

Programme Name: Clean Air Feasibility Study

This log is used to record and track both Programme and project, those that have been prevented or mitigated, and those that have become issues. Do not delete risk information from this log: it is a permanent record of risks.

| | | | | | | | Inherent Status | | | | | Current Residual St | atus | | | | | |
|--------------|--------------|----------------------|------------------|---|-------------|---|-------------------|------------------------|-------------------|---|-------------------|---------------------|-------------------|---|----------------|------------|---------------|----------------|
| Risk Ref No. | Date Entered | Date Last Updated | Measure | Risk Event | Risk Type | Risk Description | Likelihood | Consequence | Level of Inherent | Current Controls | Likelihood | Consequence | Level of Inherent | Proposed Future Actions | Proximity | Risk Owner | Risk Actioner | Risk Status |
| 0001 | 01/03/2019 | | Electric Buses | Unable to secure funding for £1.8M shortfall | Financial | ULEB grant allocated 75% cost difference between Diesel Bus and Ebus, and thus there is a shortfall in funding of £1.8M | Rating (A - D) | Rating (1 - 4) 2 | Risk Red | Ongoing discussions, between Cardiff Bus and Cardiff Council and WG to identify avoidance of state aid. | Rating (A - D) | Rating (1 - 4) | Risk Red/Amber | other funding alternatives being considered and investigated. | < 1 month | co/cc | JB | Open |
| 0002 | 01/03/2019 | | Electric Buses | Electric substation at Sloper Rd needs upgrade in order to provide sufficient capacity. | Financial | There would be further capital cost to upgrade the substation in order that it could provide suitable capacity | С | 1 | Red/Amber | Cardiff Bus investigating the capacity of the substation with WPD and the charging requirements with their likely approved supplier. | ۱ ، | 3 | Green | Ensure WPD provide suitable assurances or accurate costs for any upgrade requirements. | < 3 months | GM | JB | Open |
| 0003 | 01/03/2019 | | Electric Buses | Insufficient No. E-Buses available due to market demand | Timescale | EV Bus targets not reached and thus improvements in AQ not Achieved | d | 1 | Amber/Green | As part of the procurement process Cardiff Bus need to ensure that preferred supplier is able provide sufficient guarantees on supply, discussions on going. | d | 3 | Green | review procurement documentation | < 12 months | GM | JB | Open |
| 0004 | 01/03/2019 | | Electric Buses | Replacement Programme Disrupts day to day Cardiff Bus Operations. | | Cardiff Buss unable to run certain bus services to schedule, creating disruption for passengers | I 4 | 4 | Green | Replacement work will be carefully planned to ensure that services continue to operate whilst E-Buses are incorporated into the service. | d | 3 | Green | review of implementation plan | < 12 months | GM | JB | Open |
| 0005 | 01/03/2019 | | Electric Buses | Operational problems experienced with New E Buses | Quality | Bus Service Disruption/ Vehicles unable to reach destination/ depot to charge etc. | c | 3 | Amber/Green | Proposed system will be overnight charging at Sloper Rd, so should ensure that all buses have sufficient charge to operate daily route. However will need to ensure that sufficient testing of all systems is undertaken, and appropriate monitoring/ assessment is undertaken to ensure greatest efficiencies are obtained. | d | 3 | Green | Appropriate testing of system. | No Time Period | gm | JB | Open |
| 0006 | 01/03/2019 | | Bus Retrofit | Retrofit project unable to be delivered through approved supplier | Procurement | Supplier unable to meet the order/ demand for retrofit programme | c | 3 | Amber/Green | Suppliers have previously provided assurances that they can meet demand and have a large manufacturing base. Potential need to identify and assess back-up supplier to ensure that in the unlikely event that approved supplier is unable to deliver. | d | 3 | Green | ensure demand supply assurances included as part of procurement process | No Time Period | JG | JB | Open |
