

CABINET MEETING: 13 JUNE 2019

**AIR QUALITY FEASIBILITY STUDY FINAL PLAN - FULL
BUSINESS CASE AND CITY CENTRE TRANSPORT
IMPROVEMENTS**

**STRATEGIC PLANNING AND TRANSPORT
(COUNCILLOR CARO WILD)
CLEAN STREETS, RECYCLING AND ENVIRONMENT
(COUNCILLOR MICHAEL MICHAEL)
SOCIAL CARE, HEALTH & WELL-BEING
(COUNCILLOR SUSAN ELSMORE)**

AGENDA ITEM: 6

Reason for this Report

1. To demonstrate that development of the preferred option has identified measures that are aimed at not only achieving compliance with legal limits but are aimed at reducing air pollution as low as reasonably practicable to protect and improve the public health of our citizens.
2. To seek approval of the Final Plan for the Councils Clean Air Feasibility Study, which sets out the Full Business Case of the preferred option of implementing a package of measures to ensure the Council achieves compliance with EU limit value for nitrogen dioxide (NO₂) in the shortest possible time.
3. As part of the Clean Air Study to seek approval to proceed to public consultation on the preferred concept designs for:
 - i. City Centre West (Central Square and Westgate Street)
 - ii. City Centre East (Dumfries Place and Station Terrace area)
 - iii. City Centre North (Castle Street and Boulevard de Nantes)
4. To seek approval to accept Welsh Government funding and proceed to tender for:
 - City Centre West Phase 1 (Central Square and Westgate Street Soft Bus Gate)
 - City Centre North Phase 1 (Castle Street)

Background

5. In response to a legal direction Cardiff Council received from Welsh Government- Environment Act 1995 (feasibility study for Nitrogen Dioxide Compliance) Air Quality Direction 2018¹- the Council must:
 - Submit “initial scoping proposals”- by March 2018- to set out how Cardiff Council would undertake a feasibility study.
 - Submit an “initial plan”, by September 2018, to set out the case for change and develop options for measures that the local authority will implement to deliver compliance with Clean Air targets in the shortest possible time.
 - Submit the “final plan”, no later than the 30th June 2019, to set out in detail the preferred option for delivering compliance in the shortest possible time, including a full business case
6. The Council has been following a legal process to comply with the direction. As part of this process the Council submitted its “initial scoping proposals” in March 2018 and its Initial Plan, to Welsh Government in September 2018, as approved by Cabinet 15th November 2018 which presented the results of the initial baseline assessment of the Clean Air Feasibility Study. The Cabinet approved an Outline Business Case in March 2019, which set out the preferred option being a package of non charging measures.
7. This report presents the Final Plan and Full Business Case (FBC) for the preferred option which is a package of measures. By implementing the preferred option, the Council can achieve compliance in the shortest possible time and this preferred option needs to be approved by Cabinet.
8. Public Health Wales have stated that poor air quality is probably the second greatest health concern after smoking and is the most significant environmental determinant of health. Recent work by Public Health Wales estimates that the equivalent of over 220 deaths each year among people aged 30 and over, in the Cardiff and Vale Health Board area, can be attributed to Nitrogen Dioxide pollution with many more citizens suffering ill health as a consequence of poor air quality.
9. City Centre Transport Improvements are included in the package of measures and further information on the schemes is detailed within this report in order for Cabinet to provide approval for the Council to undertake public consultation and commence tendering exercise for the schemes.
10. The European Union Ambient Air Quality Directive (2008/50/EC)² sets legally binding limits for concentrations of certain air pollutants in outdoor air, termed ‘limit values’ for the protection of human health. The Directive

¹ Environment Act 1995 (Feasibility Study for Nitrogen Dioxide Compliance) Air Quality Direction 2018 14th Feb 2018

² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02008L0050-20150918&from=EN>

requires that Member States report annually on air quality within zones designated under the Directive and, where the concentration of pollutants in air exceeds limit values, to develop air quality plans that set out measures in order to attain the limit values. The only limit values that the UK currently fails to meet are those set in respect of nitrogen dioxide (NO₂).

11. In regards to the European Union Ambient Air Quality Directive (Directive 2008/50/EC) levels of nitrogen dioxide (NO₂) and Particulate Matter smaller than 10µm (PM10) must not exceed 40µg/m³ as an annual average (i.e. measured over a calendar year).
12. Annex III of the European Directive details specific criteria for the locality of where such limit values apply. Limit Value applies at locations which are accessible, including footpaths but exclude areas within 25m from major road junctions.
13. In order to comply with the AAQD the UK government published its action Plan in December 2015. This Plan was successfully challenged in High Court by Client Earth in 2016³ for not meeting the requirements of the Directive, and specifically Article 23 of the Directive. This case is widely referred to as ClientEarth 2.
14. As a result of the High Court Ruling the UK Government had to redraft and publish a new UK Action Plan for tackling NO₂ concentrations. This was published in July 2017⁴ and identified Cardiff as an area with persistent non-compliance beyond 2022. However, this plan was further challenged by Client Earth, and as a result in January 2018 Welsh Government agreed to a legally-binding 'consent order' with Client Earth. This resulted in a Legal direction being served on Cardiff Council under Part IV of the Environment Act 1995, Section 85(7).
15. In developing the measure for the final plan the recommendations from the Environmental Scrutiny Task And Finish Group on Air Quality have been fully considered as part of the assessment process.

Key Issues – Results of Interim Plan

16. The Interim Plan presented to Cabinet in March 2019, indicated that the Councils preferred option was a package of non-charging measures owing to the results of the assessments undertaken to date. The report recommended that a revised shortlist of non charging measures be considered as the preferred option and included:
 - Implementation of Electric Buses ;
 - Bus Retro Fitting Programme;
 - Taxi Licensing Policy and Mitigation Scheme;
 - City Centre Transport Improvements; and
 - Active Travel Measures

³ ClientEarth (No. 2) <https://www.judiciary.gov.uk/wp-content/uploads/2016/11/clientearth-v-ssenviron-food-rural-affairs-judgment-021116.pdf>

⁴ Defra UK Action Plan for Tackling Roadside NO₂ Concentrations – July 2017

17. As detailed above one of the key measures proposed within the package is the City Centre Transport Improvement Schemes. The Transport Planning Policy & Strategy Group of the Planning, Transport and Environment Directorate is seeking to improve sustainable transport infrastructure in Cardiff City Centre. This will ensure compliance with national and local policy, and contribute towards achieving the sustainable travel targets of the Adopted Local Development Plan (LDP) 2006 to 2026 by encouraging mode shift from the motor car to sustainable transport. Change is also required to facilitate key development areas in the city centre and significantly contribute to improving air quality levels by achieving compliance with the EU Limit value for NO₂.
18. A transport review of the city centre has been undertaken and the area has been segmented into manageable Transport Improvement Project areas. By improving sustainable transport modes the Local Authority will facilitate and enable mode shift from the motor car to sustainable transport. Providing sustainable infrastructure at key locations will improve sustainable connectivity to key areas of education, employment and visitor destinations. Connectivity between the city centre, key transport hubs and the wider city region is also a key priority.
19. The projects will tackle the local and national air quality issues in the city centre by reducing vehicle demand resulting in reduced emissions. 20mph limit areas will also be applied to all project areas where possible to improve road safety and encourage more walking, cycling and public transport.
20. The three active project areas are as follows:
 - City Centre West: Westgate Street and Central Square
 - City Centre North: Boulevard de Nantes, Kingsway and Castle Street
 - City Centre East: Dumfries Place, Station Terrace, Churchill Way and Bute Terrace
21. The above project areas are currently being taken through the Welsh Government Transport Appraisal Guidance (WelTAG), and therefore could be subject to change as part of this process and any required associated processes, such as public consultation.
22. The description of the schemes are as follows, with a map showing the city centre project areas is included in Appendix 2 of this report.
23. **City Centre West:** This scheme will create a cleaner and more efficient public transport and active travel route in the City Centre. It will ensure efficient access for buses into the new Transport Interchange and the Central Square Development, whilst also Improving Air Quality within the City Centre Air Quality Management Area. This could be achieved by removing through-traffic from Westgate Street and installing a new highway layout that will improve and connect the current bus network

with the new Interchange, Central Square, Central Station and the City Centre Enterprise Zone. In addition, the scheme could offer improved safety for pedestrians via improved pedestrian crossing facilities, 20mph speed limits and an improvement to the pedestrian environment outside of the national stadium. The scheme could also install a network of stepped cycle tracks to connect the area with the proposed cycleway on Castle Street and the Taff Trail routes.

