

Report to:	Cabinet	Date of Meeting:	28 July 2022
Subject:	Sefton Clean Air Plan – Outline Business Case Outcomes		
Report of:	Head of Highways and Public Protection	Wards Affected:	All Wards
Portfolio:	Cabinet Member – Health and Wellbeing Cabinet Member – Regulatory, Compliance and Corporate Services		
Is this a Key Decision:	Yes	Included in Forward Plan:	Yes
Exempt / Confidential Report:	No		

Summary:

The purpose of the report is to:

- Advise Cabinet on the outcomes of the Clean Air Plan Outline Business Case, which presents the preferred option for potentially progressing a Clean Air Zone as part of the Clean Air Plan.
- Seek approval of the Outline Business Case findings and recommendations.
- Provide recommendations on next steps / pathways for further progression of the Clean Air Plan Outline Business Case - for later determination by Cabinet.

Recommendation(s):

Cabinet is recommended to:

- 1 Note the conclusions and recommendations from the Clean Air Plan Outline Business Case (CAP OBC).
- 2 Note the risks, issues, dependencies/interdependencies and anticipated costs associated with progression to a Full Business Case and subsequent implementation of a Clean Air Zone.
- 3 Review and consider the next steps and stated pathway options contained in Section 5.0 of the report.
- 4 Authorise officers to publish the CAP OBC Executive Summary (attached at Appendix A), and other technical information from the CAP (once it has been finalised and checked) on the Council's website and advise residents through a media release and updated Your Sefton Your Say Clean Air Plan public engagement page.
- 5 Authorise officers to undertake further engagement with the key stakeholders identified in this report, to inform Cabinet's decision regarding the next steps and pathway options.
- 6 Request a further report, following completion of (5) above, for a decision on

the next steps.

Reasons for the Recommendation(s):

Sefton Council has statutory Local Air Quality Management duties and public health responsibilities and has also declared a Climate Emergency. The Clean Air Plan Outline Business Case (CAP OBC) has been prepared to enable the Council to improve local air quality, enhance public health and to help reduce carbon emissions.

The business case for the Clean Air Plan (CAP) has been developed in accordance with the appropriate guidance and needs to be approved to facilitate the next stage of the process. The issues associated with the proposed CAP and the options for the next steps need to be considered in deciding whether and how to proceed.

There is a need for Cabinet to consider the outcomes of the OBC, specifically the next steps/pathway for the CAP and to consider the implications of proceeding to a Full Business Case (FBC) for the CAP.

Alternative Options Considered and Rejected: (including any Risk Implications)

A range of different air quality interventions were considered as part of an initial feasibility report and different options for a Clean Air Zone were appraised in detail as part of the business case process. The alternative options were rejected as they were less effective in meeting the strategic objectives of the CAP and less readily deliverable.

What will it cost and how will it be financed?

As the Clean Air Zone (CAZ) scheme is at the OBC stage, there is further work required to develop the cost estimates, particularly through further detailed design work and engagement with potential suppliers and contractors. At OBC stage, the best available evidence has been used to inform cost estimates – using detailed information on cost elements where available and a benchmarking approach against other CAZ schemes where less evidence was available.

(A) Revenue Costs

There are no revenue costs directly related to the recommendations in this report. If however Cabinet subsequently decides to develop a Full Business Case and implement a HGV CAZ, this would require significant resource not currently provided for within the Council's budget. Estimates of these costs are included within the report and would be reviewed as part of the Full Business Case process.

The CAP OBC currently estimates total annual operating costs (for CAZ signage infrastructure inspection/maintenance, staff costs and CAZ service operational costs) for the Preferred Option 2A HGV CAZ at £1,032,000 per annum (based on 2021 prices), with an anticipated 5-year operational period equating to a total operating cost of £5,126,000

It is important to emphasise that whilst the proposed HGV CAZ would generate some income from non-compliant vehicles, it is not proposed or expected to be a net revenue generating scheme – it is focused on reducing poor air quality impacts on both the environment and local public health. As such, in this scenario provision

would be required within the councils medium term financial plan to support the proposal with the final sum being derived from the full Business Case.

(B) Capital Costs

There are no Capital costs directly related to the recommendations in this report. If however Cabinet subsequently decides to develop a Full Business Case and implement a HGV CAZ, this would require significant resource not currently provided for within the Council's capital programme. Estimates of these costs are included within the report and would be reviewed as part of the Full Business Case process.

The CAP OBC estimates total capital costs for the identified Preferred Option 2A HGV CAZ at £4,101,000 (including camera and signage infrastructure, CAZ service implementation, mobilisation activities, preliminary and detailed design / surveys, decommissioning, risk & contingency).

In addition, CAZ schemes would normally include mitigation costs, to provide support to local businesses impacted by implementation (e.g. grants to upgrade fleets to compliant HGVs). The CAP OBC estimates these could be as much as £10m (depending on grant amounts and uptake levels).in the absence of any specific grant funding this sum would need to be funded by the council, with the main source being prudential borrowing via the Public Works Loan Board. This would be included in future capital strategies for the council and would be the subject of council decision. The borrowing associated with this sum would be made in accordance with the councils treasury management strategy and annual repayments would be added to the revenue costs that are detailed in this report.

Implications of the Proposals:

<p>Resource Implications (Financial, IT, Staffing and Assets):</p> <p>There are no resource implications directly related to the recommendations in this report. If however Cabinet subsequently decided to develop a Full Business Case, this would require resource not currently provided for within the Council's budget. A further decision to implement a HGV CAZ, would require significant resource not currently provided for within the Council's budget. The scale of resource needed would be more accurately assessed in the FBC.</p>
<p>Legal Implications:</p> <p>There are no legal implications directly related to the recommendations in this report. If however Cabinet subsequently decided to implement a CAZ, there would be legal requirements relating to powers and consent required for the implementation of a CAZ, statutory public consultation etc. These would be clarified and confirmed in the FBC.</p>
<p>Equality Implications:</p> <p>The Distributional Impacts Analysis carried out for the OBC has concluded that the air quality benefits of the Preferred Option are concentrated in areas of Sefton with some of the highest levels of income/health deprivation.</p>
<p>Climate Emergency Implications:</p> <p>The recommendations within this report</p>

Have a positive impact	Yes
Have a neutral impact	No
Have a negative impact	No
The Author has undertaken the Climate Emergency training for report authors	Yes

Generally, the options for further improving air quality are positive for the Climate Emergency. The Preferred CAZ Option has significant benefits within the CAZ boundary area plus wider overall air quality improvements and thus health benefits. There is expected to be a potential overall net positive impact in relation to carbon emissions.

Contribution to the Council's Core Purpose:

<p>Protect the most vulnerable: Poor Air Quality affects the most vulnerable in society including children and the elderly. Exploring options for further improving air quality contributes to this core purpose.</p>
<p>Facilitate confident and resilient communities: Interventions to improve air quality taken by the Local Authority and its partners, including the community, demonstrate that mitigation against poor air quality is possible and can actively support making better choices and behavioural change.</p>
<p>Commission, broker and provide core services: The protection of public health and local air quality management are core services of the Council.</p>
<p>Place – leadership and influencer: The progression of the recommendations of the comprehensive CAP OBC, exploring the option of a CAZ to tackle poor air quality, is a clear demonstration of place leadership.</p>
<p>Drivers of change and reform: The actions taken to date, to improve air quality, have sought to bring about positive change and reform where possible. The ongoing development of the CAP and specific exploration of a CAZ continues that approach.</p>
<p>Facilitate sustainable economic prosperity: The progression of the recommendations of the comprehensive CAP OBC, exploring the option of a CAZ, is an important action in facilitating sustainable economic prosperity. It recognises the negative impact on health and productivity from poor air quality and the potential negative socio-economic impact on people and businesses. The CAP OBC has identified and recommended a Preferred CAZ Option which provides the best value option when taking account of the Strategic Objectives of the CAP and the key deliverability considerations. Implementation of a CAZ could impact on owners of non-compliant HGV Fleets. Potential mitigation of this impact would be further explored as part of the FBC.</p>
<p>Greater income for social investment: N/A</p>
<p>Cleaner Greener: The measures being explored to improve air quality in the Borough are directly</p>

linked this core purpose, encouraging overall improvements in the local environment through cleaner/greener initiatives.

What consultations have taken place on the proposals and when?

(A) Internal Consultations

The Executive Director of Corporate Resources and Customer Services (FD6866/22) and the Chief Legal and Democratic Officer (LD.5066/22) have been consulted and any comments have been incorporated into the report.

(B) External Consultations

The following external consultation has been undertaken on the Clean Air Plan OBC to date:

The following key stakeholders have been consulted to provide high level background information on the Clean Air Plan OBC (i.e. setting the scene, high-level overview of proposals and CAP rationale):

- National Highways - given the implications of the proposals for the A5036 Strategic Road Network.
- Liverpool City Council - given they are an adjoining local authority who were legally mandated by Government in 2018 to produce a Clean Air Plan to identify how Nitrogen Dioxide levels could be reduced in the shortest time possible.
- Peel Ports - given the anticipated growth in port-related HGV traffic and the implications of the proposals for key port routes

Public:

- A dedicated Information Page for Sefton's Clean Air Plan has been available on Sefton's 'Your Sefton Your Say' online platform since June 2021. This is updated as and when required and features a wide range of relevant local Air Quality information and also introduces the wider Clean Air Plan Strategy and the development of the Clean Air Plan OBC for a potential Clean Air Zone.

