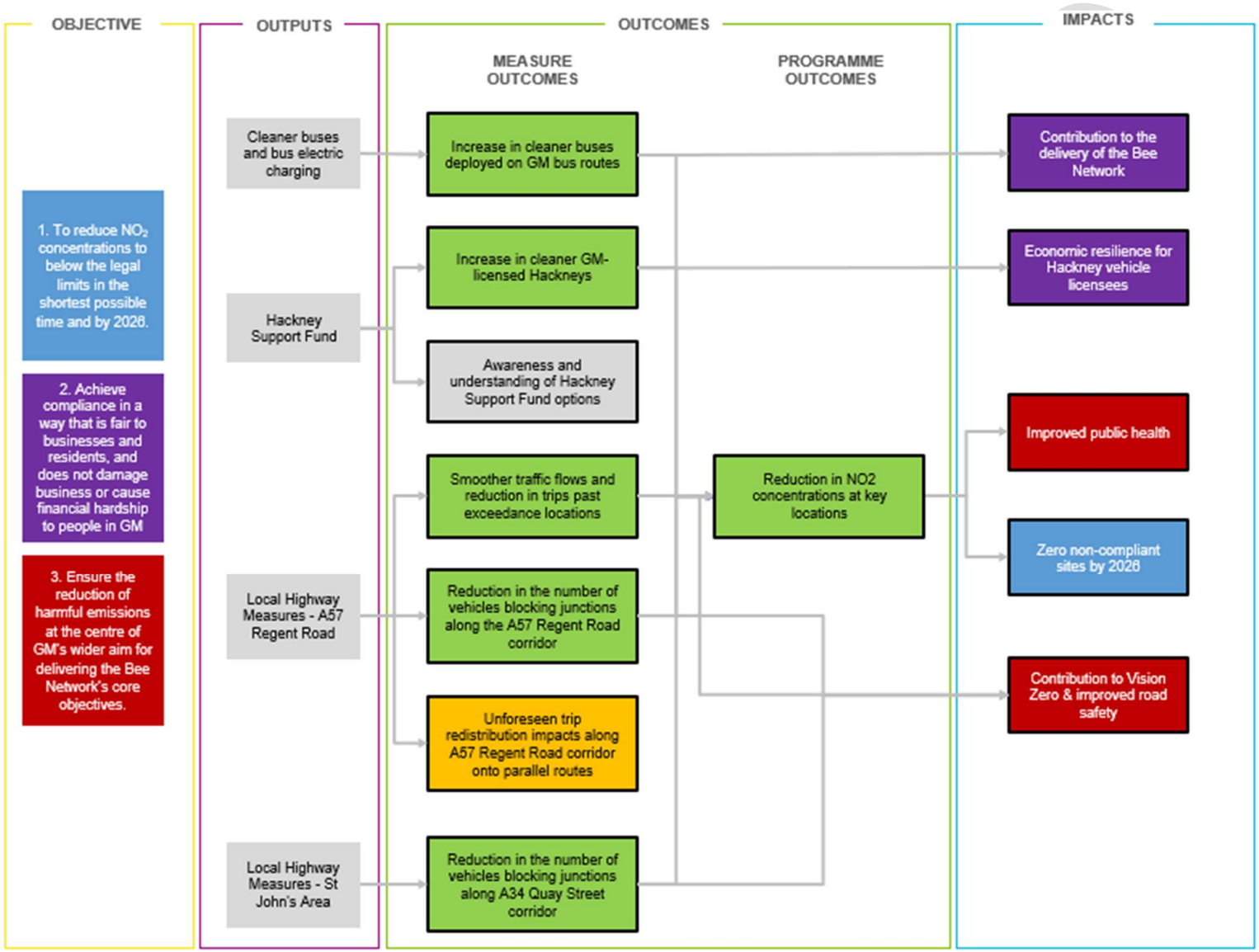
A.3.8 The purpose of evaluating the GM CAP is to review the outcomes and impacts of the intervention and examine whether the objectives have been met. This is set out in the programme logic map in **Figure A1.**

A.3.9 As well as evaluating programme impacts and outcomes, each GM CAP measure will be monitored and evaluated individually to assess the outputs of each intervention and any contribution to overall impacts.

A.3.10 Quantitative and qualitative data will be collected to inform the measures and programme evaluations. Baseline data will be collected prior to the interventions taking place, the aim of which is to provide context and establish the situation without any intervention. Subsequently follow up data will be collected at distinct intervals until the end of the measures.