24. **City Centre North:** The City Centre North scheme aims to bring Castle Street into Air Quality compliance by 2021 and install a primary Cycle Way along its length. The installation of the cycle lane and the reduction in highway space will allow for traffic to be reduced enough to target the air quality issue. Improved pedestrian crossings with countdown timers could also provide safety improvements for pedestrians. The Boulevard De Nantes section of this scheme will enable new pedestrian connections to be installed that will connect the core city centre area with the Civic Centre and Bute Park.
25. **City Centre East:** The City Centre East scheme aims to provide a new dynamic for the bus network, whilst connecting primary Cycle Ways and improving the pedestrian environment outside of Queen Street Station. This could be achieved by providing new bus priority measures throughout the Station Terrace and Churchill Way areas that would provide new routes for buses, taking them away from the City Centre Air Quality Management Area and closer to key areas such as Queen Street Station and the shopping district. The new bus routing system is also key to allowing the Interchange to be accessed from its south entrance, and also work effectively on major event days. A primary Cycle Way could be installed to connect the east of the city centre with the City Centre Enterprise Zone, and join up all the other proposed primary Cycle Ways. Pedestrian improvements on Dumfries Place and Station Terrace could also improve safety for pedestrians and improve connections to Queen Street Station and the City Centre Enterprise Zone.
26. Whilst the City Centre Schemes are included in the Clean Air Plan there are also a number of other key challenges that need to be addressed by the schemes, namely:
 - i. **Lack of Cycling Infrastructure** – There is currently a poor standard of cycling infrastructure in the City Centre. Cycle lanes (where present) are not segregated and do not meet Active Travel Wales Guidance. The City Centre schemes are required to connect all five proposed Primary Cycleways together. Failure to achieve this will result in a disconnected cycle network and fewer people choosing to cycle rather than travelling by private car.

- ii. **Restricted Bus Priority Box** – The current bus priority around the City Centre is provided primarily in the anti-clockwise direction and needs enhancing to add the flexibility needed to accommodate the new Transport Interchange in Central Square, cross city routes, event day movement quicker and shorter loops for local and regional buses and provide for future growth.
 - iii. **High number of Pedestrian Collisions** – There are 3 key pedestrian collision hotspots in the city centre: Castle Street, Westgate Street and Dumfries Place.
 - iv. **Dated Pedestrian Facilities and Broken Links** – The current pedestrian network will not cope with future population growth and extra footfall due to the development that is taking place.
 - v. **Congestion** – Through traffic and vehicles accessing the public car parks are both contributing to congestion hotspots resulting in concentrations of poor air quality levels.
 - vi. **Population Growth** – Cardiff population is growing faster than any other city outside of London. This is adding pressure on the transport network.
 - vii. **Development** – Key developments inside and around the Enterprise Zone, such as Central Square, Central Quay and development of key stations as part of the Metro will put added pressure on the network
27. This report presents the results of the final assessment and full economic appraisal including health impact assessment of the non charging measures, and further information on the City Centre Transport Improvement Schemes which are included in the package of measures for the Final Clean Air Plan.

Air Quality Results of the Preferred Option

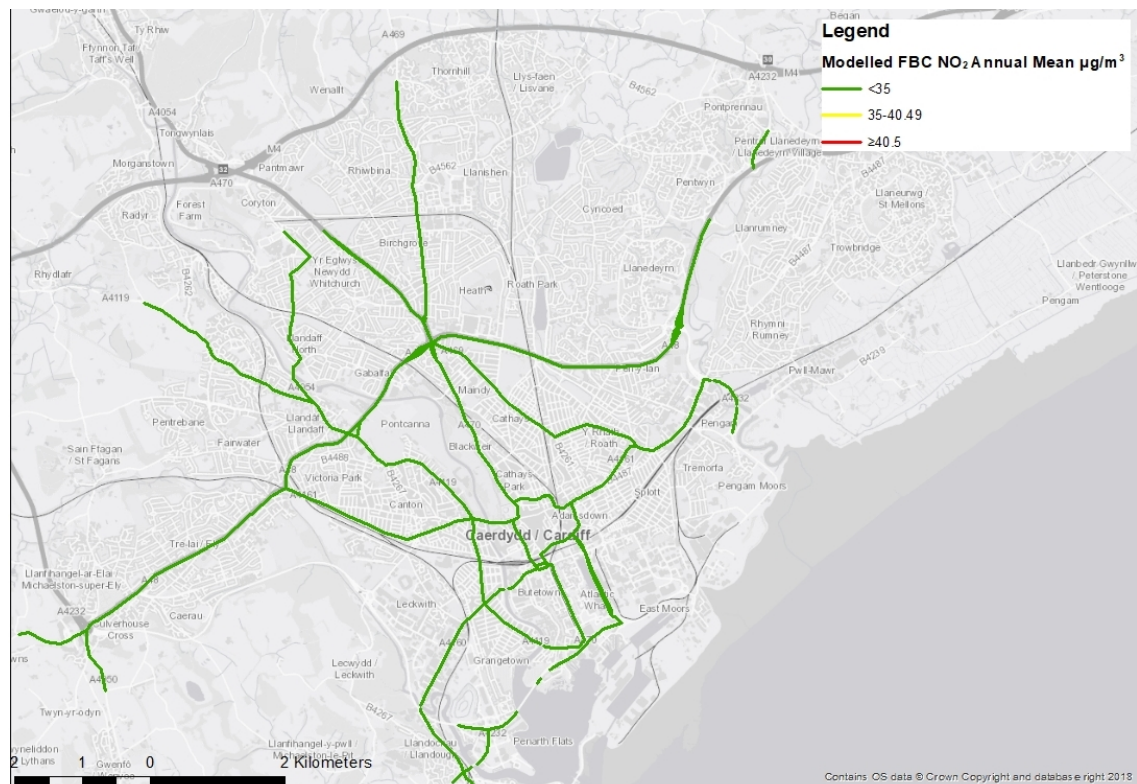
26. Using independent analysis from external consultants with recognised expertise and a proven track record of supporting other UK Core Cities- localised air quality modelling and transport modelling was undertaken to establish the impact of the revised package of non-charging measures as to whether compliance could be achieved by 2021. As detailed in the Initial Plan baseline assessment shows that by 2021 only Castle Street would breach the EU limit value for NO₂ with concentrations of 41.1 µg/m³ being predicted.
27. The full details of how each of the measures have been assessed in terms of the transportation and air quality modelling are detailed in full within the FBC which is presented as Appendix 1 to this report, but are summarised as follows in
- 28.
29. **Table 1.**

