

# Public Document Pack



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Town Hall  
Trinity Road  
Bootle  
L20 7AE

To:

The Chair and Members of the Overview and Scrutiny Committee (Regulatory, Compliance and Corporate Services)

Date: 1 March 2023

Our Ref:

Your Ref:

**Contact:** Paul Fraser

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Dear Councillor,

## **OVERVIEW AND SCRUTINY COMMITTEE (REGULATORY, COMPLIANCE AND CORPORATE SERVICES) - TUESDAY 28TH FEBRUARY, 2023**

I refer to the agenda for the above meeting and now enclose the following presentation which was unavailable when the agenda was published.

**Agenda No.**

**Item**

- |           |   |
|-----------|---|
| <b>5.</b> | <b>Air Quality Update 2022</b> (Pages 3 - 42)<br>Report of the Assistant Director of Place (Highways and Public Protection) |
|-----------|---|

Yours faithfully,

Democratic Services

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# Air Quality Update:

**Peter Moore – Assistant Director of Place  
(Highways and Public Protection)**

**Helen Cumiskey – Strategic Infrastructure  
Planner / Clean Air Plan Project Manager**

**Greg Martin – Principal Environmental Health  
Officer**

# Air Quality Update Report Provides

- General Update on Air Quality Work
- Summary of AQ Monitoring Results for 2021
- Update on actions to improve Air Quality, including Sefton's Clean Air Plan Outline Business Case.

# Local Air Quality Management

- Under the Environment Act 1995 – All LA's have a duty to review and assess Air Quality.
- Ongoing LAQM process - working with key partners including Planning, Highways and Public Health.
- As for other LA's - pollutants of concern in Sefton are Nitrogen Dioxide - NO<sub>2</sub> and Particulates - PM<sub>10</sub> and PM<sub>2.5</sub>.
- Main pollutant sources - NO<sub>2</sub> = vehicle emissions, PM = traffic/industry/domestic fires
- Through ongoing monitoring and assessment we have determined that the majority of the borough has good air quality.
- However, 4 Areas in south of Borough have been identified where levels of NO<sub>2</sub> are above or close to national standards.
- Key point = there is also ongoing concern for poor AQ due to the future increases in port traffic resulting from port expansion.

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# Air Quality Management Areas (AQMA)

4 Pollution 'hotspots' declared formally as Air Quality Management Areas (AQMA's) (all south Sefton, where levels of NO<sub>2</sub> are above or close to national standards)

- Millers Bridge
- Princess Way
- Hawthorne Road
- South Road

3 of these AQMAs in locations which are heavily influenced by HGV's travelling to and from the Port - and as such will be affected by any increase in port traffic.

As a result, our monitoring and air quality actions tend to be focused around these areas and the main routes to and from the port i.e. A5036 and A565.

**Air Quality Management Areas**



Sefton has 4 discrete Air Quality Management Areas, all within south Sefton (two on A5036 – National Highways network)

Hawthorne Road

South Road

Princess Way

Millers Bridge

**Sefton Council**  
 Highways & Public Protection  
 Magdalen House  
 30 Trinity Road  
 Bootle  
 L20 3NU

Scale: 1:20000  
 Date: July 2015  
 AQMA:  
 Borough Boundary:

Sefton  
 2030

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# Historical AQ improvement actions

A number of AQ improvement actions have already been implemented in and around the AQMA's:-

- Millers Bridge Hurry Call System = traffic light priority to HGVs
- HGV Port Booking System = allocated time slot to reduce queuing and thus emissions
- Junction improvements = South Road/A565 Junc and Millers Bridge Junc = improve traffic flow / reduce congestion
- Intensive Roadway/Footpath Cleaning in AQMA's = reduced dust/particulates

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These measures have lead to improvements in AQ.

**However, it is acknowledged that:**

Dealing with traffic-related emissions in AQMAs and the wider Borough, in addition to the potential increase in HGV port traffic **is extremely challenging – as such, additional alternative/innovative measures are under consideration.**



# AQ Monitoring Results – Automatic Sites

- Extensive air quality monitoring is undertaken across the borough - to provide baseline evidence for our ongoing AQ assessment and AQ modelling work.
- We now have 6 automatic sites which monitor a variety of pollutants...