A.3.11 The data collected will be analysed to inform final evaluations, which will assess whether each intervention has the desired impact.

Figure A1 GM CAP Programme Logic Map



A.4 IMPACTS & OBJECTIVES

A.4.1 The GM CAP has been developed in accordance with the following core objectives set out in the 'Case for a new Greater Manchester Clean Air Plan':

- To reduce NO_2 concentrations to below the legal limits in the shortest possible time and by 2026 at the latest;
- To achieve compliance in a way that is fair to businesses and residents, and does not damage business or cause financial hardship to people in GM; and
- To ensure the reduction of harmful emissions is at the centre of GM's wider aim for delivering the Bee Network's core objectives.

A.4.2 These core objectives have been used to shape the requirements to monitor and test the effectiveness of the GM CAP and reported as part of the GM CAP Annual Monitoring Report. The objectives form the basis of the logic map, as set out in **Figure A1**, from which outputs, outcomes and impacts are defined. The following section has been structured based on the three core objectives and how they relate to each impact identified from the GM CAP.

Objective 1: To reduce NO_2 concentrations to below the legal limits in the shortest possible time and by 2026 at the latest.

A.4.3 This objective directly relates to the legal direction[16] on the 10 GM Authorities to ensure that the local plan for NO_2 compliance, the GM CAP, will secure compliance with the legal limit value for nitrogen dioxide in the shortest possible time and no later than 2026. In addition, exposure to levels above the legal limit for nitrogen dioxide should be reduced as quickly as possible.

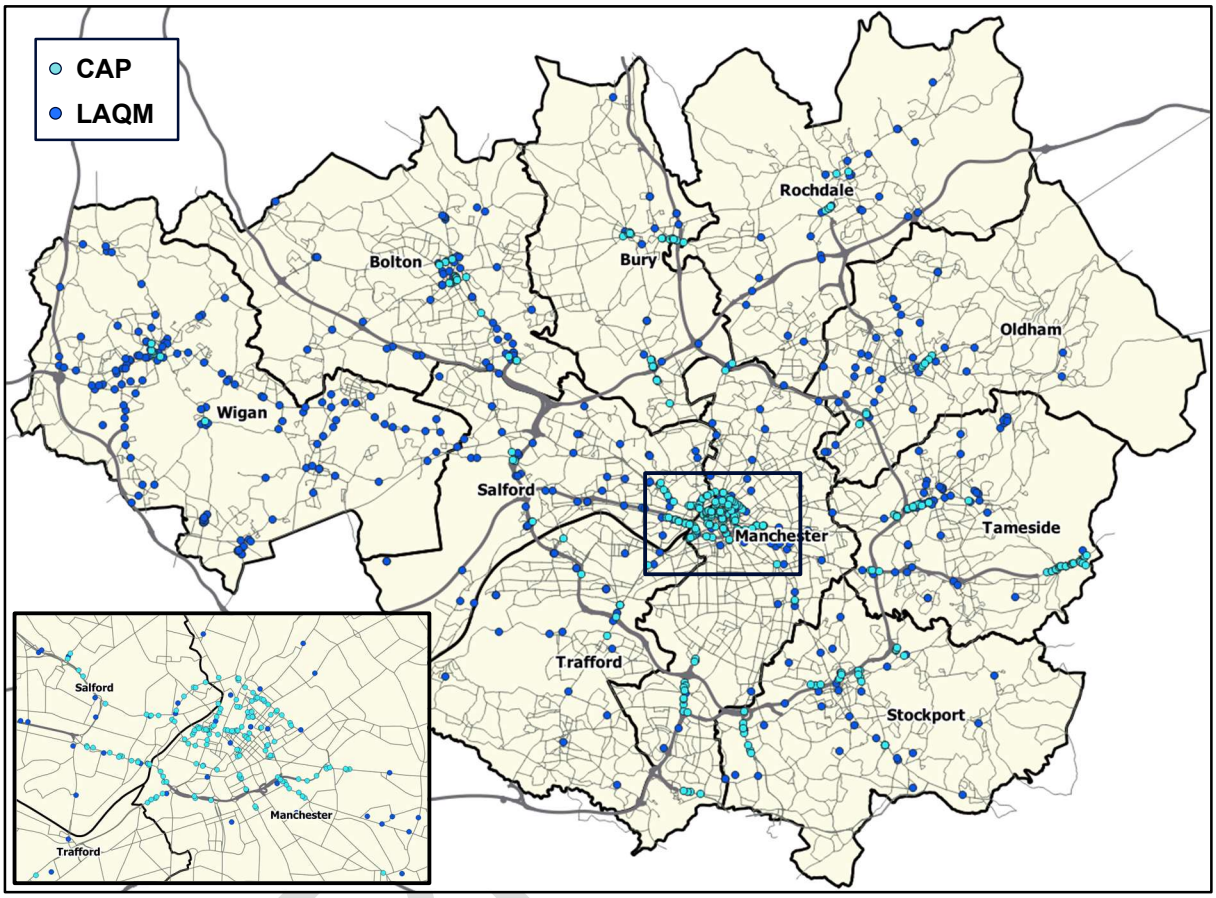
A.4.4 Each GM CAP measure component (bus, taxi and local traffic measures) has been developed to reduce NO_2 concentrations and deployed in a targeted approach to address sites that are forecast to be in exceedance in 2025, from when the GM CAP measures will commence implementation and operation.