Table 1 - Summary of Modelling Assumptions of Measures

Measure	Modelling assumptions
Active travel package	20mph zones and cycle scheme CS1 (Heath to City centre corridor) measures rolled out in two areas of the city, which assume a 3.5% reduction in car driver mode share and applied in the transport model.
ULEB application for 36 electric buses	The 36 zero emission buses were allocated to routes 27, 49/50, 44/45, with the related bus AADT removed as these are now zero emission. The remaining bus fleet is then adjusted to reflect the removal of 36 older Euro3 vehicles.
CBTF retro-fit programme	Assumed 80% uptake of retrofit of remaining non-Euro 6 buses to Euro 6, to complement the electric buses measure above.
Taxi licensing	Sets a 10 year age limit and all renewals to be Euro 6 from 2019. Plus a grant scheme for taxi drivers, when renewing to Euro 6, to buy plugin hybrids or fully electric vehicles. Taxi fleet adjusted to remove all vehicles over 10 years old and replace these by new Euro 6 vehicles. Assumed that this results in a 15.8% shift from non-compliant to compliant private hire vehicles (of which, 7% assumed to upgrade to an electric vehicle), and a 45.5% shift for hackney carriages (of which, 4% assumed to upgrade to an electric vehicle).
City Centre transport schemes, including City Centre West Transport Improvement Scheme, Part of East side city centre scheme (Station Terrace) and the Castle Street scheme.	<p><i>City Centre West Transport Improvement Scheme modelled through movements prevented from using Westgate Street and applied in the transport model.</i></p> <p><i>East side city centre scheme modelled through movement prevented on Churchill Way, except for buses, and applied in transport model.</i></p> <p><i>Castle street scheme modelled with removal of vehicle lane and replacement with a cycle lane.</i></p> <p><i>Westgate and East side measures now assume exceptions for taxis (not included in CASAP 1-3 modelling)</i></p>

30. The package of measures have been assessed and the updated results indicate that NO₂ levels on Castle Street, reduce significantly from 41.1 µg/m³ **to 31.9 µg/m³** in 2021 as detailed in **Figure 1**. The levels forecasted on Castle Street have reduced significantly from the results presented in the outline business case (OBC). The main reason for this is, likely from the inclusion of the Castle Street scheme which was not previously modelled.

Figure 1 - Modelled NO2 Results for Preferred Option



29. In addition to achieving compliance on Castle Street, the impact of the package of measures has also been modelled at local air quality monitoring locations, including those locations within existing Air Quality Management Areas (AQMAs). The results of the modelling indicate that all monitoring locations are expected to have concentrations below 40 µg/m³. This is an important aspect of the assessment as it further demonstrates that the non charging measures not only deliver compliance but further improve and reduce relevant exposure in terms of LAQM across Cardiff as whole including the existing Air Quality Management Areas, and this will provide further public health benefits.
30. Welsh Government policy⁵ states that unless the Council can identify alternative measures to achieve compliance as quickly as a charging clean air zone (CAZ) then Welsh Government may direct the Council to introduce a charging clean air zone. The assessments undertaken to date demonstrates that non charging measures provide compliance in the same period if not sooner than a CAZ, as Welsh Government have

⁵ <https://gov.wales/sites/default/files/publications/2019-04/tackling-roadside-nitrogen-dioxide-concentrations-in-wales.pdf>

assessed that a CAZ could take up to 3 years to implement from the start of a feasibility study.

31. Further additional guidance from the UK government, through their Joint Air Quality Unit (JAQU)⁶, indicates that a charging CAZ should only be implemented if non charging alternatives are shown not to achieve compliance in the shortest possible time.
32. Given that the modelling undertaken has demonstrated that a package of measures achieves compliance in the same period if not sooner than a charging CAZ, then ultimately the Council can justify implementing a package of measures as a preferred option rather than a CAZ. Further as detailed above in paragraph 27 the implementation of the non-charging measures provides wider air quality improvements across Cardiff as a whole, including within the existing AQMAs.

Socio Economic Appraisal and Distributional Analysis of Preferred Option

33. A social and economic appraisal (cost benefit analysis) and distributional analysis has been undertaken in line with appropriate national guidance and best practice. Any scheme to tackle air quality will impact different parts of the environment, economy and society. The economic analysis seeks to quantify and value as many of these impacts as possible given the time, resource and modelling methodologies available.
34. In order to provide a comparative analysis the consultants have undertaken the assessment on both the preferred option that being the package of measures, and the previously assessed City Centre Clean Air Zone (CAZ) presented in the Interim Plan.
35. For the measures a negative Net Present Value (NPV), i.e. the costs outweigh the benefits, has been calculated. The negative economic impact of the preferred option equates to roughly £30m a year over the 10 year assessment period. The full results are presented in Table 2 .
36. In terms of the air quality improvements and thus overall health benefits the preferred option of the package of measures has the greatest benefit. These benefits have been monetised in the cost benefit analysis and the positive health benefits of the measures in terms of improved air quality and active travel benefits equates to nearly £20 million.
37. Air quality would significantly improve across the modelled area with the preferred option. This is true for both NOx and PM2.5 levels.
38. Long-term health effects of air pollution include increased rates of lung disease and cardiovascular disease (including heart disease and stroke) and cancer. Average life expectancy in the UK is estimated to be reduced by 7-8 months overall due to air pollution. There is no known safe level of exposure to particulate matter air pollution, or for short term

⁶ Joint Air Quality Unit (JAQU) Evidence Based Approach to Setting Clean Air Zone Charges'

exposure to NO₂. The effects of exposure increase the longer someone is exposed.

39. Health benefits due to reduced risk of premature disease from the three active travel schemes in the preferred option have been quantified as £10.8m over the study period. These would not be generated by the CAZ model.
40. In terms of annual benefits due to air pollutant levels, the preferred option is modelled to bring £711,915 per year of benefits due to reductions in NO_x, over baseline and £43,915 per year of benefits in PM_{2.5} reductions over baseline.
41. As poor air quality is known to have an economic impact by reducing productivity among people of working age, the significant improvements in air quality that the measures provide will have the potential to provide significant economic benefits. However it has not been possible to fully calculate such benefits at this stage.
42. The assessment has also looked, at the impacts of the measures in terms of improving air quality on sensitive receptors, such as nurseries, schools, medical facilities, care homes etc. The results indicate that the measures lead to greater decreases in NO₂ concentrations at these locations.
43. **The results indicate that the most deprived part of the population as well as the population with the highest proportion of children would see the greatest air quality improvements from the preferred option of the package of measures.**
44. Further the non charging measures have been shown to reduce emissions of other pollutants especially particulate matter pollution (PM_{2.5}),
45. The wider air quality improvements that that measures have been shown to achieve across Cardiff and the encouragement of active and sustainable transport that measures aim to achieve will therefore have significant positive impacts on health and well-being, and health inequalities, across Cardiff.
46. It is of particular importance to note that most significant proportion of the calculated disbenefit comes from the additional travel time as a result of the City Centre Schemes. It must be stressed that this is not a direct 'pocket' cost to individuals or businesses but is a monetised value of the extra time taken to travel.
47. To put this into perspective the distributional analysis indicates that for 75% of the additional journey times, the increase is only 0-5 minutes, and only 1% of journey's increase by more than 10 minutes. The most affected part of the City in terms of increased journey times appears to be for journeys from the North West.