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# AQ Monitoring – Automatic sites – locations and pollutants monitored

Monitor Location	Justification for Location	Pollutants Monitored
Waterloo Primary School, Crosby Road North, Waterloo.	Within previous AQMA1 Crosby Road North. Proximity to Road/Sensitive Receptor	PM <sub>10</sub> NO <sub>2</sub>
Hawthorne Road opposite KFC, Litherland	Within AQMA 5 Church Road Junction- Proximity to Road Junction/Sensitive Receptor	NO <sub>2</sub> , PM <sub>10</sub>
Loom Close, Seaforth	Within AQMA 2. Proximity to Road/Docks/Sensitive Receptor	PM <sub>10</sub> PM <sub>2.5</sub> NO <sub>2</sub>
Mars Bridge, Bootle	Within AQMA 3. Proximity to Road Junction/ Docks and Sensitive Receptor.	PM <sub>10</sub> PM <sub>2.5</sub> NO <sub>2</sub>
A565, Crosby Road South previously located at St Joan of Arc School	Proximity to Road /Docks and Sensitive receptor.	PM <sub>10</sub> NO <sub>2</sub> SO <sub>2</sub>
Regent Road Crosby <i>(residential area - installed summer 2020)</i>	To obtain background Particulate Levels in the residential area (particularly <i>to inform a study on PM<sub>2.5</sub> levels and domestic fuel use, also to enable future monitoring at this location</i> )	PM <sub>10</sub> PM <sub>2.5</sub>

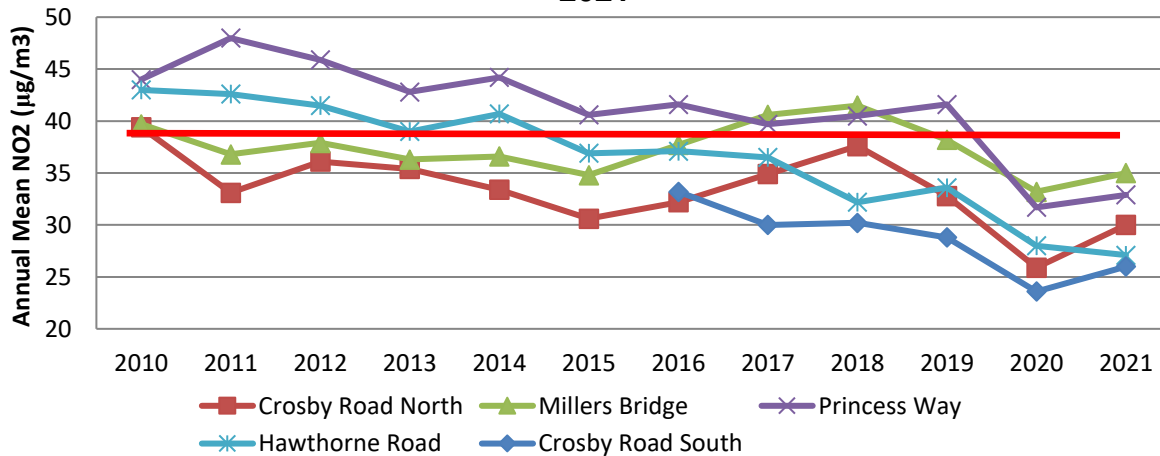
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- Automatic monitors generally located within AQMAs or areas of key concern, we also have a [monitor in a residential area at Regent Road Crosby](#).
- Key pollutants monitored are NO<sub>2</sub>, PM and SO<sub>2</sub>.