Implementation Date for the Decision

Following the expiry of the "call-in" period for the Minutes of the Cabinet Meeting

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Appendices:

The following appendices are attached to this report:

Appendix A – Executive Summary of *Sefton Clean Air Plan Outline Business Case*

Background Papers:

The following background papers, which are not available elsewhere on the Internet can be accessed on the Council website:

Link to Sefton's Clean Air Zone Feasibility Study
[sefton-clean-air-zone-feasibility-study.pdf](#)

Cabinet meeting 7th November 2019, Proposal to Develop an Outline Business Case for a Sefton Clean Air Zone:

[Report to: \(sefton.gov.uk\)](#)

1. Introduction/Background

- 1.1 In November 2019, Cabinet considered the findings of an Initial Clean Air Zone (CAZ) Feasibility Study. This Initial Study established baseline levels of key pollutants and assessed the likely future level of pollutants if no further air quality improvement actions were implemented. The study concluded that a CAZ that targets Heavy Goods Vehicles (HGVs), meaning any goods vehicle with a maximum gross weight of greater than 3.5 tonnes, would proportionally achieve the most significant benefits in terms of reducing Nitrogen Dioxide concentrations and exceedances. Having considered the report, Cabinet approved the development of a Clean Air Plan Outline Business Case (CAP OBC), to set out future air quality recommendations for Sefton.
- 1.2 Sefton Council has prepared the Clean Air Plan (CAP) Outline Business Case (OBC) because there are locations within Sefton with persistent poor air quality, and this poor air quality has detrimental effects on public health and the wider environment. Some of the worst air quality in Sefton is concentrated within areas with existing high levels of health and income deprivation, meaning that the worst air quality is experienced by those most vulnerable to its effects.
- 1.3 Currently, Nitrogen Dioxide (NO₂) and Particulate Matter (PM) are the pollutants causing the largest health impacts in the Sefton. These pollutants are mostly associated with road transport. NO₂ is the main pollutant currently breaching national limits within Sefton, particularly stemming from the combustion of diesel fuel associated with HGVs, light goods vehicles (LGVs) and diesel cars.
- 1.4 HGV traffic associated with the Port of Liverpool makes a substantial contribution to road-source emissions and overall pollution levels in nearby areas. In addition, the emissions from the Port operation itself contribute to overall local background pollution, through industrial and shipping operations etc. Although the overall HGV fleet is improving as older vehicles are replaced, port expansion in the coming years will pose additional challenges, primarily through an increase in levels of HGV traffic and consequent congestion and increased emissions.
- 1.5 Air quality in Sefton has been reviewed and assessed by Environmental Health Officers for many years. Air quality in most of the Borough is within national air quality limits. However, four localised areas have been identified in the south of the Borough where levels of NO₂ are close to or above the health based annual average national standard. These areas have been designated

as Air Quality Management Areas (AQMAs), which include key junctions on the A565 and A5036. Despite ongoing efforts to improve local air quality, particularly around the AQMAs, the interventions implemented to date have not been enough to address all identified air quality issues within Sefton.

- 1.6 Without further action, increased emissions from HGVs due to the Port expansion and wider traffic growth could result in these areas not achieving compliance with national objectives under current conditions. In addition, new areas may become non-compliant.
- 1.7 The government (via the Joint Air Quality Unit – JAQU) has now instructed many local authorities across the UK to take quick action to reduce harmful NO₂. Although Sefton Council has not been mandated by JAQU to undertake a feasibility study (like many other local authorities), this does not indicate that there are no air quality issues which need to be addressed. In response to its local air quality management responsibilities, Sefton Council has undertaken further air quality modelling and has chosen to take additional steps to support local aspirations to improve air quality beyond just compliance with national standards, with a key objective being to protect the health of local residents. The additional work being carried out by the Council will also contribute to its commitments to tackle carbon emissions as part of the Climate Emergency declaration.
- 1.8 The Clean Air Plan OBC proposal comprises a Clean Air Zone (CAZ) scheme that aims to address persistent air quality issues identified within Sefton in the shortest time possible. The CAZ scheme preferred option (referred to as 'Option 2A') features a charging CAZ applied to non-compliant HGVs that cross into a designated section of the Sefton highway network. The preferred option CAZ is focused on the A565 and A5036 corridors, incorporating all four of the existing Air Quality Management Areas (AQMAs). Incorporating the A5036 within the CAZ requires entry and exit signs and enforcement cameras to be installed on the National Highways network and would require a co-operative approach between Sefton Council and National Highways on this issue.
- 1.9 The Outline Business Case for the potential implementation of a CAZ sets out the rationale for the whole project and provides more detail about the proposals, including clear strategic objectives for the proposals.

2. Project Objectives and Outcomes

- 2.1 The objective of the Clean Air Plan is to address persistent air quality issues within Sefton which occur in some of the most income/health deprived areas in the borough.
- 2.2 The key case for change is that the Government, and Local Authorities, in accordance with their local air quality management responsibilities, are required to meet air quality limit values in the shortest possible time. Within Sefton, this is also supported by a local desire to go further ('beyond compliance') to improve air quality and public health and well-being. Further to the key driver to meet air quality limit values, the intended outcomes from the Clean Air Plan, and specifically the CAZ scheme, relate to several key strands, as follows:

- *Attaining Legal Requirements* – There are legal drivers and incentives at a national and international level, including EU and UK Government limits and directives, leading to mandates issued to local authorities to address air quality exceedances.
- *Supporting Environmental Commitments* - The Climate Change Emergency declared by Sefton Council in July 2019 underlines the Council's commitment to achieving environmental objectives which include improving local air quality.
- *Improving Public Health* - Poor air quality has a detrimental impact on public health and the wider economy, contributing to chronic illnesses and disease.
- *Improving Societal Disadvantages* - There is a disproportionate impact of air pollution in areas of high deprivation within Sefton, in particular among communities in close proximity to the Port of Liverpool and the A565 and A5036 corridors.
- *Tackling Key Transport Issues* - Road transport is a major source of NO₂ within Sefton. Whilst the overall fleet is improving in terms of emissions and engine technology, increased demand for access to the Port poses significant challenges and may lead to worsening air quality in some locations if not addressed.

2.3 The strategic objectives of the Clean Air Plan are:

- To improve air quality in the shortest time possible in known hotspot areas in Sefton's four AQMAs and achieve compliance with national standards in the shortest time possible.
- To promote improved air quality in the wider area (outside the four declared AQMAs) through more rapid switchover to vehicles with minimal exhaust emissions.
- To reduce human exposure to air pollution, and thus improve public health, particularly for areas of Sefton with high levels of deprivation.
- To reduce emissions relating to the A5036 for HGV vehicle traffic, particularly around high-density residential areas.

2.4 The proposed output is the implementation of the recommended CAZ scheme intervention, intended to achieve the following outcomes which support the strategic objectives listed above, providing a positive impact on the local environment, socio-economic factors and the health and well-being of residents and visitors:

- Significant air quality benefits (i.e. reduced Nitrogen Dioxide concentrations) within the CAZ boundary area (i.e. along key Port routes / within AQMAs) in addition to wider benefits across south Sefton; and
- An improvement in current disproportionate air quality impacts in some of Sefton's most health/economically deprived areas.

3. Delivery Approach

3.1 The Council is actively seeking to fulfil its Local Air Quality Management and public health responsibilities by investigating options for improving air quality,

particularly in the south of the Borough. An initial feasibility study was commissioned, which reviewed a range of options to improve air quality and achieve national air quality standards. In November 2019, in response to the feasibility study report, Sefton Cabinet considered and approved a proposal to develop an Outline Business Case for a Sefton Clean Air Zone.

- 3.2 A project team of Council officers, supported by commissioned technical experts has carried out further appraisal and developed the OBC. The OBC sets out the basis for proceeding with the Clean Air Plan and identifies the preferred option for a charging CAZ. Subject to the decision on the OBC, the next stage of the project will be to prepare a Full Business Case (FBC) setting out all the details of how the CAP will be implemented. The Council will continue to lead this process, with technical support commissioned as required.
- 3.3 A significant funding commitment will be required for implementation of the CAP and funding sources are yet to be identified for all elements of the CAZ scheme. A potential funding source for progression to a Full Business Case and implementation of a CAZ scheme is via central government's Joint Air Quality Unit (JAQU). Any funding exploration via JAQU will need to be supplemented with a request for agreement on the inclusion of the A5036 in the CAZ boundary, with support and liaison also needed with National Highways in this respect.
- 3.4 The FBC will also require a full understanding of the legal requirements with regards to powers and consents required for the implementation of a CAZ, and the legal requirement for formal statutory public consultation on the introduction of a CAZ.

4. Clean Air Plan Outline Business Case

- 4.1 The Outline Business Case developed for the Clean Air Plan adopts the standard Treasury Green Book 5-Case Model as follows:
 - Strategic Case
 - Economic Case
 - Financial Case
 - Commercial Case
 - Management Case
- 4.2 The Executive Summary for the Clean Air Plan Outline Business Case is provided in Appendix A and a summary of the key elements of the business case are provided below.

