Sheffield & Rotherham Clean Air Plan
Final Full Business Case
Management Case

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V3.00	Issued 20th May 2022 – DiRP response update, section 6.3.7

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Section 6 Management Case

6 Management Case

6.1 Introduction

The purpose of the Management Case is to set out the structure, process and plans for successfully delivering the Sheffield and Rotherham Clean Air Plan Programme (S&R CAP), including:

- Governance and assurance arrangements
- Programme / project plans – milestones and timescales.
- Programme and project delivery structure
- Programme and project management arrangements including change control and budget management
- Risk management, mitigation including contingency and risk allocation approach
- Monitoring and evaluation plan
- Communication and engagement plan

In summary, the measures included within the S&R Clean Air Plan programme are:

- Category C Clean Air Zone (CAZ) in Sheffield – compliance measure
- Arundel Gate bus gate scheme, with complementary anti idling measures, in Sheffield – compliance measure
- Road schemes in Rotherham – compliance measures
- Financial mitigation measures to help those most impacted by the CAZ upgrade to a compliant vehicle.

6.2 Experience

6.2.1 Sheffield City Council's Capital Delivery experience:

The Capital Delivery Service (CDS) is Sheffield City Council's (SCC) Centre of Excellence for the delivery of a range of physical infrastructure and built environment schemes. The service consists of multi-disciplinary professionally qualified staff and primarily leads on the development and delivery of a range of projects including transport / highway infrastructure, city-centre development, street scape and public realm schemes, building construction such as new schools, and civil engineering projects such as the construction of flood defences. The schemes range in value from £100k to £30m. The City Council has a capital programme in the region of £200m per annum.

CDS employs 70 staff across the full range of technical disciplines for the delivery of capital projects. These include architects, civil/structural engineers, cost managers, mechanical/electrical engineers, project managers, delivery managers, programme managers and clerks of works.

CDS have a service framework provider to supply additional resource for project delivery, the framework was re-procured in 2021 and the new provider is Rider Levett Bucknall (RLB). The previous Framework provider was Turner & Townsend (T&T), arrangements are in place to allow T&T staff to continue to work on existing projects to completion were deemed appropriate. SCC also operates a Consultancy Plus framework to enable access to a range of professional services.

The Programme Management Office (PMO) provides support across the service and takes a lead on quality assurance in respect of project delivery and compliance. The

service has a digital, Service Management System (SMS) which all CDS Programme and Project Managers follow to maintain the quality and consistency of project delivery. The SMS is ISO 9001 accredited and the PMO mange the systems the service is subject to annual external audit and inspections to maintain the accreditation.

The Capital Delivery Service manages the development and implementation of a range of projects in conjunction with the SCC Strategic Transport and Infrastructure Service**,** see below.

6.2.2 SCC Strategic Transport and Infrastructure Service

Sheffield City Council has a proven track record of delivering transport and environmental projects of a similar type and scale proposed in the CAP. The organisation and the CAP project team has a wealth of practical experience of delivering multidisciplinary capital projects and as a result, have a thorough understanding of project controls to manage effective and efficient implementation of the CAP and its supporting actions. The service leads on strategic transport delivery, examples include the Connecting Sheffield programme aligned to the Transforming Cities Fund, Electric Vehicle charger strategy and delivery and the Highways England grant for the Electric Vehicle van trial.

Connecting Sheffield

The Connecting Sheffield programme is a Department for Transport (DfT) supported investment package of £55 million for the city. The programme compromises a range of measures designed to promote active travel and public transport use, that will ultimately meet the travel needs of Sheffield and its residents and businesses. The works include the implementation of a range of changes to the highway, through both physical works and traffic regulation orders. All elements of this programme have a strategic alignment to the CAP and these works are set within the context of a sustainable future for the city. These core values are therefore fully aligned to the stakeholder messages of the CAP and demonstrate a clear alignment between these two workstreams.

This work is ongoing and is currently being successfully implemented by the Strategic transport and Infrastructure Service in conjunction with the Capital Delivery Service. There is integration between the project teams to ensure that any emerging risks issues and dependencies are picked up within the design and implementation of the CAP.

SCC Electric Charge Point infrastructure

SCC received £515,000 of Early Measures Fund (EMF) capital funding to install EV chargers. This funding was combined with £650,000 of OLEV Ultra Low Emission Taxi Infrastructure Scheme funding as well as £225,000 of Highways England funding to provide a citywide network of 27no 50KW rapid chargers.

The chargers have been installed in 11 locations across the city, in a mixture of off-street carparks and on street parking spaces, with a focus on providing chargers in areas of high demand as well as areas which have high taxi usage, such as travel hubs and hospitals. Ten chargers are reserved exclusively for hackney carriages and private hire vehicles and are key to the EMF funded taxi trial project and the growth of electric taxis (hackney and private hire) in the city and region.

The network has shown a month-on-month growth in charger usage since the first chargers went live in March 2021 and reflects the growth in EV usage over that period and the important role Local Authorities have in providing essential infrastructure to support the move to low emission vehicles.

EMF funded Electric Taxi Trial

SCC received £485k of capital funding from DEFRAs Early Measures Fund (EMF) to purchase up to 10 electric Hackney Carriage taxis (8 LEVCs & 2 Dynamo's) for drivers to trial. The scheme will launch January 2022 and is intended to complement and drive uptake of the financial support that will be available as part of the Clean Air Zone for Hackney Carriage operators.

Highway's England (HE) Electric Van Trial

The electric van trial scheme successfully went live to the public in July 2021 after the purchase of 30 Nissan ENV-200 electric vans -, with funding from Highway England's Designated Fund for Air Quality.

The project aims to accelerate the uptake of fully electric vans in and around Sheffield and the wider region to contribute to cleaner air and support for areas that are currently exceeding the legal limit value for Nitrogen Dioxide (NO2) emissions.

Similarly to the taxi trial, the van trial is operating for a total length of two years, with each individual trial lasting two months, allowing drivers to realise the full benefits of owning and operating an electric van. The vans also include telematics which are produced in a report format for drivers at the conclusion of the two months

SCC Clean Bus Technology Fund (CBTF)

SCC successfully worked in partnership with South Yorkshire Passenger Transport Executive (SYPTE) and bus operators to bid for and secure funding to retrofit vehicles operating on scheduled services in Sheffield. Phase 1 of the programme delivered 125 SCRT retrofits to vehicles by February 2020 (6 more than in the original bid due to savings being achieved in the unit costs). A second phase of the programme will deliver an additional 173 SCRT retrofits which are expected to be completed in December 2021. In total CBTF funding will have resulted in 298 vehicles operating scheduled bus services in Sheffield having been upgraded to Euro VI standards. Through our Sheffield Bus Partnership, we continue to work closely with SYPTE and Operators to deliver a wide range of bus priority measures on key bus corridors and deliver improvements to ticketing, marketing and communications, and a range of other areas to make bus a more attractive offer.

6.2.3 Sheffield City Council's Business Change and ICT Programme Delivery experience

Business Change and Information Solutions is Sheffield City Council's combined business change, ICT and digital function. The service consists of multi-disciplinary professionally qualified staff and handles the delivery of the organisation's most complex and highest risk business change programmes and projects as well as setting standards and expectations for how all business change is delivered across the Authority. This includes a range of changes delivered using agile, waterfall, user centred design and Lean methods with each change design selected based on the context and constraints it will be delivered within as well as our experience of similar delivery.

Examples of the types of projects and programmes undertaken include:

- A Technology infrastructure programme to modernise our IT following a long-outsourced delivery arrangement. This included Windows 10 and M365 rollout, multiple datacentre cloud migrations, standing up new infrastructure solutions like proxy services and network changes, such as the implementation of new firewalls and a DMZ.
- The creation of test & trace, support arrangements and local testing sites as part of our response to the COVID-19 pandemic.
- A Programme of constitutional and governance changes to implement a Committee system and Local Area Committees following a local referendum on the Council's decision making system.
- A social care transformation programme to codesign how care and support are delivered in the city and to address the financial pressures in this area

These changes have ranged in cost from £100k to £25m in recent years. The overall cost of the Council's business change portfolio varies from year to year, with 17 programmes and 44 projects currently in delivery.

BCIS (Business Change and Information Solutions) employs around 200 staff, 54 of which work on change delivery. These staff have experience and qualifications covering areas including programme and project management, business analysis, user research, data analysis and service design. Skills levels are annually assessed using the SFIA framework to inform service wide and individual development plans.

BCIS's Enterprise Programme Office provides support across the different changes delivered and coordinates the central collection and reporting of information on change delivery and benefit realisation.

The service ensure that changes have the right balance of control and flexibility and are delivered in accordance with organisational standards like the Council's Risk Management Framework and Financial Standing Orders.

6.2.4 SCC Parking Services experience:

Parking Services maintains an in-house service for bus lane and parking enforcement. The Service leads delivery of the Councils anti-idling campaign to improve air quality especially around schools; with drivers signing a pledge to switch off, when picking up or dropping off.

The Service manages around 4,200 on street pay and display spaces, 1500 within the City Centre. In addition, there are around 900 off street parking spaces with a further 2,200 'other' bays (including time limited, unlimited and disabled) within the peripheral parking zone in Sheffield.

Bus Lane Enforcement

The Council currently utilises 15 ANPR cameras for bus lane enforcement. An ANPR CCTV enabled car is also used for enforcement of bus stop clearway or bus stand clearways and parking in bus lanes during bus gate restriction times.

The current contracts for this equipment are with Systems Engineering & Assessment Ltd and Taranto Systems Ltd, procured and managed through the Councils Procurement and Applications teams.

SCC Smarter Parking

The Council has embarked on a programme of improvements including:

- The ongoing removal of outdated pay and display equipment, replaced with cashless alternatives of which 200 pay and display terminals have been installed. Addition to this all P&D machines are now solar powered and do not require an external electrical source.
- Virtual permit parking to manage the 13,500 residents parking permits in circulation.
- With almost 100,000 Penalty Charge Notices (PCN's) issued per year, on street officers make use of smarter services to monitor parking, ensuring coverage for the whole City. This includes enforcement of Keep Clear zig-zag areas outside schools, utilising an ANPR enabled vehicle as an additional resource.

SCC Enforcement Back Office System Support

The existing system is provided by Taranto Systems Ltd (TSL) following procurement in 2019. This currently supports the issue and processing of Penalty Charge Notices (PCNs) for parking and bus lane contraventions. As part of the tender for the current system the provider had to demonstrate they could meet requirements to deliver Clean Air Zone legislation. TSL have experience as the back office system provider for London's Low Emission Zone (LEZ) and Ultra Low Emission Zone (ULEZ).

The Taranto system currently integrates with Systems Engineering & Assessment Ltd's Roadflow system for issuing bus lane and parking PCNs. For CAZ enforcement the ANPR camera and system is being provided by Siemens. This will also link into Taranto for the issue of CAZ related PCNs.

We currently issue exemptions to residents living near an existing bus gate using the Taranto permits system and export data from this to create a white list for the relevant ANPR camera. Local CAZ exemptions could also be managed and processed using this permits system.

6.2.5 SCC Programmes and Accountable Body Service (PABS)

The existing PABS is a small but very experienced team within the City Growth Directorate of the SCC. Most recently the team established processes and delivered the Council's Covid programmes in respect to the Local Authority Discretionary Grant Fund and Additional Restrictions Grant. Both of which required setting up grant schemes from scratch in limited time and included the creation of an online application form and appropriate compliance checks.

The team has also overseen the compliant implementation of various large scale and complex grant schemes including those funded with ERDF, LGF, RGF and older programmes such as LEGI.

The Team will be lead on the detail design and delivery of the CAZ Financial Support Programme and will develop the necessary processes to ensure compliance with eligibility criteria as well as the ability to provide regular monitoring data.

6.2.6 Rotherham Metropolitan Borough Council's (RMBC) experience

RMBC has taken a number of steps to improve air quality through actions identified in the Council's Air Quality Action Plan and Rotherham Transport Strategy. These have included:

Early Measures Fund (EMF)

RMBC secured £705k from Government to promote sustainable travel behaviour through two work-streams:

- to install a minimum of fast 25 electric vehicle charging points across the Borough
- a marketing and communications campaign to raise awareness of the Council's commitment to improve air quality and to promote behavioural change, with particular focus on the uptake of electric vehicles.

Lessons learnt from the project implementation will shape any future similar project initiation and will be considered during any future related funding opportunities.

DfT's Sustainable Transport Access Fund

A £7.5m South Yorkshire bid to promote and support a range of active travel initiatives to encourage more sustainable modes of transport, including:

- Cycleboost – Bike loans, Cycle training, Bike Doctor and maintenance sessions, Cycle parking facilities, and support to Cycle events held in the city including the partnership with British Cycling and HSBC (mass participation event and local led rides).
- Sustainable and Active Travel support for schools – a support package run by Modeshift STARS to promote walking and cycling behaviour for the journey to and from school.
- Independent Travel Training – providing personalised support for young people to use public transport and walk as an independent alternative to home to school transport.
- Support for a range of walking programmes primarily through the "Walk Rotherham" project.
- Busboost – a focussed support programme to encourage people to try public transport as an alternative to commuting by car.
- EcoStars – an award based system for vehicle fleets to encourage more economical driving habits.

A number of current and future infrastructure projects have also been delivered, or are in planning, including:

- **National Productivity Investment Fund** – A £4.6m highway capacity scheme at the heart of the Town Centre to reduce traffic congestion.
- **Tram Train Pilot** – a revolutionary tram train pilot scheme utilising the regional heavy and light rail system. The project ensures an integrated transport solution between Rotherham, Meadowhall and Sheffield, complemented with park and ride opportunities in the Town Centre and Parkgate Shopping Centre.
- **Rotherham Interchange** – a refurbishment of the borough main transport interchange to encourage greater public transport use and improved bus service operation.
- **A630 Parkway Widening** –The scheme will be complemented by a reduction in speed limit from 70mph to 50mph.

6.2.7 Sheffield and Rotherham Joint Delivery Experience

Sheffield and Rotherham benefit from a considerable experience of delivering shared strategic interventions across a number of policy areas. The Sheffield-Rotherham economic conurbation is the primary centre of economic growth and the joint vision between both Local Authorities has enabled the concentration of world-leading industrial innovation. This has led to thriving business, professional and creative industries in major urban centres, busy independent retail centres, authentic and unique arts and culture and high quality urban and suburban living connected by modern transport networks.

In light of this, there is a dedicated shared political and strategic leadership, which confirms a commitment to enable the further flourishing of the interdependent economic and social relationship between the two areas, enabling a coherent alignment of short, medium and long term investment decisions.

Through collaborative working, Rotherham and Sheffield have developed a clear strategic aim: to enhance the connections between residential and employment/training opportunities whilst also providing the conditions necessary to enable the sharing of knowledge and expertise amongst local businesses and support the needs of local residents.

Both authorities recognise the paramount need for continued investment in the transport network to ensure growth is not constrained. In light of this there are a number of large, jointly managed, infrastructure schemes which will deliver the enabling infrastructure to promote growth in specific sectoral industries which are unique to Rotherham and Sheffield.