# Automatic Monitoring - NO<sub>2</sub> - Results and Trends (Limit 40 µg/m<sup>3</sup>)

Site	NO <sub>2</sub> Annual Mean Concentration µg/m <sup>3</sup>									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Crosby Road North	36.1	35.4	33.4	30.6	32.2	34.9	37.6	35.0	25.9	30.0
Millers Bridge	37.9	36.3	36.6	34.8	37.7	40.6	41.5	38.2	33.2	35.0
Princess Way	45.9	42.8	44.2	40.6	41.6	39.7	40.5	41.6	31.7	32.9
Hawthorne Road	41.5	39.0	40.7	36.9	37.1	36.5	32.2	33.6	28.0	27.1
Crosby Road South				34.6	33.2	29.6	30.2	28.8	23.6	26.0

Trends in Annual Mean NO<sub>2</sub> from Automatic Monitoring 2010 - 2021



# NO<sub>2</sub> 2021 Automatic Monitoring Results

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- Following the substantial traffic reductions due to the Covid pandemic in 2020, the 2021 levels of NO<sub>2</sub> at Sefton’s automatic stations showed an increasing trend compared to 2020.
- However, the 2021 levels have not returned to pre-covid levels experienced in 2019...  
 Most likely due to the ongoing impact of the pandemic on traffic levels in the first part of 2021, when a number of restrictions and lockdowns remained.
- 100% of the automatic monitoring sites again showed compliance with the NO<sub>2</sub> annual mean objective in 2021, with the highest monitored level of 35µg/m<sup>3</sup> recorded at the Millers Bridge site.

Site	NO <sub>2</sub> Annual Mean Concentration µg/m <sup>3</sup>									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Crosby Road North	36.1	35.4	33.4	30.6	32.2	34.9	37.6	35.0	25.9	30.0
Millers Bridge	37.9	36.3	36.6	34.8	37.7	40.6	41.5	38.2	33.2	35.0
Princess Way	45.9	42.8	44.2	40.6	41.6	39.7	40.5	41.6	31.7	32.9
Hawthorne Road	41.5	39.0	40.7	36.9	37.1	36.5	32.2	33.6	28.0	27.1
Crosby Road South				34.6	33.2	29.6	30.2	28.8	23.6	26.0

# NO<sub>2</sub> Diffusion tube Monitoring

- In addition to automatic monitors, network of 80 sites monitored for NO<sub>2</sub> using diffusion tubes
- Located across the Borough (North and South)
- Provide annual mean levels of NO<sub>2</sub> concentrations
- Cost effective method of determining the concentrations

# NO<sub>2</sub> Diffusion tube results 2021

- In line with the automatic monitoring results, the non-automatic diffusion tube monitoring sites showed an increase in NO<sub>2</sub> annual mean levels in 2021 compared to 2020.
- However, as for the automatic sites, levels across the diffusion tube sites have not returned to those observed pre-covid (2019).
- In 2021, we have 4 diffusion tube sites showing an exceedance of the NAQS objective (at the monitoring location).
  - These were on the A565 Derby Road close to the Millers Bridge junction and around the Breeze Hill junction.

# PM<sub>10</sub> Results - Automatic Monitoring

PM<sub>10</sub> Annual Mean 2012-2021 (Limit 40 µg/m<sup>3</sup>)

Site	PM <sub>10</sub> Annual Mean µg/m <sup>3</sup>									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Crosby Road North	25.4	28.3	23.6	23.7	17.0	21.1	19.9	26.2	N/A	N/A
Milnes Bridge	26.1	28.1	28.8	28.7	25.4	23.9	20.1	17.6	16.1	19.5
Priest Way	24.9	26.5	26.5	26.7	23.8	23.1	22.6	16.9	20.0	17.5
Hawthorne Road						23.9	21.2	23.7	20.3	18.7
Regent Road									13.2	9.5

- All areas are consistently compliant with the PM<sub>10</sub> NAQS objective with annual levels well within the standard of **40µg/m<sup>3</sup>**
- However, we will continue to monitor PM<sub>10</sub>, particularly to assess the impact that the port expansion may have on particulate emissions.

# PM<sub>2.5</sub> Results - Automatic Monitoring

- Due to increasing evidence linking PM<sub>2.5</sub> to serious health impacts, LA's have been asked to assess/monitor and look at ways of reducing this pollutant.
- Unlike Nitrogen Dioxide, PM emissions are caused by various sources - including the burning of domestic solid fuel, degradation of vehicle tyres and rakes and to a lesser degree combustion engines.
  - As such tackling PM<sub>2.5</sub> emissions is likely to be challenging.
- Information on current PM<sub>2.5</sub> levels in Sefton, is via three dual PM<sub>10</sub> / PM<sub>2.5</sub> monitors that have now been installed in the Borough, the latest being at Princess Way which was commissioned in Autumn 2022.