STRATEGIC CASE

- 4.3 The Strategic Case sets out the evidence supporting the case for change and demonstrates how the CAP project can improve air quality and fit with wider public policy objectives. The Strategic Case sets out the policy and strategy context, which includes a review of key policy documents relating to air quality and definition of the overarching Strategic Objectives. It provides a summary of the option identification and assessment process, including the definition of the option assessment framework, the identification and assessment of a

long-list of options, and the assessment process used to identify the preferred CAZ boundary option from short-listed options – based on its deliverability and achievement of the strategic objectives.

- 4.4 A series of options to improve air quality are identified in the Strategic Case, as additional and complementary to those already identified through the Council's Air Quality Action Plan (AQAP) and Air Quality Annual Status Report (ASR). This long list of options was assessed, including those featuring vehicle technology improvements, measures focused on freight consolidation, and specific interventions targeted at identified areas of poor air quality. However, the Options Assessment process indicated that many options are not likely to achieve the overall CAP Strategic Objectives or be viable in terms of their deliverability.
- 4.5 It was concluded that only a Charging CAZ aimed at HGVs would provide a viable potential effective option to meet the Strategic CAP Objectives within an appropriate timeframe without significant delivery challenges. Options for delivering a Charging HGV CAZ were therefore reviewed and assessed and are presented in the Strategic Case.

ECONOMIC CASE

- 4.6 The Economic Case assesses the value for money for the CAZ investment including the impact on the economy, environment, and society, based on an appraisal framework consistent with the Department for Transport (DfT) business case guidance.
- 4.7 A key point to recognise is that the main requirement in the identification of the preferred CAZ boundary option is the delivery of air quality improvements in Sefton, in line with the strategic objectives of the study. The costs of poor air quality to public health and Sefton's communities cannot be fully quantified using the conventional methods for assessing economic, environmental and social benefits; the key drivers in determining the preferred HGV CAZ boundary option were therefore not the economic benefits.
- 4.8 In this context, the outcome of the Economic Case appraisal presents dis-benefits as the costs are expected to exceed the benefits. It is typical for any CAZ scheme to indicate dis-benefits in the economic appraisal because not all of the benefits, i.e. air quality benefits, can be fully quantified and monetised for a CAZ scheme. The preferred CAZ boundary option does represent the best value option when balanced against the Option Assessment criteria. In addition, the Distributional Impacts Appraisal, which provides an analysis of the potential differential impacts of the scheme between groups of people or businesses across Sefton, shows that the proposals would benefit some of the most vulnerable people in the Borough.

FINANCIAL CASE

- 4.9 The Financial Case identifies the funding required to implement the Sefton CAP as well as the ongoing financial support required over the life span of the CAP, in accordance with the DfT business case guidance.

- 4.10 As the scheme is at the OBC stage, the Financial Case represents the position prior to procurement for the capital and operating costs. This means that there is further work required to develop the cost estimates, particularly through further detailed design work and engagement with potential suppliers and contractors. At OBC stage, the best available evidence has been used to inform cost estimates – using detailed information on cost elements where available and a benchmarking approach against other CAZ schemes where less evidence was available.
- 4.11 The overall project is currently estimated to cost approximately £9.3 million for capital and operating costs for a five-year operational Clean Air Zone. In addition, there are anticipated mitigation costs for financial support for businesses affected by the proposals (estimated at up to c.£10m depending on grant amounts and uptake levels) and additional funding for scheme development costs (including further work to develop the Full Business Case, statutory consultation and further technical work). Whilst some income will be generated from the introduction of a Clean Air Zone this will not cover these annual operating costs

COMMERCIAL CASE

- 4.12 The Commercial Case outlines the commercial viability of the CAP, setting out preliminary information relating to the procurement and contracting opportunities available to Sefton Council to take forward and deliver the CAZ.
- 4.13 Sefton Council will be responsible for leading the procurement activity for the CAZ scheme as part of the CAP and existing Council processes will be suitable and sufficient for the delivery of the project. A number of procurement activities will be required to deliver the proposed CAZ, including the development of a Full Business Case (FBC), detailed design activities to progress the scheme, infrastructure delivery (including signage and ANPR camera provision), CAZ operations, air quality monitoring and appropriate communications and marketing activities.
- 4.14 The commercial case highlights that there is still further work required to identify the preferred procurement pathway. This will follow potential discussions with JAQU regarding delivery and funding of the CAZ, in addition to discussions with National Highways regarding the A5036. However, the Commercial Case has confirmed the viability of the CAZ and has identified that there are various procurement and contracting arrangements that would be available to the Council to deliver the different elements of the CAZ. Following consideration of the OBC by Cabinet, the appropriate mix of procurements to deliver the scheme will need to be developed in conjunction with Sefton Council's procurement team if the scheme proceeds to the delivery stage.

MANAGEMENT CASE

- 4.15 The Management Case demonstrates the ability of the Council to successfully deliver the CAP. In accordance with the DfT's Transport Business Cases guidance requirements, it presents details of project planning, governance structure, risk management, communications and

stakeholder management, contract management, monitoring and evaluation, benefits realisation and assurance.

- 4.16 The risk register developed for the scheme identifies that the key risks relate to funding availability, a CAZ no longer being required at the point of implementation, lack of mitigation/understanding of socio-economic impacts, not achieving the strategic objectives, Covid impacts on delivery, judicial review resulting in challenges to the CAZ proposal and potential legal issues.
- 4.17 Measures to manage and mitigate these risks are also identified in the risk register. Key stakeholders have been identified and early engagement has commenced. An appropriate monitoring and evaluation strategy has been developed for the CAP.

CONCLUSIONS of CAP OBC

- 4.18 The case for change is strong because the OBC evidence base indicates the persistence of poor air quality at discrete locations and future risks due to increased traffic, particularly associated with HGVs on key Port routes (A5036/A565). In addition, HGVs are disproportionately high emitters of both NO_x and PM and the Preferred HGV Charging CAZ which targets key Port routes (A565/A5036) provides the best value option when balanced against the option assessment criteria.
- 4.19 The evidence-base indicates that significant air quality benefits within the CAZ Boundary area (Port Routes/AQMAs) and wider AQ improvements can potentially be achieved if the Council proceeds to the implementation of a HGV Corridor Charging CAZ, subject to the development of a Full Business Case (FBC). Furthermore, the air quality benefits of the Preferred HGV CAZ Option are concentrated in areas with some of highest levels of income/health deprivation – locally and nationally i.e. parts of Bootle, Litherland, Seaforth.
- 4.20 The estimated scheme costs (Capital and Operating) for the Preferred CAZ Option are provided but further work is required at FBC stage to develop the cost estimates, particularly through detailed design work and engagement with potential suppliers and contractors. In addition, funding for potential mitigation costs for financial support for businesses and scheme development and consultation costs require consideration.
- 4.21 Funding sources are yet to be identified for the progression of the OBC to FBC and/or any CAZ implementation. Key risks and measures to mitigate and manage those risks have been identified within the Management Case and are summarised in the appended CAP OBC Executive Summary. Key stakeholders are identified, and early consultation has been undertaken to share the high-level objectives, proposals and rationale for the CAZ scheme.

RECOMMENDATIONS of CAP OBC

- 4.22 Through a structured Options Appraisal process, the CAP OBC has assessed four short-listed HGV Charging CAZ Boundary Options. The preferred CAZ boundary option (Option 2A) consists of a Charging HGV CAZ including only

the A565 and A5036 corridors, thus including all of the existing AQMAs and focusing on areas of greatest concern. It was also recommended that a reserve option (Option 2B) is retained, subject to discussions with JAQU/National Highways regarding the proposal (under Option 2A) to include the A5036 (route managed by National Highways) within the CAZ.

4.23 The progression of the CAP scheme to the next stage, i.e. Full Business Case, will depend on a number of factors, which include key risks and constraints identified in the OBC work. The decision about whether to proceed to the FBC needs to take account of all these key issues, which are identified in the appended CAP OBC Executive Summary. The delivery of the CAP has several key dependencies / interdependencies, including:

- The need to identify a funding source for the implementation of the scheme, including provision for mitigation – noting that any funding sourced via JAQU may result in a mandate and requirements may be specified which differ from the Council's priorities and objectives.
- Agreement with JAQU/National Highways is required for the inclusion of the A5036, approvals of the proposed CAZ scheme, powers and consents (including the requirement of a Charging Scheme Order under section 168 Transport Act 2000).
- The neighbouring Liverpool City Council Clean Air Plan, which may have direct impacts on any scheme implemented in Sefton, which must be understood and accounted for.

4.24 Ongoing monitoring and consideration of all these dependencies will be required should the scheme progress to FBC stage.

4.25 In addition to these key issues/dependencies/interdependencies, it is important to recognise that the implementation of a CAZ is not in itself an all-encompassing solution for air quality issues, either within or outside the CAZ. The modelling analysis for the preferred CAZ option suggests that even with the CAZ scheme in place some existing exceedances will remain at a small number of discrete locations. The ongoing expansion of the Port of Liverpool and changes in the commercial operations at the Port may result in changes in background concentrations of NO₂, which is particularly relevant to the A565 corridor which contains three of the AQMAs. The successful implementation of the CAP therefore requires synergy with ongoing Council policies and initiatives with respect to air quality, as well as the Port Air Quality Strategy, and collaboration with key stakeholders such as the National Highways and neighbouring authorities within the city region.

NEXT STEPS / PATHWAYS FOR CONSIDERATION

5. Next steps

5.1 The Clean Air Plan OBC outcomes provide different options for the next steps in the process that need to be considered before any decision is made by Cabinet. Based on the OBC outcomes, Table 1 below indicates the different pathways for Cabinet consideration to determine the next steps for the CAP OBC. The primary decision is whether to proceed to the preparation of a Full Business Case or not, but there are different approaches that can be taken depending on the primary decision and these are summarised below.

