

## AIR QUALITY FEASIBILITY STUDY MANAGEMENT CASE

**YOU WOULDN'T  
LET YOUR KIDS PLAY  
WITH DIRTY TOYS**



**BUT EVERY DAY THEY'RE  
BREATHING DIRTY AIR**

BREATHE 

**YOU WOULDN'T  
EAT ROTTEN FOOD**



**BUT EVERY DAY YOU'RE  
BREATHING ROTTEN AIR**

BREATHE 

## TABLE OF CONTENTS

<b>5.</b>	<b>MANAGEMENT CASE</b>	<b>4</b>
<b>5.1</b>	<b>INTRODUCTION</b>	<b>4</b>
<b>5.2</b>	<b>PROJECT MANAGEMENT</b>	<b>4</b>
<b>5.3</b>	<b>GOVERNANCE AND ORGANISATIONAL STRUCTURE</b>	<b>5</b>
<b>5.4</b>	<b>PROGRAMME PLAN</b>	<b>8</b>
<b>5.5</b>	<b>ASSURANCE AND APPROVALS</b>	<b>10</b>
<b>5.6</b>	<b>COMMUNICATION AND ENGAGEMENT</b>	<b>11</b>
<b>5.7</b>	<b>PROJECT REPORTING</b>	<b>13</b>
<b>5.8</b>	<b>CONTRACT MANAGEMENT</b>	<b>14</b>
<b>5.9</b>	<b>RISK MANAGEMENT STRATEGY</b>	<b>14</b>
<b>5.10</b>	<b>BENEFITS REALISATION</b>	<b>16</b>
<b>5.11</b>	<b>MONITORING AND EVALUATION</b>	<b>16</b>
<b>5.12</b>	<b>CONTINGENCY</b>	<b>16</b>
	<b>APPENDICES</b>	<b>17</b>
	<b>APPENDIX A5.1 - CAZ IMPLEMENTATION GOVERNANCE TERMS OF REFERENCE</b>	<b>18</b>
	<b>APPENDIX A5.2 - PUBLIC AND STAKEHOLDER ENGAGEMENT STRATEGY</b>	<b>20</b>
	<b>APPENDIX A5.3 - RISK STRATEGY AND REGISTERS</b>	<b>22</b>
	<b>APPENDIX A5.4 - MONITORING AND EVALUATION PLAN</b>	<b>23</b>

## LIST OF FIGURES

Figure 5-1 Governance Structure for CAZ Implementation (Between OBC – 1 January 2021)	6
Figure 5-2 CAZ Implementation Workstream leads	7
Figure 5-3 Communication and engagement approach	12
Figure 0-1 Logic Map	28

## LIST OF TABLES

Table 5-1 Programme Key Milestones	8
Table 5-2 Programme Assurance Key Milestones	11
Table 0-1 Programme Key Milestones	25
Table 2 Resource Requirements for the Tyneside Clean Air Zone Monitoring and Evaluation	34

## 5. MANAGEMENT CASE

Please refer to the summary position provided by the Tyneside Authorities within the Strategic Case regarding the current modelled option that achieves compliance in the shortest time.

### 5.1 Introduction

- 5.1.1 The purpose of the management case is to determine whether the proposal is deliverable in the timescales. It sets out the project planning, governance structure, risk management, communications and stakeholder management, benefits realised and assurance.
- 5.1.2 As the project evolves from inception through to implementation and operation, the management format will change. This chapter focuses on the detailed arrangements to ensure the successful delivery of any Tyneside Clean Air Zone Implementation (Implementation, Operation and Monitoring Stage) or associated measures. Although where appropriate reference is made to the development and management of the FBC and the Tyneside Air Quality Feasibility Study which is informing the business case development.
- 5.1.3 The management case provides detail on the actions that need to be taken by the Tyneside Authorities to deliver the project across all stages; what needs to be done, why, when and how, with plans in place to identify and manage any risks. The management case also sets out the plan to ensure that benefits stated in the economic case are realised and will include measures to assess and evaluate this.

### 5.2 Project Management

- 5.2.1 Project management is central to the implementation of any Tyneside CAZ to ensure planning, delegating, monitoring and control of all aspects of the project. Project Management instils motivation of all project parties, and is the communicative link between governance structure and workstreams to ensure all parties understand their objectives, performance targets, scope, cost and deliverables.
- 5.2.2 Project Management is the control of: Costs; Timescales; Quality; Scope; Benefits; and Risk. Project management will be undertaken in line with PRINCE2 (Projects IN Controlled Environments) principles. The project will therefore apply the following principles:
- Business justification – Tyneside Authorities are required to undertake a feasibility study following a mandate by the Government. In keeping with the spending objectives, the Tyneside Authorities must improve air quality (in particular NO<sub>2</sub> annual exceedances in the shortest possible time).
  - Learn from experience – Lessons are sought, recorded and acted upon throughout the life of the project. Tyneside Authorities are liaising with JAQU, other local authorities and key suppliers to understand emerging best practice.
  - Defined roles and responsibilities – see Governance and Organisation (section 5.3)
  - Manage by stages – The project is planned, monitored and controlled through the programme planning at each stage (section 5.4)
  - Manage by exception – The tolerances of change to cost, time, quality, scope, benefits and risks are all managed through the Working Group and ongoing liaison with JAQU.

Tolerances of change for the CAZ Implementation will initially be the responsibility of the CAZ Implementation Group. Some of these responsibilities will be filtered to workstream leads. This will be finalised following procurement and submission of the FBC.

- Focus on products – Products required as part of the CAZ Implementation will be finalised following procurement and submission of the FBC.
- Tailored to suit the project – size, complexity, team capability, risk and environment are all factored into the ongoing project management.

### 5.3 Governance and organisational structure

#### 5.3.1 CAZ Implementation Governance

5.3.2 After submission of the OBC, practical arrangements for how the implementation will be governed (see Figure 5-1) will commence. This additional governance structure will oversee the design, implementation and operation of the Proposed Option and will run alongside and interact with the Tyneside Air Quality Feasibility until the FBC submission.

5.3.3 The governance structure in Figure 5-1 is responsible for measures within the Proposed Option which are to be funded through the Implementation Fund. Delivery and governance of complementary measures (funded through the Clean Air Fund) will remain the responsibility of the Tyneside Air Quality Feasibility Study until FBC submission. More detail on future governance of these measures will be provided in the FBC.

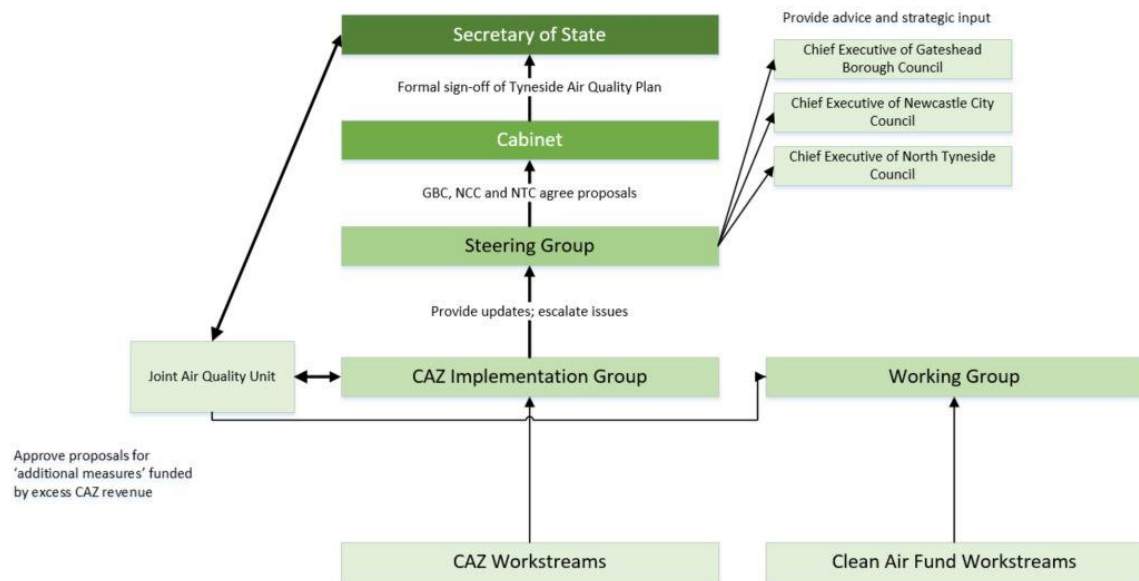
5.3.4 The CAZ Implementation Governance will continue to run after the FBC is submitted and will supervise the operation and monitoring of the Proposed Option.

5.3.5 The approval of the Proposed Option (including the approval of funding for the Proposed Option) is the duty of the Secretary of State. Any subsequent approval for the delivery of additional measures using surplus revenue from any charge CAZ must also be approved by the Secretary of State. The effectiveness of the Proposed Option and additional measure will continue to be fed back to JAQU and the Secretary of State.