48. Owing to the limitations of the modelling i.e., it has only been done for a single year, it does not take in to account the demand response assuming people only re-route and do not change modes of transport, this disbenefit is a very conservative estimation and has likely significantly over calculated the true disbenefit. Further it does not consider the congestion improvements expected at the culmination of the roadworks, nor does it take account of any future transportation measures that could be introduced during the assessment period (2021-2031).
49. Further work is on going to assess the impact of demand response to take account of re-routing and mode shift to provide more realistic projections in terms of the impacts on journey times.
50. In addition it must be noted that the proposed mitigation measures (SMART Corridors) for the City Centre Schemes detailed below have not been considered in the modelling, as it has not been feasible to do so at this stage. However it is anticipated that these additional mitigation measures will further reduce the impact on the projected increase in journey times.
51. The following points also need consideration in terms of the calculated disbenefit of the preferred option:
- The analysis does not take into account the major projects and interventions committed to or identified by the forthcoming new Transport Vision to be presented in the White Paper that could be implemented over the assessment period. These could potentially more than offset the conservatively estimated increased journey times arising from the proposed measures;
 - The negative economic impact of the preferred option equates to roughly £30m a year over the 10 year assessment period. This is for an economy worth around £10bn per year therefore accounting for only 0.3% and the vast majority of this monetary value is not an actual direct cost to business or individuals but a value placed on increases in journey time;
 - It is appreciated that the measures will have an impact on how the city centre operates for general business and social movements. However, changes to city centre traffic movements will be required in any case to reflect the new transport interchange, growth in the number of city centre workers as a result of the Central Square development, and increases in public transport usage arising from the Metro. All traffic management proposals will be subject to a robust public consultation process through which appropriate mitigation plans will be developed and finalised.
 - The analysis also does not consider wider cost to the Council/ public purse of:

- Any possible fines associated with any continued breach of the EU limit value; and
- The impact on tourism and inward investment of being a city with a reputation for having poor quality air / poor transport

Socio Economic Appraisal and Distributional Analysis of the CAZ Option

52. The CAZ has also been shown to have a negative NPV which has been calculated as **-£52,951,224** over the 10 year assessment period of 2021-2031.
53. The CAZ option indicates an overall negative health benefit as air quality is worsening in some areas, which is counter to the overall objective of reducing air pollution to improve public health.
54. Further the analysis indicates that other pollutants such as PM_{2.5} will likely increase causing further health disbenefit from a CAZ.
55. From a health perspective it is concerning that air quality has been projected to worsen in the modelled area with the CAZ option, compared with existing levels. This is because while NOx rates would fall in the CAZ itself as modelled, rerouted traffic outside the CAZ would have an adverse impact significantly outweighing any benefits seen in the CAZ itself.
56. The CAZ would cost an additional £49,919 per year in disbenefits over baseline due to modelled increases in NOx emissions and an extra £322,085 per year in disbenefits due to increased PM2.5 emissions over the modelled area.
57. The charging scheme will lead to much greater direct costs to households due to the direct and indirect impact of the charges. The assessments show that whilst a higher income of population would disbenefit the most from the introduction of the charging scheme, this is balanced by a greater proportion of non-compliant cars own by the lower income population that would have to pay the charge as they would not be able to afford to upgrade their vehicle.
58. The largest disbenefit affecting the CAZ measure is the user charges which has a direct societal cost of **£87m** over the 10 year assessment period and impacts household directly.
59. Table 2 summarises the economic analysis over the 10 Year assessment period of **2021-2031** for the preferred option and CAZ.

Table 2 - Monetised Impacts Associated With Option Scenarios (Cumulative Discounted Impact (PV) From 2021-31 (£M 2018 Prices))

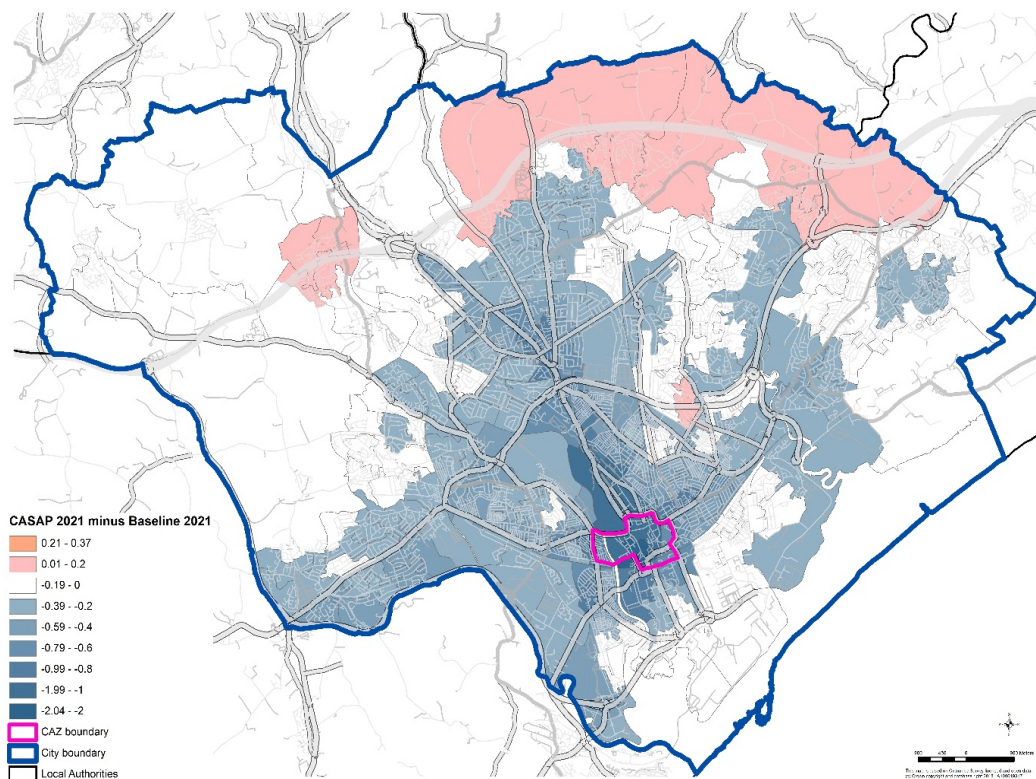
Impacts	Preferred Option	CAZ
	Excluded costs with secured funding (£Ms)	(£Ms)
Travel Time Impact	(-)255,412	3,270
Vehicle operating costs (distance)	(-)46,032	299
User charges	£-	86,762
Indirect Tax Adjustment	15,557	37,589
CO ₂ Impacts (distance)	(-)3,405	202
Upgrade costs	(-)7,973	-2,473
Vehicle operating costs (upgrade)	£7	-£315
AQ Impacts	4,861	-1,439
Implementation costs	(-)30,799	-3,279
CO ₂ Impacts (upgrades)	1,406	58
Accidents	118	£-
Noise	£8	£-
Reduced risk of premature death	10,861	£-
Absenteeism	2,995	£-
Journey Ambience	1,056	£-
TOTAL NPV	-306,752	-52,965

60. **Calculating the Net Present Value does not paint a full picture of the impacts of either scheme.** There are likely to be dynamic responses to changes in congestion and new road measures introduced that cannot be accounted for. Moreover, it is important to recognise the inherent benefit that the increased reduction in air pollution beyond the limit value that the preferred option achieves.
61. Overall the evidence suggests that the package of measures should be taken forward as the preferred option because:
- It achieves compliance by the greatest margin and is robust under the sensitivity tests carried out;
 - It generates the greatest health benefits from both air quality improvements and active travel benefits, compared to the CAZ option which in fact generates an overall negative health benefit;
 - The benefits generated by the package of measures falls most to low income and disadvantaged groups so supports wider social improvement goals;