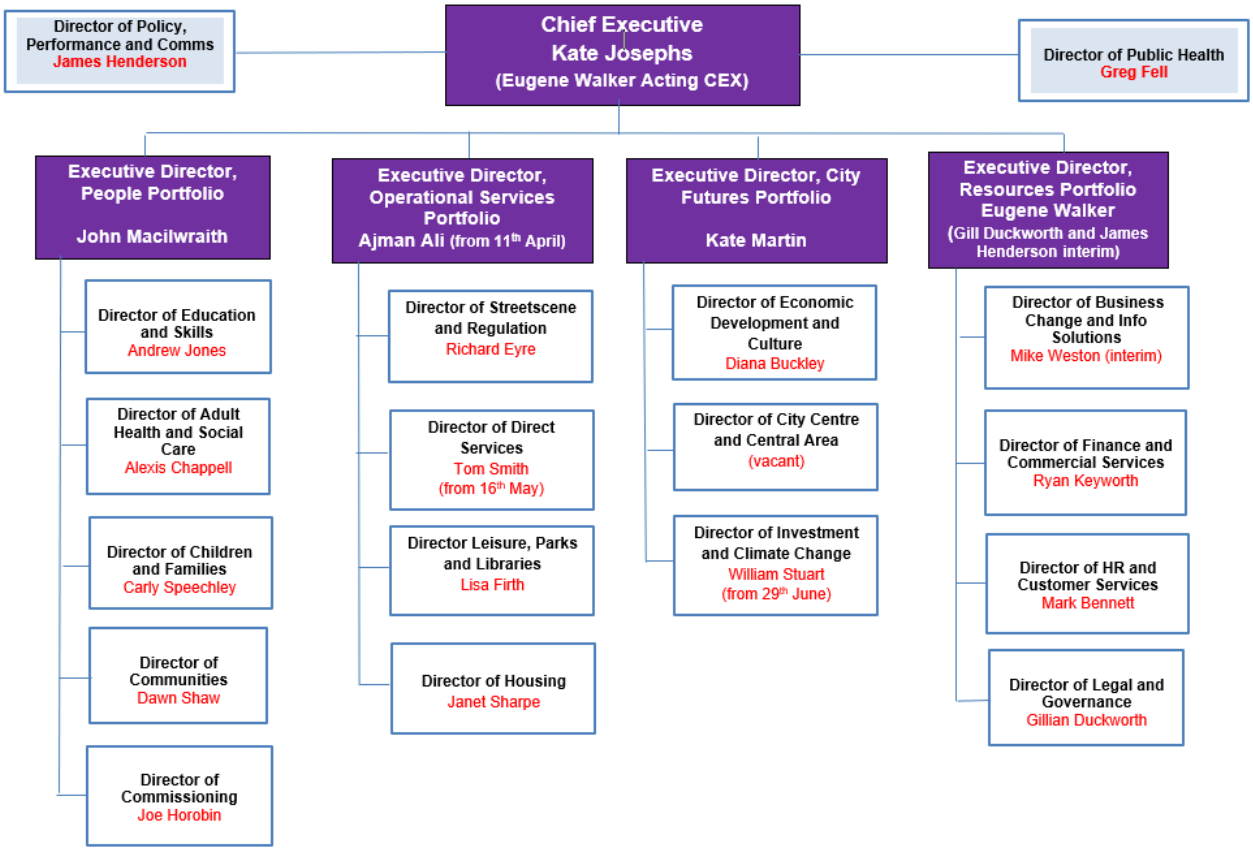
Tram-train and Bus Rapid Transit - in recent years, the economic case for investing in the Rotherham to Sheffield transport corridor has been recognised by central government. Strategic, integrated transport projects such as Bus Rapid Transit (BRT) and Tram Train are examples of this, with both schemes receiving major scheme business case approval. The primary objective has been to deliver fast, efficient and sustainable public transport links in this area to ensure that alternative modes to the private car are attractive to workers and local residents. These schemes have subsequently confirmed that providing additional capacity in this area will contribute positively to the local economy.

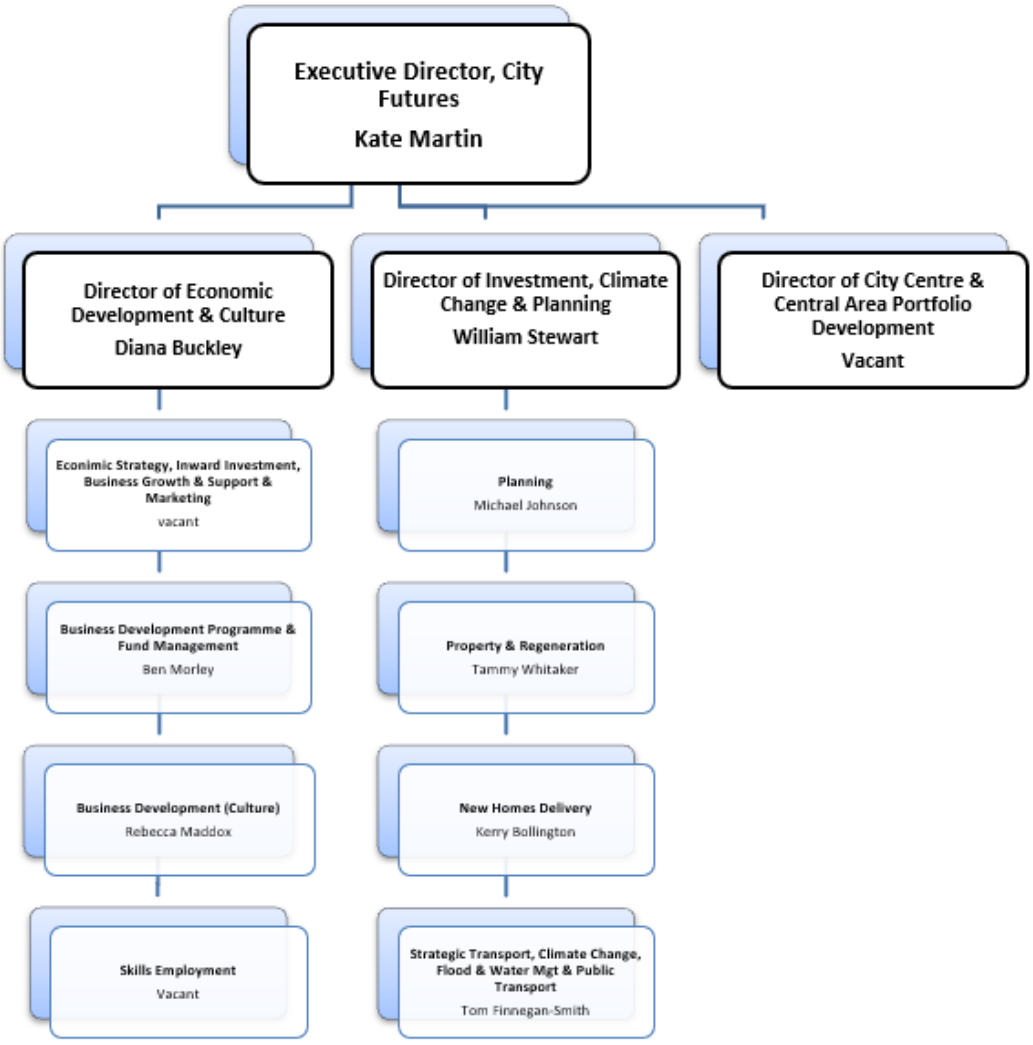
Wider mass-transit connectivity for the Advanced Manufacturing Innovation District (AMID) (direct links to Sheffield and Rotherham centres) - public transport connectivity to the AMID is a well-known challenge to the existing strategic transport network. The area is served by a number of bus services but this is not considered to be convenient or attractive. As a result, a number of potential alternative large scale interventions have been identified, including the rerouting of tram train and the creation of a Waverley train station with Park and Ride. The development of a number of these projects is underway.

Additional rail connectivity - the provision of a heavy rail station on the Lincoln Line (south of the Waverley New Community) would provide a step change in the public transport accessibility of the area. The ability to have direct connectivity to the national rail network would build on the existing offer of the Advanced Manufacturing Park (AMP) employment sites. The station would also play a critical role in ensuring a multimodal transport offer for residents of the Waverley New Community, ensuring that the additional traffic. This has been submitted to the DfT's New Stations Fund.

6.3 Governance, Approvals and Assurance Arrangements

6.3.1 Sheffield City Council are the lead partner for delivery of the Sheffield and Rotherham Clean Air Plan (CAP) programme. Governance for the programme sits within the recently formed City Futures Portfolio (formerly PLACE), see the diagrams below. The Executive Officer for the CAP Programme is the Executive Director of City Futures and the programme Sponsor is the Head of Strategic Transport, Climate Change, Flood & Water Management & Public Transport.





The CAP programme Executive Officer for RMBC is the Director of Regeneration and Environment; the Programme Sponsor is the Assistant Director of community Safety and Street-scene.

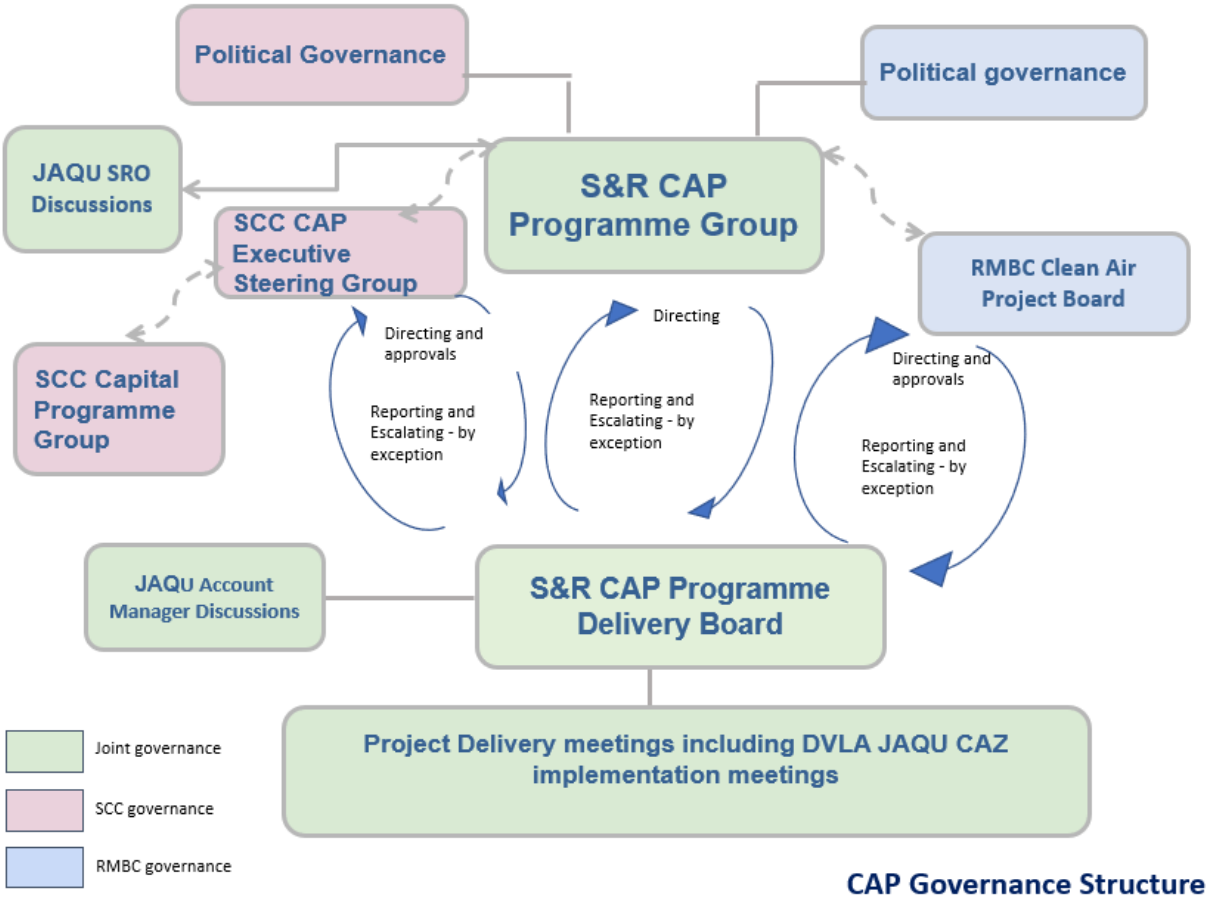
6.3.2 Sheffield and Rotherham Local authorities have different political governance arrangements and contexts. RMBC operates on a Cabinet model with Labour currently as the majority party.

SCC is governed by a Cooperative Executive between the Labour and Green Parties with a Labour Council Leader. As a result of a public referendum in 2021, SCC is transitioning to a Committee System which will formally come into place following the May 2022 elections. SCC has local elections in May 2022 across a third of the city

The respective Executive Officers and SROs for each Authority will liaise with the relevant Political Members to ensure that they are fully briefed and to facilitate effective and timely political decision making. Monthly briefings will take place.

6.3.3 Sheffield & Rotherham CAP Programme governance structure

The Sheffield & Rotherham CAP Programme governance structure has recently been reviewed as part of the transitional process from feasibility stage to implementation. The structure is shown in the diagram below and is described in the following section:



CAP Governance Structure

6.3.4 Sheffield & Rotherham CAP Programme Group

Meets quarterly and by exemption

Attendees:

- SCC and RMBC Executive Officer
- SCC and RMBC Senior Responsible Officers (SRO) / Programme Sponsors
- SCC and RMBC Business Owners
- Programme Lead
- Programme Manager
- Other attendees as required
- JAQU SRO attendance as required

Purpose:

- Provide strategic steer, challenge and guidance on issues that relate to joint governance
- Make joint decisions on things that affect both organisations
- Provide oversight of overall programme delivery
- Positively manage the joint activity required for the implementation of the Transition Plan and associated activities.
- Liaise with Politicians to agree key corporate messages
- Steer and recommend

- Liaise with politicians to agree strategic policy positions / changes
- Ensure cross-organisation commitment to delivery
- Manage risks / issues escalated by the SRO / Programme Sponsors

SCC Executive Steering Group:
Meets monthly and by exception

Attendees:
- SCC Executive Officer – Corporate Sponsor
- SCC Senior Responsible Officers (SRO) / Programme Sponsors
- SCC Business Owners
- Programme Lead
- Programme Manager
- Others by invite as required

Purpose:
- Report and monitor progress
- Manage SCC specific risks and issues
- Identify and allocate resources
- Identify and manage dependencies
- Provide necessary approvals for delivery of SCC CAP measures

RMBC Programme Board
Meets Monthly

Attendees:
- RMBC Executive Officer – Corporate Sponsor
- RMBC Senior Responsible Officers (SRO) / Programme Sponsors
- RMBC Business Owners
- Others by invite as required

Purpose:
- Report and monitor progress
- Manage RMBC specific risks and issues
- Identify and manage dependencies
- Provide necessary approvals for delivery of RMBC CAP measures

CAP Programme Delivery Board
Meets fortnightly

Attendees:
- Programme Sponsors
- Business Owners
- Business Leads
- Programme Manager
- Programme Lead
- Workstream Leads
- Our Sheffield Board theme lead
- Others by invite as required

Purpose:
- Review progress on the delivery of each project
- Agree actions to take forward for next review

- Manage and mitigate all risks and issues arising from programme activities, in line with the Council's risk management framework;
- ensure dependencies are identified and to mitigate against the possibility of duplication of effort
- Opportunity to request support and deliver feedback
- ensure that necessary resources are in place,
- Identify and agree any key messages that should be communicated to stakeholders
- Escalate risk / issues outside of the Boards tolerances
- Report and monitor progress with JAQU account Manager and delivery leads (weekly Account Manager meetings)
- Ensure necessary approvals are in place for delivery

Project delivery meetings:
Each project and work stream have weekly delivery team meetings, these vary in structure dependant on the nature of the work and requirements at different delivery stages.