Table 1 POTENTIAL DECISION PATHWAYS FROM CAP OBC

DO NOT PROCEED TO FULL BUSINESS CASE FOR A CHARGING HGV CAZ		
1	Business As Usual (BAU) approach	<p>Maintain current initiatives and monitoring.</p> <p>Due to:</p> <ul style="list-style-type: none"> ● a generally improving air quality situation across the wider area due to vehicle fleet turnover/replacement – <u>although this may not necessarily happen on the A5036/A565 if there is growth in HGV traffic and overall background pollution (In addition, the longer-term impacts of Covid are not yet fully realised – in terms of traffic flows and impacts on fleet improvements due to cost/availability of compliant vehicles)</u> ● likely compliance of NO₂ with national thresholds within the next few years. ● the significant costs of implementing a charging CAZ
2	BAU <u>plus</u> Option 2A HGV Corridor (A5036 / A565) focussed measures	<p>As for Option 1 ‘Maintain current initiative and monitoring’ plus:</p> <ul style="list-style-type: none"> ● implementation of a Non-Charging CAZ in Air Quality hotspots along key HGV corridors (A5036 / A565) and encourage voluntary compliance. ● focus available resources on additional and targeted corridor measures, for example, supporting a vehicle upgrade programme.
2+	BAU <u>plus</u> Option 2A Corridor focussed measures <u>plus</u> wider measures	<p>As for Option 2 ‘BAU <u>plus</u> Option 2A HGV Corridor (A5036 / A565) focussed measures’ plus:</p> <ul style="list-style-type: none"> ● implementation of wider area measures to improve air quality in addition to a Non-Charging CAZ in Air Quality hotspots along key HGV corridors (A5036 / A565) ● allocate additional resources for wider measures outside the corridors also to improve air quality across south Sefton, for example, carbon reduction initiatives targeted at the freight sector.
PROCEED TO A FULL BUSINESS CASE FOR A CHARGING HGV CORRIDOR CAZ (A565 AND A5036)		
3	FBC for Charging CAZ (If can secure JAQU support and	Proceed to FBC only if JAQU support/approval is gained through exploring/securing funding opportunities based on OBC outcomes.

	funding*) **	<ul style="list-style-type: none"> ● Begin approach for JAQU liaison immediately – understand current funding position / prepare technical submission. ● Further post-OBC scheme development work can be undertaken in the interim, as appropriate .
4	FBC for Charging CAZ (Council funded) **	<p>Proceed to FBC and allocate Council funding as required</p> <ul style="list-style-type: none"> ● Decision about submission to JAQU to be made at a later date.

**Note – Central government approval is required for any CAZ scheme and for the inclusion of National Highways Strategic Road Network. National Highways support would therefore also be required for the potential inclusion of the A5036, in addition to any central/government / JAQU approval of this.*

*** There will also be a requirement to fully understand the legal requirements with regards to powers and consents required for the implementation of the CAZ, and a legal requirement for formal statutory public consultation on the introduction of the CAZ.*

5.2 It is important to note that the focussed and wider area measures referenced in pathways 2 and 2+ have not been considered and assessed within this OBC. The OBC has focussed only on the assessment of a Charging HGV CAZ. Further development work would be required to identify what other measures would be most likely to be effective in improving air quality if the decision were made not to proceed to the FBC for the CAP. The decision about whether to proceed to the FBC will be made at a subsequent Cabinet once the conclusions and recommendations of the OBC have been fully considered.

**APPENDIX A:
EXECUTIVE SUMMARY: SEFTON CLEAN AIR PLAN OUTLINE BUSINESS
CASE**

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Sefton Clean Air Plan

Outline Business Case

Executive Summary

June 2022

Sefton Council



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1. Background and Rationale for the CAP OBC

- 6.1 Sefton Council is preparing this Clean Air Plan (CAP) Outline Business Case (OBC) because there are locations within Sefton with persistent poor air quality, and this poor air quality has detrimental effects on public health and the wider environment. **Air pollution** is now recognised as the **greatest environmental risk to human health** in the United Kingdom (UK) and as such is identified as a national public health priority. Some of the **worst air quality** in Sefton is concentrated within areas with **existing high levels of health and income deprivation**, meaning that the worst air quality is experienced by those most vulnerable to its effects.
- 6.2 Sefton’s Clean Air Plan (CAP) is primarily concerned with **Nitrogen Dioxide (NO₂)**, but the CAP will also consider Particulate Matter (PM) and Carbon Dioxide (CO₂).
- 6.3 Currently, NO₂ and PM are the pollutants causing the largest health impacts in the Sefton. These pollutants are mostly associated with road transport. NO₂ is the main pollutant currently breaching legal limits within Sefton, particularly stemming from the combustion of diesel fuel associated with heavy goods vehicles (HGVs), light goods vehicles (LGVs) and diesel cars.
- 6.4 Heavy Goods Vehicle (HGV) traffic associated with the **Port of Liverpool** makes a substantial contribution to pollution levels in nearby areas. Port expansion in the coming years will pose additional challenges, primarily through an **increase in levels of HGV traffic and consequent congestion and increased emissions**.
- 6.5 Air quality in Sefton has been reviewed and assessed by Environmental Health Officers for many years. Air quality in most of the Borough is within national air quality limits. However, **four localised areas** have been identified in the south of the Borough where levels of NO₂ are close to or above the health based annual average national standard. These areas have been designated as **Air Quality Management Areas (AQMAs)**, which include key junctions on the A565 and A5036.
- 6.6 Without further action, increased emissions from HGVs due to the Port expansion and wider traffic growth could result in these areas not achieving compliance with national objectives under current conditions. In addition, new areas may become non-compliant.

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- 6.7 The government (via the **Joint Air Quality Unit – JAQU**) has now instructed many local authorities across the UK to take quick action to reduce harmful NO₂. Although **Sefton Council has not been mandated by JAQU** to undertake a feasibility study (like many other local authorities), this does not mean that there are no air quality issues which need to be addressed. In response to its local air quality management responsibilities, Sefton Council has undertaken further localised air pollution modelling and has chosen to take additional steps to support local aspirations to improve air quality beyond just compliance with the national standards.
- 6.8 In 2019, the Council commissioned a **Preliminary Clean Air Zone Feasibility Study** to consider the composition of traffic in Sefton, establish baseline levels of key air pollutants, and assess the likely future level of pollutants if no further air quality improvement actions were implemented. The study also considered what impact the implementation of a potential Clean Air Zone (CAZ) in Sefton would have on pollution levels.
- 6.9 The study concluded that in the areas of greatest concern, including the AQMAs, HGV emissions were responsible for a disproportionate amount of nitrogen oxide (NO_x) emissions and that a CAZ that targets HGVs and which includes the junction of Princess Way and Crosby Road, would potentially achieve the most significant benefits.
- 6.10 Following consideration of the conclusions of the preliminary study, Sefton's Cabinet agreed that an Outline Business Case (OBC) for a Clean Air Plan should be prepared, to set out future air quality recommendations for Sefton.

2. The Clean Air Plan Proposal

- 7.1 The Clean Air Plan (CAP) proposal set out in this document comprises a **CAZ scheme** that, informed by the work undertaken through the 2019 Preliminary Clean Air Zone Feasibility Study, **aims to address persistent air quality issues identified within Sefton in the shortest time possible**.
- 7.2 The CAZ scheme proposed as the preferred option (referred to as 'Option 2A') features a charging CAZ applied to non-compliant¹ HGVs that cross into a designated section of the Sefton highway network. The CAZ would apply to HGVs only, meaning any goods vehicle with a maximum gross weight of greater than 3.5 tonnes. Any vehicle below this weight is classified as a light goods vehicle and is therefore not included within the CAZ.

¹ A non-compliant HGV is one that is not compliant with the emission standards required by the CAZ. The minimum emission standard for HGVs is a Euro VI classification engine. In practice this means vehicles manufactured prior to or during 2014. However, some older vehicles may be retro-fitted with engines that do meet the Euro VI standards.

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- 7.3 The daily charge for entering the CAZ would be £50 per day for all non-compliant HGVs. A £50 daily CAZ charge for HGVs is intended to ensure that the Sefton charge is consistent with, and not greater than, other comparable authorities, whilst ensuring that it is significant enough to encourage HGV operators to upgrade their vehicles and provide the required air quality improvements.
- 7.4 The preferred CAZ option is focused on the A565 and A5036 corridors, which are key HGV routes and so that all four of the existing AQMAs are included. The corridors are combined to provide a single CAZ for practical reasons and to provide continuity of traffic routes.
- 7.5 Incorporating the A5036 within the CAZ will require a co-operative approach between Sefton Council and National Highways (NH) because entry and exit signs and enforcement cameras will need to be installed on the National Highways network.
- 7.6 The boundary of the proposed CAZ is shown in **Figure 1**.