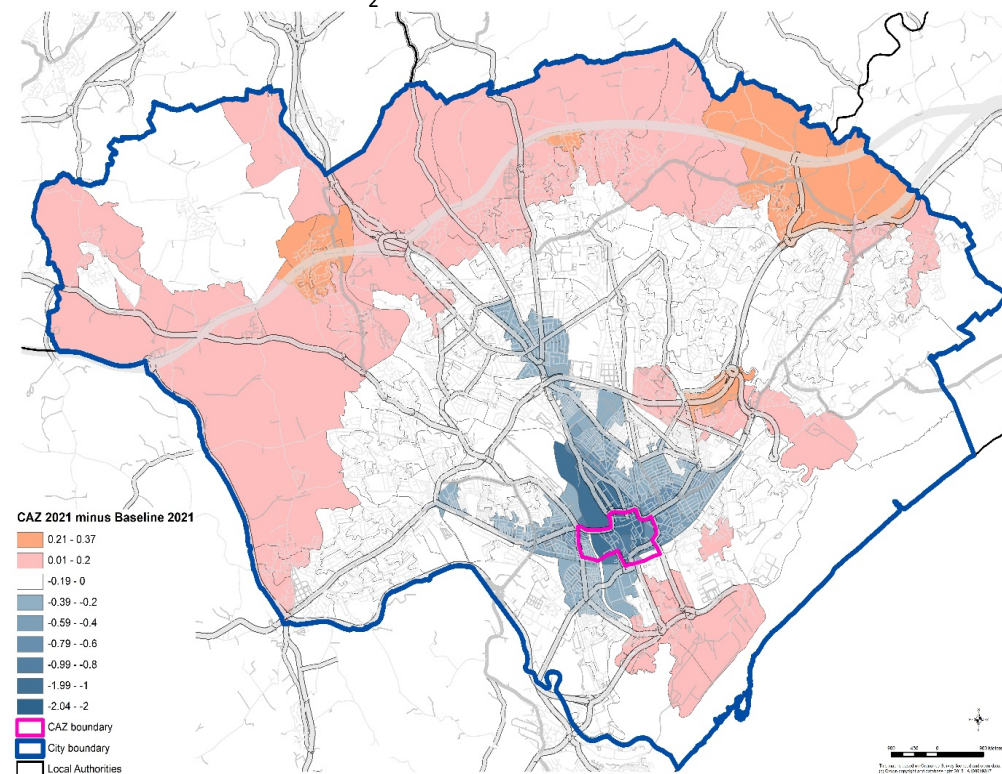
- Although the NPV is worse for the package of measures the dominate factor driving the negative NPV is associated with some uncertainty around the calculated time disbenefit as discussed above. The legal ruling in relation to compliance sets out that costs are not a material consideration in terms of achieving compliance as soon as possible.
62. Figure 2 provides graphical representation of the wider improvements in NO₂ concentrations of the preferred option compared with the CAZ. The areas of blue are representative of NO₂ reductions where as the orange/pink areas highlight increases in NO₂ concentrations. This image clearly shows the wider benefits of the preferred option.

Figure 2

Difference in NO₂ concentrations between Baseline and Measures



Difference in NO₂ concentrations between Baseline and CAZ



Wider Measures – Clean Air Strategy

63. The feasibility study has been developed from the long list of measures set out in a draft Clean Air Strategy and Action Plan and it is felt that it is important to include a finalised Clean Air Strategy with the FBC to further support the longer term ambition of the Council to reduce the levels of NO₂ and other pollutants to as low as reasonable practicable.
64. The strategy coincides with Cardiff's Capital Ambition report and will help implement and deliver the Capital Ambition with an overarching aim to improve air quality to protect and improve public health in Cardiff. The Clean Air Strategy will appoint strategic measures that will look to generate a positive impact to citywide air quality levels, in particular traffic derived NO₂ levels.
65. As such Appendix C of the FBC included in Appendix 1 of this report, details the Council's wider Clean Air Strategy. This document sets out additional longer term strategic measures that, whilst not necessarily delivering compliance with the limit value in the shortest possible time, are further measures that implemented through an Action Plan will contribute to wider air quality improvements, specifically in the AQMAs. The key theme of the measures is to increase the uptake of sustainable and active travel modes by influencing behavioural change in Cardiff. Some of the measures detailed in the Clean Air Strategy include:
- **Implementation and Enforcement of Non Idling Zones;**
 - **Installation of Living Walls and other Green Infrastructure;**
 - **EV Infrastructure and Council Fleet Measures;**
 - **Car Clubs with Low Emission/ Zero Emission Vehicles;**
 - **Air Quality Planning Guidance; and**
 - **Schools Active Travel Programmes**

Results of Public Consultation on the Preferred Option

66. In order to show transparency and allow public/ stakeholder engagement on the Council's proposed preferred option a full public consultation on the proposals was undertaken. The Consultation consisted of detailed information on the preferred option through the Council's website. An online survey was developed, which could be accessed from a page on the Council website, which provided the background information on the proposals. This was distributed to members of the Council's Citizens' Panel, consisting of over 5,000 residents across the city, and to a list of key stakeholders.
67. Public engagement events were also held, giving members of the public an opportunity to ask further details about the scheme from members of the Project team:
- April 13th: Angel Hotel
 - April 20th: Central Library
 - May 4th: Angel Hotel
 - May 11th: Central Library

68. After data cleansing to remove any blank or duplicate responses, a total of **1,303** responses were received from the consultation.
69. Overall the responses for the preferred option of non charging measures were overwhelmingly supportive, particular the measures targeted at improving emissions from buses and taxis.
- **96.8%** support the proposal to replace the most polluting diesel buses with electric buses;
 - **90.4%** support the proposal to retrofit other polluting buses so they are upgraded to meet the latest emission standards; and
 - **80.3%** support the proposed changes to taxi licensing in the city
70. Considering that it was only possible to include the high level design principles of the City Centre Schemes within this consultation, the proposals were favourably received with two-thirds of respondents supporting the proposals, with just under a fifth against.
71. 82% of the respondents to the survey were car owner/ drivers, and the majority of respondents were males (60%) aged 35-55 (45%)
72. **Further detailed statutory consultation will be undertaken, specifically on the City Centre Schemes separately as their design and implementation are approved and taken forward as separate detailed schemes.**
73. **As part of the consultation the Council will work directly with key stakeholders/ businesses in order to ensure any negative impacts on implementing the schemes is managed accordingly. As such an operational plan will be developed to ensure access to businesses is maintained at all times to minimise any impacts on business operations.**

Funding for Measures

74. Within the letter from the then Minister for the Environment, Hannah Blythyn, that accompanied the formal direction it was confirmed that finance would be made available for the production of the feasibility study and for the implementation of the chosen scheme. The Welsh Government has also stated in its Final Supplemental NO₂ Plan⁷ that it has allocated over £20 million for an Air Quality Fund through to 2021 to help accelerate compliance with NO₂ limits and improve air quality in Wales. The Welsh Government has also stated that this fund will primarily be used to provide on going support, guidance and finance to enable Cardiff Council (and Caerphilly County Borough Council) to take action to achieve compliance in the shortest possible time. It further states that the fund will be used to 'deliver the options which will achieve compliance with limit values in the shortest possible time.'

⁷ [Welsh Government supplemental plan to the UK plan for tackling roadside nitrogen dioxide concentrations 2017](#)

75. The required funding to implement these measures is detailed as follows:

Electric Buses

76. Cardiff Council, Welsh Government and Cardiff Bus, bid jointly to the Department of Transport (DfT) Ultra Low Emission Bus (ULEB) Grant fund for funding of up to **£5.7M** for 36 electric buses and associated charging infrastructure. The Grant Funding contributes 75% of the cost difference between the purchase of conventional diesel buses and their electric equivalent and 75% of the capital for the required infrastructure.
77. In order to meet the balance of the cost difference (25% - £1.8 million), Cabinet have been asked to consider providing this as a commercial loan from the Council, in addition to a sum of £2 million previously requested in order to support the Company's acquisition of vehicles. This is the subject of a separate report.
78. Owing to state aid issues no further grant funding is possible or being sought for this measure with the costs to be borne by the company as part of its long term fleet replacement programme.