A.4.5 NO_2 can be measured using a range of techniques. Continuous Monitors (CM) record minute-by-minute data, but are relatively expensive to install and operate, whilst passive diffusion tubes are very cheap and can therefore be deployed at a large number of locations readily and cost effectively, but only measure monthly concentrations meaningfully.

A.4.6 Diffusion tube sites that are already active and reported in GM in 2024 and 2025 are shown in **Figure A2**. Currently, diffusion tubes consist of GM CAP sites and LAQM sites run by TfGM and the GM authorities, and UK Urban NO_2 Network (UUNN) sites which are operated separately by JAQU.

[16] https://assets.publishing.service.gov.uk/media/67b494c73e77ca8b737d380f/Direction_-_Greater_Manchester_Non_Charging_Plan.pdf

Figure A2 GM Air Quality Monitoring (CAP and LAQM sites) for 2024 and 2025



A.4.7 GM has therefore developed an approach to monitoring NO_2 levels that has been designed to understand the key influences on roadside NO_2 concentrations across a large and spatially diverse study area where exceedances are caused by complex and differing conditions. Locations with canyons[17], congestion and gradients are recognised as being more susceptible to uncertainty in emissions' estimates and therefore additional monitoring are targeted in these locations, along with the key exceedance locations across the districts in GM.

[17] Canyons refer to built-up environments with tall buildings on both sides of the road. Canyons can impact air quality in different ways based on air flow and temperature.

Objective 2: Achieve compliance in a way that is fair to businesses and residents, and does not damage business or cause financial hardship to people

A.4.8 As originally set out in the 'Case for a New GM Clean Air Plan'[18], the Investment-led Plan has been developed based on achieving NO_2 compliance across GM whilst not causing hardship to people and businesses. Unlike the previous GM CAP, which included a charging Clean Air Zone, the Investment-led GM CAP attends to the wider economic environment including the cost-of-living crisis and legacy impacts following the Covid-19 pandemic and wider global instability on supply chains.

A.4.9 Two of three measures of the Investment-led GM CAP help to achieve compliance by providing funds to bus and taxis to support upgrades to cleaner vehicles.

A.4.10 The bus measures provide funding to upgrade new Zero Emission Buses with supporting depot electrification. Under bus franchising, the management and deployment of buses is controlled by GM with no negative impacts anticipated by operators as a result of the GM CAP measures. As part of Bus Franchising, GM is able to collate and track the existing fleet composition and routing, number of new vehicles on order, new vehicle delivery dates and charger installations by depot and the number of vehicles and chargers that are in operation.

A.4.11 The taxi measures provide funding to upgrade hackney carriages to cleaner vehicles. The Hackney Support Fund, supports individuals and businesses to respond to GM emission standards (implemented consistently across GM in 2025). Applications will be tracked via the Hackney Support Fund to provide information on funding awarded, committed and grants paid.

A.4.12 In combination with Hackney Support Fund data, collation of taxi licensing data is used to track the changes to fleet composition and usage. Data will also be gathered from taxi drivers who apply for GM CAP funding in the form of satisfaction survey. This survey, coupled with licensee survey, will help to understand why vehicle licensees chose to upgrade or not upgrade and their satisfaction with the funding process.