# PM<sub>2.5</sub> Results - Automatic Monitoring

## PM<sub>2.5</sub> Annual Mean 2017-2021 (**current Limit 25 µg/m<sup>3</sup>**)

Year	2017	2018	2019	2020	2021
Millers Bridge PM <sub>2.5</sub> Annual Mean µg/m <sup>3</sup>	7.1	8.9	10.0	7.8	9.6
Regent Road Crosby PM <sub>2.5</sub> Annual Mean µg/m <sup>3</sup>				7.3	5.9

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- During the period monitored the national standard for PM<sub>2.5</sub> was 25 µg/m<sup>3</sup>. The results show that levels in Sefton during 2021 were well within this standard.
- However, new regulations have recently been released (within the last fortnight) which reduce and thus tighten the objective standard of 25µg/m<sup>3</sup> significantly.

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# New National Standard Limit Value for PM<sub>2.5</sub>

**New long-term and interim targets for the PM<sub>2.5</sub> National Standard Limit Value** (*noting current standard limit is 25µg/m<sup>3</sup>*):

	New Long-Term Targets by the end of 2040	New Interim Target by the end of 2028
Annual Mean Concentration of PM <sub>2.5</sub>	To reduce to a maximum concentration of 10µg/m <sup>3</sup>	To reduce to a maximum concentration of 12µg/m <sup>3</sup>
Population exposure to PM <sub>2.5</sub>	Reduce concentration by 35% compared to 2018 levels	Reduce concentration by 22% compared to 2018 levels

The full details of what these changes will mean and associated guidance is yet to be released but it is likely that Local Authorities will be expected to implement additional measures to ensure compliance with the tighter standards.

# Summary of AQ Monitoring Results

- NO<sub>2</sub> levels in 2021 have increased overall compared to 2020 but have not returned to pre-covid levels as seen in 2019.
- **The majority of monitoring locations in Sefton during 2021 have shown compliance with the NO<sub>2</sub> NAQS objective** with only 4 monitoring sites exceeding the national limit.
- Levels of Particulate Matter have shown some slight increases and slight decreases between 2020 and 2021:
  - but as in previous years **all monitoring sites show compliance with the PM<sub>10</sub> and PM<sub>2.5</sub> national air quality standard objective by some margin.**
- As we know, 2020 an exceptional year for air quality due to Covid Pandemic.
  - It does appear that the Covid legacy has continued to have a positive effect on Sefton's air quality in 2021, as overall levels have still not returned to pre-pandemic levels.

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# Actions to improve air quality

- Notwithstanding the temporary AQ improvements observed due to Covid pandemic, the on-going priority for Sefton is to fully understand the AQ impact of the predicted port-related increase in HGVs and how this can be mitigated.
- The scale of Port growth and associated traffic = the most significant current challenge for Council in terms of likely AQ impact.
- Therefore – a number of possible air quality intervention options are currently being considered by Sefton, including an HGV only Clean Air Zone (CAZ).

# Clean Air Plan (CAP) Outline Business Case (OBC) – Background/ Rationale

- There are locations within Sefton with persistent poor AQ – this has detrimental impacts on **public health & wider environment**.
- Furthermore - some of the **worst AQ in Sefton** is concentrated **disproportionally** in areas with **highest levels of health / income deprivation**  
i.e. worst air quality experienced by those most vulnerable to its effects.
- Significant traffic on the A5036 is a key factor for air quality – exacerbated by high proportion of HGVs.

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# Clean Air Plan (CAP) Outline Business Case (OBC) – Background/ Rationale

- The presence of the **Port of Liverpool** makes a substantial contribution to pollution in nearby areas, due to:
  - **Port operations (non-traffic sources)** – background emissions from Industrial/Shipping operations
  - **Port traffic** - HGVs on the key port routes = a significant contributor to NO<sub>x</sub> emissions and NO<sub>2</sub> exceedances in AQMAs
  - **Further Port growth** a key issue – due to **increased HGV traffic**, consequent increase in congestion/emissions.
- Both a 2018 and more recent 2022 Automatic Number Plate Recognition survey undertaken on key roadlinks across south Sefton indicated that Sefton has a **notably older fleet profile** and thus more polluting fleet compared to the national average.