| 0007 | 01/03/2019 | | Bus Retrofit | System design is not compatible with the vehicles | Timescale | Technology unable to be installed and thus there could be significant delay in implementing full scheme and thus air quality improvements not met | c | 3 | Amber/Green | Detailed surveys will be undertaken on the existing fleet requiring retrofit to validate the conditions of the vehicles to ensure that equipment selection is correct. design work or prototyping will be done during the first 6 weeks while waiting for the key components to arrive. On arrival of the parts a "First Off" system will be built and then installed on each of the different vehicle types and tested to ensure that the systems achieve the desired emissions reduction. | | 3 | Green | Ensure information is available to supplier of technology and that they account for undertaking surveys as part of Procurement process. | < 12 months | JG | job | Open |
| 0008 | 01/03/2019 | | Bus Retrofit | Variations in equipment costs due to the volatile European currency market could lead to an increase in the cost of the project | Financial | Cost overrun on project | С | 3 | Amber/Green | Fixed price for the equipment to be agreed across the entire manufacturing schedule, prior to any grant funding being released. | d | 3 | Green | Ensure prices are fixed as part of procurement process. | < 12 months | JG | job | Open |
| 0009 | 01/03/2019 | | Bus Retrofit | Retrofit Programme significantly disrupts Bus services in Cardiff | Resource | Bus Operators unable to run bus services to schedule, creating disruption for passengers | С | 3 | Amber/Green | Retrofit work will be carefully planned to take place overnight or at weekends when demand and scheduling allows for a reduction in the peak vehicle requirement (pvr) to occur without disrupting services for passengers. | d | 3 | Green | Ensure fitting programme agreed with operators | < 12 months | JG | JB | Open |
| 0010 | 01/03/2019 | | Bus Retrofit | Retrofit technology fails | Quality | NOX emissions are not in line with expected performance and NO2 concentrations are not reduced in an effective manner as a result. | С | 4 | Green | Green Urban Technologies have demonstrated significant NOx reductions, greater than 95% by the installation of their Selective Catalytic Reduction Technology (SCRT). The system was independently tested over the Millbrook London Bus Test cycle (MLTB). | d | 3 | Green | Ensure GUT or another approved supplier have up to date testing results to demonstrate effectiveness of technology | < 12 months | JG | JB | Open |
| 0011 | 01/03/2019 | | Taxi Measures | Revised Policy does not get approved by Public Protection Committee | Legal | failure to require minimum emission standards on all new grants and new vehicles. | С | 1 | Red/Amber | Ensure that the report to Committee clearly sets out the reasoning for requiring the policy changes, and that it is directly linked to the Legal Direction. | С | 3 | Amber/Green | Development of mitigation scheme to ease burden on drivers/ taxi trade | No Time Period | SRS | JB | open |

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| 0012 | 01/03/2019 | Taxi Measures | Appeal/ JR by Taxi Trade on changes to policy | Legal | Opposition could delay the implementation of the revised policy which will fail to see the turnover in taxi fleet to Euro 6 or ULEVs | (A - D) | (1 - 4) | Red | Ensure that sufficient engagement with the industry continues to take place to educate the industry on the justification of the proposals in terms of the AQ Direction. Engage with Welsh Government to establish suitable Grant Funding Scheme to assist taxi drivers/ operators to upgrade vehicles. | (A - D) | (1 - 4) | Amber/Green | Development of mitigation scheme to ease burden on drivers/ taxi trade | No Time Period | JB | JB | Open |
| 0013 | 01/03/2019 | Taxi Measures | increase in cross boarder taxis operating in Cardiff | | | | | #N/A | | | | #N/A | | | | | |
| 0014 | 01/03/2019 | | Increase in cross boarder taxis operating in Cardiff | Quality | Cardiff unable to prevent older taxis, that are licensed in neighbouring authorities who may not apply emission standards as part of licensing requirements, and such taxis can operate in Cardiff. | a | 3 | Red/Amber | Need to work with neighbouring authorities to promote uptake of similar policies. For Vale and Bridgend this should be straightforward as licensing undertaken by SRS. Caerphilly and Newport also face challenging AQ issues so should also be desire within these Councils to follow suit if they have not already done so. | с | 3 | Amber/Green | Work collaboratively with Welsh Government on ongoing consultation for them to implement national emissions standards for taxis in order to reduce burden on taxi trade in Cardiff in terms of achieving emission standards. | | SRS | JB | Open |
