

Appendix D : Intervention List

Long List

Measure	Evidence Base	Description	AQ impact	AQ Score	Timescale / Feasibility	Timescale Score
CAZ (as required by Government)						
Charge Based CAZ - Class B or C; different geographical boundaries / time restrictions				4		Y
Charge Based CAZ - Class D; different geographical boundaries / time restrictions				5	slower to implement due to consultation & systems	Y
Number plate restrictions on which vehicles can enter the city or particular roads at certain times/days	AQ plan 201	Number plate restrictions on which vehicles can enter the city or particular roads at certain times/days		2		Y
Financial						
Fuel use incentivisation		Funding of electric, petrol, GtL at source	uptake depends on value and availability. Hard to target.	3	funding approval maybe difficult but no infrastructure needs?	Y
Financial support to bus companies to upgrade their fleet to lower emission vehicles. Inc retrofit			PT alone unlikely to be sufficient, is v targeted	3	funding approval potential from QWs.	Y
Phasing out large vehicles or more polluting vehicles as salary benefit.		Assumed to be company cars	limited numbers affected?	1	funding approval maybe difficult, slow to deliver fleet change	N
Competitively allocated financial incentives for best performing public transport companies. (eg funded from parking charges)			Lack of guarantee means low uptake?	2	funding approval maybe difficult, slow to deliver fleet change	N
Tax exemptions for low emission vehicles.			dependent on uptake and targetting	2	funding approval maybe difficult, no mechanism available (council tax?), hard/slow to deliver fleet change	N
Improve Council run fleet to electric/LPG/low emission through a procurement policy	AQ plan 2015 West Midlands UK0035			2	funding approval potential from QWs but unlikely	Y
Active Travel incentivises eg. BetterPoints				1		Y
Education/awareness						
Non-charge based CAZ - signage and publicity		to include other measures in no idling etc.	v difficult to quantify	2		Y
Communications campaigns/awareness raising of health and cost benefits of different modes or around a particular community/schools.			v difficult to quantify	2		Y
Encouraging better vehicle maintenance (e.g. inflated tyres, reduced idling – as part of driving test) and eco-driving (limited acceleration/deceleration) – awareness raising.			cant be quantified	1		Y
Signs at bus stations, taxi ranks etcetera to remind drivers to switch off engines.			cant be quantified	0		Y
San Francisco's open streets where on certain day a road is closed (the road varies).				0		Y
Travel choices programme (businesses & individuals)			cant be quantified	3		Y
Active travel programme - engagement			cant be quantified Health benefit	2		Y
Targeted ANPR campaign	BCC	Target a specific area through ANPR to incentivise public transport options		1		Y
Planning						
Developers to provide cycle parking, storage and changing/shower facilities if a worksite.			v difficult to quantify	1		Y
Car parking fees for developers – to reduce number of spaces included in developments.			v difficult to quantify	1	slow to deliver change	N
Pedestrianisation			Beneficial on certain roads, main impact on changes to trips/modes?	2		Y
Congestion Plan - review measures from forthcoming plan and incorporate where appropriate				2		Y
Green infrastructure measures		Tree planting	Small effects on PM but no evidence for NO2	1		Y
Business						
Eco-stars award scheme for operators of low emissions vehicles (e.g. bio-methane, CNG, hybrid etcetera).			v difficult to quantify	1		Y
Requirements for companies with large fleets in terms of the proportion of low emission vehicles.			v difficult to quantify	1		Y
Banning of personal office deliveries			v difficult to quantify	1		Y
Cycling & Walking						
Active travel programme - infrastructure		Including provision of measures to enable travel to PT hubs	cant be quantified Health benefit	3		Y
Cycle parking as part of integrated network.			v difficult to quantify	1		Y
Shower/changing facilities as part of integrated network.			v difficult to quantify	1		Y
Cycle training (riding & maintenance)			v difficult to quantify	1		Y
Cycle hire/sharing schemes			v difficult to quantify	1		Y
Parking						
Variable parking charges – related to usage/capacity (e.g. different charges for times of day to reduce congestion) and vehicle type (e.g. free for electric or reduced for car sharers or for emission standard/engine size).				3	difficult to apply to non GM stock	N
Real-time parking information on location and availability.				1		Y
Park and ride facilities.				1		N
Enforce no on-street car parking to reduce congestion.				1		Y
Workplace parking levy				3		Y
Remove staff parking at council sites	Speculative			2		Y