5.3.6 The groups shown in Figure 5-1 each have terms of reference (Appendix A5.1), which are aimed at monitoring progress, change, risks, issues, opportunities, decisions and providing agreements to proceed.

5.3.7 As the Tyneside Authorities are undertaking a joint Tyneside Air Quality Feasibility Study, it is expected that JAQU will submit a single approval order for the three Authorities to deliver the measures set out in the FBC. As the current option of those tested which is closest to compliance includes a charging CAZ which traverses more than one Council boundary, each Cabinet (Gateshead Borough Council, Newcastle City Council and North Tyneside Council) will approve proposals for how any surplus revenue will be spent before this is formally submitted to the JAQU. The responsibility for budgets therefore lies through the Cabinets of the Tyneside Authorities. If options are identified in the future which do not traverse boundaries, this will be amended accordingly.

Figure 5-1 Governance Structure for CAZ Implementation (Between OBC – 1 January 2021)



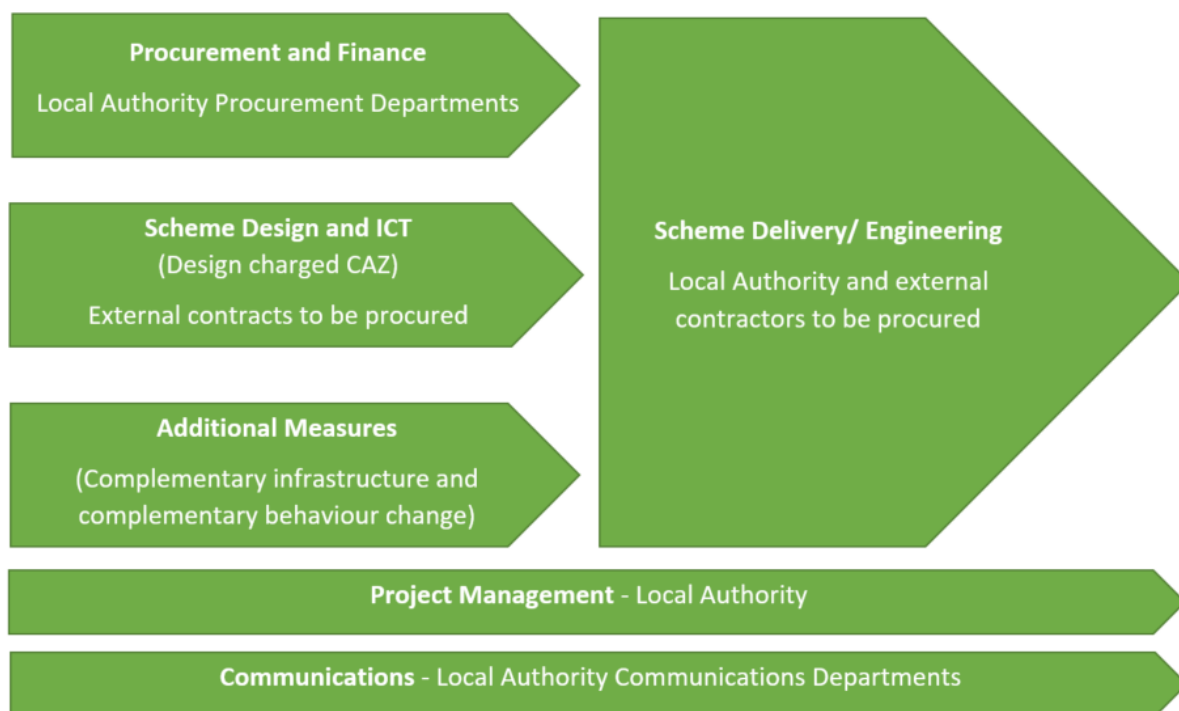
### 5.3.8 CAZ Implementation Workstreams

5.3.9 Potential CAZ Implementation has been devised into several workstreams, with each workstream delivering the agreed required outputs. Workstream outputs include the necessary information to inform the design, implementation, operation and monitoring of the current Proposed Option.

5.3.10 The Implementation programme consists of several key workstreams and each workstream consists of projects with critical deliverables.

5.3.11 In Figure 5-2 the breakdown and hierarchy of the programme and the leads for each workstream are identified. At this stage, any external workstream leads for Implementation are to be determined. These elements will be undertaken in accordance with the procurement strategy set out in the Commercial Case.

Figure 5-2 CAZ Implementation Workstream leads



- **Project management** – This workstream oversees scope, timescales, costs, risk, and change and reporting.
- **Procurement and finance** – This workstream monitors the spend profile for the duration of the project. This workstream covers the procurement and implementation of the Proposed Option.
- **Scheme design and ICT** – This workstream will undertake detailed design of the Proposed Option. The scheme will be designed in a way which maximises value for money whilst also ensure that the deliverables of the Proposed Option are realised.
- **Communications** – This workstream ensures that sufficient communication is undertaken to ensure acceptability of the Proposed Option. A Communications Plan of the Proposed Option will be incorporated into the FBC. This activity will be supported by specialist suppliers when required.
- **Scheme delivery / engineering** – This workstream will oversee the operation and monitoring of the Proposed Option.
- **Additional measures / mitigation** – This workstream refers to additional measures funded through surplus revenue generated from the Proposed Option. Specialist professionals from internal departments will be required to design, implement and operate additional measures.
- **Scheme delivery / engineering** – This workstream will oversee the operation and monitoring of the Proposed Option.

5.3.12 The above workstreams and governance structure will regularly interact with the Tyneside Air Quality Feasibility Study governance. It is expected that the Steering Group for both governance structures will remain consistent.

## 5.4 Programme Plan

### 5.4.1 Key Milestones

5.4.2 The key milestones for the Tyneside Air Quality Feasibility Study are summarised in Table 5-1. Milestones 1-3 are the responsibility of the governance structure for the Tyneside Air Quality Feasibility Study (Figure 5-2). Milestones 4-5 are the responsibility of the CAZ Implementation governance structure (Figure 5-4).

**Table 5-1 Programme Key Milestones**

MILESTONE	FORECAST DATE
SOC	March 2018
Evidence Submission	November 2018
Draft OBC	December 2018
OBC	February 2019
FBC	As soon as possible following OBC
Implementation/scheme opening for some measures	January 2020 (Also see Appendix A5.3)
Benefits realisation	January 2021

### 5.4.3 Tyneside Air Quality Feasibility Study Project Plan

5.4.4 The Tyneside Air Quality Feasibility Study project plan is shown in Appendix A5.2. Key deliverables for the Tyneside Air Quality Feasibility Study are the submission of the SOC, OBC and FBC (and associated appendices). The following tasks are on the critical path for a punctual delivery of the FBC:

- receiving funding from JAQU to complete the feasibility study;
- receiving prompt feedback and responses from JAQU regarding the study;
- gaining Cabinet approval to enter consultation;
- gaining approval from the Secretary of State for any Proposed Option;
- undertaking public consultation in Spring 2019;
- revising the option design of the Proposed Option based on consultation feedback and analysis;
- assessing effectiveness using the new Tyneside transport model and the Tyneside air quality model;
- analysing the value for money and impacts on the economy, society and public health; and
- ensuring political acceptability and sign-off by governing officials.



5.4.5 It is also expected that procurement of any Proposed Option will be at a point by August 2019 to ensure prices have been returned to inform the FBC, based on market engagement undertaken by officers. The contract awards will be issued following the approval of the FBC.

#### 5.4.6 CAZ Implementation Project Plan

5.4.7 The Implementation project plan is shown in Appendix A5.3.

5.4.8 Measures can be broken down into two categories:

- **Compliance measures** which are intervention-focused and must ensure compliance with air quality exceedances; or
- **Mitigation measures** which are intervention-neutral and outcome-focused against distributional impacts of the measures which induce compliance. These can be community-wide measures such as road layout changes, changes to cycling or walking infrastructure, improved public transport, park and ride schemes, promoting car clubs, vehicle retrofit; or better travel planning services. They can also be behaviour change measures aimed directly at supporting individuals or businesses such as local travel discounts (which could be linked to smart ticketing), cycle to work schemes, local scrappage schemes or support for upgrading to a new vehicle (including ultra-low emission vehicles).

5.4.9 Funding for compliance measures will be sought from the Implementation Fund. Funding for the mitigation measures is from the Clean Air Fund and is a competitive process.

5.4.10 The plan demonstrates that the compliance measures will be operational by the end of 2020. This means it will have a measurable impact on air quality in 2021. Any compliance measures in the longlist which did not demonstrate deliverability in this timeframe were sifted out during the options prioritisation process.

5.4.11 Mitigation measures which are designed to support individuals or businesses must be in place before the charging CAZ is operational. This will allow local businesses and residents to change their vehicle or method of travel before incurring any charges.