6.3.5 Approval process and Assurance Framework

Both Local Authorities will adhere to their respective approval process and performance management frameworks.

6.3.6 Approvals

RMBC secured Cabinet approval to commence delivery of their road schemes in March 2021, in the lead up to this decision all schemes went through their gateway approvals process for capital works. The decision to submit the Full Business case was delegated to the Director of Regeneration and Environment, this decision was made on the 19th April and is published https://moderngov.rotherham.gov.uk/ieDecisionDetails.aspx?ID=1312

In October 2021 the SCC Cooperative Executive approved the final CAP proposals for inclusion within the Draft FBC and for consultation, the decision included the following delegations:

a. Delegates authority to the Executive Director Place to enter into the contract for the successfully tendered infrastructure work required for the charging zone including supply, installation and maintenance of Automatic Number Plate Recognition cameras. This was enacted in November 2021.

b. Delegates authority to the Executive Director Place in consultation with the Leader of the Council and the Executive Member for Climate Change, Environment and Transport to submit to Government a Full Business Case to deliver a Category C Charging Zone as outlined in this report. This decision was made on the 25th March 2022, see Decision details on public web site.

c. Where no existing authority exists under the LSOD, delegate authority to the Executive Director, Place, in consultation with the Executive Member for Climate Change, Environment and Transport, and with the Director of Financial and Commercial Services to approve such procurements and thereafter contract awards for any necessary infrastructure, goods and services required together with any other such steps to implement and meet the aims and objectives of the Clean Air Plan.

The SCC capital approvals follows a 4 stage Gateway process from initiation through to completion and handover. An Outline Business Case is submitted to the Capital

Programme Group at Gateway 2 stage and a Full Business Case is submitted to at Gateway 3. Full Business Case approvals for the CAZ signage implementation and the Arundel Gate bus-gate scheme are currently progressed. Both will be delivered by AMEY who are SCCs contracted framework provider for highway works, AMEY undertook the design stage work for both packages and therefore already involved and have the implementation stage in their work programmes.

The SCC Technical Design Authority approves technical / system designs and the financial Design Authority approves financial design / systems, both have a key quality assurance / health check function – see below.

Delegated decisions from the Executive Director of City Futures (previously PLACE) will be sought for the award of any future contract awards required. The Commercial Case sets out the procurements already undertaken and those still to be progressed, see section 4.3 and 4.4.

Under the Transport Act 2000, the Charging Order is the statutory instrument giving authority the Council Local Authority to charge vehicles that are non-compliant to enter the CAZ. The Draft order was consulted on in 2021, a revised post-consultation version can be found in appendix MC2.

6.3.7 Assurance Framework and Health Check Reviews

A number of boards, technical panels and processes are in place, the purpose of which is to perform a Quality Assurance role: Assurance is critical to the successful delivery of any programme and part of the overall risk management approach. SCC has quality assurance procedures in place confidence to support deliver of projects and programmes and realise the identified benefits.

JAQU Quality Assurance – reviewing the proposals for implementation

- The Technical Independent Review Panel (TiRP) review the evidence base that underpins the CAP proposals.
- The JAQU Delivery Independent Review Panel (diRP) review the deliverability of proposals for implementation.
- Local Partnerships Quality Assurance provide have quality assurance role supporting JAQU and Local Authorities to ensure proposals are deliverable.

Quality Assurance and health checks external to the CAP programme

- **The Capital Programme Group (CPG) reviews:** are responsible for assessing all Business Cases and capital projects at key Gateway stages prior to implementation. The Gateway process is described in section 6.4.
- **Capital project / programme health check reviews:** Once projects / programmes have been approved by CPG and move into implementation regular health check reviews are carried out by SCCs Capital Delivery Service, monthly review process is programmed across the year with projects / programme called in for heath check reviews. , the review criteria are set-out in the Service Management System (See 6.2.1).

The Financial Design Authority

"The agreed objective of the Finance Design Assurance Group (FDA) is to ensure changes to the Council's financial systems and processes are effectively managed, to ensure compliance with relevant legal, regulatory and policy requirements and to ensure changes

integrate effectively with existing financial systems and processes and to help safeguard the Council's assets in accordance with the Council's Financial Regulations."

The FDA is responsible for:

- Engage with key stakeholders across the organisation, including but not limited to the Business Change and Information Solutions (BCIS) Technical Design Architects (TDAs), to oversee the development of robust yet flexible financial design principles that supports the development of changes to systems or the organisation structure or scope of operations with financial implications.
- Engage and communicate with Portfolios to ensure all elements of the change are aligned with the Finance Design Principles.
- Assessing proposals that have a *material* impact on the Council's financial systems and processes.
- Reviewing proposed solutions to make sure they have the appropriate level of detail and clarity to fully understand how they will impact on the Council's financial processes.
- Approving components of the change design, undertake impact assessments and ensure compliance with the LA's Accounting Code of Practice, the Prudential Code, VAT and other tax requirements, Payment Card Industry Data Security Standards (PCI DSS), etc.
- Agreeing the financial impact of the proposed changes and ensure plans work to achieve a smooth transition across the Council.
- Provide assurance to Finance and Commercial Services Leadership Team (FCSLT) on relevant project and programme deliverables and outcomes and compliance with the Council's financial strategies.

The Technical Design Authority
The technical design authority (TDA) is responsible for the technical assurance and integrity of Council systems. This includes assuring that systems are aligned with the strategic direction they council is taking for its IT investments.

The TDA gives technical approval for new IT developments and for items of significant cost or risk will escalate to the council IT Strategy Board. The TDA is made up of subject matter experts from specialist areas of IT including applications, networks and security as well as business representation from all portfolios and members of the Financial Design Authority (FDA) and commercial services and information management.

The full TDA is held monthly but is supported but a weekly "Mini" TDA made up of technical specialists who meet to resolve technical queries or design issues which arise in between the monthly TDA meetings.

The TDA (including weekly Mini TDA) is responsible for
- Signing off Technical design documents
- Ensuring the technical and security standards are adhered to
- Owning non-functional requirements
- Working closely with commercial services and on upcoming developments
- Providing the forum to discuss technical issues – especially for system that span multiple services or portfolios
- Acting as the escalation point for Solution and Technical architects to resolve technical issues of conflict and make or endorse technical design decisions

Our Sheffield Board: The Board is responsible for delivery of the Corporate Plan priorities to ensure outcomes / benefits are realised, the CAP programme is a key priority for the Board. The Board comprises of Executive officers and cabinet members and is chaired by the acting Chief Executive. Our Sheffield theme leads are allocated to projects / programmes to provide quality assurance oversight during development and

implementation stages. All project / programmes provide risk and performance data to the board for monitoring and review purposes.

CAP Programme quality assurance

In addition to the above:

- External Legal support has been procured to provide specialist advice and quality assurance checks in relation to the Charing Order and related policy.

- Individual project managers will have operational ownership and accountability for directly assessing, controlling and mitigating risks using existing framework agreements and contracts will help with risk allocation.

- Business Owners and Leads have ownership and accountability for managing quality of deliverables and assessing, controlling, and mitigating risks.

- Consultants have been procured to provide specialist quality assurance checks for the delivery of the financial mitigation measures to ensure to mitigate risk of fraud, monitor performance of external providers and ensure that financial regulations are followed - see section 4.4 of the Commercial Case.
- Programme and project risks will be reported to the Programme Manager for review by the Programme Delivery Board on a fortnightly basis.

6.4 Programme and Project Management arrangements

SCC are the lead partner for the Sheffield & Rotherham CAP Programme. However, RMBC were directly awarded the grant funding for their compliance measures and are Project Managing delivery of their road schemes.

Both SCC and RMBC have robust financial standing orders and procurement guidelines to ensure Public Sector regulations are adhered to. The CAP Programme will be delivered in accordance with the Authorities' polices and Gateway and reporting processes.

Projects approved through the capital programme Group Gateway process e.g. highways infrastructure schemes are managed using Association of Project Management methodologies and Prince2 principles as set out in the CDS Service Management System (see above, 6.2.1).

Businesses change and technical / systems projects including those approved by the Technical Design Authority or the Financial Design Authority are managed using a range of methodologies including agile, waterfall, user centred design and Lean methods with each change design selected based on the context and constraints it will be delivered within as well as the organisations experience of similar delivery.

6.4.1 Programme and Project Management roles:

Programme Sponsors: Owns outcomes, provides leadership, vision and oversight, ensures the Programme is resourced, accountable for overall delivery, manage JAQU SRO relationships, Executive and political relationships,

Business Owner: Owns the project within their Service Area and is responsible for the success of the delivery outcomes. Ensures relevant Business Leads are in place, manages the Business Leads. Approves project requirements and change within tolerances. Responsible for the project budget.

Business Lead/s: Have the relevant knowledge / experience to undertake the project work, responsible for successful implementation of project deliverables working with the Project Manager on a day-day basis. Responsible for specifying requirements and ensuring resources are in place. Manage project suppliers / consultants / contractors. basis. Makes day-day project decisions within tolerances. Seeks decisions from the Business Owner as required.

Workstream Leads: Lead and coordinate cross cutting in their professional area, for,example legal services. These roles work with multiple project teams wherever their expertise and skills are required and ensure consistent approaches between projects.

Programme Lead: Works to the SRO / Programme Sponsors facilitating communication with the programme team and providing day-day programme leadership / direction. Key point of contact with JAQU. Coordinates formulation of information for reporting and approvals within the Councils and with JAQU. Manage allocated resources. Lead production and submission of the FBC.

Programme Manager/s: Manage the overall programme, manage the Programme team, monitor day-day progress and oversee reporting, manage the Programme budget

Project Managers: Manage project scope, delivery timescales and project expenditure. Work with Business Owners, leads and nominated suppliers / contractors on day-day

basis.

Each project / work workstream will have a technical / specialist team involved in the delivery of the work, comprising of Council Officers, consultants, contractors and suppliers.

6.4.2 Programme and Project Management approach

The following methods, documentation and process will be applied to manage the programme:

Programme Management:
The Programme Manager will be experienced in change management and management of complex ITC programmes. The Programme Manager will maintain the high-level MS project plan for the programme.

Programme Execution Plan (PEP) - The Programme Manager will maintain the Programme Execution Plan (PEP) with PMO support. The plan is a single point of reference directory that will include:

- Programme scope and outcomes
- Programme Governance arrangements
- Programme Delivery Structure- projects, workstreams, roles and responsibilities
- Programme Projects / Work Streams - scope and deliverables
- Programme Directory – roles and responsibilities
- Change arrangements
- Approval and Decision arrangements
- Key stakeholder directory

Programme Highlight Reports will be produced monthly by the Programme Manager to monitor progress against milestones and expenditure, these will be submitted monthly to the CAP Programme Group and the Programme Delivery Board.

Programme RAID Log: A Risks, Assumptions, Issues and Dependencies (RAID) log will set-out mitigations, risk owners, tolerances, and escalation routes, it will be maintained by the Programme Manager with input from the Project Managers. The RAID log will be reviewed by the Programme Delivery Board on a monthly basis. Risk will be manged at all levels based on pre-set tolerances.

Project Management approach:
Project management methods, and therefore corresponding process / plans will vary dependant on the nature of the project / work package. Each Project Manager will follow the Local Authorities' project and change management processes and apply best practice applicable to the discipline and methodology being applied. Each Project Manager will apply process and maintain project management process and maintain plans

- Manage scope
- Track deliverables / outputs and milestones
- Manage delivery against the programme / project plan
- Reporting e.g., highlight reports
- Manage and log change
- Manage and record risks and issues
- Manage and log decisions

- Mange stakeholders

Project Highlight reports will be produced by the Project Mangers on a monthly basis and reported to the Programme Manager and the respective Business Owner for each project.

6.5 Change Control and Budget Management Arrangements

6.5.1 Change Control across the programme

SCC and RMBC will follow their emended Local Authority change management methods and process as described in section 6.4.

Change control responsibilities sit all levels of the programme, authorisation levels are set out below. Formal change request will be manged by the Project Manager, were deciosn sit outside their tolerances these will be escalated with an exception report request.

Authorisation level	Tolerances
Project Manager	Authorised to move a maximum of 10% between individual tasks or a total budget of £50,000*. Authorised to change the start / finish date of any individual task by two weeks.
Business Owner	Authorised to move a maximum of 20% between individual tasks or a total budget of £75,000*. Authorised to change the start / finish date of any individual task by up to one month.
Sponsor (SRO)	Authorised to move a maximum of 30% between individual tasks or a total budget of £100,000*. Authorised to change the start / finish date of any individual task by up to two months..
Programme Board	Authorised to move a maximum of 40% between individual tasks or a total budget of over £100,000*. Authorised to change the start / finish date of any individual task by three months or more.
Authorisation tolerances will apply where not already covered through the Councils Standing Orders or Leaders Scheme of Delegation	

6.5.2 Change management – contract management

Change to contracted work will be dependant on the form of contract. Change will be managed by either by the Contract Administration (CA) or the nominated Project Manager in line with standard SCC and RMBC established procedures.

The JCT (Joint Contracts Tribunal) standard form of contract describes the role as 'Architect / Contract Administrator' but the Contract Administrator could also be the Project Manager, Cost Manager or Design Team Leader.

For NEC (New Engineering Contract) forms of contract Contract Administrator roles is cover by the named 'Project Manager'.

This change management / control role will include:

- administrating change control procedures
- seeking instructions from the Business Owner /or Business Lead in relation to the contract

- issuing instructions such as variations, or relating to prime cost sums or making good defects
- considering early warning notifications
- considering claims
- chairing meetings
- coordinating and instructing site inspectors / nominated supervisors
- agreeing commissioning and testing procedures
- agreeing defects reporting procedures
- ensuring that project documentation is issued to the client
- issuing certificates of practical completion and interim certificates
- collating and issuing schedules of defects
- issuing the certificate of making good defects
- issuing the final certificate

The supplier for the ANPR cameras and system architecture is contracted under the NEC3 form of contract. Only SCC can instruct any scope, time or budget change with contracted supplier. Change can only be instructed via the project Manger issuing a compensation event. Change requests to the contracted supplier cannot be made by an eternal party e.g. JAQU or the DVLA, any such requests must be submitted to the SCC named Project Manager for consideration.