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Minimise car use allowance for LA officers	Speculative	Review car use allowance for LA officers to disincentivise private car travel on Council business		1	Y
Graded residents parking permits based on emissions	Ricardo Evid	Parking permits graded according to engine size		2	Y
Public transport					
Improving the reliability and frequency of public transport through:					
o Bus only lanes/roads;			might add to congestion	1	Y
o Priority signalling;				2	Y
o Signage (e.g. at bus stops live data of time until next bus);				1	N
o Integration with other transport modes – integrated transport hubs for rail, bus and cycling;				1	N
Signage, websites, mobile apps all providing information on routes, fares and real-time vehicle arrival information.				1	N
Eco-driving programme aimed at bus drivers.			difficult to quantify & already happens	1	Y
Bus - establish stringent emissions standard through contracts or partnership	AQ plan 201	Set stretching targets to improve the efficiency of fleet and specify emission standards in bus contracts		3	Y
Improvements to city link and conventional bus services to make them more appealing	Birmingham	Improvements to city link and conventional bus services to make them more appealing to the public		1	Y
Retrofitting of public transport fleet	UK air quality	Retrofitting of public transport fleet to cleaner alternatives		3	Y
Increase the number and use of park and ride schemes and coincide with tram services	Aq plan 201	Increase the number and use of park and ride schemes and coincide with tram services and complement these sites with EV charge points and cycle storage facilities		1	N
Increase capacity of Metrolink on specific routes				2	Y
Bus route optimisation based on passenger data.		Theoretically, this what private bus companies already do?		1	Y
Encourage Car sharing/ low emission car clubs	AQ Plan 201	Encourage Car sharing/ low emission car clubs		1	Y
Concessionary fares for PT				2	Y
Re-routing buses temporarily at poor AQ locations			Very targetted, but could have unintended consequences, or reduce bus patronage?	3	Y
Infrastructure - Alternative Fuels					
Natural gas and bio-methane infrastructure.			Highly dependant on uptake	2	N
High speed electric vehicle charging points – some authorities insist that all planning applications above a certain size are required to include electric vehicle charging infrastructure (cabling) and charging points – e.g. 1 charging point per residential unit or 10% of commercial/industrial parking spaces. EV charging network expansion/improvements				1	N
Alternative fuel strategy for heavy vehicles - report due end Jan		Assumed similar to Gas/biomethane			
Replacement with CNG based buses.					
Wireless charging / high energy transfer at bus stations for buses (TfL trialling).				1	N
Switch Bus, HGV fuelling stations or GM fleet to GtL	On going testing by HE/DIT	Use of GtL fuel as a diesel alternative	For HGVs/PSVs/buses results reported results look positive	3	Y
Hydrogen additive product, developed by British manufacturer CGOL		Birmingham testing indicates very variable performance for older vehicles. Not currently accredited.	Highly dependant on uptake	2	Y
Infrastructure - Traffic Control					
Better/prioritised road maintenance for bus and cycle lanes.				0	Y
High Occupancy Vehicle lanes.			Likely to add congestion	1	Y
Traffic management - junction layouts; road space allocation	AQ plan 201	Highly dependent on location and local issues		2	Y
Demand management - traffic signals; SCOOT/MOVA		Where existing signals are not optimised then or TM not in place		2	Y
Reduce speed limits	UK AQ Plan	Review speed limits to ensure smooth driving	Dependent speed limits and existing speeds	1	Y
ITS measures (speed changes through the day)	Speculative	Change the speed on key routes throughout the day using intelligent transport measures	Dependent speed limits and existing speeds	1	Y
ITS signage for route optimisation	speculative	Intelligent signage to improve route optimisation		1	Y
Application of red routes to prevent stopping	Aq plan 2017	West Midlands UK0035		2	Y
No idling zones	NICE docum	Introduce no idling zones in known problem areas		2	Y
Gate traffic	Birmingham	Hold traffic back until there is capacity on the network for it to leave	Likely to add congestion, however not in locations of exposure. Risk to SRN	2	Y
Integrated traffic management, focusing on HGV and buses, and air quality monitoring to optimise air quality (?)	Leicester	Link traffic control to AQ monitoring and use a system to deter people from using sensitive routes on 'bad' days	Conceptual at this stage.	2	N
Road space reallocation		eg. Changing access to encourage PT, cycling or reduce congestion. Captured above.		2	Y
Congestion Plan - review measures from forthcoming plan and incorporate where appropriate				2	Y
Other					
Advance ticket purchase via internet or via scan system (e.g. London Oyster card) to avoid delay times.				0	Difficult to integrate across modes. N
Through ticketing – from origin to destination.				0	Difficult to integrate across modes. N
Integrated fare systems (e.g. one through ticket for different modes).				0	Difficult to integrate across modes. N