Bus Retro-Fitting Programme

79. In 2017, Cardiff Council and Cardiff Bus submitted a joint bid to the DfT's Clean Bus Technology Fund (CBTF) for the retrofitting of some 94 buses that do not meet the latest Euro 6 diesel emission standards. This programme would look to fit approved technology to older buses, rather than having to fully replace them with Euro 6 or E-Buses.
80. As part of the development of the Final Plan and during the consultation process officers have discussed with other operators who have expressed interest in the scheme. Based on figures provided in terms of buses that operate solely in Cardiff that could be suitable for Retrofitting it is proposed to expand this scheme to include a total of 150 buses.
81. The total funding requirement for this scheme would be approximately **£2,250,000 (ex VAT)** based on previous costs.
82. This scheme will be open to all bus operators who may wish to apply to the scheme for funding to support the retrofitting of suitable buses using approved technology. The Council will look to replicate DfT's CBTF scheme and conditions of offer for the retrofit grant will likely mirror those within DfT's Scheme.
83. Further legal counsel is being sought on whether this measure may constitute state aid.
84. In terms of procurement of suppliers for the technology this will be the responsibility of the bus operators, and no direct procurement will be undertaken by the Council.

85. If the uptake of the retrofit scheme is not sufficient to provide the modelled air quality benefits then the Council will need to assess the possibility of introducing a Low Emission Zone (LEZ) for Buses. This would require buses operating in the LEZ to have minimum emission standard of Euro 6/ equivalent retrofit or ULEV, which would look to increase the uptake of the scheme.
86. Such a zone would be achieved by applying to the Traffic Commissioner to issue a Traffic Regulation Condition (TRC) which applies to the license of bus operators providing services in Cardiff. A TRC would be sought under the Regulation 7 of the Transport Act 1985 , whereby Regulation 7(4) states that if the traffic commissioner is satisfied, 'after considering the traffic in the area in question that such conditions are required or are likely to be required in order to(c) reduce or limit ...air pollution.
87. The introduction of such zones has been undertaken in a number of Cities in the UK outside of London, including Oxford, Brighton and Glasgow.
88. Alternatively, the Council will work with local operators on the possibility of establishing a Quality Partnership Scheme (QPS) under Section 114 of the Transport Act 2000. Such schemes can be voluntary or statutory and looks to improve facilities and services in an agreed area of operation. As part of the QPS, it is possible to stipulate minimum emissions standards that buses operating in the area of QPS would be required to meet, i.e., Euro 6 retrofit or ULEV.

Taxi Licensing Policy and Mitigation Measures

89. On the 5th March 2019, the Public Protection Committee approved for Shared Regulatory Services to consult on the proposals to amend the Council's taxi licensing policy, which would see the introduction of new emissions and age requirements for the granting of new licenses and/ or change of vehicle applications on new existing licenses. The proposals would require that any vehicle included on the application for a new grant is a minimum Euro 6 emission standard (petrol and diesel) as part of the license application. The same emission standard would also apply for any change of vehicle on an existing license.
90. Whilst it is not possible to predict the outcome of the consultation process on the revised policy, Public Protection Committee will be asked to consider the responses and it will be the committee who will ultimately decide to approve the revisions of the Councils licensing policy. If approved an implementation date for the revised policy will be agreed.
91. Whilst there is no direct cost the Council for implementing the revised license conditions, the economic assessment has included the provision of mitigating measures for the taxi trade. A number of Councils in the UK have already introduced similar vehicle emission standards on taxis, but in doing so they have worked to assist the taxi trade by offering incentive schemes. .

92. In further assessing incentive schemes offered by other local authorities, it has become apparent that any direct funding to the **purchase of a vehicle**, as initially proposed in the OBC would likely entail state aid.
93. Therefore, it is proposed subject to approval from Welsh Government, that the Council will introduce **an incentive scheme** for the first 620 vehicles ~30% of the licensed fleet, who license a new ULEV taxi with the authority to cover a proportion of the running costs of these vehicles, with a maximum grant fund of £3000 offered over a 3 year period, subject to the conditions of grant being met. The scheme will be based upon the similar successful schemes funded by the UK Government for a number of local authorities in England, including Birmingham, Nottingham and Southampton who offer taxi licensing redemption schemes.
94. The scheme will be subject to strict criteria and only open to drivers/operators who license taxis within Cardiff and agree to do so for a minimum of 3 years. The full details of the scheme will be developed in conjunction with Shared Regulatory Services, and will be finalised as part of the report to Public Protection Committee as part of the approval to agree the licensing policy amendments.
95. The total cost of this scheme is anticipated to be **£1,860,000**.
96. In order to encourage wider uptake of EV/ ULEV for the taxi trade the Council will work with Welsh Government to establish whether a wider, possibly national scheme, to support the switch of licensed vehicles to EV/ ULEV can be implemented.

City Centre Transportation Schemes and Active Travel

97. In identifying the required funding for City Centre Transport improvement Schemes, only those schemes that are likely to be implemented up to the end of 2021, have been included for consideration. Currently it is forecast that these schemes could cost in the region of **£18.9M**, subject to appropriate detailed designs.

The breakdown of these costs is presented in Table 3, and gives the project total costs.

Table 3 - Funding for City Centre Schemes

Name of Scheme	Required Funding to Complete Schemes up to end of 2021
City Centre West (Westgate St/ Wood St & Ctrl Sq	£7.6M
City Centre North (Castle St) and Bldv de Nantes	£7.1M
Eastside Phs 1 –	£4.2M
Total £18.9M	

98. In terms of the above, the Transport Service has been successful in bidding for £2.75m from the Local Travel Fund (LTF) for the financial year 2019-20, enabling it to begin construction on City Centre West and North Phase 1 within year. This reduces the funding requirements for the City Centre Scheme to £15.2m inclusive of previous 18/19 in year expenditure accounted for.
99. Failure to begin public consultation and tender in June-August 2019 will cause the delivery programme to slip, consequently requiring the Council to give back this grant funding and impact on compliance being achieved on Castle Street.
100. The initial LTF bid for the schemes was based on a 5 year expenditure profile so further funding to complete the schemes and further LTF funding for expenditure in 20/21 may be provided. However it will be imperative in terms of achieving compliance that the City Centre North (Castle Street) Scheme is fully funded and thus it is essential that the remaining £5.725m to complete this scheme is confirmed as part of the Clean Air Fund.

Impact Mitigation Measures for City Centre Schemes

101. Implementation of the city centre projects will cause displacement of traffic. A worst case scenario will see approximately 30% of traffic displaced from the city centre at peak times. Within this 30% the following behavioural changes could apply:
- Mode shift to sustainable modes
 - Wider re-routing away from the city centre
102. In addition, the Transport Department has started four Improvement Corridor Projects that will look to mitigate against the residual impacts and encourage further mode shift to sustainable modes. They are;
- SMART Corridor North (A470)
 - SMART Corridor West (TBC – Subject to feasibility study)
 - SMART Corridor East and Cycleway 2 (Newport Road)
 - Riverside and Grangetown Improvement Corridor

Commencement of Programme for City Centre Improvements

103. Public consultation for City Centre West and North is required to take place in June 2019 for a period of 6 weeks.
104. It must be stressed that the following programme dates for the City Centre Improvements are dependant on the outcomes of the public consultation and TRO process, the outcomes of which will need to be appropriately considered in full prior to any progression of the schemes.
105. Current programming requires construction to start in January 2020 for City Centre West and North (Phase 1), this will allow enough time to complete works to fit in with the Central Square Development, the

Transport Interchange and Air Quality compliance targets. These schemes are likely to take 18-24 months to complete.