Change outside of contracted work will be managed at different levels within set tolerances

6.5.3 Budget Management

Each project or workstream within the programme will have an allocated budget, as detailed in the Financial Case and cost plan (appendix FC1).

Project Managers (PMs) will have budget monitoring responsibility for their project / workstream and will be remitted to make budget change decisions within their tolerance limits and in accordance with the form of contract prescribed processes as described above.

Business owners are responsible for expenditure on their budget codes and for budget change approvals that exceed the PMs tolerances, they will escalate budget deciosn outside of their tolerances to the SRO. The Business Owner is responsible for the full year outturn position and future project years.

The Programme Manager will oversee all business units (budgets) within the programme and work with Finance teams to ensure monthly monitoring and forecasting responsibilities are completed in line with current timetables.

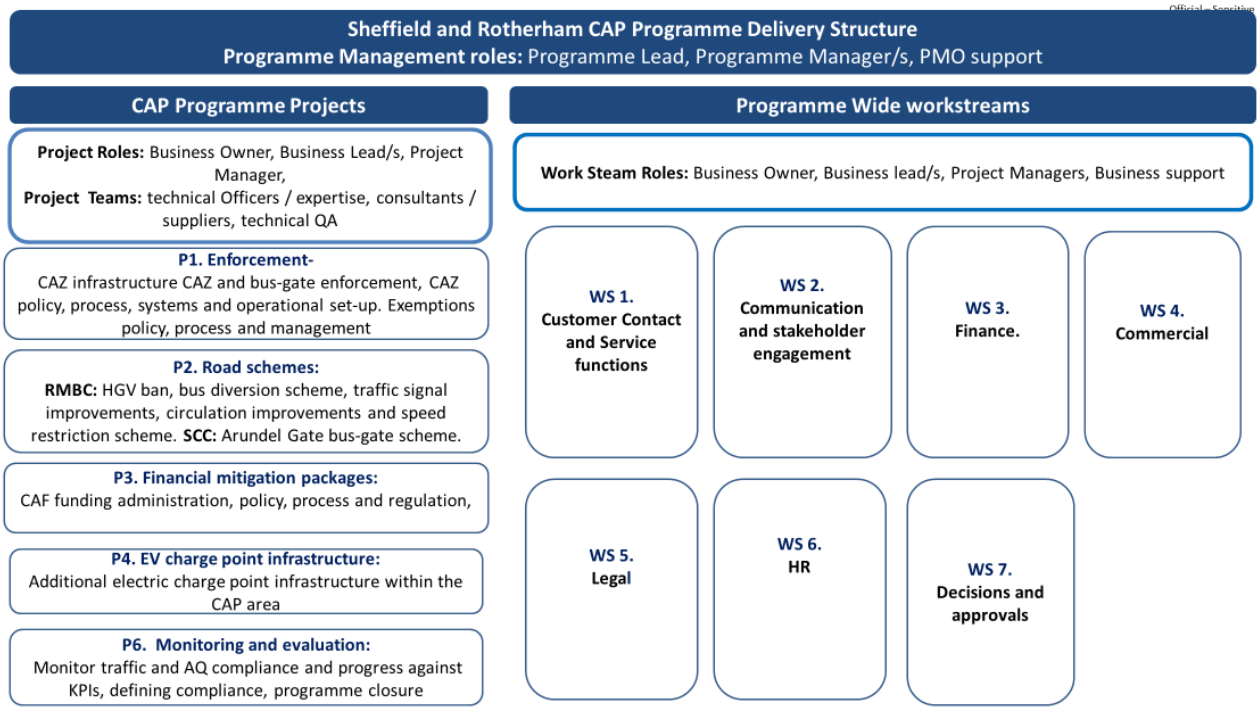
The overall programme financial position will be reported to the CAP programme group each period to enable corporate sponsors to take appropriate action on identified issues and risks. Quarterly financial programme monitoring will be completed in line with JAQU guidance.

6.6 Programme and Project Delivery

Having secured the SCC political decision to proceed in late October 2021, and the RMBC political decision to proceed with delivery of proposals prior to FBC in March 2021, the CAP Programme is in the process of transitioning from feasibility stage to delivery.

Delivery has commenced in parallel to the FBC line with the current Ministerial Direction (February 2020) and terms of the awarded grant funding from JAQU in 2019 and 2020.

The Programme comprises of a number of projects with cross-cutting workstreams, see the structure diagram below:



6.6.1 Project Deliverables and timescales

The programme delivery timescales and sequencing is shown in the MS project plan, see Appendix MC3, associated risks and dependencies are covered in Section 6.9. The key deliverables associated with each of the projects within the programme are set out below.

Further detail on procurement approaches and status for each project can be found in the Commercial Case section 4.4 and the resource plan included within the Finance Model, Appendix FC1.

Further detail relating to the Enforcement Project can be found in the CAZ Service Design document, Appendix MC4.

Project	Key Deliverable/s	Description	Business / Service area owner
P1. Enforcement	ANPR Cameras and associated fixed infrastructure	ANPR cameras installed - including controllers, processors, poles, mounting infrastructure, housing, power and network connections, traffic management and documentation.	SCC Transport & Infrastructure Service with Yunex traffic (Siemens)
	CAZ sytem architecture	System architecture, testing, integrations for the CAZ cameras.	SCC Parking Servcies with Yunex traffic (Siemens), DVLA and JAQU
	CAZ Signage and associated fixed infrastructure	CAZ signs installed - including poles, mounting infrastructure, traffic management and documentation.	SCC Transport & Infrastructure Service with AMEY
	CAZ Enforcement policy, processes and operational set-up	Define policy, deliver data sharing / protection agreements and the CAZ Service Agreement. Operational systems and processin place. Required	SCC Parking Servcies
	Bus-gate and inti-idling enforcement measures	Deliver camera infrastructure, process and resources to enforce Arundel gate bus-gate measures	SCC Parking Services
	Exemptions processes	Define exemptions, policy and criteria, put white list, application administration systems and resources in place, manage operations.	SCC Parking Services
	Customer Service functions	Customer service requirements defined, plans and processes are in place, resources are in place	SCC Parking Services with Customer Services and DVLA
	Communication and engagement	Communication and engagment requirements are defined, plans and processes are in place, resources are in place	SCC Transport & Infrastructure Service, SCC Parking Services with the Communication Team
	Charging Order	Publish the Charging Order min of 2 months pre CAZ go-live - see Appendix MC 2	SCC Parking Services

Project	Key Deliverable/s	Description	Business / Service area owner
P2. Road schemes	A.633 Rawmarsh High Street / Bellows Road Improvements	Changes to bus services delivered via Rotherham Bus Partnership. Align with September / post COVID bus network changes so as to minimise disruption for passengers.	RMBC Highways and Infrastructure Service.
	A.629 Wortley Road Northbound HGV prohibition	Supply and installation of rotating prism signs to be procured from SWARCO Traffic Ltd as subcontractor to the internal delivery team.	RMBC Highways and Infrastructure Service. with RMBC's internal street lighting team
	Collaborative Traffic Management (CTM) Link for Wortley Road	RMBC to procure use of existing link into the South Yorkshire Common Database from Sheffield Council.	RMBC Highways and Infrastructure Service.
	A.630 Sheffield / Rotherham Parkway 50mph speed limit	Permanent 50 mph speed limit on the Parkway	
	A.630 Fitzwilliam Road – Traffic signals improvement	Supply and installation of signals equipment	
	Bus-gate scheme - Arundel Gate	Install interim bus-gate measures on Arundel Gate	SCC Transport & Infrastructure Service
	Communication and engagement	Communication and engagment requirements are defined, plans and processes are in place, resources are in place	SCC Transport & Infrastructure Service, SCC Parking Services, RMBC - Highways and Infrastructure Service with the Communication Team

Project	Key Deliverable/s	Description	Business / Service area owner
P3. Financial mitigation measures	Grant / loan administration	Procure external pnel of lenders to provide vehicle finance and to adminster delivery of the grant / loan	SCC Programme and Accountable Body Service
	Bus retrofit grant administration	Set up process, put in place resources, administer grants to Sheffield and Rotherham bus operators	SCC Programme and Accountable Body Service
	Grant / loan administration team	SCCs Programme and Accountable Body will utilise existing staff and recruit new staff to create a dedicated team to administer the financial mitigation measures. Learning will be applied from other CAZ local authorities to inform resource planning and requirements.	SCC Programme and Accountable Body Service
	Policy, processes and systems	SCCs Programme and Accountable Body Service will define eligibility criteria and secure policy decisions for the financial mitigation measures. PABS will review the review and finalise the process set-out in the Draft CAP Service Plan (2020) and put these in place. Digital Services and BCIS will provide systems and integrations required to administer the grant funding.	SCC Programme and Accountable Body Service
	Financial regulation QA	Secure external specialist advisor to undertake quality assurance checks of the external providers.	
	Customer Service functions	Customer service requirements defined, plans and processes are in place, resources are in place	SCC Programme and Accountable Body Service with Customer Services
	Communication and engagement	Communication and engagement requirements are defined, plans and processes are in place, resources are in place	SCC Programme and Accountable Body Service with the Communication Team

Project	Key Deliverable/s	Description	Business / Service area owner
P4. EV charge point infrastructure	EV Charge Point Infrastructure across the CAP area	Procure providers / suppliers, install EV charge points within the CAP area, manage operations	SCC - Parking Services with Strategic Transport and Infrastructure RMBC - Highways and Infrastructure Service
	Communication and engagement	Communication and engagement requirements are defined, plans and processes are in place, resources are in place	SCC Transport & Infrastructure Service, SCC Parking Services, RMBC - Highways and Infrastructure Service with the Communication Team

Project	Key Deliverable/s	Description	Business / Service area owner
P5. Monitoring and evaluation	**Baseline data**	Baseline data at key AQ monitoring locations is gathered (whole CAP area in the CAZ) , analysed and recorded (pre measure delivery complete, pre CAZ go-live)	SCC Transport & Infrastructure Service, RMBC - Highways and Infrastructure Service
	Monitoring and Evaluation Resource	Additional / new resources in place to undertake modelling, analysis and reporting	SCC Transport & Infrastructure Service, RMBC - Highways and Infrastructure Service
	Additional ATCs	Additonal automatic traffic counters procured, installed and operational ahead of CAZ go-live	SCC Transport & Infrastructure Service, RMBC - Highways and Infrastructure Service
	Additional diffusion tubes	Procured, installed and operational ahead of CAZ go-live	SCC Transport & Infrastructure Service, RMBC - Highways and Infrastructure Service
	AQ automatic analysers (real time) Monitors on Arundel Gate	Procured, installed and operational ahead of constructions scheme completion	SCC Transport & Infrastructure Service
	Monitoring data:	Collation and analysis of monitoring data: CAP locations ANPR data, CAZ locations ANPR data, AQ locations data, Finance scheme data	SCC Transport & Infrastructure Service, RMBC - Highways and Infrastructure Service
	Reporting	data, process and resources in place to delver JAQu and other programme reporting requirements	SCC Transport & Infrastructure Service, RMBC - Highways and Infrastructure Service
	Communication and engagement	Communication and engagement requirements are defined, plans and processes are in place, resources are in place	SCC Transport & Infrastructure Service, RMBC - Highways and Infrastructure Service with the Communication Team

6.7 Communication and Engagement

This section summarises the consultation undertaken to date and sets out the Communication and Engagement Strategy for the delivery stage of the CAP measures.

6.7.1 Consultation undertaken in 2019

The S&R CAP Outline Business Case was submitted in December 2018, however the OBC stage Ministerial Direction was not received until February 2020. In August 2019, following Government advise that the OBC Direction would be issued that September, SCC proceeded to consult on the OBC Preferred Option which at that time proposed a charging CAZ C with additional '+' standard measures in Sheffield.

The consultation covered an eight-week period and sought views from taxi drivers, businesses, and the general public on the outline proposals. Approximately 9,000 responses were from the public, 2,000 from the taxi industry, 300 from businesses and around 20 from other large stakeholders, this was an unusual high response rate overall. A summary of results can be found in Appendix MC 5, the consultation reports can be viewed on the Sheffield City Council website Clean Air Zone proposals (sheffield.gov.uk).

RMBC also ran a consultation in 2019 linked to the above, conclusions are summarised in Appendix MC5, the consultation reports can be viewed on the Clean Air Rotherham – Rotherham Metropolitan Borough Council

Engagement and consultation undertaken in 2020 / early 2021

6.7.2 The pandemic is unprecedented in modern times, the impacts are still being observed and cannot be fully understood at this time. Whilst the Government has made a number of financial packages available to businesses and the self-employed, the Local Authority is very aware that the pandemic has and continues to impact on people's lives in different ways.

As far as was possible during the pandemic, stakeholder engagement took place with key stakeholders who would be most economically impacted by the CAZ charges. Feedback has been incorporated into the detailed CAF funding mitigation packages put to JAQU to strengthen the case for financial support for Taxi, HGV, LGV, buses and coaches to upgrade to compliant vehicles – See the Financial Case, Appendix FC2 and FC3.

Engagement with key stakeholders was undertaken during 2020 and early 2021:

- Re-engage with stakeholders after the prolonged period awaiting the OBC Direction (December 2018 – February 2019)
- Begin to understand the immediate impacts of the pandemic on business and trades
- Update on the current position
- Gather additional information to inform the final financial mitigation proposals
- Engage and consultant with local coach operators to inform the mitigation funding request to JAQU, submitted September 2021, see the Financial Case, Appendix FC2 and FC3.

Due to COVID restrictions, a number of remote 'zoom' engagement session were undertaken for these purposes, the groups and organisations who were involved are listed below, a summary of findings can be found in Appendix MC5.

6.7.3 Consultation undertaken in 2021 on the final CAP proposals

Following the SCC Cooperative Executive decision on 26th October 2021 confirming the change from a Category C+ to a Category C Clean Air Zone, statutory consultation on the final proposals for inclusion within the Full Business Case was undertaken.

The consultation ran from 22nd November 2021 until 17th December 202, the primary purposes were to:

- Provide detail of the final proposals of the S&R Clean Air Plan
- Consult (statutory requirement) on the final proposals for the Sheffield CAZ scheme
- Provide detail of the proposed exemptions and seek stake holder views
- Provide detail of the financial support measures, and seek stakeholder views
- Raise awareness and understanding of the CAP and the forthcoming CAZ in Sheffield.

An online approach was taken given the rise of the Omicron variant of Covid-19. Two online surveys were hosted on SCC citizenspace website - one for the general public, and one for business including the taxi trade.