| 0015 | 01/03/2019 | City Centre Loop | Impact on Wider Network | Quality | Impact on Wider Network: There is a risk that displaced traffic could have a negative effect on the wider traffic network | b | 2 | Red | Full ANPR, MTC and ATC survey to be conducted on project area and the surrounding network area. This data will be used to create wider network model where options will be retested. An impact assessment on the wider network will be carried out as part of this work and will | С | 4 | Green | Conduct Survey Expand Transport Model Create Reports | < 12 months | GS | JB | Open |
| 0016 | 01/03/2019 | City Centre Loop | Impact on Local Businesses and Residents: | Communication | Local businesses could reject the scheme based on the changes to their operations | С | 2 | Red/Amber | Private engagement with key stakeholders will be used to help inform the scheme design. An operational plan detailing how residents, businesses, buses, taxis and key stakeholders will use the new transport layout will be created. | c | 4 | Green | Review feedback from consultation to revised designs as necessary | < 12 months | GS | JB | Open |
| 0017 | 01/03/2019 | City Centre Loop | Objections to the schemes | Communication | Changes of this scale can cause worry among the public, there is a risk the scheme will not gain public support | с | 1 | Red/Amber | A full consultation plan will be implemented as part of the pre construction phase. Plans will be submitted online and will be accompanied by a consultation pack. Drop in sessions will also be organised for members of the public and businesses on street. | l ^c | 4 | Green | Review feedback from consultation to revised designs as necessary | < 12 months | GS | JB | Open |
| 0018 | 01/03/2019 | City Centre Loop | Air Quality Impacts | Legal | There is a risk that the current scheme will not achieve the required air quality improvement | d | 3 | Green | The Transport Team will work with their own Traffic Modelling Consultants and the Council's Air Quality Team and associated Consultants to ensure that the necessary air quality impact is achieved as part of the scheme. The current designs will be modelled on an Air Quality model and fed into the current modelling work carried out by RICARDO and Mott MacDonald. | d | 4 | Green | Review of results from local modelling with modelling work undertaken as part of the feasibility study, and include results of local modelling in FBC as necessary. | | JB | JB | Open |
| 0019 | 01/03/2019 | City Centre Loop | Historical Environment Around Cardiff Castle | Legal | Cadw requirements: Due to listed structures in and around the Castle area. There is a risk to the design altering fundamentally, having a detrimental effect on the bus network. | d d | 3 | Green | Meeting with conservation planning officer to discuss Cadw requirements | d | 4 | Green | Ensure advice from conservation officer is sufficient and meets any requirements of CADW. | < 12 months | GS | JB | Open |
| 0020 | 01/03/2019 | City Centre Loop | Presence of heavily contaminated soils/ materials | Financial | Potential risk of existing material under current carriageway and footway could be contaminated. Additional cost could be associated with excavation and disposal | С | 1 | Red/Amber | Undertake site investigation sampling to establish the current makeup of the carriageway to assess disposal costs. | d | 4 | Green | investigation will enable robust assessment on contamination to allow appropriate disposal/ reuse options to be developed. | < 12 months | GS | JB | Open |
| 0021 | 01/03/2019 | City Centre Loop | Ground Conditions: | Financial | West Gate Street has poor existing ground conditions, with this in mind there is a potential risk that the existing ground conditions for Castle Street and Wood Street could be in a poor state and additional carriageway make up may be required | С | 2 | Red/Amber | Undertake site investigation sampling to assess the current makeup of the carriageway to assess any additional costs | d | 3 | Green | investigation will enable robust assessment of material to enable accurate assessment of any additional make up costs. | < 12 months | GS | JB | Open |
| 0022 | 01/03/2019 | City Centre Loop | Statutory Undertakers/ Supplies | Health & Safety | Due to the location of the site, there is a high volume of statutory undertakers equipment present in the footways and carriageway. Potential risk of the proposal clashing with existing services causing possible diversions | С | 2 | Red/Amber | A radar survey has been undertaken for Wood Street, and a radar survey has been commissioned for Castle Street. Check the proposal against the radar survey to reduce possible conflicts | d | 2 | Amber/Green | Review results of radar services and ensure detailed and accurate service plans available | < 6 months | GS | JB | Open |