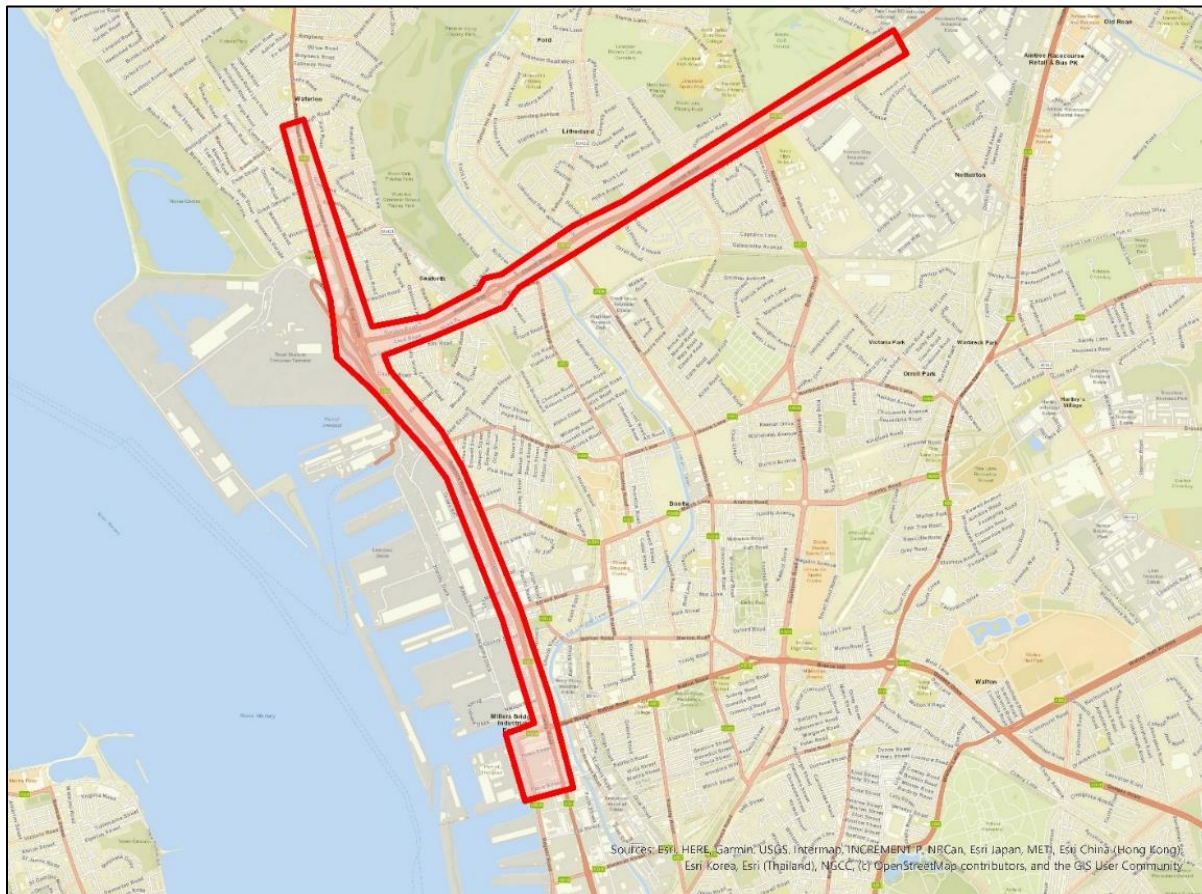
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Figure 1: Proposed CAZ Boundary



7.7 As part of the Clean Air Plan, an Outline Business Case (OBC) has been prepared in order to make a case for taking forward the CAZ scheme as outlined above. Going forward, the CAP may also include measures to mitigate any detrimental impacts of the CAZ. A business case is a high-level process to assess investment decisions, designed to allow comparisons of proposals (or options) for investment. The OBC has been developed in line with the evidence-based decision making set out in the Treasury's Green Book and uses the best practice five case model approach.

7.8 The main elements of the 'Five Case Model' are structured as standalone documents within the OBC. These five cases consist of:

- The Strategic Case.

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- The Economic Case.
- The Financial Case.
- The Commercial Case; and
- The Management Case.

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3. The Strategic Case

- 8.1 The purpose of the Strategic Case is to **set out the evidence supporting the case for change and to demonstrate how the CAP project can improve air quality and fit with wider public policy objectives**. The Strategic Case sets out the policy and strategy context, which includes a review of key policy documents relating to air quality. It provides a summary of the option identification and assessment process, including the definition of the option assessment framework, the identification and assessment of a long-list of options, and the assessment process used to identify a preferred option from short-listed options.
- 8.2 The Strategic Case explains the problems and opportunities the CAP is intended to address, with a focus on using robust evidence-led analysis to build the case for change. The key drivers for change are that the Government, and Local Authorities, in accordance with their local air quality management responsibilities, **are required to deliver air quality within national limit values in the shortest possible time**. Within Sefton, this is also supported by a local desire to go further (**'beyond compliance'**) to improve air quality and the health and well-being of Sefton's communities, with a particular focus on areas where high levels of human exposure and health deprivation are prevalent (*this goal is consistent with the Council's Vision 2030 objectives, and is guided by the advice of the World Health Organisation indicating that there are no safe levels with regards to human exposure to air pollution⁴ (World Health Organisation, WHO Global Air Quality Guidelines, September 2021)*). As well as the air quality issues, the **legal, environmental, public health, societal and transport implications** of the case for change (and benefits of the scheme) are also discussed.
- 8.3 The different options for the CAP were assessed using an Option Assessment Framework that included the evaluation of options against the four strategic objectives determined for the study (see **Figure 2**) and a range of six key deliverability criteria. These deliverability criteria included **technical feasibility, affordability, stakeholder acceptability, delivery mechanism, business impacts, and value for money**.
- 8.4 Following an assessment of a 'long list' of options, the shortlisted options included four CAZ boundary options with specific assumptions on CAZ vehicle classification, charging levels and assumed behavioural responses. The four CAZ boundary specifications were based around cordon, corridor and gateway alternatives – these are summarised in **Table 1**.

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Table 1: CAZ Option Boundary Specifications

Option	CAZ Boundary Specification
Option 1	Cordon CAZ – South Sefton (bounded by A5758, A565 and boundary with Liverpool).
Option 2A	Key corridors CAZ – A5036 and A565.
Option 2B	Key corridor CAZ – A565 only (A5036 excluded).
Option 3	Gateways CAZ – three separate CAZ areas at key junctions, A565/Millers Bridge, A565/A5036, and A5036/A5038 Netherton Way.

8.5 **Table 2** summarises the outcome of the assessment of short-listed options against the indicators and evidence for each assessment criteria.

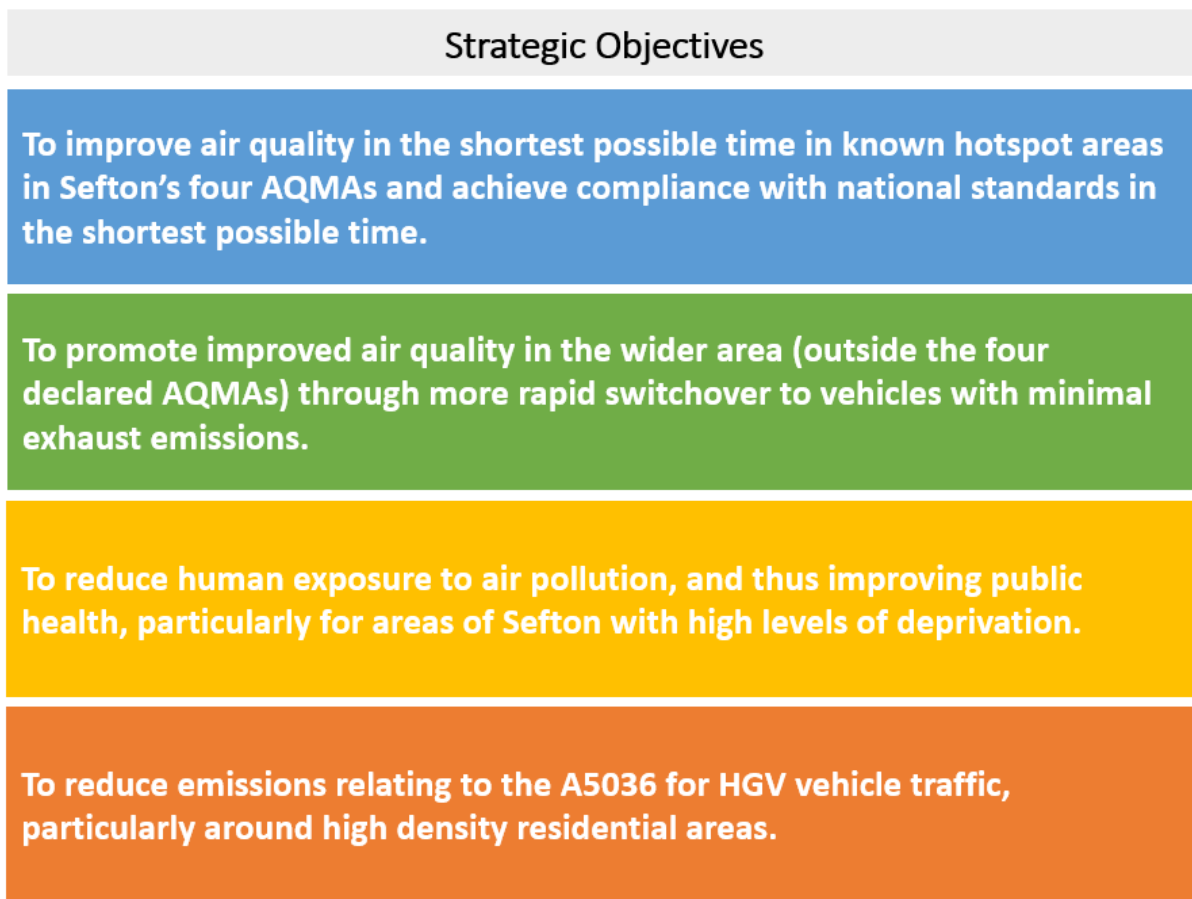
8.6 Based on the option assessment process, **Option 2A** was determined as the preferred CAZ boundary option. This option consists of a CAZ including only the A565 and A5036 corridors, thus including all of the existing AQMAs and focusing on areas of greatest concern.