# Clean Air Plan (CAP) Outline Business Case (OBC) – Background/ Rationale

- Government (via Joint Air Quality Unit – **JAQU**) – has instructed (mandated) many UK local authorities to take quick action to reduce Nitrogen Dioxide (NO<sub>2</sub>) concentrations in the shortest time possible, in line with national AQ standards.
- Sefton is not mandated by government to take quick action (and hence no government funding has been allocated to Sefton) - however, this *does not* mean there are no AQ issues to address.
- Despite ongoing efforts to improve AQ, particularly around our AQMAs, interventions to date not enough to address all AQ issues.

**JAQU** – oversight Board for managing DEFRA's/DfT's NO<sub>2</sub> reduction programme

# Clean Air Plan (CAP) Outline Business Case (OBC) – Background/ Rationale

- Council therefore decided to take further action to support AQ improvements:
  - Following a Preliminary CAZ Feasibility Study in 2018/19 (AECOM), Cabinet instructed a commission for the development of the Clean Air Plan OBC (AECOM, 2020) and further emissions modelling:
    - The OBC was commissioned due to a strong political will to go **beyond just compliance** with national AQ standards;
    - Hence, OBC includes a **key** objective being to **protect the health of local residents** and tackle **health inequalities i.e. poorest air quality is in Sefton's most deprived areas**; and
    - CAP also aims to contribute to commitments for the **Climate Emergency declaration**.
  - A CAP OBC Steering Group was convened to direct this work, overseen by the Air Quality Member Reference Group.



# OBC considered Four HGV-CAZ Boundary Options – focus on key Port traffic routes (A5036/A565) and AQMA locations

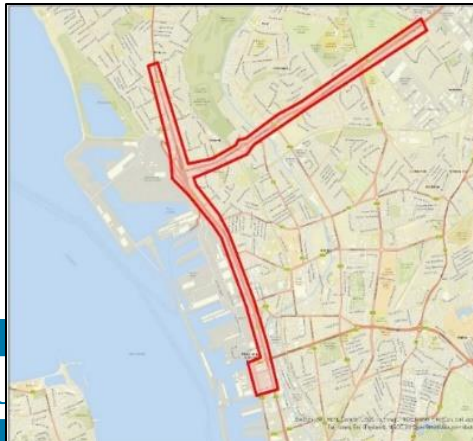
- **Four** charging HGV CAZ boundary scenarios tested against a 'No-CAZ' 'Business as Usual' (2023) option to define the preferred/best-value option.
  - Three options **include** – National Highways Strategic Road Network (SRN) - A5036
  - Fourth option added to include a **non-SRN boundary** option for assessment:
    - Option 1 – Whole South Sefton (covers four AQMAs)
    - Option 2A – two key strategic corridors A5036/A565 (covers four AQMAs)
    - Option 2B – one key strategic corridor A565 (**excludes National Highways network**) (covers three AQMAs)
    - Option 3 – key junction gateways – A5036/Netherton Way, A5036 Princess Way/A565, Millers Bridge/A565 (covers two AQMAs)

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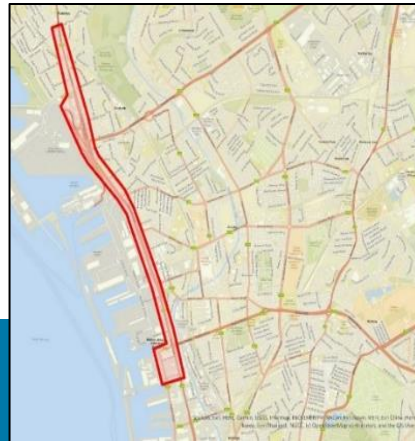
Option 1