A.4.13 As part of the implementation of an GM CAP, an Equality Impact Assessment has been undertaken. The EqIA considers the potential for the CAP to result in disproportionate or differential equality effects on the nine protected characteristics defined in accordance with the Public Sector Equality Duty in section 149 of the Equality Act, 2010[19].

[18] https://assets.ctfassets.net/tlpgbvy1k6h2/7jtkDc5AODypDQIw0cYwsl/67091a85f26e7c503a19ec7aeb2e8137/Appendix_1_-_Case_for_a_new_Greater_Manchester_Clean_Air_Plan.pdf

[19] The Equality Act does not make an EqIA compulsory, rather that authorities must have due regard in their decision making to the need to:
• eliminate unlawful discrimination, harassment, victimisation and any other conduct prohibited by the Act;
• advance equality of opportunity between people who share a protected characteristic and people who do not share it; and
• foster good relations between people who share a protected characteristic and people who do not share it.
However many authorities will generally do this as good practice.

A.4.14 The EqIA concluded that there are no anticipated negative disproportionate or differential impacts as a result of the Investment-led GM CAP.

Objective 3: Ensure the reduction of harmful emissions at the centre of GM's wider aim for delivering the Bee Network's core objectives.

A.4.15 This objective has strong alignment with Objective 1 and addressing the legal direction placed on the 10 GM Authorities however the objective has a broader reach beyond the focus of NO_2 concentrations.

A.4.16 Whilst there is an agreed relationship between NO_2 concentrations and human health, health outcomes such as life expectancy or incidence of disease are affected by many variables. Public Health England estimate that around 1,200 deaths per year could be associated with air pollution, but it would be unsafe to attribute changes in health outcomes to NO_2 as an absolute cause.

A.4.17 As part of GM's Investment-led approach to achieve compliance without causing people or businesses financial hardship, the Investment-led GM CAP is a package of targeted measures to address locations forecast to be above legal limits. Compared to the Previous GM CAP, GM's targeted approach will concentrate expected air quality benefits to these certain locations however there will also be some broader air quality benefits associated with bus and taxi upgrades. The targeted approach of these measures makes it challenging to attribute changes in the City Region's health with the impacts of the measures.

A.4.18 Allowing for the difficulties in attribution, working back through the logic from the ultimate objective to the impact which should be instrumental in those health effects would suggest "improved public health" as the next most relevant impact. However, data on personal exposure is lacking due to the extent of movement between places with high or low concentrations. Instead, we will focus on monitoring concentrations, which is the criteria for legal compliance and CAP Objective 1 (To reduce NO_2 concentrations to below the legal limits in the shortest possible time and by 2026).

A.4.19 The local highways measures on the A57 Regent Road and A34 Quay Street corridors will help to reduce the number of incidents on our road network and support Greater Manchester Vision Zero ambition to "eliminate road death and life-changing injury by 2040, with a target to achieve a 50 per cent reduction by 2030"[20]. The implementation of yellow box enforcement along the corridors will reduce blocking of junctions and help to create a smoother traffic flow. The speed limit change from 40mph to 30mph on the A57 Regent Road further contribute towards Greater Manchester's Vision Zero ambition.

[20] https://www.greatermanchester-ca.gov.uk/media/yqxoyisd/vision-zero-gm-strategy.pdf

A.5 OUTCOMES AND OUTPUTS

A.5.1 The logic of the monitoring and evaluation of the GM CAP is that the observed NO_2 concentrations are a product of the volume of traffic and its composition of vehicle types and Euro standard. The intended transport outcome is a decrease in the proportion of the most polluting vehicles but not necessarily a material reduction in total traffic. Extensive modelling work has been undertaken to forecast how GM CAP interventions lead to NO_2 concentrations being below Limit Values in the shortest possible time, so the emissions-causing parameters (including other factors such as speeds and weather) will therefore be closely monitored. The outcomes that will be monitored are detailed in **Table A1**, which also shows the related impact(s), source of monitoring data and the frequency of data collection. Outcomes have been aligned to benefits (shown in 'green') or disbenefits (shown in 'amber') or a neutral benefit (shown in 'grey') where no positive or negative benefits are experienced.

Traffic Volumes

A.5.2 It is proposed that recording traffic flows via permanent Automatic Traffic Counters (ATCs), which are currently deployed across the GM highway network, as business-as-usual (BAU) can be used to analyse traffic volumes.