In addition:

- A freephone information line was promoted alongside a consultation email address for any queries to be answered.
- Posters advertising the consultation and postcards on how people can get in touch to feedback on the proposals were hosted in 36 public buildings covering each area of the city to engage the wider population.
- Notification of the consultation was sent out to the mail list of people who have signed up for email updates on the CAZ.
- A number of online briefings were held with key affected groups.
- Public webinars for the general public and businesses were held to take questions and provide answers.

Communications were undertaken to promote and raise awareness of this latest consultation. Methods used included:

- Radio advertising
- Digital advertising on social media
- Comms via council-owned channels such as GovDelivery emails, organic social media, and press releases.
- Use of messaging on the electronic roadside messaging boards around Sheffield

Considering the audience reach of each medium, an estimated 600,000 people were exposed to messaging about the clean air zone. This messaging was seen nearly 6million times – via repetition of advertising, social media posts and other mentions.

At least 47,000 individuals directly viewed the clean air zone consultation web content on the SCC website, 2,471 completed a consultation response. 282 people emailed asking for further information or clarity. The majority focused on financial support and whether a vehicle would be charged.

6.7.4 Stakeholder Engagement During the 2021 Consultation period

Focused stakeholder engagement was undertaken with sector groups representing vehicle owners/operators who would be charged under the proposals.

Online meetings were held with the following groups:

- Hackney carriage drivers and representative organisations
- Private hire taxi drivers and representative organisations
- Heavy Goods Vehicle (HGV) owners and operators
- Bus companies (both scheduled & non-scheduled)
- Coach operators
- Major institutions and organisations in the city
- Voluntary, community and faith organisations

As no group exists that specifically represents LGV owners/operators, a targeted briefing could not be held. However, groups including the Chamber of Commerce and Business Improvement District did attend briefings.

In addition, two online webinars were arranged; one for the general public and one for businesses, which meant LGV owners/operators had the opportunity to attend. The webinars were publicised via Eventbrite and Sheffield City Council and included a live presentation and a Q&A session.

6.7.5 Summary of consultation feedback

- *Financial Mitigation Funding:*

The key finding of the 2021 consultation on financial support is that the levels of support on offer were insufficient to encourage a substantial number of smaller businesses in particular to upgrade their vehicle.

Just over £20m has been secured for financial support for vehicle owners/operators to replace or upgrade their vehicle(s). A further c.£8m of financial support grant is held as a 'stretch' fund by Govt should demand for support extend beyond the funding already paid to SCC. We submitted the final financial mitigation scheme proposals to JAQU in March 2022 and expect to receive their sign-off with confirmation of revised grant terms in early May 2022, see Financial Case section 5.4 and Appendix FC 2 and FC 3.

As a result of the consultation and engagement feedback the Council has proposed a number of amendments to improve the levels of support available, these are summarised below. Further detail on consultation responses is provided in Appendix MC5 and copies of the full consultation reports are available on the Council's website Clean Air Zone proposals (sheffield.gov.uk).

See further detail of the final proposals for the financial mitigation support in the Financial Case section 5.4 and Appendix FC 2 and FC 3 and in the exemptions report, Appendix MC1.

- *Exemptions:*

Broadly there was support of the exemptions proposed, more detail of the consultation responses is covered below and provided in appendix MC 5. The final proposed exemptions are included in Appendix MC1 and detailed within the draft Charging Order (Appendix MC2).

In summary:

- A number of respondents raised vehicle supply concerns.
- A number of individual requests were put forward for exemptions across a wide range of fleet
- A number of respondents were seeking further details of the criteria and application process.
- Main focus of responses relating to Campervans / Motorhomes was a request by 44 respondents that these vehicles should be given an exemption. It is proposed that in order to encourage improved emissions that access to financial support equivalent to the LGV package will be made available. Motorhomes over 3.5 tonnes will be offered a discount daily charge rate of £10.00.

- Some businesses suggested charging private cars instead of, or as well as, vans. However, cars cannot be charged instead of vans/LGVs, for example. The government framework for CAZs stipulates that private cars can only be charged should a Category D CAZ be required to bring air pollution within the maximum legal limit, our evidence does not support the need for a CAZ D.

- *Impact on those with reduced mobility, charities, and voluntary Sector*

The CAP proposals involve significant change but are intended to bring positive health and wellbeing outcomes for all communities and particularly those most exposed to the harmful levels of NO_2. There are economic impacts resulting from the CAZ charges which have been considered, and the financial support measures have been developed to mitigate these as much as possible. Consideration is needed to protect people with limited mobility to mitigate potential impacts on essential services such as accessible taxis or buses.

Charities including the RNIB, which is located within the CAZ boundary, expressed concerns about the impact on their operations of the CAZ. Not-for-profit groups are covered by the ability to apply for a section 19/21 permit holders exemption and can apply for financial mitigation funding.

Vehicles of any type used specifically for people who need to use that vehicle as a result of their disability, can be registered as a Disabled Tax Class 85 vehicle, which makes them permanently exempt.

Private vehicles owned by people who need their specific vehicle as a result of their disability can also register their vehicle as a Disabled Tax Class 85 vehicle to be permanently exempt.

People with a physical disability have a limited pool of transport vehicles / options available to them and the CAP proposals is not intended to reduce these travel choices. There will be financial mitigation available for taxis, coaches and minibuses.

A temporary exemption for 12 months post go live is now proposed for commercially operated fully wheelchair accessible coaches (where these have been specifically constructed or retrofit for this purpose).
Displaced traffic concerns

- *Displaced traffic concerns:*

Concerns were raised in respect to traffic displacement as a result of the CAZ and that this may increase traffic and create air quality issues in surrounding areas of the city. There are no plans to divert traffic as part of the introduction of a CAZ Charging Zone around the City Centre.

The PO scheme modelling assumes that some traffic may choose to avoid entering the CAZ. Before and after monitoring will be undertaken to ascertain that the modelling is correct, or whether displacing traffic is becoming an issue. Should

displacement be more substantial than the modelling suggests, mitigating actions will be identified and implemented where necessary.
Economic Impact on City Centre

Economic Impact on City Centre:
Concern was raised about the negative impact the CAZ could have on the economy of Sheffield city centre. A new City Centre Strategic Vision was recently consulted on, showing considerable support for strengthening the whole city centre, designed to help it to adapt to the 21st century and to become a thriving, vibrant place, despite challenges such as online shopping, home entertainment and Covid-19.

Key to this Strategy is the aim of delivering up to 20,000 new homes in the city centre through the development of new neighbourhoods, each with their own character.

This policy is designed to dramatically increase the number of people both working, living and visiting the city centre. It also helps the city to minimise the need to build homes on green spaces in and around the city.

More people located in the city centre all week, night and day, is key to sustaining retail, leisure, food and drink and cultural attractions that are themselves, then an attraction to people across the whole city and wider region. It is also fundamental to creating thousands of job opportunities, in hospitality and retail, but also in new professional services that seek to locate in thriving city centres.

As recognised at the October Co-operative Executive, tackling air pollution through the introduction of the CAZ is a crucial element in seeking to make the city centre an attractive place to not only visit but live in, creating an environment whereby thousands of permanent residents want to live in the city centre.

It will be important to use communications channels to address any confusion and ensure the public understands that private cars, motor bikes and mopeds will not be charged.

6.7.6 Communication and Engagement Strategy

Following communicating the outcomes of the statutory consultation, the CAP programme is now moving into the implementation phase of the project. This section describes the Communication and Engagement Strategy for the delivery phase leading up to the CAZ go-live. Four key milestones have been identified leading up to the introduction of the CAZ.

Stakeholder engagement will build on relationships we have developed with key stakeholders to ensure that they are informed during the CAP programme delivery period and in the lead up to the CAZ going live. It is planned to carry out four phases of engagement activity linked to the communication milestones, see below, to provide reassurance and a consistent level of contact and activity that will build trust in the Council and the way in which the plans are being implemented.

Key stakeholder engagement outputs are:

- **FAQs** Draft FAQs to be added to the website and to support with enquiries and meetings.

- **Stakeholder update letter** Invite to key stakeholders to attend a meeting where we can reinforce the messaging about why the Clean Air Zone is being put in place, explain the timeline for implementation of the Clean Air Charging Zone, explain what signage will be used to let people know they are approaching the Zone and explain how people will be notified of a charge and the process for payment.

- **Stakeholder presentation** Creation of a presentation which can be tailored for each specific audience and used during the meetings. We recommend that we also record a version of this presentation that can then be issued via email to stakeholders for wider circulation amongst networks to raise awareness further.

- **Direct stakeholder meetings** Online meetings with key stakeholder groups to share the presentation and answer any questions.

- **Taxi driver update letter** Invite to taxi drivers to attend a webinar where we can reinforce the messaging about why the Clean Air Zone is being put in place, explain the timeline for implementation of the Clean Air Charging Zone, explain what signage will be used to let people know they are approaching the Zone and explain how people will be notified of a charge and the process for payment.

- **Webinars with taxi drivers/taxi trade** Two online webinars held via Zoom and advertised using Eventbrite aimed at Hackney cab and private hire taxi drivers around the time of the implementation of the charging zone. A presentation would be given explaining the plans for implementing the CAZ and how the Zone will work. There would also be a Q&A where taxi drivers

The communications and engagement activities will support the project implementation milestones. The objectives are set out below:

- To ensure information about the implementation of the Clean Air Zone is easily accessible and understandable for everyone
- To ensure the public and stakeholders understand why we are delivering a Clean Air Zone
- To ensure that those who are not affected by the Clean Air Zone understand this.
- To ensure those who are directly affected understand how the charging zone will affect them
- To ensure directly affected groups know what support is available, what the eligibility criteria is and how to access it
- To ensure stakeholders know which vehicles will be exempt from the charge, the reason for the exemption and what the eligibility criteria is

- To ensure those with an interest, but who are not directly affected by the charging zone, understand that they won't be directly affected
- To ensure those from protected characteristic and interest groups are engaged
- To provide reassurance to stakeholders that they will be kept informed at key milestones and that they have an avenue to ask questions

Milestone 1: Clean Air Zone sign implementation (start late May 2022): Communications activity for general public

Key messages*:*

- The Clean Air Zone will not go live until 23 January 2022 – no charging is in place. The signs are in the ground in preparation for this.
- The Clean Air Zone will not charge private cars. This is a charged zone for taxis, buses, coaches and goods vehicles (like HGVs and LGVs) that do not meet Euro 6 Diesel or Euro 4 Petrol standard.
- The final support and grants packages will be confirmed along with an online vehicle checker from 16 June.
- For more information visit www.sheffield.gov.uk/cleanair

Channels:

Council owned:

- Sheffield City council website,
- SheffNews website – the Council's media/news website (all content shared with local regional and national press)
- social media,
- Email alerts,
- Variable Message Signs (VMS) across Sheffield

External:

- Outdoor advertising boards (digital and large format): Selecting sites on key arterial routes heading towards the CAZ zone signage.
- Local and regional media

Stakeholder engagement:

- Letters sent to key stakeholder groups to explain the installation and key timelines.
- A mail shot – potentially a simple, designed pdf using visuals - is produced to be sent out to key stakeholder groups engaged with previously, and to the business base accessible to Business Sheffield.
- Briefing note/update letter to provide updates to MPs/councillors, along with a copy of the mail shot being sent to stakeholders.
- Bespoke stakeholder correspondence letters need to be developed for Business Sheffield (Economic and business growth arm of the Council) to distribute through well established and engaged channels.

Milestone 2: Support and grants confirmed. Vehicle checker for Sheffield goes live (16 June): Communications activity for general public

Key messages:

The Clean Air Zone will not charge private cars. This is a charged zone for taxis, buses, coaches and goods vehicles (like HGVs and LGVs) that do not meet Euro 6 Diesel or Euro 4 Petrol standard.
If unsure please use our vehicle checker. Go to www.sheffield.gov.uk/cleanair

Channels:
Council owned:
- Sheffield City council website,
- SheffNews website – the Council's media/news website (all content shared with local regional and national press)
- social media,
- Email alerts,
- Variable Message Signs (VMS) across Sheffield

External:
- Local and regional media

Stakeholder engagement:
- Issuing further letters to key stakeholders
- To accompany the letter, or for separate use, a further document also suitable for mass mailing or emailing to interested parties and hosted on the council's web pages for download.
- A further briefing note/update letter for MPs/councillors. This would also be sent with a copy of the document so that elected members have a record of what is being sent out to constituents.
- Partnering: reaching out to, and working alongside, organisations such as the Chamber of Commerce, Federation of Small Businesses, Federation of Master Builders and the Sheffield Property Association, in addition to Business Sheffield to access its network of businesses, alongside industry bodies for particular sectors with whom we have already established links.

Milestone 3: Confirmation of exemptions (Dependant on FBC approval – anticipated to be shortly after milestone 2)

As per milestone 2 but adding exemption details and resources alongside the support and grants available.

Milestone 4: CAZ goes live (Early 2023): Communications activity for general public

Key messages:
- The Clean Air Zone will be going live early in 2023
- The zone will not charge private cars. This is a charged zone for taxis, buses, coaches and goods vehicles (like HGVs and LGVs) that do not meet Euro 6 Diesel or Euro 4 Petrol standard.
- If you think you might be affected, please check our online vehicle checker. There is also lots of information about support, grants and exemptions. Visit www.sheffield.gov.uk/cleanair

Channels:
Council owned:

- Sheffield City council website,
- SheffNews website – the Council's media/news website (all content shared with local regional and national press)
- social media
- Email alerts
- Animation video explaining:
    - Where the Clean Air Zone is
    - If your vehicle will be charged (Vehicle checker)
    - What the charges are
    - What support is available to upgrade to a cleaner (not charged) vehicle
    - What exemptions are in place
- Variable Message Signs (VMS) across Sheffield

External:

- Outdoor advertising boards (digital and large format): Selecting sites on key arterial routes heading towards the CAZ zone signage.
- Local and regional media
- Radio advertising
- Petrol pump advertising
- Bus and tram advertising on key routes.
- Postcard: Citywide mailout
- Posters: in key community areas, businesses, libraries, doctors surgeries etc.
- Banners: Parks, outside schools.

- can submit questions in advance or through the chat function. The webinars would be advertised on the Clean Air Zone website as well as via gov delivery emails.

- **Political engagement** Briefing note to be circulated to MPs and Councillors to ensure they are aware of the plans and the information going into the public domain.

The Communication and Engagement Strategy will be delivered by an SCC in-house team supported by external consultants and suppliers. The SCC team will work closely with colleagues within RMBC to coordinate delivery of their communications and engagement outputs

6.8 Monitoring and Evaluation Plan

6.8.1 Introduction

Monitoring and evaluation is vital to understand the actual impacts of the preferred option once implementation is complete, part of this is requirement is to gather existing pre 'go-live' baseline data to monitor against. Existing traffic count and aur quality infrastructure will supplemented to provide a comprehensive network across the whole of the Sheffield & Rotherham CAP area.

The following section sets out the monitoring and benefits realisation approach and requirements.