Option 2A



Option 2B



Option 3



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# CAP OBC Overview

OBC prepared against **DfT's Transport Business Case / The Green Book Guidance – using best practice five-case model** (*as summarised in associated Cabinet Report*):

1. Strategic Case
2. Economic Case
3. Financial Case
4. Commercial Case
5. Management Case

# CAP OBC – Strategic Objectives

The CAP OBC identifies the best value CAZ option to meet the overarching strategic objectives:

Strategic Objectives
To improve air quality and achieve compliance with national standards in the shortest possible time in known hotspot areas in Sefton's four AQMAs.
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 improving public health, particularly for areas of Sefton with high levels of deprivation.
To reduce emissions relating to the <u>A5036 for HGV</u> vehicle traffic, particularly around high density residential areas.

Objectives support aim to achieve compliance but also reflect aspiration to go **'beyond compliance'** to improve wider AQ & health inequalities.

# CAP OBC – Case for Change / Key Outputs

- Key impetus for case for change in CAP OBC is based on our local AQ management responsibilities to improve AQ in shortest time possible, plus a strong desire to go further, i.e **beyond compliance**, to protect public health.
- Clean Air Plan Proposal comprises a **Charging HGV Clean Air Zone (CAZ)** scheme that aims for the following outputs:
  - **Compliance** – to address persistent AQ issues in shortest time possible - by charging non-compliant HGVs (Euro 5 and older) to enter the CAZ boundary area and thus encourage HGV fleet operators to upgrade their vehicles; and
  - **Reducing exposure** - protecting public health through addressing the disproportionate AQ impacts in some of Sefton’s most health/income deprived areas.

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# CAP OBC – Defining the Preferred Option

Detailed **evidence-based Options Appraisal process** was undertaken for the four HGV-CAZ boundary options

The Preferred Option defined as '**Option 2A – 2-Key Corridors A565/A5036**' – as the following key reasons:

The Option 2A CAZ Boundary enables:

- Inclusion of two key strategic HGV corridors (A565/A5036) **captures all strategic HGV traffic**
- Enables strong alignment to **achieving strategic objectives**
- **Enables** widespread air quality improvements
- Covers the **four AQMAs**
- A **clear boundary area to present public** – links CAZ boundary to areas of greatest AQ concern
- Most effective Option to **minimise potential re-routing by non-compliant HGVs** to avoid CAZ
- Is **more deliverable** than Option 1 'whole south Sefton' CAZ and Option 3 'Junction Gateways' CAZ and has **greater AQ benefits** than Option 2B 'One-Key Corridor'.

However, the Preferred Option would **require a co-operative approach** between Sefton Council and National Highways i.e. due to A5036 inclusion.

# CAP OBC – Financial Considerations

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- A **significant funding commitment** will be required to progress the OBC to FBC and for the implementation of a HGV-CAZ.
  - **Financial Case** for Preferred Option 2A, assuming the CAZ is operational for 5- years, together with development, implementation and decommissioning costs, **estimates** the scheme **capital costs (£4.1m)** and **operating costs (£5.1m)** at **£9.2 million**. (2021 prices)
  - This does not include **mitigation funding costs which** may be required due to potential impacts on local businesses (e.g. grants to support vehicle upgrades) or **broader scheme development costs** (FBC, consultation, further technical work etc.).
- **Funding sources are yet to be identified.**
  - A potential funding source for progression to FBC/CAZ implementation of a scheme is via central government's Joint Air Quality Unit (JAQU).

# CAP OBC – Summary and Conclusions

We have a strong Case for Change because the **OBC Evidence Base demonstrates:**

- The persistence of poor AQ at discrete locations & future risks due to increased traffic particularly associated with HGVs on key Port routes (A565/A5036).
- HGVs are disproportionately high emitters of both NO<sub>x</sub> and PM and therefore the evidence indicates that the most successful measures are likely to be those that target HGV routes.
- Preferred Option 2A '2-key Corridors A565/A5036' provides the best value option identified through the detailed options appraisal (*appraisal aligns to strategic objectives and a range of deliverability criteria*).
- We can potentially achieve significant AQ benefits within the CAZ Boundary area (Port Routes/AQMAs) and also wider AQ improvements if the Council proceed to FBC for Preferred Option 2A.
- Furthermore, the AQ benefits of Preferred Option 2A are concentrated in areas with some of highest levels of income/health deprivation – locally and nationally i.e. parts of Bootle, Litherland, Seaforth.