5.4.12 Mitigation measures which are community-wide can be delivered alongside CAZ implementation.

5.4.13 The public campaign must also be in place before a charge CAZ is operational. This will ensure that local businesses and residents are prepared for the Proposed Option and again, can act accordingly by changing their vehicle or method of travel.

5.4.14 The following tasks are on the critical path for a punctual delivery of the implementation of any CAZ:

- receiving prompt confirmation of funding from JAQU;
- undertaking procurement by late Summer 2019;
- installation of equipment, signage and systems;
- public campaign to inform vehicle users of the impacts of the CAZ;
- testing the systems to ensure accuracy and usability; and

- ensuring appropriate complementary measures are in place before the charging begins to allow sufficient time for local businesses and residents to access these measures.

## 5.5 Assurance and approvals

- 5.5.1 Turner and Townsend are the Project Management team for the Tyneside Air Quality Feasibility Study which includes the development of the business case. As part of this role a weekly review of the project programme is undertaken with workstream leads feeding in progress and expected progress and identifying risks to programme. This process provides a regular health check of the programme. This is regularly communicated to JAQU.
- 5.5.2 Table 5-1 shows the agreed programme assurance milestones for the delivery of the Tyneside Air Quality Feasibility Study and CAZ Implementation.
- 5.5.3 Approvals follow a strict hierarchy and governance structure. Utilising appropriate legal, financial and technical advice from internal and external partners, the Working Group, liaising with JAQU, investigate the options and make recommendations to the Steering Group. After sign-off from Steering Group, approvals are then sought from each Cabinet (Gateshead Borough Council, Newcastle City Council and North Tyneside Council). At the same time, approvals are also sought from JAQU and the Secretary of State.
- 5.5.4 Given the project time constraints, it was not possible to seek the three Cabinet's approvals before draft submission to JAQU. Instead, approval has been sought for the final Outline Business Case. This represents a key risk for the project which must be managed carefully. The approval timescales for both Cabinet and JAQU has been factored into the Project Plan.
- 5.5.5 Other decisions which are made via delegated decisions from Cabinet are:
- Commissioning of work to complete the FBC. This is anticipated to be future Project Management support from OBC to FBC, and future options appraisal and business case writing for the FBC. This work will be commissioned in Spring 2019 using the existing NEPO procurement framework.
- 5.5.6 During operation of the current proposed option, each Cabinet (Gateshead Borough Council, Newcastle City Council and North Tyneside Council) would have to approve proposals for how any surplus revenue (i.e. excess revenue generated by the CAZ over and above the operation costs) would be spent before this is formally submitted to the JAQU. The responsibility for budgets therefore lies through the Cabinets of the Tyneside Authorities.
- 5.5.7 Regular reviews of how the Proposed Option is being delivered will be undertaken. A monitoring plan is set out in Appendix A5.6. Reviews will be undertaken in accordance with the following programme milestones:
- Data collection for *One Year Post-Opening Summary* in January 2022
  - Publication of *One Year Post-Opening Summary* in June 2022
  - Begin data collection for *Five Year Post-Opening Summary* in January 2027
  - Publication of *Five Year Post-Opening Summary* in June 2027
- 5.5.8 If anticipated benefits are not realised by the end of 2021, the CAZ Implementation Group will liaise with JAQU and the Steering Group to determine what further action is required.

**Table 5-2 Programme Assurance Key Milestones**

	<b>Milestone</b>	<b>Forecast Date</b>	<b>Forum</b>
<b>1.1</b>	OBC Completion Public Consultation Plan	See Project Plan	Working Group
<b>1.2</b>	OBC Approval Public Consultation Approval	See Project Plan	Steering Group
<b>1.3</b>	OBC Approval Public Consultation Approval	See Project Plan	Cabinet
<b>1.4</b>	Approval OBC	See Project Plan	JAQU / Secretary of State
<b>2.1</b>	FBC Completion Procurement Plan	See Project Plan	Working Group
<b>2.2</b>	FBC Approval Procurement Approval for CAZ Implementation	See Project Plan	Steering Group
<b>2.3</b>	FBC Approval Procurement Approval for CAZ Implementation	See Project Plan	Cabinet
<b>2.4</b>	FBC Approval Funds Granted	See Project Plan	JAQU / Secretary of State
<b>3.1</b>	Additional Measures <sup>1</sup> Plan	See Project Plan	CAZ Implementation Group <sup>2</sup>
<b>3.2</b>	Approval of Additional Measures	See Project Plan	Steering Group <sup>1</sup>
<b>3.3</b>	Approval of Additional Measures	See Project Plan	Cabinet
<b>3.4</b>	Approval of Additional Measures	See Project Plan	JAQU / Secretary of State

## 5.6 Communication and Engagement

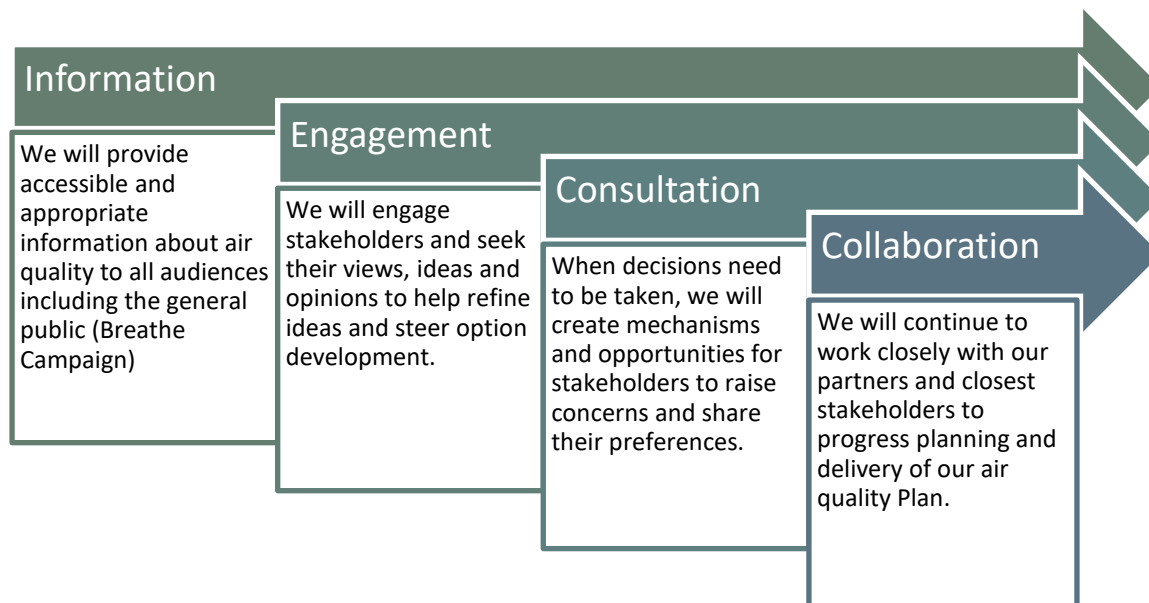
### 5.6.1 Stakeholder Management and Engagement

5.6.2 Our approach to engagement in transport initiatives and investments is based on our ladder of participation as shown in Figure 5-5. More detail on the Engagement Strategy to inform the Tyneside Air Quality Feasibility Study is shown in Appendix A5.4.

<sup>1</sup> Additional measures are measures which will be funded by any surplus revenue generated by the Proposed Option.

<sup>2</sup> As shown in Figure 5-4 governance structure.

Figure 5-3 Communication and engagement approach



Stakeholder engagement to inform this OBC includes:

- June 2017 – Transport Forum Open Meeting<sup>3</sup> – A ‘World Café’ Event that sought to enable members of the public and key stakeholders to have the opportunity to develop a response to Defra’s Air Quality Consultation about their proposed set of measures to improve air quality.
- Air quality is discussed as a regular item on all of Newcastle City Council’s Transport Forum agendas since the aforementioned open meeting last year. The forum has closely followed the progress of the regional working group in their efforts to work towards the Tyneside Air Quality Plan.
- A key stakeholder workshop to inform options shortlisting undertaken on 4<sup>th</sup> June 2018 which included representation from bus operators, NHS Trust in Newcastle, Freight Transport Association and public user groups.
- Input from air quality campaigning groups initially in Gosforth (Safe Pedestrian and Cycling Environments – SPACE for Gosforth) who have collected evidence about poor air quality, raising public awareness and challenging transport policies to help improve air quality in their area.
- Local initiatives around active travel in the inner-city suburbs in Newcastle (Streets for People) has also led to the establishment of a number of groups dedicated to improved sustainable travel environments and we benefit from their work in terms of sustainable travel and the school run and Air Quality data collection around schools.
- Newcastle Urban Observatory provide academic and practical support for data collection and interpretation and have provided links to PhD and MSc researchers whose research methods have led to air quality work in three primary schools in Streets for People areas.

<sup>3</sup> Newcastle’s Transport Forum is an established group of representatives of public transport providers, civic and business leaders, community and campaigning groups who meet quarterly to debate issues and opportunities affecting the city’s transport networks.