8.7 It was also **recommended that Option 2B is retained as a reserve option**, subject to discussions with JAQU/National Highways regarding the proposal (under Option 2A) to include the A5036 (route managed by National Highways) within the CAZ. Option 2B, whilst allowing for the inclusion of all vehicles accessing the Port, does not include all HGVs travelling on the A5036 and therefore does not enable the coverage of all declared AQMAs. Option 2B is, however, **the only option which can be delivered entirely within Sefton’s local highway network boundary**.

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8.8 **The Strategic Case has presented the case for change and has demonstrated how the CAP will improve air quality and contribute to wider policy objectives. The different options have been identified and assessed, and a preferred HGV charging CAZ boundary option (Option 2A) has been identified, based on its deliverability and achievement of the strategic objectives.**

Figure 2: Clean Air Plan Strategic Objectives



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Table 2: Overall Option Assessment Scores

Option Name	Objective 1	Objective 2	Objective 3	Objective 4	Technical Feasibility	Affordability	(including public) Acceptability	Delivery Mechanism	Business Impacts	Value for Money
Do Nothing	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
Option 1: South Sefton CAZ	Moderate Beneficial	Strong Beneficial	Strong Beneficial	Strong Beneficial	Strong Adverse	Strong Adverse	Strong Adverse	Moderate Adverse*	Strong Adverse	Strong Adverse
Option 2a: Key Corridors CAZ including the A5036	Moderate Beneficial	Moderate Beneficial	Moderate Beneficial	Strong Beneficial	Moderate Adverse	Moderate Adverse	Slight Adverse	Moderate Adverse*	Moderate Adverse	Moderate Adverse
Option 2b: Key Corridors CAZ excluding the A5036	Moderate Beneficial	Moderate Beneficial	Moderate Beneficial	Slight Beneficial	Moderate Adverse	Moderate Adverse	Moderate Adverse	Moderate Beneficial	Moderate Adverse	Moderate Adverse

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Option 3: Three Gateways	Moderate Beneficial	Slight Beneficial	Moderate Beneficial	Strong Beneficial	Moderate Adverse	Slight Adverse	Strong Adverse	Moderate Adverse*	Moderate Adverse	Moderate Adverse
--------------------------	---------------------	-------------------	---------------------	-------------------	------------------	----------------	----------------	-------------------	------------------	------------------

Strong beneficial alignment	
Moderate beneficial alignment	
Slight beneficial alignment	
Neutral	
Slight adverse alignment	
Moderate adverse alignment	
Strong adverse alignment	

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4. The Economic Case

- 9.1 The Economic Case demonstrates the value for money of the investment including the impact on the economy, environment and society, based on an appraisal framework consistent with the Department for Transport (DfT) business case guidance.
- 9.2 It is important to recognise that the key imperative in the identification of a preferred option is the delivery of air quality improvements in Sefton, in line with the strategic objectives of the study as set out in **Figure 2**. The costs of poor air quality to public health and Sefton's communities cannot be fully quantified using the conventional methods for assessing economic, environmental and social benefits; the key drivers in the option assessment process were thus not the economic benefits.
- 9.3 In this context, the Clean Air Plan Economic Case does not drive the decision-making process, but rather **seeks to provide information on the quantifiable costs and benefits (as far as possible)** associated with each of the scheme options assessed.
- 9.4 The economic appraisal seeks to quantify and value the various impacts that the scheme will have on the economy, environment and society. The appraisal makes use of the transport and air quality modelling undertaken for the purpose of the study. Not all impacts of the scheme can be monetised in this manner and this was acknowledged as part of the option assessment process, which focused on a variety of criteria, including the performance of options in terms of air quality improvements at specific locations of interest.
- 9.5 The scope of economic impacts considered included:
- **Health and Environmental Impacts**, including air quality impacts and Greenhouse Gas impacts;
 - **Transport User Benefits**, including travel time savings, vehicle operating costs and CAZ charge costs to users;
 - **Vehicle Upgrade Costs**, including direct costs of upgrading vehicles and associated scrappage and transaction costs; and
 - **Implementation Costs**, including all estimated costs of implementing and operating the scheme.
- 9.6 Each of these economic impacts has been assessed relative to a 'Business As Usual' (BAU) scenario without a CAZ intervention.

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- 9.7 The transport modelling has also been used to estimate the costs associated with vehicle upgrades and replacements resulting from the CAZ. These costs are primarily associated with the costs of HGV owners purchasing newer, compliant vehicles to replace non-compliant vehicles that would be subject to a CAZ charge. The estimated costs are informed by local information on HGV vehicle costs, but do not account for the potential lasting impacts of vehicle availability partly caused by the Covid-19 pandemic.
- 9.8 The outcome of the economic appraisal is a Net Present Value (NPV) for the preferred option. This NPV is calculated from the Present Value of Benefits (PVB) and Present Value of Costs (PVC) for implementing and running the scheme, represented in 2010 prices consistent with DfT guidance. NPV is calculated as the Present Value of Benefits (PVB) minus the Present Value of Costs (PVC): (NPV = PVB – PVC). The total NPV for the scheme is -£15.1m. The negative value means that the costs are expected to exceed the benefits, although it must be noted that not all the benefits can be fully quantified and monetised. **A negative PVB and NPV is typical for a CAZ based scheme assessed using these appraisal methods.** The summary of the monetised scheme costs and benefits is presented in **Table 3**.

Table 3: Analysis of Monetised Costs and Benefits (£m, 2010 prices discounted to 2010)

Measure	Option 2A
Present Value of Benefits (PVB)	-8.7
Present Value of Costs (PVC)	6.4
Net Present Value (NPV)	-15.1

- 9.9 For the assessment of a typical transport scheme under DfT guidance, a Benefit-Cost Ratio (BCR) would be calculated to provide a high-level indication of value for money. In line with other CAZ economic cases prepared under JAQU guidance, a BCR is not considered applicable for the CAP scheme, and hence is not presented here as this would result in an illogical value due to the negative PVB. In common with other CAZ schemes, a negative PVB results because the key objectives of the scheme are not focused on delivery of conventional user benefits (such as travel time savings), but on improving local air quality. The air quality impacts have a lower direct monetised value in appraisal terms, but standard appraisal methodology does not cover the full extent of indirect health benefits that would apply.

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- 9.10 In the case of a scheme such as the Clean Air Plan the measures of success of the scheme lie outside the standard benefits used to estimate a PVB using the DfT appraisal framework and it is not expected to provide an economic return on the investment. Therefore, the NPV does not provide a full measure of value for money. Since Option 2A would deliver against the core strategic objectives of the scheme, which are focused on improving local air quality in the shortest time possible, it is considered that the **preferred scheme option does represent the best value option when balanced against the Option Assessment Criteria.**
- 9.11 The economic appraisal is supplemented by a **Distributional Impacts Appraisal (DIA)**, which provides an analysis of the potential differential impacts of the scheme between groups of people or businesses across Sefton. Distributional analysis helps to understand **whether a particular policy/scheme unduly favours or disadvantages particular groups.** This can be used to inform measures to mitigate the impact of the policy on those groups or the amendment of the policy itself.
- 9.12 The DIA suggests that the **air quality benefits of the scheme are particularly concentrated in areas that have some of the highest levels of income and health deprivation within Sefton**, therefore benefitting some of the most vulnerable people.
- 9.13 It should however be recognised that there are locally registered HGVs that would be potentially subject to the CAZ charges if they are non-compliant with the CAZ, and the operators of these vehicles may require assistance with bringing forwards any upgrades to their vehicle fleet. **The appraisal undertaken at this stage did not fully capture the potential costs or impacts of any mitigation measures**, for example, to support local Small and Medium-sized Enterprises (SMEs) with funding for vehicle upgrades.
- 9.14 **The Economic Case has demonstrated that using conventional economic appraisal methods results in the Sefton CAZ having a negative Net Present Value, in common with other CAZ schemes. This is because the full extent of potential benefits is not included or valued as part of the existing methods. However, the Distributional Impacts Appraisal shows that the proposals would benefit some of the most vulnerable people in the Borough. The Distributional Impacts Appraisal also highlights the potential for the proposals to impact on local owners and operators of non-compliant HGVs which may require targeted assistance through mitigation measures.**

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5. The Financial Case

- 10.1 The Financial Case identifies the funding required to implement the Sefton CAP as well as the ongoing financial support required over the life span of the CAP, in accordance with the DfT business case guidance.
- 10.2 As the scheme is at the OBC stage, the Financial Case represents the position prior to procurement for the capital and operating costs. This means that there is further work required to develop the cost estimates, particularly through further detailed design work and engagement with potential suppliers and contractors.
- 10.3 At the OBC stage the best available evidence has been used to inform cost estimates. The level of certainty associated with these estimates varies based on the types of costs. With this in mind, detailed information on cost elements was used where available and a benchmarking approach was used where less evidence existed. As such, a bespoke cost estimate was produced for the highway infrastructure elements but a benchmarking approach was adopted for CAZ Service implementation, staff resources and CAZ operating costs.
- 10.4 **The total capital costs for the Sefton CAZ were estimated at £4,101,000, with operating costs of circa £1 million per annum (all in 2021 prices).** Assuming that the CAZ is operational for five years, together with development, implementation and decommissioning costs, the current capital and operating costs across the lifecycle are estimated at **£9,227,000 in 2021 prices**². These costs exclude provision for inflation which would need to be included to determine the final funding requirement. The total estimated costs are summarised in **Table 4**.