# CAP OBC - Aligned Communication and Engagement Strategy

**Internal** - ongoing routine comms/engagement with Cabinet, ELT, Growth Board, AQMRG etc, as appropriate.

**External** - consultation has **focussed on priority stakeholders** - initially to share high-level objectives and more recently to share the OBC outcomes to inform next steps...

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- **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.
  - **Peel Ports** - given the anticipated growth in port-related HGV traffic and the implications of the CAZ proposals for key port routes.
  - **Joint Air Quality Unit** (*oversight board for managing DEFRA's/DfT's NO2 reduction programme*) – given the potential to explore any appropriate funding source for the Clean Air Plan implementation.

**Public engagement** - via updates to dedicated Information Page for Sefton's Clean Air Plan on Sefton's 'Your Sefton Your Say' online platform, available since June 2021.



# CAP OBC – Recommendations and Considerations

A structured Options Appraisal process has recommended the best value Preferred HGV CAZ boundary Option (Option 2A - A565 and A5036 corridors) - this includes all AQMAs and focuses on areas of greatest AQ concern.

OBC also recommends that reserve option (Option 2B -A565 one-key corridor only) is retained, subject to discussions with JAQU/National Highways regarding inclusion of the A5036 (managed by NH) within the CAZ.

The delivery of the CAP also has several key dependencies / interdependencies, including:

- **There need to identify a funding source** for the scheme implementation.
- **Legal requirements** – legal agreement required for a CAZ via JAQU and JAQU/NH approval/support is needed on the inclusion of the A5036 in the CAZ boundary.
- **Neighbouring LCC CAP** - ongoing liaison is required to ensure complementary work for both Clean Air Plans / to understand direct impacts.

# CAP OBC – Recommendations and Considerations

It's also important to note that a CAZ is not an all-encompassing solution for AQ issues, as the AQ modelling indicates that several existing NO<sub>2</sub> exceedances remain even with CAZ in place. Therefore:

- The successful implementation of the CAP therefore requires synergy with ongoing Council policies and initiatives with respect to air quality, and collaboration with stakeholders.
- In particular, high **NO<sub>2</sub> background concentrations** linked to local industrial/Port operations **require collaboration on Port Air Quality Strategy** to supplement traffic measures.

# CAP OBC – Next Steps

- Next steps for the OBC are currently being determined.
- Two-stage approach to OBC Cabinet Reporting:
  1. **‘Information’ Report** prepared and included in July 2022 Cabinet reporting.
    - To agree release of OBC into public domain
    - To agree **further engagement with key stakeholders**
    - To share potential OBC pathway options for Cabinet to consider.
  2. Prepare an **‘OBC Pathway Decision’** report on next steps – for consideration at a later Cabinet
    - To incorporate key stakeholder feedback – **currently in progress**

# CAP OBC – Next Steps

- Cabinet will determine next steps based on the OBC outcomes and consideration of current engagement with key stakeholders (National Highways, LCC, Peel and JAQU)
  - Several pathways to consider, with the primary decision being whether to proceed to a FBC for the Preferred CAZ Option 2A, as follows....
    1. **Do not proceed to a FBC** – ‘Business as Usual’ versus ‘Non-Charging CAZ’ – with corridor-only focus for AQ measures or inclusion of new wider AQ measures **OR**
    2. **Proceed to a FBC** – ‘Charging CAZ’ – funding source to be determined i.e. ‘Council-funded’ or ‘Explore potential for JAQU to fund/support’

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# Joint Sefton/ Driver and Vehicle Standards Agency (DVSA) Emissions Enforcement Project

- Sefton AQ officers working with DVSA inspectors undertook 2 joint vehicle emissions enforcement activities in Dec 2021 / Sept 2022 to identify HGV's emitting unacceptable levels of air pollution thus potentially indicating emission system control tampering and or faults.
- During the most recent exercise (Sept 2022) sophisticated air pollution monitoring equipment was installed in DVSA pop cars and levels of NO<sub>x</sub> and PM were monitored in live traffic to detect suspect vehicles.
- Exhaust plume emissions from around 150 vehicles were monitored with 11 vehicles being identified as emitting excessive emissions.
- Following the detailed examination of these vehicles faults were found and 7 enforcement notices were issued to drivers by the DVSA requiring the faults to be rectified.
- Further joint work is being considered potentially using roadside monitoring equipment to detect suspect vehicles.