This includes significant installations of Emote, high-precision and AQMesh real time Air Quality sensors.

- Transport Forum October 2018 – stakeholder engagement event with local businesses, community groups, charities, councillors, public transport operators, air quality and transport professionals and young people.
- Stakeholder consultation events in November 2018 – engagement by the three Tyneside Authorities with public health, community groups, inclusion groups, green lobbying groups, large employers, taxi drivers and transport and air quality specialists.
- Engagement with Council Leaders, Elected Mayor and Cabinet members alongside wider briefings by all three Tyneside Authorities on emerging options.

### 5.6.3 Public Communications and Engagement

5.6.4 Engagement with the public has already begun through the ‘Breathe’ Campaign, which has run through Autumn and Winter 2018.

5.6.5 Formal consultation is planned for a period from late February / Early March 2019, after the approval of this OBC by Cabinet.

5.6.6 Prior to submission of the FBC, the public will be regularly engagement through the ‘Breathe’ campaign to ensure awareness of air quality is increased.

5.6.7 Before implementation of the Proposed Option, a lead-in public awareness campaign will be undertaken. The objectives would be as follows:

- Inform the public of the Proposed Option and how that might affect them.
- Provide information sources for advice or support

5.6.8 This campaign would be funded by JAQU and is a requirement for the implementation of a proposed option.

## 5.7 Project Reporting

5.7.1 To monitor the business case progress, risk, issues and opportunities a fortnightly briefing note is produced by workstreams and submitted to the Project Management team. The Project Management team collate information and present a summary to the Working Group during weekly meetings. The Working Group provide updates to the Tyneside Air Quality Steering Group during monthly meetings.

5.7.2 Key reporting deliverables are required as part of the business case development. These are:

- Strategic Outline Case
- Economic Appraisal Methodology Report (E1)
- Economic Model (E2) and any linked documents
- Write-up of the economic appraisal and results
- Distributional analysis methodology (E3)
- Local Plan Air Quality Modelling Tracking Table (AQ1)
- Local Plan Air Quality Modelling Methodology Report (AQ2)
- Local Plan Air Quality Modelling Report (AQ3)
- Local Plan Transport Modelling Tracking Table (T1)

- Local Plan Transport Model Validation Report (T2)
- Local Plan Transport Modelling Methodology Report (T3)
- Local Plan Transport Model Forecasting Report (T4)
- Target Determination Outputs
- Analytical Assurance Statement
- Outline Business Case
- Final Business Case

5.7.3 To monitor implementation, the CAZ workstreams will report risk, resource trackers, programme progress and financial monitoring. Regular reports will be required as part of any contracts which are let to the supply chain.

## 5.8 Contract Management

5.8.1 The Tyneside Authorities are committed to investing the necessary level of resource to ensure effective contract management.

5.8.2 Management of future external services and suppliers for the CAZ Implementation will be the responsibility of the future Project Management resource. It is anticipated that this will be an external resource which is yet to be appointed. More detail regarding Contract Management will be provided in FBC when CAZ Implementation governance and workstreams are in place. These specialists will be able to provide advice and guidance regarding the CAZ Implementation.

## 5.9 Risk Management Strategy

5.9.1 All projects are subject to risk and opportunity. The objective of the risk management strategy is to minimise the impact of risks, whilst allowing maximum advantage to be taken of any opportunities. The earlier that risk management is applied to a project, the more opportunity there is to influence the outcome.

5.9.2 The Tyneside Authorities have extensive experience in delivering complex schemes in isolation and in partnership. The Risk Management Strategy identifies, and records risks, identifies potential mitigation to eliminate or reduce risk and allocates or transfers risk to the relevant parties that are best able to deal with them. The Risk Management Strategy allows for the ongoing review of risks as they progress through the planning and delivery stage.

5.9.3 A copy of the Tyneside Air Quality Feasibility Study risk management strategy is shown in Appendix A5.5, along with a copy of the most recent risk register. To inform the Tyneside Air Quality Feasibility Study risk management, one risk workshop was undertaken for the study as a whole in July 2018 and one for measures implementation on 15<sup>th</sup> October 2018 with key workstream representatives. In addition, each workstream submits their individual project risks every two weeks.

5.9.4 Risks are identified by any workstream and compiled by the Project Management team. Each risk is categorized and rated, a mitigation technique identified, a risk owner assigned, and a risk cost estimated. These are detailed in the risk register.

5.9.5 The current top five risks for the Tyneside Quality Feasibility Study are:

- Technical modelling accuracy;
- Political and public acceptability of the Proposed Option;
- Completing the FBC in the shortest possible time;
- Risk of legal challenge; and
- National air quality strategy not being accepted.

5.9.6 In addition, the Tyneside Authorities are also managing the risks associated with the implementation of the CAZ. Each individual measure within the package has its own associated risks.

5.9.7 The CAZ Implementation risk management strategy and risk register are shown in Appendix A5.5. Risks have been identified and compiled by the Options Development Workstream. Each risk is categorized and rated, a mitigation technique identified, a risk owner assigned, and a risk cost estimated. These are detailed in the risk register. It is expected this risk register will be amended significantly when CAZ Implementation workstreams are in place.

5.9.8 As noted above, to inform the CAZ Implementation risk management, a risk workshop was undertaken on 15<sup>th</sup> October 2018 with Options Development workstream and members of the Working Group. A revised CAZ Implementation workshop will be undertaken using key representatives from the CAZ Implementation governance structure after submission of the OBC.

5.9.9 The current top five risks for the CAZ Implementation are:

- Risk of Legal Challenge
- Option costs based on outline option and market estimate
- Timescales for Procurement and delivery
- The Option not meeting objectives and exceedances remaining
- Public Acceptability

5.9.10 Notably, risk registers are live documents which change through the lifetime of the project. Risks will continue to be reviewed and assessed and the outputs will be distributed to the appropriate teams. Risks are regularly reviewed by the Project Management team and the Working Group. Key risks are escalated to the Steering Group for analysis and decision-making. The Steering Group are ultimately accountable for the oversight of the Tyneside Air Quality Feasibility Study. The new Steering Group (Figure 5-4) will be accountable for the oversight of the CAZ Implementation.

5.9.11 The allocation of risk and transfer of risk elements will be assigned to the organisation best placed to manage that risk. In many cases, the CAZ Implementation risks will be transferred to contractors as part of the procurement process and contractual agreements in place. The transferring of risk to relevant parties is explained in the Commercial Case.

5.9.12 Early focus for delivery will be made on those interventions which are considered low risk. Schemes which require lengthy consultation; extensive or complex design; input from external parties; use of new technology or demonstration through pilots may be considered to generate too much risk unless outweighed by the opportunity.

5.9.13 Contingency has also been applied to the delivery of the CAZ.

## 5.10 Benefits Realisation

- 5.10.1 Benefits will be realised once the measures are implemented and operational. Benefits realisation is a key strand of implementation, operational management and a key part of the management case.
- 5.10.2 Details of the anticipated benefits and how they will be measured are shown in the benefits register shown in Appendix A5.6. Approval of the benefits register will be requested via Steering Group and then Cabinet.
- 5.10.3 All benefits of the Proposed Option must be tracked efficiently and reported back promptly. This will ensure that feedback can be given quickly so that contingency plans can be implemented should the Proposed Option prove to be ineffective.
- 5.10.4 Measures within the Proposed Option will be implemented as quickly as is feasible to ensure realisation of benefits in the shortest possible time. Any additional measures which can be implemented following successful delivery of a charge CAZ will also be identified.
- 5.10.5 Flexibility during CAZ Implementation is essential. The Tyneside Authorities will ensure there is the ability to alter measures (such as changing the geographical scope of the CAZ, changing the classification of the CAZ or changing the CAZ charges) during the consultation and approval process. This will ensure that the Tyneside Authorities have a CAZ with limited adverse impact on local individuals and businesses, but still achieves the required impacts on air quality.
- 5.10.6 All benefits will be regularly tracked and fed back through the CAZ Implementation governance structure. Real-time air quality monitors are required to efficiently track the levels of pollution on exceedance links before and after implementation.

## 5.11 Monitoring and Evaluation

- 5.11.1 The Tyneside Clean Air Zone Monitoring and Evaluation Plan is shown in Appendix A5.6.

## 5.12 Contingency

- 5.12.1 As noted in the Commercial Case, the Authorities will, as part of their procurement strategy, endeavour to ensure that all elements are delivered on time in order to enable delivery and impact in the shortest possible time.
- 5.12.2 However, if service implementation were to be delayed then the authorities will follow a number of options in order to enable delivery:
- Pursue contractual remedies against suppliers in order to ensure delivery, including structure of contracts
  - Ensure that JAQU are informed of any issues with delivery, where it may impact timescales in order that resources can be more effectively allocated
  - Follow a risk-based approach with contractors, with regular reporting intervals and a 'no surprises' policy enshrined within contractual terms



## APPENDICES

## APPENDIX A5.1 - CAZ Implementation Governance Terms of Reference

### CAZ Implementation Group

Role: The day-to-day implementation group for the Study, responsible for developing, procuring and implementing the Proposed Option identified by the Working Group and providing the support function for the Steering Group and liaison with JAQU after the submission of the Full Business Case and until 1 January 2021.