Traffic Composition

A.5.3 The ANPR camera network will provide the primary level of data to assess changing traffic composition, covering vehicle type, Euro standard, fuel type and age. ATCs can also be used to provide data on traffic composition, for high-level vehicle type information, in addition to traffic flows.

A.5.4 As part of the previous GM CAP, a network of permanent ANPR cameras were installed based on the requirements of a GM-wide charging CAZ. These cameras will continue to be used to provide monitoring data for the GM CAP.

A.5.5 The monitoring of outcome indicators are summarised in **Table A1** below.

Table A1 Outcome indicators

Outcome	Indicator	Metric	Data Source	Monitoring Analysis
Reduction in NO2 concentrations at key locations	NO2 concentrations	Total NO2 concentrations and a reduction in NO2 concentrations at key locations (locations 'at-risk' and 'in exceedance)	Diffusion tubes and continuous analysers	Quarterly
	Traffic volumes & fleet	Observed total traffic by vehicle class, Euro class and fuel	ANPR & ATC	Quarterly
Increase in cleaner buses deployed on GM bus routes	Bus Fleet	Proportion of OEM Euro VI and ZEB operated on CAP specified routes	Bus fleet data	Quarterly
	Bus electric vehicle charging infrastructure	Number of bus electric vehicle chargers by depot	Bus depot data	Quarterly
Increase in cleaner GM-licensed Hackneys	GM-licensed hackney fleet	Number of GM-licensed compliant and non-compliant hackneys by local authority.	GM Taxi Licensing Data	Quarterly
Awareness and understanding of Hackney Support Fund options	Hackney Support Fund (formally the Clean Taxi Fund) satisfaction	Satisfaction rating for Hackney vehicle licensees that have applied to the fund	Application Satisfaction survey	Once (following receipt of grant payment)
	Number of Hackney vehicle licensees not upgrading	Reason why vehicle licensees decided not to upgrade via Hackney Support Fund	Vehicle Licensee Survey	Once (following closure of the Hackney Support Fund)
Smoother traffic flows and reduction in trips past exceedance locations along A57 Regent Road corridor	Traffic volumes	Observed daily traffic flow	ATC	Quarterly
	Traffic Fleet Profile	Observed fleet profile by vehicle class	ANPR	Quarterly
	Traffic flow	Observed traffic flow at link level and traffic model periods (AM, IP, PM)	ANPR & ATC	Quarterly
	Traffic speeds	Observed directional speeds by traffic model periods	INRIX Journey Time Data	Quarterly

Outcome	Indicator	Metric	Data Source	Monitoring Analysis
Unforeseen trip redistribution impacts along A57 Regent Road corridor onto parallel routes	Traffic volumes	Observed daily traffic flow on parallel corridors	ATC	Quarterly
	Traffic Fleet Profile	Observed fleet profile by vehicle class on parallel corridors	ANPR	Quarterly
	Traffic flow	Observed traffic flow at link level and traffic model periods (AM, IP, PM) on parallel corridors	ANPR & ATC	Quarterly
	Traffic speeds	Observed directional speeds by traffic model periods on parallel corridors	INRIX Journey Time Data	Quarterly
Reduction in the number of vehicles blocking junctions along the A57 Regent Road corridor	Enforcement Data	Number of penalty notices issued by Salford City Council and Manchester City Council along A57 Regent Road corridor	Salford City Council and Manchester City Council Enforcement Data	Quarterly
Reduction in the number of vehicles blocking junctions along A34 Quay Street corridor	Enforcement Data	Number of penalty notices issued by Manchester City Council and Salford City Council along A34 Quay Street corridor	Manchester City Council and Salford City Council Enforcement Data	Quarterly

A.6 DECOMMISSIONING

A.6.1 Decommissioning of GM CAP monitoring infrastructure (and local highway measures if required) will be undertaken in accordance with JAQU's exit guidance and aligned to meeting the requirements of the State 4 assessment.

A.6.2 Based on the GM CAP achieving compliance in 2026, it is anticipated that monitoring and evaluation activities will be required until the end of 2028 on the basis that GM are able to demonstrate that all sites will remain compliant.

Appendix B: Benefits Realisation Plan

B.1 Purpose of this Document

B.1.1 This document provides an overview of the benefits realisation approach and the information to track the successful implementation and operation of the GM CAP. The approach ensures that the management of benefits is conducted in a reliable and consistent manner across the GM CAP and the achievement of the core objectives.