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# Sefton /JMU Co-Location Study

- Sefton Council / John Moores University (JMU) currently undertaking an air quality monitoring co-location project.
- Assessing how accurate lower cost air pollution sensors are, compared to Sefton's own DEFRA approved automatic monitoring equipment.
- Study is ongoing at our Millers Bridge monitoring site. In collaboration with JMU 3 lower cost sensors provided by JMU have been installed alongside our automatic monitors.
- Comparison of NO/NO<sub>2</sub>/PM<sub>10</sub>/PM<sub>2.5</sub> data has commenced with the Earth Sense Zephyr unit showing the most accuracy when compared with the DEFRA approved monitor.

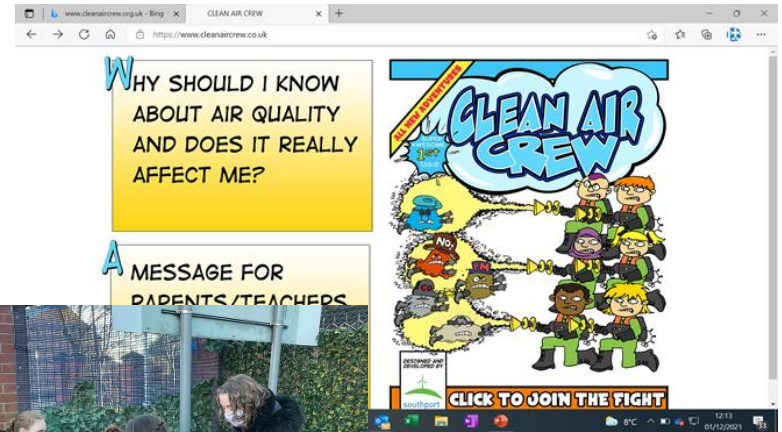


# DEFRA Grant funded Educational behaviour change Project

- Energy and Environmental Management Team supported by Environmental Health successful in obtaining a DEFRA AQ grant of £122,500 to undertake an educational behaviour change project.
- <sup>Page 39</sup> Project commenced in April 2021 and is now complete.

## Outputs included

- Schools AQ monitoring programme
- Expansion of Clean Air Crew Website
- Installation of interactive immersive room and accompanying AQ experiences
- Termly school campaigns 21/22 academic year



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# Low cost Sensors School Streets / Traffic Light AQ monitoring

- 3 EarthSense Zephyrs successfully Installed (June 2022) to support school streets project. “Pre”-Schools streets AQ data currently being obtained.
- Before and after results to be compared to support early future expansion of project.
- 40 Zephyrs installed at key junctions in Sefton as part of LCR traffic light upgrade project .
- Officers from Highways and Environmental Health are currently working together to develop potential traffic light strategies based on the sensor outputs.





# Conclusions

- Whilst AQ in the majority of the Borough is within NAQS objectives, the on-going priority for Sefton is **to fully understand the AQ impact of the predicted port-related increase in HGVs** and how this can be mitigated.
- **The scale of Port growth and associated traffic is the most significant current challenge** for Council in terms of AQ impact.
- **Additional AQ measures** are currently being considered or implemented.  
Page 41 In particular, **an A565/A5036 key-corridor HGV charging CAZ** could achieve significant air quality improvements within the CAZ boundary and wider benefits. Potential CAP OBC pathways have been presented to Cabinet and key stakeholder engagement is underway to help inform the next steps decision.
- **Liaison and collaboration with key partners and priority stakeholders** is key to achieving air quality improvements and mitigating the potential impact of port growth on local air quality.

# Questions ?

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