106. City Centre East (Phase 1) is currently scheduled for consultation in autumn 2019 and construction in spring 2020. This scheme is likely to take 18 months to construct.

107. The above works and timescales are also subject on-going WeITAG processes and continuation of Welsh Government and City Deal funding.

Outcomes and Benefits of City Centre Schemes

108. The City Centre Options will ensure that:

- i. 30% of traffic is removed from Westgate Street, Castle Street and Station Terrace. This traffic reduction will provide the space needed to create a Transport Network that can;
- ii. Improve Air Quality and achieve national compliance;
- iii. Facilitate and sustainably connect key developments into the transport network;
- iv. Provide high quality cycle lanes that connect Primary Cycleways with key employment and visitor sites in the city centre;
- v. Ensure that the Transport Interchange will be capable of operating at maximum capacity and operate on event days;
- vi. Provide Pedestrians crossings that are future proofed for the high numbers of pedestrians expected due to the Central Square Development, and the predicted increase in passenger numbers from Central Station and the Metro;
- vii. Improve pedestrian safety through the use of tabled crossings, new crossings, wider crossings, countdown timers and a 20mph speed limit; and
- viii. Improve the townscape and public environment around key destinations and development, such as the national stadium, Central Square, Metro Central and Queen Street Station.

Active Travel Measures

109. For the expansion of 20mph area a funding bid of £2m was made to the LTF and only £500k of this has been awarded. As such in order to complete the wider 20mph area/Active Travel role out (2 additional areas of Grangetown and SE Cardiff (Splott/Adamsdown)), a further £1.2m is being bid as part of the Clean Air Fund.

110. Whilst the completion of the CS1 to University Hospital Wales (UHW) has been modelled, this measure will be continue to be bid for from the Active

Travel Fund and thus has been removed from the funding requirements of the Clean Air Plan.

111. The proposed funding for the financial case within the FBC to implement the package of measures as a preferred option is summarised below in Table 4.

Table 4 - Final Preferred Package of Measures Funding Costs

Measure	Funding Requirements £
Measure	
Electric Buses	n/a
Bus Retrofit	£2.25m
Taxi Mitigation Schemes	£1.86m
City Centre Schemes	£15.2m*
20 mph areas completion	£1.28M
Total:£ 20.5m	

*Future LTF/City Deal Contributions

112. In addition to the costs for the measures the plan includes costs for staff resource to manage the implementation of the plan. This has been forecast at **£395k** over two years.
113. Additional funding is also being sought for a detailed monitoring and evaluation plan to be implemented to demonstrate the actual effectiveness that the measures will provide in terms of NO₂ and other emission reductions. In order to demonstrate that compliance will be achieved. Costs associated with this programme have been calculated at **£250k**.
114. **This brings the total funding for the entire Plan to £21.2m**
115. The Council will continue to work collaboratively with Welsh Government officials to identify all available and an appropriate funding mechanisms including the Air Quality Fund, Local Transport Fund and Active Travel Fund in order to maximise the financial contribution from Welsh Government towards the implementation of the measures to be included in the Final Business Case.

Next Steps

116. The results of the revised package of non-charging measures identifies that significant NO₂ reductions will be achieved on Castle Street, with a level of 31.9 µg/m³ projected which demonstrates compliance with the limit value of 40 µg/m³. In addition further city wide air quality improvements are also achieved from the preferred option including at all monitoring locations within existing AQMAs.
117. Following approval by Cabinet, the Final Plan will need to be submitted to Welsh Government for formal approval and agreement of funding that will be made available. Table 5 below sets out the timeline for implementing the measures:

Table 5 - Timeline for Implementation

Action	Additional Information	Implementation measure/ mitigation of
Submit Final Plan	No Later than 30 th June 2019	n/a
Ministerial Approval of the Final Plan and Confirmation of Funding	Mid July 2019	n/a
Electric Bus Measures	-	Initial 12 buses, early 2020 depending on deliverability from suppliers.
Retro fit of Buses	-	Scheme established late 2019 operators applying for funding early 2020
Taxi Policy and Mitigation Scheme	Public Protection Committee (PPC) approval and confirmation for the revised policy Autumn 2019.	Depending on PPC likely early 2020
City Centre Schemes Public Consultation	6 week consultation	June –August 2019
Tender and TRO	6-9 months	Summer 2019
Cabinet Report Consultation Response on City Centre Schemes	-	September 2019
Contract Award(s) for City Centre Scheme	-	Autumn 2019
Construction of City Centre North and West (Central Sq.)	-	January 2020

118. In terms of the City Centre Transportation Schemes further consultation will now proceed on the schemes
119. Local Members will have the opportunity to comment on more detailed proposals through the consultation process. Members will also be consulted during the Traffic Regulation Order (TRO) process.
120. The Public Consultation exercise will start on 24th of June 2019 and run for a period of 6 weeks until 5th of August 2019, it will include the following:
- i. Online publication of designs
 - ii. Press release
 - iii. Officer engagement with local businesses
 - iv. Consultation drop in events
 - v. One-to-one consultations with key stakeholders including bus companies
 - vi. Operational Manual for Westgate Street's future operation, to include delivery and access arrangements for residents and local businesses

121. All feedback will be considered by the Transport team and will inform the detailed design process. A Consultation Report will be compiled and published following the consultation.

Reason for Recommendations

122. To enable Cardiff Council to submit its Final Plan to implement its preferred option in order to meet the requirements of the Welsh Government Legal Direction, in achieving compliance with NO₂ legal limits in the shortest possible time.
123. To proceed to Public Consultation on the current concept designs for:
- City Centre West
 - City Centre North
 - City Centre East
124. To proceed to Tender and TRO on the following schemes:
- City Centre West Phase 1
 - City Centre North Phase 1
 - City Centre East Phase 1
125. To delegate authority to the Director of Planning Transport and Environment, Section 151 Officer and Cabinet Member, to consider the public consultation feedback and give approval to progress the detailed design and delivery stages as set out in this report
126. The delivery of these highway works are critical to the operation and future success of the Transport Interchange, the city centre's air quality and the future development of the city centre's transport network as a whole.
127. Progressing the public consultation phase of this project is necessary to inform the detailed design of the proposals and will allow the Transport Team to proceed to detailed design and delivery. Failure to go to tender at this stage of the project will result in the Council having to give back £2.75m of grant funding.

Financial Implications

128. The extent of funding available for Cardiff from the £20 million WG Air Quality Fund has still to be confirmed but as set out in the body of the report the cost of the Preferred Package is in excess of this sum. The Council will need to continue to work collaboratively with Welsh Government officers to maximise the financial contribution from the Welsh Government towards the implementation of the measures. Until funding is confirmed the risk remains that the full programme proposed may not be deliverable and the schemes may need to be reduced or removed to match the WG funding available.

129. Although the Council has received the benefit of external advice in putting together the package of works and anticipated costs these have not yet been market tested through a procurement exercise. The risk remains that the tendered price may be in excess of the projections and it is not clear whether the WG or the Council will need to bridge any funding gap.
130. Provision for the funding of Lifecycle costs associated with the package of Air Quality improvement measures, in particular for the City Centre Loops and the active travel infrastructure, will be required so that the Council can discharge these future obligations.
131. Cardiff Bus will receive grant funding for the purchase of the Electric buses directly from Ft. The introduction of the buses will be phased over a number of years but requires a match funding contribution as the grant is limited to 75% of the price differential between the cost of an electric bus and its diesel equivalent. Cardiff Bus anticipate providing the match funding contribution of £1.8 million from a loan provided by Cardiff Council together with a £2 million loan currently included as part of the Councils Capital Programme. Any loan in excess of that already approved in the budget framework will need to be approved by Council. Until then, the number of new buses would need to be restricted to budget available. Any loan to Cardiff Bus will need to ensure compliance with State Aid, a requirement that will also apply to any other contributions that pass to external third parties in the measures outlined.