6.8.2 Benefit and outcomes realisation strategy:

The Preferred Option is designed to achieve the overarching benefit of reaching legal compliance within the shortest possible timeframe across the CAP area. Achieving this requires the realisation of a number of key outcomes. Table 1 below details the outcome realisation strategy including the Key Performance Indicators (KPIs) that have been identified for monitoring purposes.

Table 1 - CAP Outcome Measures- KPIs

PO Measure ref	Mode	Description	Assumption	Desired Outcome	Key Performance Indicators	Measured How	Monitoring activity ref	Owner
1	All	Various measures designed to encourage fleet upgrades across the SCC/RMBC Area (inc the CAZ)	CAZ responses inside CAZ, 50% of these for through trips, SCC & RMBC bus and taxi fleets upgraded and BaU upgrades everywhere else	Cleaner fleets elsewhere in SCC & RMBC	Emissions profile of traffic fleet at other potential AQ Hot-Spots	Quarterly ANPR surveys at locations outside the CAZ	2	SCC / JAQU
2	Taxis	Upgrading SCC's hackney carriage fleet (to Euro 6 or ULEV)	Upgrade from 21% compliant in BAU to 91% compliant in PO - see Appendix MC7 for details	Cleaner taxis	Emissions profile and wheel chair accessibility of SCC's taxi fleets (Hackney & PHV)	Data from SCC's Taxi Licensing Team	2	SCC
3a	Taxis	Upgrading SCC's hackney carriage fleet (to Euro 6 or ULEV)	Upgrade from 21% compliant in BAU to 91% compliant in PO	Cleaner taxis	Emissions profile and wheel chair accessibility of SCC's taxi fleets (Hackney & PHV)	Data from SCC's Taxi Licensing Team	n/a	SCC
3b	Taxis	Upgrading SCC's PHV fleet (to Euro 6 or ULEV)	Upgrade from 66% compliant in BAU to 98% compliant in PO	Cleaner taxis	Emissions profile and wheel chair accessibility of SCC's taxi fleets (Hackney & PHV)	Data from SCC's Taxi Licensing Team	n/a	SCC
3c	Taxis	Upgrading RMBC's taxi fleet (to Euro 6 or ULEV)	Upgrade from 43% compliant in BAU to 98% compliant in PO	Cleaner taxis	Emissions profile of RMBC's taxi fleet	Data from RMBC's Taxi Licensing team	n/a	RMBC
4a	Buses	Improving the Sheffield Bus Fleet	All buses operating scheduled services in SCC upgraded to Euro 6 or better	Cleaner buses	EURO-mix of Sheffield's bus fleet (inc retro-fitting)	Collation of SCC bus fleet data	n/a	SCC
4b	Buses	Improving the Rotherham Bus Fleet	All buses operating scheduled servces in RMBC upgraded to Euro VI or better	Cleaner buses	EURO-mix of RMBC's bus fleet (inc retro-fitting)	Collation of RMBC bus fleet data	n/a	RMBC
5	Buses	Ensuring only the cleanest buses use Arundel Gate (asap)	All buses using Arundel Gate are Euro VI (or better)	Cleaner buses on Arundel Gate	EURO-mix of the bus fleet using Arundel Gate	Analysis of (CAZ Camera) ANPR data for Arundel Gate	8	SCC
6	Buses	Anti-idling measures on Arundel Gate	Enforce a 2-minute cap on idling time at Arundel Gate Interchange	Reduction in emissions on Arundel Gate, as buses limit the time spent with their engines running	Real-time concentrations of NOX on Arundel Gate	2 real-time AQ monitors	9c	SCC
7	Buses	Improving the bus fleet on Rotherham AQ hotsopts (Fitzwilliam Road and Rawmarsh Hill)	100% Euro VI bus fleet in Rotherham (at the relevant AQ hot-spots)	Cleaner buses on Fitzwilliam Road	EURO-mix of the bus fleet using Fitzwilliam Road	Analysis of ANPR Data (Quarterly Survey on Fitzwilliam Road)	2b	RMBC
8	LGVs	Financial mitigation support to LGV owners	2,812 LGV upgrades supported by grants	Cleaner Light Goods Vehicles (while reducing negative impacts on the economy)	Number of grants delivered to LGV owners and EURO-mix of SCC's LGVs	Monitoring the uptake of grants & the ANPR data	1, 2	SCC
9	HGVs	Financial mitigation support to HGV owners	220 HGV upgrades supported by grants	Cleaner HGVs (with minimum negative impacts on the economy)	Number of grants delivered to HGV owners and EURO-mix of SCC's HGVs	Monitoring the uptake of grants & the ANPR data	1, 2	SCC
10	Coaches	Financial mitigation support to coach owners	58 coach upgrades supported by grants	Cleaner Coaches (while reducing negative impacts on the economy)	Number of grants delivered to coach operators	Monitoring the uptake of grants	n/a	SCC
11	Roads	Arundel Gate bus-gate	100% compliance with the bus gate	General traffic is prevented from using Arundel Gate	The number of prohibited vehicles using Arundel Gate per week	SCC enforcement cameras (to be installed as part of the Arundel Gate bus gate scheme)	8	SCC
12	Roads	Junction improvements, bus priority and bus operator negotiations to support bus diversion from Rawmarsh Hill	Modelling assumes 50% of scheduled buses divert to Barbers Avenue (though there is some 'wriggle room' in this assumption)	Reduced emissions on Rawmarsh Hill	Number of scheduled buses using Rawmarsh Hill (peak hour and per annum)	Bus route information	n/a	RMBC

PO Measure ref	Mode	Description	Assumption	Desired Outcome	Key Performance Indicators	Measured How	Monitoring activity ref	Owner
12	Roads	Junction improvements, bus priority and bus operator negotiations to support bus diversion from Rawmarsh Hill	Modelling assumes 50% of scheduled buses divert to Barbers Avenue (though there is some 'wriggle room' in this assumption)	Reduced emissions on Rawmarsh Hill	Number of scheduled buses using Rawmarsh Hill (peak hour and per annum)	Bus route information	n/a	RMBC
13	Roads	HGV Ban Northbound on Wortley Road	Modelled as 100% compliance, (though there is some 'wriggle room' in this)	Reduced emissions on Wortley Road	Number of HGVs using Wortley Road (per week) (by direction)	Before and After' classified ATC, then regular quarterly ANPR surveys	3, 7b	RMBC
14	Roads	Parkway speed limit	Section from Handsworth to M1 J34 reduced from 70mph to 50mph in Preferred Option	Fewer cars and vans drive at speeds in excess of 50mph on the Parkway, which reduces their emissions	The proportion of vehicles exceeding 50mph on the Parkway	Before roadworks ATC and a new ATC post-roadworks - speeds by vehicle type at two single locations	9e	RMBC
15	Roads	Roads	Monitoring diverted traffic in SCC	Traffic diverts round the CAZ as predicted by the traffic model	Minimal/ manageable levels of rerouting	Anomalous increases in traffic on diversionary routes	Before and After ATCs	4a & 4b
16	Roads	Maintaining the emissions model at RMBC AQ Hot-spots	Changes affecting traffic at the 4 main hot-spots in RMBC can be deduced from ATC data at these key locations	Future traffic volumes do not exceed those assumed in the current traffic model	Weekly traffic flows at the four key locations (Wortley Road, Rawmarsh Hill, Fitzwilliam Road and the Rotherham end of the Parkway)	New ATCs on Fitzwilliam Road and Rotherway (during the Parkway widening roadworks) (to supplement RMBC's existing ATCs)	4c	RMBC
17	**All**	**The full Preferred Option**		**Compliant Air Quality everywhere**	**Annual Average Concentrations of NO_2**	**Air Quality Monitoring**	5, 6, 9, 10	**SCC/RMBC**

6.8.3 Description of the Monitoring Activities and requirements

Table 2 below sets out the monitoring activities and purposes that need to be undertaken:

Table 2 - Monitoring Actvites

Activity Ref	Monitoring Activity	Purpose	LA	KPI ref
1	Before and After ANPR Data to determine fleet profiles inside CAZ	To check the level of upgrades on fleets operating inside the CAZ, to inform the evaluation and ongoing emissions/AQ modelling	SCC	1, 8, 9, 10
2a	Before and After ANPR Data (x3) to determine fleet profiles in other SCC AQ Hotspots	To check the level of fleet upgrades at other key locations in Sheffield, to inform the evaluation and ongoing emissions/AQ modelling	SCC	2, 8, 9, 10
2b	Before and After ANPR Data (x3) to determine fleet profiles in other RMBC AQ Hotspots	To check the level of fleet upgrades at key locations in Rotherham, to inform the ongoing emissions/AQ modelling	RMBC	2, 7, 8, 9, 10
3	2-month ANPR Survey to check compliance with Wortley Road HGV ban	To check the level of compliance against the modelling assumptions and to inform ongoing emissions/AQ modelling	RMBC	13
4a	Before and After traffic flows on diversionary routes in Sheffield (9 identified locations)	To inform discussions with local residents and politicians regarding the amount of traffic rerouting as a result of the CAZ	SCC	15
4b	Before and After traffic flows on diversionary routes in Sheffield (5 contingency locations)	To inform discussions with local residents and politicians regarding the amount of traffic rerouting as a result of the CAZ	SCC	15
4c	Additional traffic counters at potential AQ hot-spots in Rotherham (Fitzwilliam Road & Rotherway)	To inform any future modelling of the emissions from traffic using these routes	RMBC	16
5a	Strengthening capacity within SCC's AQ Monitoring & Modelling Team for the required monitoring and modelling across the CAP area	To help provide SCC's AQ-related inputs inputs to the ongoing monitoring and emissions/AQ modelling	SCC	17

5b	M&E Lead Officer (p/t) role (including relevant data analytics) - SCC	Processing of traffic data, fleet data and other KPIs in the M&E Plan - SCC	SCC	17
6	Strengthening capacity within RMBC's AQ Monitoring & Modelling Team for the required monitoring and modelling across the CAP area	To help provide RMBC's AQ-related inputs to the ongoing monitoring and emissions/AQ modelling	RMBC	17
7a	Interrogation/ analysis of SRTM3B inputs/ outputs between FBC and Go-Live - SCC	To inform discussions with local SCC residents, politicians, JAQU, the CAZ delivery team and other stakeholders	SCC	15
7b	Interrogation/ analysis of SRTM3B inputs/ outputs between FBC and Go-Live - RMBC	To inform discussions with local RMBC residents & politicians	RMBC	13
7c	Liasing between M&E, Comms and the general public - SCC	To inform discussions with local RMBC residents & politicians	SCC	n/a
7d	Liasing between M&E, Comms and the general public - RMBC	To inform discussions with local RMBC residents & politicians	RMBC	n/a
8	Enforcement camera on Arundel Gate bus-gate	To check/enforce compliance with the bus gate	SCC	5, 11
9a	6 Additional Diffusion Tubes @£200 pa each - SCC	To inform discussions with local SCC residents & politicians, plug any gaps in the AQ model calibration/validation and hence ensure AQ compliance across the whole of SCC	SCC	17
9b	6 Additional Diffusion Tubes @£200 pa each - RMBC	To inform discussions with local RMBC residents & politicians, plug any gaps in the AQ model calibration/validation and hence ensure AQ compliance across the whole of RMBC	RMBC	17
9c	2 Earth Sense Zephyr AQ Monitors on Arundel Gate	To monitor local air quality on Arundel Gate and help evaluate the effectiveness of the various measures at that location (bus upgrades + bus gates + anti-idling)	SCC	6, 17
10	Consultancy Input to confirm 'success' and predict impacts of 'turning off' the CAZ	Traffic, fleet, emissions and AQ modelling to predict the impact of removing the CAZ charges	SCC	17

6.8.4 ANPR-based Time Series Analysis of the Emissions Profiles of Local Fleets

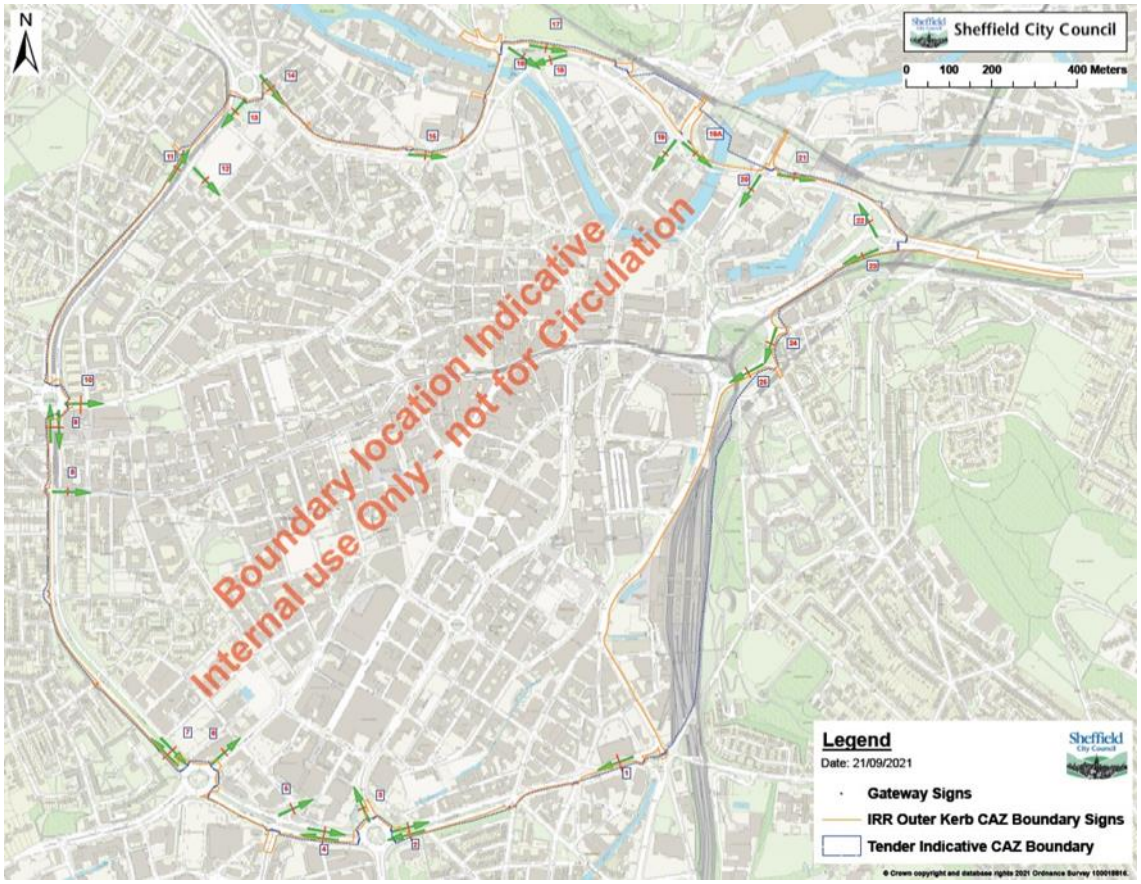
It is critical to undertake regular time series analysis of the various fleets using the roads in the areas which have been identified as having non-compliant air quality.