B.2 Benefit Realisation approach

B.2.1 The benefits realisation process involves a quarterly review, in conjunction with the GM CAP Monitoring Dashboard, that will investigate if the GM CAP has delivered the outcomes as expected.

B.2.2 A holistic review of data is considered to be a more robust approach as opposed to reviewing a select number of metrics to ensure the measures are delivering the expected benefits and that these are delivered in as proportional and equal a manner as possible in line with the Equality Impact Assessment (EqIA).

B.2.3 A range of benefits have been identified below, however the success of these should not be judged by a single metric, but rather by a review of measure and programme performance.

B.3 Greater Manchester GM CAP benefits

B.3.1 The main benefits for the GM CAP have been outlined below. Table **B1 Programme Benefits**, and **Table B2 Measure Benefits** identify the primary benefits, the data source that will be used to track each benefit, and the indicator which will be used to monitor the benefit and ultimately measure whether the benefit has been realised.

Table B1 Programme Benefits

Benefit	Indicator	Metric	Data Source
Reduction in NO2 concentrations at key locations	NO2 concentrations	Total NO_2 concentrations and a reduction in NO_2 concentrations at key locations (locations 'at-risk' and 'in exceedance)	Diffusion tubes and continuous analysers
	Traffic volumes & fleet	Observed total traffic by vehicle class, Euro class and fuel	ANPR & ATC

B.3.2 The programme benefits are centered around reducing NO_2 concentrations and closely align to Objective 1 of the core objectives of reducing NO_2 concentrations in GM to below Limit Values in the shortest time possible. Improving air quality is known to positively impact public health, and this is the primary motivation for implementing a Clean Air Plan.

B.3.3 In addition to reducing the negative health impacts of air pollution, measures that improve air quality can offer wider public health and well-being co-benefits including an improvement in overall environmental quality, climate change mitigation and cost savings in health and social care spend. These cannot currently be quantified but could be expected to be substantial.

Table B2 Measure Benefits

Measure	Benefit	Indicator	Metric	Data Source
Cleaner buses and bus electric charging	Increase in cleaner buses deployed on GM bus routes	Bus Fleet	Proportion of OEM Euro VI and ZEB operated on CAP specified routes	Bus fleet data
		Bus electric vehicle charging infrastructure	Number of bus electric vehicle chargers by depot	Bus depot data
Hackney Support Fund	Increase in cleaner GM-licensed Hackneys	GM-licensed hackney fleet	Number of GM-licensed compliant and non-compliant hackneys by local authority	GM Taxi Licensing Data
A57 Regent Road Local Highway Measures	Smoother traffic flows and reduction in trips past exceedance locations along Regent Road corridor	Traffic volumes	Observed daily traffic flow	ATC
		Traffic Fleet Profile	Observed fleet profile by vehicle class	ANPR
		Traffic flow	Observed traffic flow at link level and traffic model periods (AM, IP, PM)	ANPR & ATC
		Traffic speeds	Observed directional speeds by traffic model periods	INRIX Journey Time Data
A57 Regent Road - Yellow Box Enforcement	Reduction in the number of vehicles blocking junctions along the A57 Regent Road corridor	Enforcement Data	Number of penalty notices issued by Salford City Council and Manchester City Council along A57 Regent Road corridor	Salford City Council and Manchester City Council Enforcement Data
A34 Quay Street - Yellow Box Enforcement	Reduction in the number of vehicles blocking junctions along A34 Quay Street corridor	Enforcement Data	Number of penalty notices issued by Manchester City Council and Salford City Council along A34 Quay Street corridor	Manchester City Council and Salford City Council Enforcement Data

B.3.4 Project benefits have been closely aligned with the core objectives. In addition to programme and project benefits, there are also project disbenefits which have been identified, which include:

Table B3 Disbenefits

Measure	Disbenefits	Indicator	Metric	Data Source
Local Highway Measures – A57 Regent Road	Unforeseen trip redistribution impacts along A57 Regent Road corridor onto parallel routes	Traffic volumes	Observed daily traffic flow on parallel corridors	ATC
		Traffic Fleet Profile	Observed fleet profile by vehicle class on parallel corridors	ANPR
		Traffic flow	Observed traffic flow at link level and traffic model periods (AM, IP, PM) on parallel corridors	ANPR & ATC
		Traffic speeds	Observed directional speeds by traffic model periods on parallel corridors	INRIX Journey Time Data

B.4 Benefit profiles

B.4.1 Benefit profiles provide an overview of each primary benefit, including a description of the benefit, how the benefit will be measured, financial information and timescales for the expected benefit to be realised (the benefit event) and who 'owns' the benefit.