² This value differs from the total costs used in economic appraisal, which are adjusted to 2010 prices and discounted.

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Table 4: Total Scheme Costs (five-year operational period) - to the nearest thousand £, 2021 prices)

Capital Cost Item	Total Cost (scheme life span)
Total Capital Costs excluding inflation	£4,101,000
Total Operating Costs	£5,126,000
Total Costs	£9,227,000

- 10.5 The costs presented above do not include some other costs that would be incurred in taking the scheme forward. Whilst the above costs include estimates relating to the design of the CAZ highway infrastructure, there will also be scheme development costs, including further work to develop the Full Business Case (FBC) and associated technical work.
- 10.6 The OBC work has also identified the potential requirement to provide support funding to affected vehicle owners to help in meeting the costs of upgrading to compliant vehicles; CAZs implemented in other cities have typically included this. The costs relating to support funding are not currently included in the above costs – it is recommended that the extent of any support required is specified based on future consultation and stakeholder engagement. The mitigation costs for financial support for businesses affected by the proposals could be as much as c.£10m (depending on grant amounts and uptake levels).
- 10.7 In addition to updated costs, there will be a requirement to re-assess the funding sources for the scheme. Income generated from daily charges and Penalty Charge Notices (PCNs) may be ring-fenced to support the operational costs for the scheme. Additional revenue sources (beyond that recovered by the CAZ) will probably be required to operate the scheme. The approach to this going forward will depend on decisions about how the scheme might be funded.
- 10.8 **The Financial Case has identified estimated costs of £9.2m (in 2021 prices, excluding inflation) for the implementation and operation of the preferred option CAZ over a 5-year period. However, it must be noted that these estimates do not include some of the further scheme development costs or the potential costs of mitigation measures to support local businesses.**

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6. The Commercial Case

- 11.1 The Commercial Case outlines **the commercial viability of the CAP, setting out preliminary information relating to the procurement and contracting opportunities available to Sefton Council to take forward and deliver the CAZ.** It provides evidence that the proposed CAZ investment can be procured, implemented and operated in a viable and sustainable way. The case therefore represents the position prior to any procurement.
- 11.2 Sefton Council will be responsible for leading the procurement activity for the CAZ scheme. Procurement activities may be required from National Highways (as a potential delivery partner) in relation to signage and camera installation on the Strategic Road Network (SRN).
- 11.3 The procurement strategy highlights that there is still further work required to identify the preferred pathway forward. This will follow potential discussions with JAQU regarding delivery and funding of the CAZ, in addition to discussions with National Highways regarding the A5036.
- 11.4 A number of procurement activities will be required to deliver the proposed CAZ, including the development of a Full Business Case (FBC), detailed design activities to progress the scheme, infrastructure delivery (including signage and Automatic Number Plate Recognition (ANPR) camera provision), CAZ operations, air quality monitoring and appropriate communications and marketing activities.
- 11.5 Potential sourcing approaches have been identified. These include making use of internal Sefton staff resources, undertaking a direct supplier appointment, making use of existing internal Council frameworks and/or contracts, making use of external frameworks commissioned by other conveners, collaboration with other public bodies or through a standalone public sector procurement notice.
- 11.6 The appropriate mix of procurements to deliver the scheme will need to be developed in conjunction with Sefton Council's procurement team if the scheme proceeds to the delivery stage. Given the various potential routes to market and sourcing options available, a range of contracts may be required due to the varying nature of the elements required to deliver the CAZ.
- 11.7 The key procurement risk relates to potential delays or challenges to procurement processes (namely associated with the preparation of any tenders, the review of tenders, challenge to award and/or agreement of Terms and Conditions). Upon confirmation of the preferred procurement strategy for the CAP project, the project risk register will be updated with respect to individual procurement activities.

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- 11.8 It is recommended that a risk allocation and transfer matrix is prepared to nominate anticipated pre-contracted risk position and identify whether risks will be borne by Sefton Council, the supplier or will be shared. This aligns with the internal Sefton Council requirement to prepare a procurement sourcing risk assessment for the project.
- 11.9 Following consideration of the OBC by Cabinet, there is a requirement to further specify the procurement requirements – this will be informed by detailed design works as part of the next stage. This work will enable the project team, in collaboration with the Sefton Council procurement team, to evaluate and make recommendations on the preferred procurement strategy including sourcing and routes to market together with potential bundling opportunities. In advance of any formal decisions on the procurement approach, the Commercial Case demonstrates that there are a number of viable options that may be progressed for the CAZ.
- 11.10 Should the CAZ scheme be taken forward, the FBC will need to include greater consideration of payment mechanisms, pricing framework and charging mechanisms, risk allocation and transfer, contract length, human resources and contract management arrangements - in line with DfT guidance. The position on each of these topic areas should be resolved prior to the submission of the FBC.
- 11.11 **The Commercial Case has confirmed the viability of the CAP and has identified that there are various procurement and contracting arrangements that would be available to the Council to deliver the different elements of the CAZ.**

7.The Management Case

- 12.1 The Management Case sets out **how the Sefton CAP can be successfully delivered**. In accordance with the DfT's Transport Business Cases guidance requirements, it **presents details of project planning, governance structure, risk management, communications and stakeholder management, contract management, monitoring and evaluation, benefits realisation and assurance**.
- 12.2 Sefton Council has not previously delivered a CAZ; however, the Council has experience in delivering projects with similar characteristics, including traffic signals management (including liaison with National Highways over the A5036), enforcement activities, such as for parking, monitoring projects (such as Sefton Arc), infrastructure projects and air quality projects. Lessons from such relevant experience will be used to inform the management processes required for the delivery of a CAZ scheme.

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- 12.3 The Management Case sets out the internal governance processes in place for the CAP. This includes the allocation of key roles and responsibilities to relevant parties and individuals.
- 12.4 Delivery of the CAP has several key dependencies / interdependencies, with respect to funding, an agreement with JAQU/National Highways on the inclusion of the A5036, approvals of the proposed CAZ scheme, powers and consents (including the requirement of a Charging Scheme Order under section 168 Transport Act 2000), and the neighbouring Liverpool City Council Clean Air Plan. Ongoing monitoring and consideration of all these dependencies will be required should the scheme progress to FBC stage.
- 12.5 The Management Case provides a summary of the communication and engagement approach for the CAP. The approach will be based on the Public Engagement and Consultation Framework that Sefton Council has developed and adopted. The communication approach will focus on keeping communities and key stakeholders informed about the current air quality position and air quality actions in Sefton, combined with proactive communications messages about the CAZ and the release of information through Council meetings.
- 12.6 A Monitoring and Evaluation Plan and a Benefits Realisation Plan have been developed as part of the OBC work. The ongoing development of these plans will ensure that a process is in place for monitoring CAP outcomes and effectiveness, and accurately capturing the achievement of benefits.
- 12.7 The Sefton Council assurance processes will be followed to ensure that the CAP delivers its intended outcomes. Furthermore, once a funding source is identified, any additional assurance and approvals processes that are required will be detailed and incorporated within the programme plan, which will identify timescales for the delivery phase.
- 12.8 Alongside preparation of the OBC, a Risk Register has been developed which will become a live document throughout the project lifecycle to ensure a thorough and proactive approach to risk and contingency management. Risks have been identified together with measures to manage and mitigate the risks. The key risks identified in the risk register are:
- The CAZ is no longer required at the point of implementation;
 - The socio-economic impact is not adequately understood and mitigated;
 - There is a lack of funding and resources available to implement the CAZ;
 - The air quality objectives are not achieved with the preferred option;
 - Disruptions due to Covid persist and affect potential delivery;

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- The CAZ proposals are challenged via Judicial Review; and
- Decisions are made that are not legally defensible.

12.9 **The Management Case has demonstrated the ability of the Council to deliver the CAP, providing information on governance, assurance, risk management, stakeholder engagement and monitoring and evaluation.**

8. Recommendations

13.1 A HGV charging CAZ Option 2A (key corridors A565 and A5036) has been identified as the preferred and recommended CAZ option for the CAP scheme. It is recommended that Option 2B (key corridors, A565 only) is retained as a reserve option, subject to liaison with JAQU/National Highways regarding the inclusion of the A5036 within a CAZ.

13.2 The detailed option assessment process demonstrated that Option 2A features several distinct advantages over alternative CAZ specifications assessed:

- Includes all the AQMAs within its boundary, thereby incorporating areas with most prominent and persistent air quality issues and represents a solution focused directly on the problem to be addressed;
- Modelling work demonstrates significant benefits in terms of reduction of NO₂ within the CAZ boundary and wider overall air quality improvements;
- Incorporates areas with some of the highest levels of health deprivation in Sefton, thus delivering benefits to those most vulnerable and at risk from poor air quality;
- Incorporates key routes to the Port of Liverpool, enabling capture of all vehicles bound for or leaving the Port access gates;
- Features the best balance of benefits against costs of all CAZ options assessed (including costs incurred by businesses); and
- Presents the least deliverability barriers to implementation in the shortest time possible of all CAZ options assessed.