Legal Implications

132. The Environment Act 1995 (Feasibility Study for Nitrogen Dioxide Compliance) Air Quality Direction 2018 (the Direction') directs Cardiff Council to carry out specified activities by specified deadlines, in relation to its duties in respect of Air Quality under Part 4 of the Environment Act 1995 and as part of the UK plan for tackling roadside nitrogen dioxide concentrations 2017. Under section 85(7) of that Act it is the duty of the authority to comply with a direction given to it.
133. As part of the Direction the Council must submit a "final plan", no later than the 30th June 2019, setting out in detail its preferred option for delivering compliance, in the shortest possible time, including a full business case. The report seeks approval of the Final Plan. It is noted that the Final Plan is dependent for its achievability upon a number of proposals. These are detailed in the body of the report and include such matters as; the making of Traffic Regulation Orders ('TRO'), the outcome of future decisions of the Public Protection Committee (taxi requirements) and the outcome of consultation exercises upon certain elements of design for the City Centre Schemes. This point is raised for two reasons.
 - Firstly, the outcome of the consideration of these matters cannot be guaranteed. For example decisions of Public Protection Committee will be for that committee to make having regard, at the time of the decision, to all material factors. The making of TROs are dependent upon following statutory process and the due

consideration of the outcome of consultation, which may lead to a decision to make or not make the TRO proposed. Accordingly, it may be necessary to review the Final Plan, as submitted, should it not prove possible to deliver elements of the proposal.

- Secondly, there is the potential risk that by detailing the proposals (for example the TRO to be made) that the Council could be seen as pre-determined as to these matters and its decisions in respect of the same subject of challenge. Accordingly advice has been given that both the Final plan and this report should make clear that the proposals referred to are just that, proposals and that the proposals or parts thereof are subject of their own decision making processes and may be subject to change.

134. The report refers to various consultation proposals (including consultations already carried out and that which is planned). Consultation gives rise to the legitimate expectation that due regard will be given to the outcome of the consultation in the decision making process.
135. The report refers to various works contracts that will be required. These will need to be procured in accordance with procurement law requirements. It is important that the contracts are not awarded until such time as any dependent requirements (such as traffic regulation orders) are in place. Any tender exercise carried out before the public consultation on concept designs is concluded and any required TRO's are in place (or other dependencies secured) should make clear that proposals may change to reflect consultation outcomes and contain the right for the Council to abort the process, should for any reason it determines not to proceed. Accordingly, there is a risk that the costs of tender exercises could prove abortive.
136. Legal Services will work with the service area to provide appropriate legal advice on the proposals as developed.
137. Before submitting the Final Plan the Authority will need comfort that it has funding available to deliver the plan. Reference is made to the financial implications. To the extent that the authority is placing reliance on grant funding it will need to be satisfied that it can comply with the conditions that attach to such funding.
138. The Council has to satisfy its public sector duties under the Equality Act 2010. Pursuant to these legal duties the Council must in making decisions have due regard to the need to (1) eliminate unlawful discrimination (2) advance equality of opportunity and (3) foster good relations on the basis of protected characteristics

Protected characteristics are:

- Age
- Gender reassignment
- Sex
- Race – including ethnic or national origin, colour or nationality
- Disability

- Pregnancy and maternity
 - Marriage and civil partnership
 - Sexual orientation
 - Religion or belief – including lack of belief
139. An Equality Impact Assessment has been undertaken and is attached as an Appendix 3 to this report. Regard should be had to the same in reaching a decision on this matter. The purpose of the Assessments is in order to ensure that the Council has properly understood and assessed the potential impacts of the proposals in terms of equality, so that it can ensure that it is making proportionate and rational decisions having due regard to its public sector equality duty.
140. The Well-Being of Future Generations (Wales) Act 2015 places a 'well-being duty' on public bodies aimed at achieving seven national well-being goals for Wales - a Wales that is prosperous, resilient, healthier, more equal, has cohesive communities, a vibrant culture and thriving Welsh language, and is globally responsible.
141. In discharging its duties under the 2015 Act, the Council has set and published well being objectives designed to maximise its contribution to achieving the national well being goals. The well being objectives are set out in Cardiff's Corporate Plan 2018-21: <http://cmsprd.cardiff.gov.uk/ENG/Your-Council/Strategies-plans-and-policies/Corporate-Plan/Documents/Corporate%20Plan%202018-21.pdf>

When exercising its functions, the Council is required to take all reasonable steps to meet its well being objectives. This means that the decision makers should consider how the proposed decision will contribute towards meeting the well being objectives and must be satisfied that all reasonable steps have been taken to meet those objectives.

142. The well being duty also requires the Council to act in accordance with a 'sustainable development principle'. This principle requires the Council to act in a way which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs. Put simply, this means that Council decision makers must take account of the impact of their decisions on people living their lives in Wales in the future. In doing so, the Council must:
- Look to the long term
 - Focus on prevention by understanding the root causes of problems
 - Deliver an integrated approach to achieving the seven national well-being goals
 - Work in collaboration with others to find shared sustainable solutions
 - Involve people from all sections of the community in the decisions which affect them.

143. The decision maker must be satisfied that the proposed decision accords with the principles above; and due regard must be given to the Statutory Guidance issued by the Welsh Ministers, which is accessible using the link below: <http://gov.wales/topics/people-and-communities/people/future-generations-act/statutory-guidance/?lang=en>

RECOMMENDATIONS

Cabinet is recommended to:

1. To note the outcome of the public consultation on the Preferred Option as set out in paragraphs 66-71.
2. To approve the Clean Air Feasibility Study Final Plan (Full Business Case) for submission to Welsh Government no later than the 30th June 2019.
3. Delegate authority to the Director of Planning, Transport and Environment, in consultation with the Cabinet Member for Strategic Planning & Transport, to make any necessary amendments to the Final Plan, provided no fundamental changes to the agreed Preferred Option occurs as result of the amendments.
4. To approve the wider Clean Air Strategy and Action Plan included as Appendix C in the Final Plan.
5. Delegate authority to the Director of Planning, Transport and Environment in consultation with the Cabinet Member for Strategic Planning & Transport to assess the feasibility of implementing a Low Emission Zone for Buses and/ or Quality Partnership Scheme.
6. Approve the undertaking of public consultation on the concept designs of proposed City Centre Improvement Schemes namely:
 - a. City Centre North
 - b. City Centre West
 - c. City Centre East
7. Delegate authority to the Director of Planning, Transport and Environment, in consultation with the Cabinet Member for Strategic Planning & Transport, to progress and approve detailed design of works, taking account of feedback to the public consultation and to progress the necessary Traffic Regulation Orders.
8. Having regard to legal and procurement advice (and the caveats set out in paragraph 135 of the report) provide approval to proceed to Tender of a contractor on the following schemes;
 - a) City Centre West Phase 1
 - b) City Centre North Phase 1
 - c) City Centre East Phase 1,
9. Receive a further report on the City Centre Schemes prior to contract award.

SENIOR RESPONSIBLE OFFICER	ANDREW GREGORY Director Planning Transport and Environment
	7 June 2019

Appendix 1 – Cardiff Council Clean Air Feasibility Study – Final Plan Full Business Case June 2019

Appendix 2 – City Centre Transport Improvements Scheme Design Plan

Appendix 3 – Equality Impact Assessment on Clean Air Plan

Background Paper

[JAQU Guidance – Evidence Based Approach to Setting Clean Air Zone Charges](#)