In line with established procedure at the Working Group, this group is chaired by an officer of Newcastle City Council and will be supported by further project management resource who will co-ordinate papers and support delivery of the various workstreams.

#### Responsibilities:

- Attendance of meetings
- Comment by email on specific documents may also be required between meetings.
- Providing liaison to other departments within the relevant authority as appropriate
- Undertaking specific tasks to implement the CAZ and Additional Measures
- Agreeing draft reports for the Steering Group including regular updates on Procurement and delivery
- Commenting on and agreeing outputs from workstreams and collation of these into reports
- Oversight of specific budgets and spend in the implementation of the Proposed Option
- Making decisions relevant to the implementation of the Proposed Option including appointing additional resource where required

#### Membership:

Lead Officer for CAZ Implementation (Chair)	To be confirmed
Representative from Procurement	NCC Officer
Representative from LA Transport Officers	To be confirmed
Representative from Legal	To be confirmed
Representative from Finance	To be confirmed
Representative from Communications Department	To be confirmed
Representative from IT	To be confirmed
Representative for Additional Measures	To be confirmed
Representative from Highways England	To be confirmed
Individual workstream leads	As appropriate
Project Management Support	As contracted

Substitutes: Where members are not available to attend meetings, they can send a nominated substitute, who is empowered to make decisions at the relevant level

Frequency: It is planned for meetings to be held weekly, or otherwise based around key milestones for implementation of the Proposed Option. Papers will be circulated at least two days in advance. Meetings may also be held 'virtually', with papers agreed in advance.

## CAZ Operations Team

Role: The Team responsible for the operations of the Clean Air Zone from 1 January 2021 onwards. This group will primarily be Operations-focused.

Responsibilities:

- Attendance of meetings
- Comment by email on specific documents may also be required between meetings.
- Providing operational support to the CAZ or Additional Measures
- Providing liaison to other departments within the relevant authority as appropriate
- Agreeing draft reports for the senior officer and political groups including regular updates on delivery and operations
- Commenting on and agreeing outputs from workstreams and collation of these into reports
- Oversight of specific budgets and spend particularly financial reporting
- Making decisions relevant to the Operation of the Proposed Option

Membership:

Lead Officer for CAZ Implementation (Chair)	To be confirmed
Representative from Procurement	NCC Officer
Representative from Finance	To be confirmed
Representative from CAZ Operations team	To be confirmed
Representative for Additional Measures	To be confirmed
Representative from Highways England	To be confirmed
Project Management Support	As contracted
Representative from Communications Department	To be confirmed

Substitutes: Where members are not available to attend meetings, they can send a nominated substitute, who is empowered to make decisions at the relevant level

Frequency: It is planned for meetings to be held fortnightly, or otherwise based around key milestones for operations of the Proposed Option. Papers will be circulated at least two days in advance. Meetings may also be held 'virtually', with papers agreed in advance.

## APPENDIX A5.2 - Public and Stakeholder Engagement Strategy

Before new measures are put in place, the Tyneside Authorities need to raise awareness and understanding about the extent of the air quality problem and its health implications. The Tyneside Authorities have begun to raise awareness through the 'Breathe' campaign.

The aim of the campaign is to raise awareness amongst the public that they need to play a part in improving air quality. The communication objectives from the campaign are to:

- Raise awareness amongst people in the North East of the issues surrounding air pollution;
- To make people in the North East aware that action needs to be taken to reduce that air pollution;
- That air pollution is not just a 'problem for the local authorities' and that we are all responsible; and
- To communicate a call to action for people in the North East.

The campaign duration will run in the following stages:

### Stage 1 – Awareness raising campaign

Newcastle and Gateshead Councils have created a campaign that bring the air quality concern to the awareness of the public. During this stage, informal information will be delivered to stakeholders and the public. The views of stakeholders will be collected to inform the feasibility study. A key objective will be to ensure people are better informed about air quality in advance of planned informal and formal engagement and consultation.

The animated artwork will be using individual hashtags which will help track engagement and monitor conversations on social media, where most of the activity will be focused. These will be #BreatheNewcastle and #BreatheGateshead.

Examples of the static artwork are shown below:



Public awareness will be raised using the following platforms:

- Short messages will also be used on Variable Messaging Signs next to roads.
- Web content on individual local authorities webpages
- Social media
- Press and media activity

Standard questions and answers forms have been prepared to ensure clear and consistent messaging. This stage ran in the Autumn and Winter of 2018 in the authorities.

### **Stage 2 – Undertake formal consultation**

The Tyneside Authorities will undertake a formal consultation of the proposed solution. The feedback from formal consultation will inform the final Proposed Option and FBC.

Formal consultation is planned in the Spring of 2019.

### **Stage 3 – Awareness Raising Campaign for the Proposed Option**

Lead-in public awareness campaign for the implementation of the Proposed Option. The objectives would be as follows:

- Inform the public of the Proposed Option and how that might affect them.
- Provide information sources for advice or support

Public awareness will be raised using the following platforms:

- Short messages will also be used on Variable Messaging Signs next to roads.
- Web content on individual local authorities webpages
- Social media
- Press and media activity

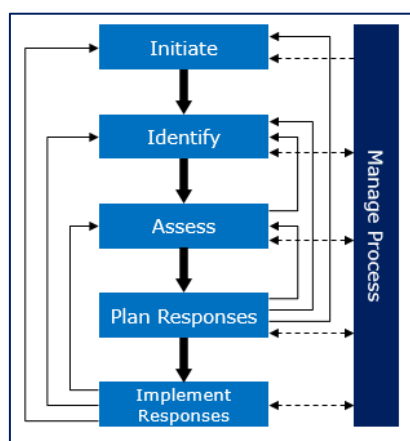
Standard questions and answers forms have been prepared to ensure clear and consistent messaging.

## APPENDIX A5.3 - Risk Strategy and Registers

Risk Management is the responsibility of the appointed Project Manager. Risk management is the proactive identification, analysis and management of threats and opportunities that help make better investment decisions, improve delivery certainty and enhance operational performance.

The process of managing risk can be deployed at any point in the project life cycle (inception, optioneering, delivery, etc.), but the earlier the deployment the greater the benefit.

The approach set out by APM is to identify, assess and respond to the key threats and opportunities that have the potential to impact the study objectives. This will ensure that uncertainty is managed throughout the delivery of the programme lifecycle. The methodology directly with the APM risk management process, which is recognised as industry best practice: This process is identified below.



The benefits of a proactive risk management process are as follows:

- Identifies and allocates responsibility to the best risk owner.
- Demonstrates a responsible approach to customers (inspired confidence)
- Supports the build-up of statistical information
- Enables better informed plans, schedules and budgets
- Increases the likelihood of a project adhering to its schedules and budgets
- Improves the quality of decision making
- Focuses project management attention on the real and most important issues
- Facilitates greater risk taking, thus increasing benefits gained

Managing risk encourages the project team to identify and pre-empt the things that might affect the project. A risk specialist will facilitate risk workshops during the Tyneside Air Quality Feasibility Study and the CAZ Implementation to capture project risks.

A risk register is then created to help proactively manage and reduce the likelihood of the risk occurring. An action owner is assigned and mitigation actions are allocated to help reduce the probability of the risk being realised, or lessen its impact. Finally, it is vital that the risk management process is an iterative documents which is continually reviewed at prescribed intervals.

## APPENDIX A5.4 - Monitoring and Evaluation Plan

### Introduction

As part of the Outline Business Case (OBC) for the Tyneside Air Quality Feasibility Study, Local Authorities are required to put in place a *Tyneside Clean Air Zone Monitoring and Evaluation Plan*. This is not only a requirement from JAQU but also a requirement for good management of public money and of the Green and Magenta Books.

The Tyneside Authorities benefit from an existing comprehensive monitoring system and national centres of best practice in urban data collection, air quality monitoring and evaluation from local academic partners.

Correspondingly, the Tyneside Authorities propose to not only undertake the 'do minimum' levels of monitoring to JAQU but also to undertake a local evaluation of the impacts of the Proposed Option. Given the scale of public investment and the potential impacts of the Proposed Option, this is the only feasible solution. In addition to what is set out below, Authorities will abide by the requirements set out in the JAQU Monitoring and Evaluation note to report data to JAQU every 3 months where available.

### JAQU and Local Responsibilities

The Tyneside Local Authorities and JAQU will have differing and complementary roles for the delivery of monitoring and evaluation for national and local air quality studies.