13.3 The progression of the CAP scheme to the next stage (FBC) will be contingent upon a number of factors for consideration, which include key risks and constraints identified through the course of the OBC work. It is recommended that due consideration be given to all these issues, which can be summarised as follows:

- The need to identify a funding source – the combined capital and operating scheme costs have been estimated at approximately £9m, in addition there

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would be a probable need for additional funding for mitigation measures and further scheme development funding required to progress an FBC (such as funding for public consultation).

- JAQU/National Highways support is required for Option 2A due to the inclusion of A5036 within the CAZ;
- Ongoing improvements to vehicle emissions due to wider fleet turnover mean that NOx emissions should decrease over time. However, growth in HGV traffic due to the Port expansion is likely to continue, meaning that numbers of the most polluting vehicle type (HGVs) on key corridors may well increase;
- The high background concentrations of air pollutants in areas close to the Port require liaison on the Port Air Quality Strategy to supplement traffic measures, particularly due to associated exceedances in specific AQMAs i.e. Millers Bridge AQMA;
- The Covid-19 pandemic led to a sharp short-term decrease in traffic levels resulting in temporary air quality improvements. However, traffic count data on the A5036 indicates that by early 2022 traffic flows had already returned to pre-pandemic levels. The pandemic has also impacted on the cost and availability of newer compliant vehicles, the effects of which on the overall fleet composition are still being understood;
- A charging CAZ aimed at non-compliant HGVs would have a financial impact on businesses owning and operating such vehicles; some of these may be smaller, locally based organisations with less financial resilience, and hence there may be a need for financial mitigation through grants towards vehicle upgrades. The cost of this mitigation would clearly be dependent on the level of support provided, but could potentially be comparable with the cost of implementing the CAZ itself;
- There will be a need for formal statutory consultation on the CAZ in order to meet legal requirements for its implementation; this process would need to ensure that all potential voices are heard and may highlight some opposition to the scheme;
- The potential for Liverpool City Council to progress its own Clean Air Plan may have direct impacts of any scheme implemented in Sefton which must be understood and accounted for; and
- Potential to liaise with JAQU/wider Government regarding a funding source; a mandate would likely be required to obtain access to JAQU funding streams.

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- 13.4 If a mandate were to be forthcoming from JAQU to Sefton to resolve air quality exceedances within the shortest possible time, this would be likely to be focused on the specific requirements of JAQU which may not be aligned fully with the objectives of the CAP OBC. The priorities of JAQU may introduce a risk that the Council would be compelled by the conditions of the mandate to consider more stringent CAZ solutions, such as the inclusion of non-HGV vehicle types, or the expansion of the CAZ boundary. Such potential outcomes should be considered in terms of liaising with JAQU regarding a clean air mandate.
- 13.5 In addition to the issues identified above, it is important to recognise that the implementation of a CAZ is not in itself an all-encompassing solution for air quality issues, either within or outside the CAZ. The modelling analysis for the preferred CAZ Option 2A suggests that even with the CAZ scheme in place **there will remain some exceedances in 2023 at a small number of locations.**
- 13.6 The ongoing expansion of the Port of Liverpool and changes in the commercial operations at the Port may result in changes in background concentrations of NO₂, which is particularly relevant to the A565 corridor which contains three of the AQMAs. The successful implementation of the CAP therefore requires synergy with ongoing Council policies and initiatives with respect to air quality, as well as the Port Air Quality Strategy, and collaboration with key stakeholders such as National Highways and neighbouring authorities within the city region.
- 13.7 The OBC approach provides Sefton Council (and relevant stakeholders) with evidence to determine whether the CAZ investment is worth pursuing and information relating to the ability of Sefton Council to deliver the proposed scheme. The OBC supports transparent decision making, and provides a balanced assessment of cost, benefits, risk and value for money.

9. Next Steps

- 14.1 A summary of next steps are as follows:
- Cabinet to decide on a pathway towards proceeding with the Clean Air Plan. This will involve deciding on whether to proceed with the proposed CAZ scheme to the next stage, i.e. the Full Business Case (FBC).
 - Should the Cabinet decide to progress the proposed scheme, the identification of a funding source will be required and further discussions will be required with National Highways regarding the inclusion of the A5036 within the CAZ (as per Option 2A). If the scheme cannot be fully funded by the Council, there is an option to liaise with JAQU and wider Government to explore funding options.

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- If a decision is reached to progress the scheme without JAQU support/funding, a more detailed assessment will be required of the necessary costs in taking forward scheme development, including the requirement for funding to support vehicle upgrades. In addition, there will be a requirement to fully understand the legal requirements with regards to powers and consents required for the implementation of the CAZ, and a legal requirement for formal statutory public consultation on the introduction of the CAZ.
- If the proposed scheme is not progressed, it will be necessary to re-consider and explore alternative options including measures set out within the option assessment long list. Work undertaken as part of the OBC identified that such options are unlikely to be as effective as a CAZ at meeting the Clean Air Plan objectives, particularly in delivering air quality improvements within the shortest possible time.

14.2 Whilst further post OBC scheme development work can be undertaken at this stage, it should be noted that funding for the scheme would need to be identified prior to submitting the FBC itself.

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Appendix A - Glossary

Glossary of terms

Acronym	Term	Description
ANPR	Automatic Number Plate Recognition	Automatic Number Plate Recognition is surveillance technology which uses optical character recognition on camera images to read a vehicle's number plate.
AQMA	Air Quality Management Area	Local areas that have been identified where levels of air pollution are close to or above the health based annual average national standard. There are four designated AQMAs within Sefton.
BAU	Business As Usual	Represents a future baseline scenario without a CAZ intervention for the purpose of option assessment and appraisal.
BCR	Benefit-Cost Ratio	An indicator used to show the relationship between the relative costs and benefits of a proposed project, expressed in monetary or qualitative terms.
CAP	Clean Air Plan	A Clean Air Plan is a plan including targets and interventions designed to improve air quality.
CAZ	Clean Air Zone	A Clean Air Zone defines an area where targeted action is taken to improve air quality and resources are prioritised and coordinated in order to shape the urban environment in a way that delivers improved health benefits and supports economic growth.
CO ₂	Carbon Dioxide	Whilst generally harmless to human and environmental health as part of the respiratory cycle, excess CO ₂ prevents heat leaving the Earth's atmosphere and thus contributes to climate change.
DIA	Distributional Impacts Appraisal	Distributional Impacts Appraisal looks at the degree to which policies impact upon different groups of people or businesses. Distributional analysis is used to understand whether a policy unduly favours or disadvantages particular groups in society.
DfT	Department for Transport	The Department for Transport (DfT) is the UK government department responsible for issuing guidance and advice on the appraisal of transport schemes.

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Acronym	Term	Description
FBC	Full Business Case	Final iteration of the business case and the case that goes for final approval by the relevant authority. This sets out the final preferred option in detail and include inputs from any consultation.
HGV	Heavy Goods Vehicle	A Heavy Goods Vehicle (HGV) is a large goods vehicle with a gross combination mass of over 3.5 tonnes.
JAQU	Joint Air Quality Unit	JAQU is the joint unit between two Government Departments, the Department of Environment, Food and Rural Affairs (Defra) and the Department for Transport (DfT) which has responsibility to deliver and implement the UK plan for tackling roadside nitrogen dioxide concentrations.
LGV	Light Goods Vehicle	A Light Goods Vehicle (LGV) is a goods vehicle with a gross combination mass of under 3.5 tonnes.
NH	National Highways	Government-owned company charged with operating, maintaining and improving the strategic road network in England, i.e. Motorways and major A roads, (previously known as Highways England).
NO ₂	Nitrogen Dioxide	NO _x emissions from road vehicles are converted to NO ₂ mainly as a result of their reaction with ozone in the atmosphere. NO ₂ is the main pollutant currently breaching legal limits within Sefton.
NPV	Net Present Value	Net Present Value is the sum of the discounted benefits of an option less the sum of its discounted costs, all discounted to the same base year.
OBC	Outline Business Case	Second iteration of the business case. Provides additional detail and identifies the preferred option based on full analyses. It should set out the likely implementation and procurement route and demonstrate the affordability of the scheme.
PCN	Penalty Charge Notice	Most councils have the power to enforce parking penalties under the Traffic Management Act 2004, which are known as a 'Penalty Charge Notice'.
PM	Particulate Matter	Airborne particulate matter is made up of a collection of solid and/or liquid materials of various sizes that range from a few nanometres in diameter (about the size of a virus) to around 100 micrometres.
PVB	Present Value of Benefits	The sum of the discounted benefits of an option, expressed in a given price base year.

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Acronym	Term	Description
PVC	Present Value of Costs	The sum of the discounted costs of an option, expressed in a given price base year.
SME	Small and Medium-sized Enterprises	The definition of small and medium sized enterprises (SMEs) encompasses any business with fewer than 250 employees.
SRN	Strategic Road Network	Road network within England controlled and managed by National Highways, comprised of motorways and trunk roads.

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TAG	Transport Analysis Guidance	Guidance issued by the Department for Transport relating to the analysis and assessment of transport schemes.
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