B.4.2 The following tables detail each of the primary benefits directly related to the GM CAP measures.

Table B4 Benefit Profile – Cleaner buses and bus electric charging

Benefit Description	Increase in cleaner buses deployed on GM bus routes
Output Description	Funding to purchase ZEBs on GM specified routes supported by installation of electric bus charging infrastructure.
Baseline	Proportion of OEM Euro VI and ZEB on fleet prior to the implementation of the GM CAP. The number of electric chargers by depot prior to the implementation of the GM CAP.
Metric	Proportion of OEM Euro VI and ZEB operated on CAP specified routes. Number of bus electric vehicle chargers by depot.
Benefit Owner	GMCA
Benefit Recipient	**Cleaner (and newer) buses** - Bus Franchising including operators across GM and GM bus users. **AQ benefits** – GM population.
Cost of Achieving Benefit	£46.7 m associated with cleaner buses. £4.4 million associated with bus electric charging.
Timescale (Benefit Trigger)	All buses and electric charging infrastructure at Bolton and Manchester Piccadilly to be operational in 2026.
Validation (Benefit Event)	This benefit will be confirmed following the deployment of 78 ZEBs in GM on CAP specified routes and installation and operation of additional charging capacity at Bolton and Manchester Piccadilly locations.
Method of Evaluation	Assess the proportion of OEM Euro VI and ZEB operated on each bus service in 2026, and the number of electric chargers at Bolton and Manchester Piccadilly, relative to a pre-implementation position.

Table B5 Benefit Profile – Hackney Support Fund

Benefit Description	Increase in cleaner GM-licensed hackneys
Output Description	Funding to provide grants to upgrade hackney carriages to cleaner vehicles.
Baseline	Number of GM-licensed compliant and non-compliant hackneys by local authority prior to the implementation of the GM CAP.
Metric	Number of GM-licensed compliant and non-compliant hackneys by local authority.
Benefit Owner	GMCA
Benefit Recipient	**Cleaner (and newer) vehicles** - GM-licensed Hackney operators and Hackney users. **AQ benefits** – GM population.
Cost of Achieving Benefit	£8 million - The fund will be available for GM-licensed, non-compliant Hackney Carriages.
Timescale (Benefit Trigger)	Opening of the Hackney Support Fund in December 2025. GM licensed, eligible Hackney Carriages will upgrade over the course of 2025 and 2026.
Validation (Benefit Event)	This benefit will be confirmed through a quarterly review of the GM taxi licensing database.
Method of Evaluation	Assess the number of compliant GM licensed hackneys in Q4 2026 relative to the pre-fund opening position.

Table B6 Benefit Profile – Local Highway Measures (A57 Regent Road and St John's Area)

Benefit Description	Smoother traffic flows and reduction in trips past exceedance locations at A57 Regent Road Reduction in the number of vehicles blocking junctions along the A57 Regent Road and A34 Quay Street corridors.
Output Description	Change in speed limit from 40mph to 30mph, and signal optimisation on A57 Regent Road corridor. Yellow box enforcement on A57 Regent Road and A34 Quay Street corridors.
Baseline	Pre-implementation of local highway measures: Observed daily traffic flow. Observed fleet profile by vehicle class. Observed traffic flow at link level and traffic model periods (AM, IP, PM). Observed directional speeds by traffic model periods.
Metric	Observed daily traffic flow. Observed fleet profile by vehicle class. Observed traffic flow at link level and traffic model periods (AM, IP, PM). Observed directional speeds by traffic model periods. Number of penalty charge notices issued.
Benefit Owner	GMCA
Benefit Recipient	**Improved traffic flows and wider non-assessed benefits (such as road safety)** - Manchester City Council & Salford City Council, and road users. **AQ benefits** – GM population.
Cost of Achieving Benefit	£3m across both local measures at the A57 Regent Road, Salford and St John's Area, Manchester.
Timescale (Benefit Trigger)	Implementation and operation of the A57 Regent Road and St John's Area measures in Q1 January 2026.
Validation (Benefit Event)	This benefit will be confirmed by a quarterly review of the traffic and enforcement data.
Method of Evaluation	Assess the traffic data compared to the pre-fund opening position and the number of penalty charge notices issued.