| 0023 | 01/03/2019 | City Centre Loop | lmpact of Construction on Surrounding stakeholders | Communication | Due to the number of surrounding stakeholders i.e. Principality Stadium, Cardiff Castle, Carparks. Access will be required to be maintained throughout the construction period to limit any financial losses on the stakeholders | | 3 | Green | Contractor to supply a detailed Construction Phase plan for undertaking the works. Contractor to attend stakeholder meetings to understand stakeholders requirements | d | 2 | Amber/Green | Agreement of Construction Phase Plane | No Time Period | Contractor | GS/JB | Open |
| 0024 | 01/03/2019 | City Centre Loop | Impact of Construction on Existing and Future Developments | Quality | A number of developments are due to be in construction or starting construction during the construction phase. Potential conflict between the Principal Contractor and development Contractor | d | 1 | Amber/Green | | d | 4 | Green | Contractor to undertake appropriate liaison during works, | No Time Period | Contractor | GS/JB | open |
| 0025 | 01/03/2019 | City Centre Loop | Impacts to Highway Network. | Timescale | Due to the location of the scheme it is vital that the highway network remains unrestricted during peak times of the day | d | 4 | Green | The working restrictions will be set out in the contract, the contractor will have to work within the set working restrictions | d | 4 | Green | ensure contractor works to required restrictions. | No Time Period | GS | JB | open |
| 0026 | 01/03/2019 | General Issues | Government led variation | Timescale | Legislative - a change in the underlying requirements from Government - this could be led by additional court cases brought by environmental pressure groups resulting in more stringent AQ targets | d | 3 | Green | Continue with regular bi monthly meetings with WG to ensure that any such issues are informed at the earliest stage. Ensure adequate financial contingency is available. | d | 4 | Green | Meetings scheduled up to and beyond end of June | < 12 months | JB | JB | open |

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| 0027 | 01/03/2019 | | General Issues | Failure to communicate the benefits and impacts of the plan following its introduction | Communication | Insufficient resources to deliver effective communication campaign | d | 2 | Amber/Green | Comprehensive communications strategy has been developed to ensure appropriate engagement with key stakeholders including local businesses, the public and the media. Comms team have been engaged to develop and deliver strategy | d | 4 | Green | Review communication strategy after Phase 1 of comms. | < 1 month | ILD | JB | open |
| 0028 | 01/03/2019 | | Issues | Cardiff Council is at risk of objections of the preferred option which could delay the production of the FBC | Legal | NO2 reductions not achieved, the Council is at risk of fines and other legal challenges related to failure to comply with the AQ directive, and failure to deliver Final Plan by 30th June | С | 2 | Red/Amber | A stakeholder engagement exercise has been developed to inform key stakeholders such as bus companies, taxi forum, cycling groups and the wider public in general. | d | 3 | Green | Feedback from consultation will be used to inform/ refine the preferred option in the FBC. | < 3 months | ILD/JB | JB | Open |
| 0029 | 01/03/2019 | | General Issues | Loss of critical staff resource | Resource | Loss of momentum on delivering Final Plan | d | 4 | Green | Delivery of Air Quality Plan is a high priority for the Council, and resource will be made available should key current staff no longer be available. | d | 4 | Green | Review project resources as necessary | < 6 months | AG | JB | Open |
| 0030 | 01/03/2019 | | General Issues | OBC and preferred option rejected by Welsh Government | Financial | Failure to agree preferred option and obtain sufficient funding to implement. | d | 2 | Amber/Green | Close Collaboration between Cardiff Council and Air Quality Branch at WG has helped to identify such risks. Feedback from Welsh Government has been instrumental in CC developing the OBC | d | 3 | Green | Continued dialogue and collaboration with Air Quality Branch and Minster at WG> | < 6 months | JB | JB | Open |