This will require ongoing ANPR data collection at the various sites which were used to inform the initial evidence base for this study and the periodic analysis of this ANPR data, to track how the emissions profiles (EURO class and fuel type etc) of the various fleets are changing over time.

This analysis will provide an early warning, if the improvements in the various fleets are falling behind the predicted improvements used in the emissions forecasting which supports the Clean Air Plan.

This emissions profile information for traffic inside the Clean Air Zone in central Sheffield can be provided by the network of CAZ enforcement cameras being installed as part of the Charging CAZ scheme.

Figure 1 below illustrates the proposed/provisional set of 26 CAZ ANPR locations which would be used to monitor the fleets entering the Charging Clean Air Zone.



6.8.5 However, this network of CAZ cameras will not provide information about the fleet of vehicles in air quality hot-spots outside the CAZ area, which will be affected by a hard-to-predict combination of 'Business as Usual' upgrades (including Covid-related impacts), diversion of non-compliant vehicles to avoid the CAZ, fleet improvements due to the SCC and other UK CAZ schemes and vehicle scheduling (using cleaner vehicles for trips to/through the CAZ and using older dirtier vehicles elsewhere).

It will therefore be necessary to use additional ANPR surveys to regularly monitor the fleet profiles in the other air quality 'hot-spot' locations, including the Lower Don Valley in Sheffield and Rawmarsh Hill, Wortley Road and Fitzwilliam Road in Rotherham.

We have therefore included the cost of monitoring fleet profiles using 7-day ANPR surveys at a set of six air quality hot-spot locations (3 in Sheffield and 3 in Rotherham) outside the charging CAZ area. The (provisional) locations of these external fleet-monitoring sites are illustrated in Figure 2 below.

Figure 1 Proposed Locations of the External ANPR Surveys

The fleet monitoring at the three external sites in Sheffield will be particularly important for informing the 'Confirming Success and Predicting the Impact of Turning Off the CAZ' task described in Section 2.10 of this Monitoring and Evaluation Plan, as they provide details of the fleet outside the CAZ, which might decide to re-enter the CAZ when the cameras are turned off.

We will therefore use these 3 external sites in Sheffield to monitor any differences in the fleets inside and outside the SCC CAZ over time.

6.8.6 Checking Compliance with the Rotherham HGV Ban on Wortley Road

The Preferred Option includes an HGV ban northbound on Wortley Road in Rotherham.

There is a continuous Classified Automatic Traffic Counter on Wortley Road, but it does not provide a classification which can be used to directly identify the subset of '>7 tonne' HGVs which are going to be subject to the HGV ban.

There is therefore a one-off task to undertake two 1-week ANPR surveys northbound on Wortley Road before and after the introduction of the HGV ban (currently scheduled to go live in mid-February 2021), to provide information on the number of HGVs using Wortley Road before and after the introduction of the ban and hence determine the level of compliance with the new HGV ban. The ongoing level of compliance with this HGV ban will subsequently be monitored using the Wortley Road ANPR camera-based fleet profiles described in the preceding section above.

6.8.7 Before and After Traffic Flows on Diversionary Routes in SCC

We have used our traffic model forecasts to identify a set of nine locations outside the CAZ which we propose to use to monitor the impacts of non-compliant vehicles rerouting to avoid the Charging Zone.

These nine locations in SCC are described in Table 3 below.
Table 3 Description of the New Classified ATC Sites for Monitoring Before and After Traffic on Diversionary Routes

These would be monitored using a set of Vivacity Labs Classified Automatic Traffic Counters which would be installed as soon as possible (to capture 'Before' traffic) and operated for a continuous 3-year period, at a cost of £6K per ATC.

These 'Before and After' Classified Counts will allow us to quantify the scale of any rerouting via these potential diversionary routes following the start of CAZ charging. The set of 9 locations are indicated (as the yellow dots) in the map in Figure 3 below.

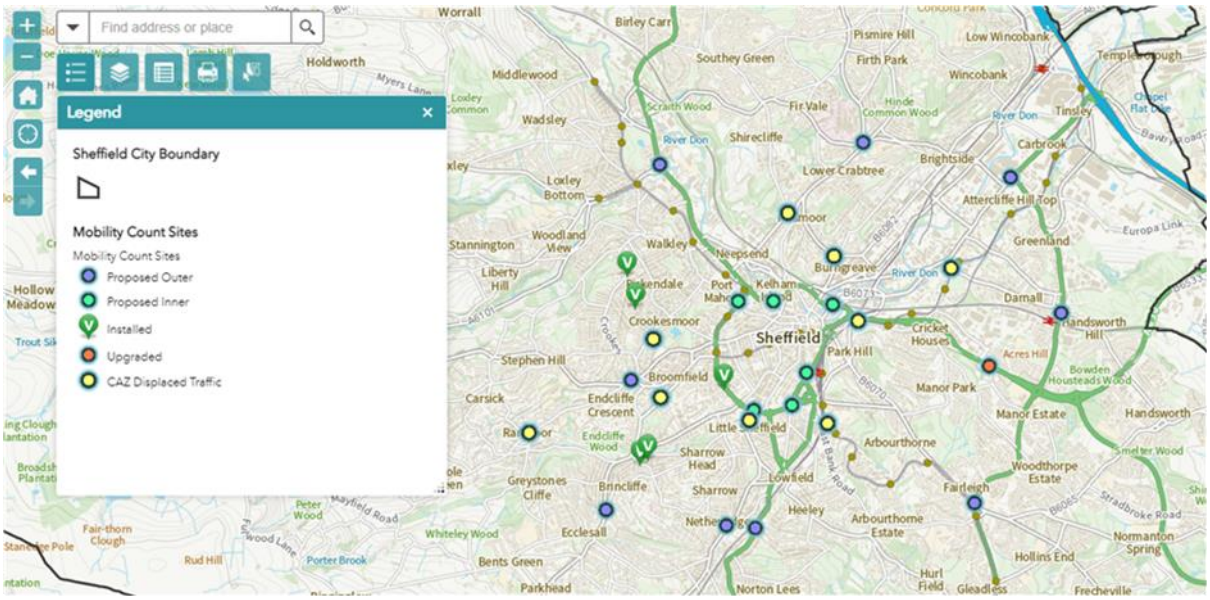


Figure 2 Proposed Location of the 'Before and After' Continuous Automatic Classified Traffic Counts

We have assumed that a further five additional Automatic Traffic Counters will be required to monitor traffic at another five as-yet-unspecified locations on potential diversionary routes in Sheffield. These additional ATC locations are expected to be needed to rebut objections to then CAZ scheme by communities and members of the public who believe that the CAZ will lead to significant increases in traffic on diversionary routes which have not been identified by the traffic modelling.

6.8.8 Monitoring Traffic at Rotherham's AQ Hot-Spots

We propose to closely monitor traffic at the four main AQ hot-spots identified in Rotherham, namely on Wortley Road, Rawmarsh Hill, Fitzwilliam Road and at the Rotherham end of the Parkway.

This classified traffic count information will be required to ensure that the volume of traffic (by vehicle type) at these four key locations is in line with the relevant traffic model forecasts, so that the potential need for any remedial actions can be identified in a timely manner, if these traffic volumes rise significantly above the relevant traffic model forecasts.

There is already an existing ATC on Rawmarsh Hill and the Parkway Widening scheme will install a new ATC on the new section of the Parkway.

There is currently no ATC on Fitzwilliam Road and we will also need to monitor the traffic using the Parkway during the roadworks for the Parkway Widening scheme. We have therefore included the costs of two new classified ATCs, one on Fitzwilliam Road and the other on the Rotherway (to monitor traffic during the Parkway Widening scheme roadworks).

6.8.9 Diversion of Buses from Rawmarsh Hill onto Barbers Avenue

The Preferred Option includes the diversion of scheduled buses from Rawmarsh Hill onto a parallel route (Barbers Avenue). This can be easily monitored by collating the relevant bus route information and maintaining regular updates to the number of scheduled buses operating up/down Rawmarsh Hill (peak hour and weekly).

We have assumed that this bus route information can be collated by RMBC staff, at no extra cost.

6.8.10 Strengthen capacity to undertake CAP baseline and post implementation monitoring and evaluation

Additional capacity is required to ensure that there is adequate and appropriate resources in place to deliver the M&E Plan, resources required include include:

- Allocation of M&E Plan dedicated lead who will oversee implementation of the joint delivery of the CAP M& E Plan including the realisation of benefits and outcomes and any mitigation planning / interventions required
- Project Management support to the delivery of the M&E Plan activities from now through to completion.
- ICT support to ensure process, software and systems required for monitoring purposes are in place
- Data analyst support to assist in collation and management of data and the analysis for performance data reporting purposes including SCC and RMBC governance requirements
- Continued consultant support to undertake for emission and traffic modelling and associated analysis, respond to JAQU technical queries and to public and local politicians questions relating to traffic.
- Additional Air Quality Principal Officer capacity within RMBC to deliver the air quality and reporting activities
- Additional Air Quality Technical Officer capacity within SCC to support delivery of the air quality and reporting activities

6.8.11 Regular Analysis and Modelling of Air Quality Data in SCC and RMBC

In the OBC we identified a need for additional resources to support the Air Quality Monitoring and Modelling Teams in both SCC and RMBC, this is an key requirement for the monitoring stage.

Currently there is the equivalent of 1.2 Air Quality officers across the two Local Authorities, to cover all air quality functions. Additional capacity is required in each of the two Air Quality teams, to provide dedicated resource to carry out the monitoring and modelling ahead of the Sheffield CAZ and other compliance measures 'go-live' / are implemented and to meet monitoring requirements post 'go-live' / implementation

There is a requirement to undertake regular (quarterly) reviews of the air quality data being collected in Sheffield and Rotherham, particularly in the areas with the greatest risk of non-compliance. These reviews may also require updates to the local Airviro air quality model, particularly when the air quality monitoring data suggests there has been some significant change in the local air quality, traffic conditions and/or sources of non-transport-related emissions at specific locations.

6.8.12 Monitoring Changes in Attitudes & Awareness

In the 2019 OBC, we proposed to undertake two large attitudinal/behavioural/awareness surveys among Sheffield residents.

These surveys will be designed to support the evaluation of the various Hearts & Minds campaigns and the impact of (and support for) the SCC CAZ scheme and its various supporting measures.

We now understand that this evaluation of national and local 'behavioural change' campaigns is included in the national evaluation exercise being undertaken by Ipsos Mori and ITS Leeds.

We have therefore removed the costs of these surveys from the Economic and Financial Cases being reported in this FBC.

6.8.13 Monitoring Local Air Quality

Local NO2 concentrations are already being continuously monitored at almost all of the potential local air quality 'hot-spots' in Sheffield and Rotherham. The list of these 'AQ Hot Spot Locations' (i.e. where the annual average NO2 concentration exceeded 40µg/m^3 at least once between 2014 and 2020) and their coordinates are listed in Table 4 below.

In addition, AQ analysers will be used on Arundel Gate to provide a real-time AQ indicator to understand the impact of idling bus engines and the success of the anti-idling enforcement on Arundel Gate, this will enable additional enforcement measures to be planned and implemented in good time if required. The Bus Gate scheme removes other (non-public transport) northbound traffic from Arundel Gate. Restriction signs will be required for northbound traffic; in addition, advance directional signs would warn drivers of

other vehicles to use other routes. PCN enforcement would be carried out to deter the use of the Bus Gate by non-authorised vehicles

Bus anti-idling measures will be encouraged. SCC meet regularly with South Yorkshire Passenger Transport Executive and bus operators as part of close partnership working. The need to reduce bus engine idling at Arundel Gate has been communicated and agreed at strategic and operational levels and will continue to be - operators are supportive of the measure and will communicate anti-idling messages to drivers. New vehicle technology (stop-start systems) should also make more vehicles do this in any case.

The Arundel Gate interchange bus stop is a clearway, as are the others on this route, and there are options for introducing formal enforcement routes through the potential to issue Penalty Charge Notices if vehicle drivers stop other than as permitted under Part 6, Schedule 7 of the Traffic Signs Regulations and General Directions 2016. However, it is not expected that this enforcement will be required.

Monitoring will be undertaken and, due to the effective partnership route, any reports of buses that do not adhere to the required practice to limit idling these can be reported directly to Bus Operators for appropriate follow up action

Table 4 Current AQ Hot-Spot Monitoring Locations

AQ Hot-Spot ID	Local Authority	X	Y	Site Description
2	SCC	435909	388070	Wicker
3	SCC	434806	388216	Penistone Road
5	SCC	435843	388814	73 Burngreave Road
9	SCC	435283	387222	Barkers Pool Taxi Rank
19	SCC	433601	383337	La Scala
21	SCC	434123	383874	Chippendale
24	SCC	432651	384491	Ecclesall Fisheries, 97 Ecclesall Rd South
26	SCC	434522	384654	Butterworth Cycles
40	SCC	440045	390884	47 Bawtry Road
42	SCC	438880	389931	Attercliffe Road
45	SCC	437703	390079	Upwell Street
48	SCC	436141	387521	Parkway Broad Street
51	SCC	436109	387458	Duke Street
52	SCC	435744	387619	Waingate
55	SCC	433346	390814	Fielding Road
57	SCC	434435	387394	University Roundabout
59	SCC	434403	386966	Upper Hanover Street
60	SCC	435554	386638	Shoreham Street
63	SCC	435499	385690	Queens Road/Edmund Road
64	SCC	434324	384311	Abbeydale Rd/Carter Knowle
65	SCC	434299	386275	Ecclesall Road
66	SCC	435602	387292	Arundel Gate Interchange
67	SCC	435700	387256	Pond Street Interchange
68	SCC	439116	391193	Meadowhall Interchange
71	SCC	440116	390800	98 Bawtry Road
86	SCC	433327	386862	Whitham Road/Crookes
87	SCC	433514	387033	Whitham Road/Moor Oaks
89	SCC	434048	387229	Western Bank/Clarkson Street
100	SCC	435255	387349	West Street/Leopold Street
101	SCC	435807	386350	Queens Road - G Casino
102	SCC	435697	385892	Queens Road - Asda
103	SCC	435490	385660	463 Queens Road
104	SCC	435182	385241	London Road -Sark Road
105	SCC	435161	384986	London Road -Ponsfords
106	SCC	434965	384613	Chesterfield Road - Meersbrook Park
108	SCC	434857	382968	Chesterfield Road - Olivet Road
122	SCC	438582	389616	Attercliffe Common (Terry Street)
123	SCC	437928	388800	Attercliffe Road (Bodmin Street)
124	SCC	437690	388529	Attercliffe Road (Staniforth Road)
125	SCC	436350	388234	Attercliffe Road (Tesco)
127	SCC	437461	389311	Brightside Lane (Stevenson Road)
128	SCC	438393	390232	Brightside Lane (Forgemaster)
129	SCC	438610	390614	Brightside Lane (Jenkin Road)
130	SCC	439167	391698	Meadowhall Road (M1 34N)
131	SCC	439717	390826	Sheffield Road (M1 34S)
133	SCC	433250	391115	Beeley Wood Road
134	SCC	433455	390473	Winster Road
RDT19	RMBC	441049	393331	A629
RDT32	RMBC	438876	392533	Droppingwell Road
RDT48	RMBC	444375	390165	A631
RDT75	RMBC	443764	391283	Broom Lane
RDT86	RMBC	445234	394161	A630
RDT88	RMBC	443724	393628	Fitzwilliam Road
RDT91	RMBC	443640	393567	A630 St. Ann's
RDT95	RMBC	443670	395306	Broad Street
RDT96	RMBC	443677	395545	A633

These ‘AQ hot-spot’ locations form a subset of a much larger list of continuous AQ monitoring locations across the two Local Authorities (ie including numerous other sites which did not exceed 40µg/m^3 in any year between 2014 and 2020).