Specifically, the central national evaluation will:

Aim to understand the impacts of interventions introduced through a local authority's local plan and ensure that local authorities are on track to reduce NO<sub>2</sub> concentrations in the shortest possible time. The central evaluation will utilise existing local and national monitoring. Therefore, local authorities should maintain their current monitoring sites (on NO<sub>2</sub> concentrations or traffic flows) for the length of the evaluation.

Local authorities will be required to share the data produced by this monitoring, as well as any other data collected (for instance, on the number of cycle trips, bus trips or similar) every three months. To support further analysis as part of rapid reviews or case study work, local authorities may also need to share additional data when necessary. Therefore, local authorities should plan for some resource to engage with the central evaluation.

(JAQU Monitoring and Evaluation Note, October 2018)

In contrast, the Tyneside Authorities are expected to:

Monitor the AQ outcomes in relevant areas but may choose to conduct further monitoring activity or evaluate the wider impacts of their measures in more detail. This could range from maintaining (and sharing) the existing monitoring to implementing new monitoring or undertaking a detailed local evaluation. JAQU would anticipate a monitoring and evaluation section to be included in the OBC, including details on any associated costs.

This guidance has shaped the approach of the *Tyneside Clean Air Zone Monitoring and Evaluation Plan*.

## Principles of Local Authority Monitoring and Evaluation

The Tyneside Authorities are subject to a number of monitoring and evaluation requirements for previous, current or future transport schemes. These include:

- Local Growth Fund Monitoring and Evaluation (North East LEP Assurance Framework & NECA Post Opening Evaluation Guidance)
- National Productivity Investment Fund Monitoring
- Highways Maintenance Challenge Fund Monitoring
- Cycle City Ambition Fund Monitoring and Evaluation
- Regional Growth Fund Monitoring
- Single Investment Fund Monitoring and Evaluation (North of Tyne Combined Authority Assurance Framework)
- Defra Early Measures Fund Monitoring

In developing this *Tyneside Clean Air Zone Monitoring and Evaluation Plan*, the Tyneside Authorities have considered ‘lessons learned’ from previous monitoring and evaluation frameworks and the unique challenges posed by the *Tyneside Air Quality Feasibility Study*.

The following principles are proposed for the monitoring and evaluation to be undertaken as part of the *Tyneside Air Quality Feasibility Study* and the Clean Air Zone Implementation. The source of the principle is shown in brackets.

- Forward plan evaluation at the appraisal stage, including using a logic model framework and storing and collecting appraisal data for an appraisal handover pack (DfT guidance and best practice)
- The preferred methods of monitoring will be through secondary (i.e. existing) data sources where possible, given that these are extensive within the Tyneside area (Best practice and lessons learned in minimising ongoing costs)
- Additional primary monitoring costs will be proportionate to the benefit to be accrued from the measurement of the indicator (Best practice and lessons learned from other funding streams)
- A Post Opening Evaluation will be conducted one-year and five-years after the project has been completed (DfT Guidance and best practice in the use of public money)
- Where possible, more than one pre-implementation year will be used as a baseline (DfT Guidance and lessons learned from other funding streams)
- Outcome metrics will not only be sourced from those typically used in transport schemes, but also encompass environmental, public health and economic outcomes (JAQU and DfT guidance and the wide-ranging nature of the scheme)

## Tyneside Air Quality Feasibility Study

The Tyneside Air Quality Feasibility Study has been prepared in accordance with guidance received from the Joint Air Quality Unit (JAQU) and the Department for Transport (DfT) WebTAG or HM Treasury Green Book as appropriate.



Evaluation is an integral part of understanding the impact of interventions or policy initiatives. It can demonstrate the effectiveness of an intervention in delivering its stated goals, the accuracy of appraisal undertaken to justify its implementation and to justify the expenditure of public money. It can also help in informing future policymaking, whether at the local, regional or national level.

Given the scale of the potential levels of public investment and the importance of this area of public policy, this plan will seek to go beyond the ‘do minimum’ requirements of simply monitoring and set out in greater detail an evaluation plan which seeks to examine the impact of the chosen Proposed Option for the Air Quality Feasibility Study.

The Tyneside Air Quality Feasibility Study is one of a number being undertaken over 2017 and 2018 to fulfil the requirements set out in the Air Quality Ministerial Direction of August 2017.

Three local authorities in Tyneside (Gateshead, Newcastle and North Tyneside, collectively the Tyneside Authorities) were named in the UK Plan for Tackling Roadside nitrogen dioxide NO<sub>2</sub> Concentrations. This means that some roads in Tyneside were identified by the Department for the Environment, Food and Rural Affairs (Defra) as being currently non-compliant with regards to UK and EU air quality legislation which define a maximum limit for NO<sub>2</sub> at locations where there is a risk to public health from exposure.

The Tyneside Authorities are therefore subject to a legal direction (Environment Act 1995 (Feasibility Study for Nitrogen Dioxide Compliance) Air Quality Direction 2017) from the Secretary of State for Defra. To adhere to this direction the Tyneside Authorities are undertaking a feasibility study to produce a Local Air Quality Plan. This must identify the preferred intervention (as part of a package of measures also known as a Proposed Option) that will reduce NO<sub>2</sub> pollution and deliver local compliance with legal limits in the shortest possible time.

## Key Milestones

**Table 0-1 Programme Key Milestones**

Milestone	Forecast Date
Implementation / scheme opening	January 2020
Begin data collection for <i>One Year Post-Opening Summary</i>	January 2022
Publication of <i>One Year Post-Opening Summary</i>	June 2022
Begin data collection for <i>Five Year Post-Opening Summary</i>	January 2026
Publication of <i>Five Year Post-Opening Summary</i>	June 2026
Benefits realisation	January 2021

## Scheme Objectives and Outcomes

The scheme has one primary objective and three secondary objectives. Elsewhere, these have been referred to as 'Critical Success Factors'.

### Box 1. Objectives

The Primary objective is:

- Achieving compliance in a location where emissions of NO<sub>2</sub> exceed legal limits in the shortest possible time

The Secondary objectives are:

- Improving public health in the Tyneside Authority areas in the shortest possible time;
- Enabling future economic growth and sustaining jobs and communities in the region; and
- Promoting a fairer society and does not detrimentally impacting vulnerable populations.

These objectives have guided the development of the OBC and also the development of this Monitoring and Evaluation Plan.

The objective of the evaluation is to answer the research questions shown in 0.

### Research Questions

RQ1: Has the implementation of the Proposed Option resulted in compliance with legal limits for NO<sub>2</sub>? If so, was this achieved in the shortest possible time?

RQ2: Has the implementation of the Proposed Option had a positive impact on public health in the Tyneside Authority areas and within the Clean Air Zone?

RQ3: Has the implementation of the Proposed Option had a negative economic impact on the area within the Clean Air Zone?

RQ4: Has the implementation of the Proposed Option resulted in detrimental impact to any vulnerable groups?

RQ5: Has the implementation of the Proposed Option had a negative impact on the transport networks of the Authorities?

RQ6: What lessons can be learned from the delivery of the Proposed Option and were the tools used for the appraisal of the Proposed Option appropriate and what recommendations could be made for future appraisal of similar schemes?

It is intended that RQ1-5 are used for Impact Evaluation and RQ6 is used for Process Evaluation and is designed to address wider public policy questions around appraisal and evaluation.

## Logic Map

Below is a Logic Map for a potential Clean Air Zone. Additional logic maps have been developed for complementary measures and will be inserted when a proposed option is identified.

Logic Mapping has been an integral part of the Option Development process.

Figure 0-1 Logic Map

CONTEXT	INPUTS	OUTPUTS	OUTCOMES	IMPACTS
<p><b><u>Potential charged Clean Air Zone</u></b></p>				
<p>Non-compliance with NO2 limit values</p> <p>Timescale to address exceedances</p> <p>Poor health indicators</p> <p>Level of knowledge and perceptions of residents in relation to air quality</p> <p>Evidence which has shown a proven link between poor air quality and poor health</p>	<p>Establishing:</p> <ul style="list-style-type: none"> <li>Zone Cordon - vehicles within the designated would be charged if not compliant with the relevant EURO standard for their vehicle</li> <li>Capital investment and ongoing resource costs</li> </ul>	<p>Implementation of roadside infratech and central back-office systems.</p> <p>Enforcement processes needed to ensure compliance.</p>	<p>Will be effective for reducing traffic on the Tyne Bridge and other exceedance links.</p> <p>Divert high-polluting traffic away from targeted areas / reduce vehicle idling time by increasing traffic flow / encourage modal shift.</p> <p>Traffic flows / emissions will be improved in a short space of time.</p> <p>Public will witness at first hand the benefits of smoother traffic flows.</p> <p>Improved Air Quality</p>	<p>Better air quality/reduction in NO2 values</p> <p>Less congestion on some links</p> <p>Improved health through improved AQ or increased active travel</p> <p>Improved accessibility of key services</p> <p>Increased public transport patronage due to modal shift</p> <p>Changes to CO2 emissions and indirect taxation</p> <p>Consequential changes in areas such as road safety and improving journey times.</p>