Figure 4 below shows the current network of AQ monitors, with the known ‘hot-spots’ described above indicated with red dots and the other monitoring locations indicated in blue.

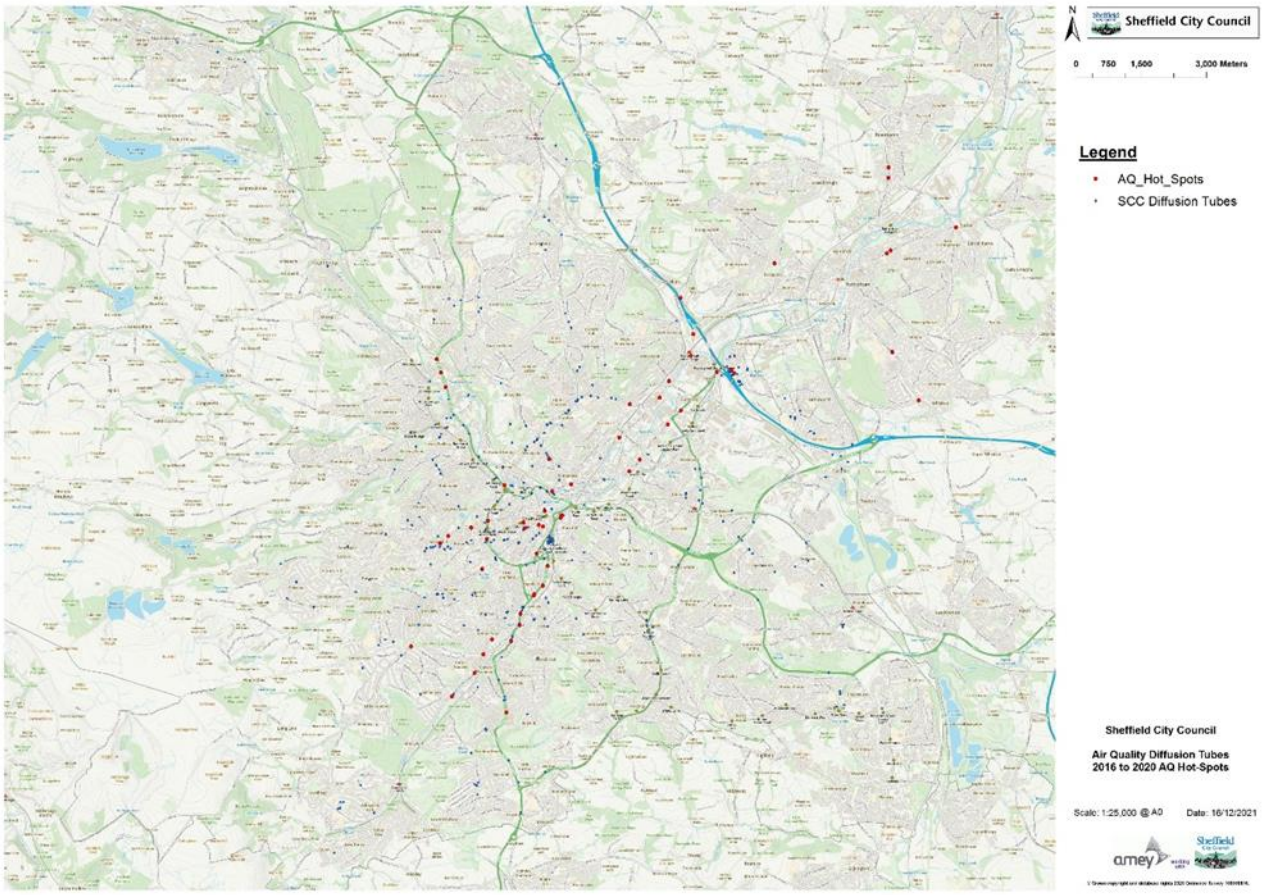


Figure 3 Current AQ Monitoring Locations including the Known ‘Hot-Spots’

We have also included a small amount of budget for 12 additional diffusion tubes, split 50/50 between Sheffield and Rotherham, to cover any additional monitoring that might be needed, including any medium/high-volume routes where diversionary traffic is perceived to be an issue.

6.8.14 Confirming Success and Predicting the Impact of Turning Off the CAZ

The air quality at the known AQ hot-spots would be monitored continuously. The cost of this is included in the Strengthening the Air Quality Monitoring Team’ task described above.

When the relevant annual limit value (e.g. 40 µg/m^3) has been achieved for a full calendar year, we would use the time series fleet composition data inside and outside the CAZ zone, to estimate whether the CAZ is still having a significant impact on keeping the most-polluting vehicles out of the CAZ area.

We would then use the SCRTM-based representation of the CAZ scheme to estimate the combined impacts of turning off the CAZ (i.e. removing any need for non-compliant vehicles to divert round the CAZ and the fleet inside the CAZ reverting to the 'outside the CAZ' fleet profile).
If that emissions-based analysis suggests there might be a significant increase in NOX emissions inside the CAZ area, we would pass the 'With CAZ' and 'Without CAZ' emissions to the local air quality model, to predict the AQ impacts of turning the CAZ off.

If necessary, this prediction of the 'Post-CAZ' air quality scenario would be repeated at regular intervals until it is confirmed that there no risk of the air quality deteriorating sufficiently to jeopardise the ongoing attainment of the relevant air quality standard.

Note that the estimated budget for related Monitoring and Evaluation activities may change, when the relevant JAQU Guidance becomes available to us.

6.8.15 Identifying the Need for Any Corrective Actions

In this section we consider various 'corrective actions' if the air quality &/or fleet monitoring identifies any potential breaches of the relevant AQ standard in 2022 or 2023.

We sub-divide these between sites where a significant proportion of the NOX emissions are predicted to come from scheduled bus services (even after the retro-fitting) (referred to as 'bus corridors' below and locations where bus emissions form a small/negligible proportion of the future emission load

6.8.16 Bus Corridors – including Arundel Gate, Rawmarsh Hill & Fitzwilliam Road

At locations where the scheduled buses are predicted to produce a significant component of the local NOX emissions, even after the relevant bus fleet has been retro-fitting to EURO VI), the most cost-effective corrective action will be to upgrade the buses operating the relevant bus services to zero-emission vehicles (electric or hydrogen).

This would have the additional benefit of contributing to local, regional and national decarbonisation targets.

NO2 concentrations would be monitored closely at the three air quality hot-spots which are relying heavily on the emission reductions generated by the upgrades to the local bus fleets (Arundel Gate (in Sheffield) and Rawmarsh Hill and Fitzwilliam Road (in Rotherham). Air quality dispersal modelling would be used to estimate the NO2 concentrations along these corridors.

The cost of this air quality monitoring and modelling is included in the 'Strengthening the Air Quality Monitoring Team' task described above.

If it becomes apparent that the required improvements to air quality are not materialising quickly enough, we would liaise with the bus operators to seek to upgrade some or all of the buses operating the relevant services to zero emission (electric or hydrogen) buses.

These additional upgrades of the buses operating through the 'problematic' locations would require additional funding which has not been quantified or included in this FBC.

In additional, more of the additional bus routes could be diverted from Rawmarsh Hill to Barbers Avenue, if required to address any concerns about the Preferred Option achieving 'success' on Rawmarsh Hill. The cost of the associated consultation for this 'corrective action' has not been quantified or included in this FBC.

If the AQ monitoring suggests any ongoing issues on Arundel Gate and the monitoring program suggests that bus-idling is still occurring at that location, then we would repeat the relevant anti-idling campaign and explore more-robust enforcement measures to reduce the duration of any remaining bus-idling at that location. No additional budget has been identified for this corrective action in this FBC, but any additional budget required for this is likely to be covered by the initial CAZ revenue stream.

6.8.17 Wortley Road

The emissions modelling assumed 100% compliance with the northbound HGV ban on Wortley Road (in RMBC), compared against 70-85% compliance which might be expected in practice.

If the AQ monitoring suggest a potential issue on Wortley Road and the traffic monitoring identifies significant numbers of HGVs ignoring the northbound HGV ban on Wortley Road, then we would use the Traffic Management Act 2004's civil enforcement powers to help enforce the new HGV restrictions, subject to timely granting of these powers by Department for Transport.

The DfT have recently indicated that they intend to allow local authorities to enforce moving traffic restrictions, including any HGV prohibitions – for further details please refer to an email from the Department for Transport to RMBC's Chief Executive on 2nd August 2021.

Additional measures, including traffic calming measures, reduced speed limits and a review of route signing could be implemented to achieve further small reductions in traffic emissions on Wortley Road, if required. Additional RMBC funding would be required for any of these 'corrective actions'.

National Highways might be expected to be involved (and contribute to any funding required), given the impact of this route on the M1 traffic flows between J34 and J35 (and vice versa).

6.8.18 Other Locations

At other locations where (unexpected) local air quality issues emerge but with insufficient scheduled bus services to rely on the benefits from the introduction of zero-emission buses, we would explore the use of 'Intelligent Transport Systems' (ITS) technology to improve the flow of traffic, to reduce the need for stop/start

driving and reduce the amount of traffic queuing close to the AQ hot-spot locations.

No additional budget has been identified for this corrective action in this FBC.

The initial CAZ revenue stream could be used to fund the initial consideration of the use of ITS as a corrective action, particularly within SCC, but doing so would reduce the amount available to fund the running of the CAZ in later months/years, when the income from the charges falls below the running costs of the CAZ scheme.

The implementation of any significant ITS-based solution would require additional funding

6.8.19 Data Sharing Agreements

SCC and RMBC will share the relevant air quality and ANPR monitoring data with JAQU, subject to any restrictions imposed by the relevant data protection legislation.

Costs associated with producing this data sharing agreement are included within the programme delivery costs, costs associated with providing the data covered within the agreement are assumed to be covered by the M&E costs covered in Table 3 of this M&E Plan.

6.8.20 Cost Summary

Table 4 below summarises the various costed components of the Monitoring and Evaluation program which will be used to monitor and evaluate the impacts listed in Table 1 and Table 2 split by Local Authority and whether the cost is incurred before or after the go-live date for the Sheffield Charging CAZ scheme.

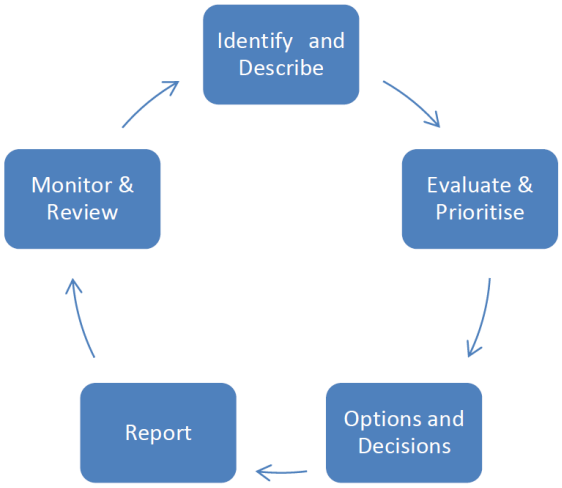
Table 4

Local Authority	M&E Costs		
	Before CAZ Go-Live	After CAZ Go-Live	Total
SCC	£ 129,550	£ 720,450	**£ 850,000**
RMBC	£ 51,950	£ 229,450	**£ 281,400**
Total	**£ 181,500**	**£ 949,900**	**£ 1,131,400**

A detailed breakdown of the cost requirements are included within the Financial Case and Financial Model, Appendix FC1

6.9 Risks, Issues and Dependencies

The risk management approach follows Sheffield City Councils corporate Risk Management Framework applying the process illustrated below:



Risks are scored using the matrix below;

Probility						
	5 Almost Certain	5	10	15	20	25
	4 Likely	4	8	12	16	20
	3 Possible	3	6	9	12	15
	2 Unlikely	2	4	6	8	10
	1 Rare	1	2	3	4	5
		1 Minor	2 Marginal	3 Moderate	4 High	5 Extremely High
		Impact				

The Programme Manger updates the programme risk register, Project Managers have responsibility for identifying risks and ensuring these are managed and escalated when required. Risks and issues are reported to and monitored by the CAP Programme Delivery Group and corporately to the Our Sheffield Board.

A quantitive risk assessment (QRA) approach has been taken to assess cost allowance requirements.

Step 1. Identification of risk via risk workshops and review
Step 2. Analysis and scoring of risk impact
Step 3; Undertake quantative assessment based on subject matter expertise, experience, lessons learnt and market intelligence
Step 4: Calculate cost allocation / contingency requirement (in line with WEBtag and Green Book recommended levels).

See contingency allowance Section 5 within the Financial Case.

See the CAP Programme RAID log - Appendix MC6 for the programme risks and issues. Risks are also covered within the Commercial Case, Section 4.5.

6.9.1 Key dependencies

Achieving successful delivery of the Preferred Option in order to realise the benefits / outcomes is dependent on:

Dependency Description	Owner
Launching the CAF measures is dependant on JAQU sign-off and receiving revised grant terms for the final CAF funding profile	JAQU
Achieving compliance in predicted timescales is dependent on supply and affordability of compliant vehicles / retrofits	External
Completing implementation is dependent on receiving the final FBC full grant funding including contingences / risk allowance	JAQU
Launch of exemptions is dependent on FBC approval	JAQU
Progressing CAZ signage and the Arundel Gate scheme is dependent on timely Executive Decision and capital approval processes	SCC
Strategic Case D01 – the need for close working between SCC and RMBC and with neighbouring authorities, particularly with respect to bus retrofit and taxi licencing, but potentially also when considering measures to influence fleets which operate across the South Yorkshire area and beyond;	SCC & RMBC
Strategic Case D02 – the impact of CAZ-based schemes elsewhere in the UK will have impacts on the local traffic fleet in SCC/RMBC involving a hard-to-predict combination of 'fleet cascading', where older vehicles are pushed out of other local authority CAZ areas onto non-charged areas of SCC/RMBC's road network and the 'beyond-the-CAZ boundary' benefits of the fleet upgrades generated by the emission-reduction measures delivered in other UK authorities;	External
Strategic Case D03 – the 'chicken-and-egg' inter-relationship between the supply of public chargers for electric vehicles and the uptake of electric vehicles;	SCC & RMBC