**Outputs and Outcomes**

The authorities propose to monitor the following Outputs and Outcomes as set out below. They are sourced from BEIS, DfT and other Monitoring and Evaluation metrics and are designed to ensure that all key appraised elements can be quantified through monitoring:

Inputs	Unit	Data Source	Frequency of monitoring	Dates to be collected	Geography of monitoring	Primary or Secondary data	Additional cost to collect	Research Question	Preferred Direction of travel
Implementation Expenditure	£	Project Team	Quarterly	2019-2026	All involved authorities	Primary	Within project costs	6	
Clean Air Fund Expenditure	£	Project Team	Quarterly	2019-2026	All involved authorities	Primary	Within project costs	6	
In-kind resources provided	£	Project Team	Quarterly	2019-2026	All involved authorities	Primary	Within project costs	6	
<b>Outputs</b>									
Total length of new footways	Metres	Responsible LA Transport Officer	Annual	2019-21	Scheme-specific	Primary	Within project costs	6	
Total length of new cycle ways	Metres	Responsible LA Transport Officer	Annual	2019-21	Scheme-specific	Primary	Within project costs	6	
Total number of ANPR Cameras deployed	Number	Project Team	Annual	2019-26	All involved authorities	Primary	Within project costs	6	
Number of retrofits delivered	Number	Project Team	Quarterly	2019-26	All involved authorities	Primary	Within project costs	6	
Number of CAZ number plate reads	Number	Project Team	Monthly	2021-26	Within CAZ	Primary	Within project costs	6	
CAZ Income	£	Project Team	Monthly	2021-26	Within CAZ	Primary	Within project costs	6	
<b>Outcomes</b>									
Commercial floorspace occupied	m <sup>2</sup>	LA/LEP data	Annual	2018-26	Within CAZ	Secondary	No	3	Increase
Employment	Number	BRES via NOMIS	Annual	2018-26	Within CAZ	Secondary	No	3	Increase
Number of new housing starts	Number	LA Planning Officers	Annual	2018-26	Within CAZ	Secondary	No	3	Increase
Commercial rental values	£/m <sup>2</sup>	LA/LEP data	Annual	2018-26	Within CAZ	Secondary	No	3	Increase
Annual Average daily traffic by peak/non peak periods	Number	Traffic count data & UTMC ANPR data	Annual	2018-26	Routes into CAZ and diversionary routes	Secondary	No	5	Decrease
Average AM and PM peak journey time per mile on key routes	Minutes	UTMC ANPR data & Trafficmaster data	Annual	2018-26	Routes into CAZ and diversionary routes	Secondary	No	5	Decrease
Day-to-day travel time variability	Minutes	Std. dev. Of travel time using ANPR data	Annual	2018-26	Routes into CAZ and diversionary routes	Secondary	No	5	Decrease
Accident/ Casualty rate	Number	Traffic Accident and Data Unit	Annual	2018-26	Within CAZ, routes into CAZ and diversionary routes	Secondary	No	2, 5	Decrease
Nitrogen Dioxide concentrations	µg/m <sup>3</sup>	Automatic monitoring stations and diffusion tubes	Annual	2018-26	Within CAZ, routes into CAZ and diversionary routes	Primary	Yes	1, 2, 4	Decrease
Particulate concentration levels	µg/m <sup>3</sup>	Automatic monitoring stations	Annual	2018-26	Within CAZ, routes into CAZ and diversionary routes	Primary	Yes	1, 2, 4	Decrease
Annual average daily passenger boardings	Number	Nexus/Public Transport Operators	Annual	2018-26	All involved authorities	Secondary	No	5	Increase

Pedestrians counts on new/existing routes	Number	Responsible LA Transport Officer	Annual	2018-26	Scheme-specific	Primary	Yes	2, 5	Increase
Cycle journeys on new/existing routes (#)	Number	Responsible LA Transport Officer	Annual	2018-26	Scheme-specific	Primary	Yes	2, 5	Increase
Business surveys	Various	Bespoke surveys	Three	2018, 2022, 2026	Within CAZ	Primary	Yes	3,4,5	Positive
People walking for travel at least 3 days/week	%	Public Health England Physical Activity Profile, indicator	Annual	2018-26	3 LAs	Secondary	No	2	Increase
People cycling for travel at least 3 days/week	%	Public Health England Physical Activity Profile, indicator	Annual	2018-26	3 LAs	Secondary	No	2	Increase
Adults meeting CMO recommendations for physical activity	%	Public Health Outcomes Framework, indicator 2.13 (i)	Annual	2018-26	3 LAs	Secondary	No	2	Increase
Adults that are physically inactive	%	Public Health Outcomes Framework, indicator 2.13 (ii)	Annual	2018-26	3 LAs	Secondary	No	2	Fall
Mortality considered preventable from all cardiovascular diseases (incl. heart disease) in those aged <75	Rate per 100,000	Public Health Outcomes Framework, indicator 4.04 (ii)	Annual	2018-26	3 LAs	Secondary	No	2	Fall
Mortality considered preventable from all respiratory diseases in those aged <75	Rate per 100,000	Public Health Outcomes Framework, indicator 4.07 (ii)	Annual	2018-26	3 LAs	Secondary	No	2	Fall

## Additional Detail on Data Sources and Collection methodologies

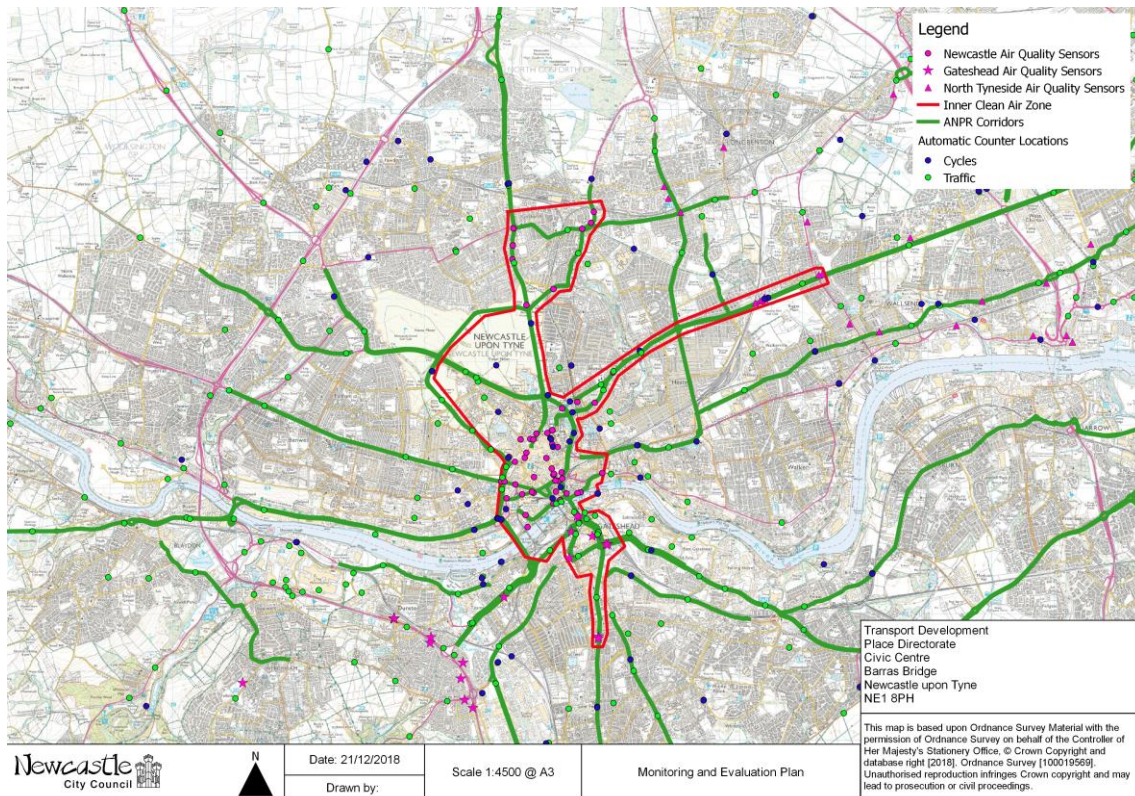
A number of data sources in the table above are discussed in more detail below:

Data Type	
<b>Employment Data</b>	This will be sourced from the Office for National Statistics Business Register Employment survey, which is published on an annual basis. This data is available at a Medium Super Output Area level. This will be used to understand changes in employment at smaller geographies, both within the CAZ and, as a comparison, elsewhere. This data is available and free to access, including historic data.
<b>Trafficmaster Data</b>	Trafficmaster data is used to identify journey time data, which will enable authorities to understand changes in average speeds on links in and outside the CAZ. The data is generated through in vehicle GPS trackers. The Data is GPS sourced and is obtained from the DfT. GPS data is disaggregated and assigned to links on the network, these links are divided into 15minute segments across the data collection period. This data is currently provided to the North East Combined Authority on behalf of all 7 authorities within the North East. Newcastle City Council currently process and analyse this data on behalf of all 7 authorities.
<b>Automatic Traffic &amp; Cycle Count Data</b>	This data will be used in order to understand changes in traffic and cycle flow both within and outside the CAZ. Permanent ATCs will be used in order to minimise potential bias caused by short sample periods and also to enable more accurate comparison to the baseline. Currently, the Tyne and Wear Traffic Accident Data Unit collects this data on behalf of all Tyneside local authorities, including a large amount of data from previous years.
<b>Manual Traffic Count Data</b>	It is recognised that the Automatic Traffic Count data may not provide complete coverage of all roads within or around the CAZ. The existing Automatic Traffic Count dataset focuses primarily on larger roads and Authorities are conscious that they wish to account for potential rerouting effects. Correspondingly, provision has been made for additional bespoke traffic count data to be undertaken before, one year after and five years after.
<b>ANPR Data</b>	This data will be used to understand day to day travel time variability both within the CAZ and on routes approaching it. Tyne and Wear has a comprehensive network of Automatic Numberplate Recognition cameras, which are used by the Urban Traffic Management and Control centre, based at Newcastle University. This data is freely available and can include pre-CAZ baselines.
<b>Pedestrian and Cycle Counts</b>	This data will be used to understand the impact of any additional pedestrian and cycling infrastructure invested in as part of the Proposed Option. This data will be collected through bespoke surveys on the new routes created as part of the Proposed Option and as part of existing automatic cycle monitors. It is proposed that these are annual in order to have the best understanding of the impact of the infrastructure investment. These surveys will typically be single day surveys on an annual basis.
<b>Business Surveys</b>	This data will be used to understand the economic impacts of the CAZ on a qualitative basis. Previous Local Growth Fund projects have established the principle of qualitative surveys to understand the impact of infrastructure investment. Business surveys in potentially affected areas (which will include the LSOAs within and proximate to the CAZ) before, one year after and five years after the implementation of the CAZ will assist in understanding these impacts. These surveys will be conducted by specialist Local Authority officers from Economic Development departments.
<b>Nitrogen Dioxide and Particulate Monitoring</b>	The Authorities will using existing data from diffusion tubes, high-precision automatic sensors and other automatic monitors (AQMesh and Emote) in order to understand the impact of the proposed option. At the Full Business Case stage, a further assessment will be made regarding any potential requirement for further automatic sensors.

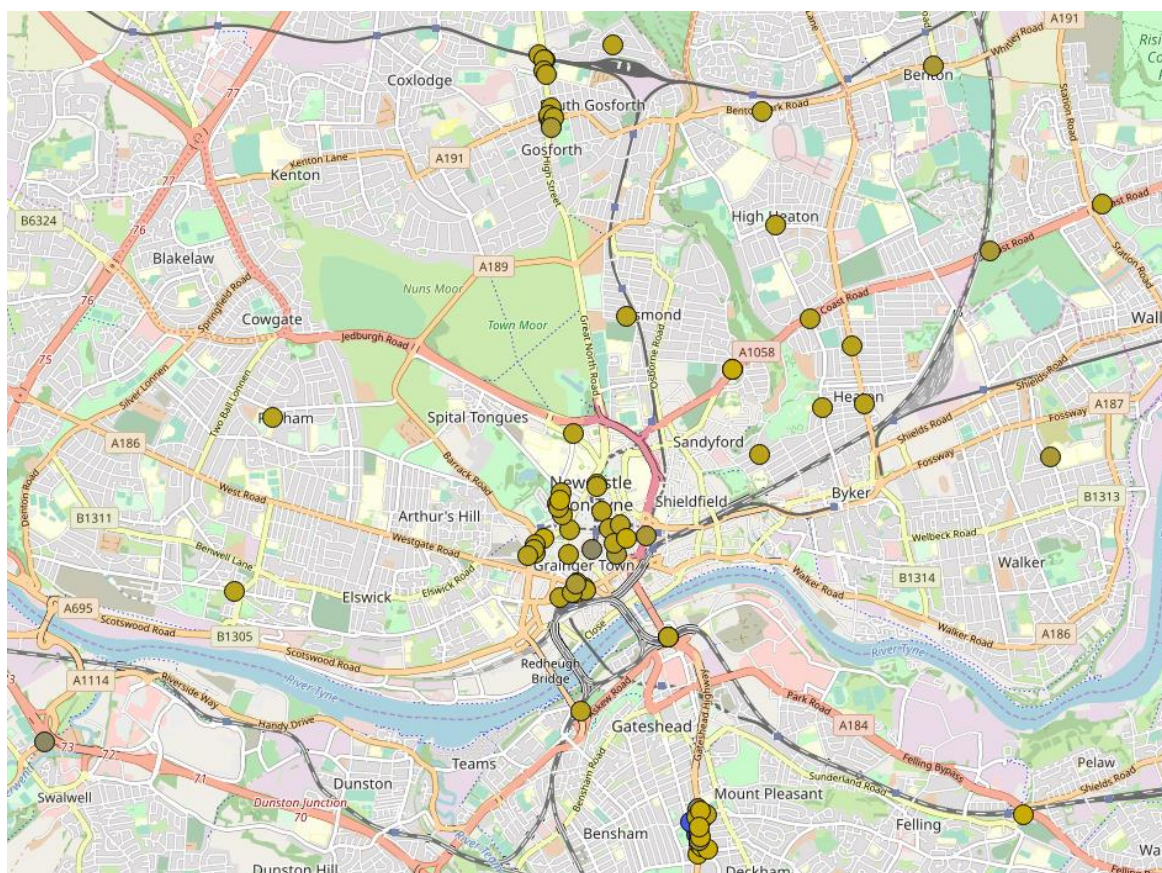
## **Locations to be monitored**

The Authorities are cognisant of the fact that potential impacts of any CAZ will not just be felt within the CAZ area but also on routes into the CAZ and diversionary routes. Correspondingly, they have set out the below locations to be monitored:





For clarity, the above map does not include automatic sensors deployed by the Urban Observatory at Newcastle University, which are displayed below and are a mix of AQMesh, Emote and high-precision stations:



The combination of sensor types and locations will enable the Authorities to monitor the impacts in not only the CAZ area but beyond, including the potential areas of rerouting which were identified by Transport Modelling.

## Governance

After submission of the OBC, practical arrangements for how the CAZ Implementation will be governed (see Figure 5-3) will commence. This additional governance structure will oversee the design, implementation and operation of the Proposed Option and will run alongside and interact with the Tyneside Air Quality Feasibility until the FBC submission. The CAZ Implementation Governance will continue to run after the FBC is submitted and will supervise the operation and monitoring of the Proposed Option.

The groups shown in Figure 5-3 each have terms of reference (Appendix A5.1) which are aimed at monitoring progress, change, risks, issues, opportunities, decisions and providing agreements to proceed.

As the Tyneside Authorities are undertaking a joint Tyneside Air Quality Feasibility Study, it is expected the three Authorities will monitor and evaluate the Proposed Option as one.

The Tyneside Monitoring and Evaluation Plan will be delivered by the in-house Project Management team using information supplied by the Scheme Delivery workstream. There will be a designated Lead Officer for the monitoring and evaluation, who will report directly to the Lead Officer for the CAZ Implementation.

## Resourcing

As established in JAQU guidance, the resourcing of monitoring and evaluation activities will in the first instance be met from Clean Air Zone income or Implementation Fund. As set out below, this will be sufficient to cover the planned monitoring and evaluation activities for the Clean Air Zone Implementation.

The Tyneside Authorities have limited revenue budgets and correspondingly efforts have been made to minimise resource requirements. Table 2 sets out expected elements and costs.

**Table 2 Resource Requirements for the Tyneside Clean Air Zone Monitoring and Evaluation**

Element	Cost (£)	Frequency/Count	Cost Type	Total
Nitrogen Dioxide Monitoring	Under discussion	To be concluded at FBC	Capital	0
Particulate Monitoring	Under discussion	To be concluded at FBC	Capital	0
Pedestrian and Cycle Counts	5,000	8	Revenue	40,000
Business Surveys	10,000	3	Revenue	30,000
Traffic counts	10,000	3	Revenue	30,000
Staff time for monitoring	5,000	8	Revenue	40,000
Re-running of models	10,000	2	Revenue	20,000
Report Writing	40,000	2 (1 & 5 year post)	Revenue	80,000
<b>Total</b>				<b>£240,000</b>

These costs have been accounted for in the Financial Case.

## Reporting

Monitoring and Evaluation will be reported as follows:

- JAQU required reporting quarterly on air quality and other monitoring data;
- Post Opening Scheme evaluation one year after scheme delivery; and
- Post Opening Scheme evaluation five years after scheme delivery