Electrifying rail (and generating 'green' electricity).			Rail emissions insignificant	0		N
Possibly increase the use of boat commuting, subject to available waterways.				1		N
Encourage telecommuting and conference – such as through working with large business to have a 'working at home' day and ensuring adequate broadband and Wi-Fi infrastructure.			v difficult to quantify	1		Y
Freight						
Freight consolidation centres	Aq plan 2014		Rearranging and combining goods shipments into fewer cleaner deliveries into the city centre	2		N
Advanced vehicle detection for freight	Birmingham		Use of Advanced vehicle detection at key signalised junctions to provide some priority for large goods vehicles	1		N
Local delivery consolidation centres	Birmingham		Use of local delivery consolidation centres for smaller businesses/ goods which use EV or cycle for onward travel	2		
Provide hold back parking for HGV's	Birmingham		Provide hold back parking bays to allow safe waiting areas away from the city centre	1		N
Cycle logistics consolidation centres	Birmingham		Provide cycle logistics consolidation centres to cater for light/ small unit goods within the ring road	1		Y
Off peak loading and unloading permits	Birmingham		Off peak loading and unloading permits allowing access for servicing local business whilst encouraging loading outside of peak periods			Y
HGV/LGV/Taxi recognition schemes	AQ Plan 2014		Recognition schemes such as ECOstars to encourage business to improve efficiency, reduce fuel consumption and emissions	1		Y
No stopping restrictions	Birmingham		Remove/ relocate parking/loading to an alternative area/ car park and loading bays off main routes to avoid congestion	1	Targetted to key locations.	Y
Time of day restrictions for delivery vans	Speculative		Time of day restrictions for delivery vans accessing the city centre based on euro/ULEV standard	1		Y
Maximise rail and water freight	Birmingham		Increase the use of freight using the rail and waterways	1		N
Loading and Unloading code of practice	London		The aim of this code of practice is to bring together stakeholders to work collectively to improve the competitiveness of UK business http://www.fta.co.uk/export/sites/fta/_galleries/downloads/pcns/pcn_code_of_practice.pdf	1		Y
Taxis						
Installation of rapid EV infrastructure for taxi and private hire vehicles	Birmingham		Installation of rapid electric vehicle infrastructure for taxi and private hire use	3	Assuming it drives rapid uptake especially in conjunction with Uber funding	Y
Taxi and PAVs emission standard- update to be more stringent by 2020						
Increase LPG refuelling infrastructure for Hackney Carriages	Aq plan 2017		Increase LPG refuelling infrastructure for Hackney Carriages	2	In combination with LPG retrofit	LPG relatively widely available Y
Retrofitting of black taxis to LPG	UK air quality		Retrofitting of black taxi's to LPG	2	In combination with LPG infrastructure	Y
Incentives for private hire vehicles to change to EV vehicles	Speculative		Incentivise private hire vehicles to changes to EV/ULEV vehicles through reduced permit fees/ free top up at taxi charge points	3	Assuming it drives rapid uptake especially in conjunction with Uber funding	Y
Clean air taxi ranks	West Yorksh		Designate taxi ranks in strategic locations as 'clean air taxi ranks' whereby only ULEV taxi's can enter	1		Y

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Appendix D : Intervention List

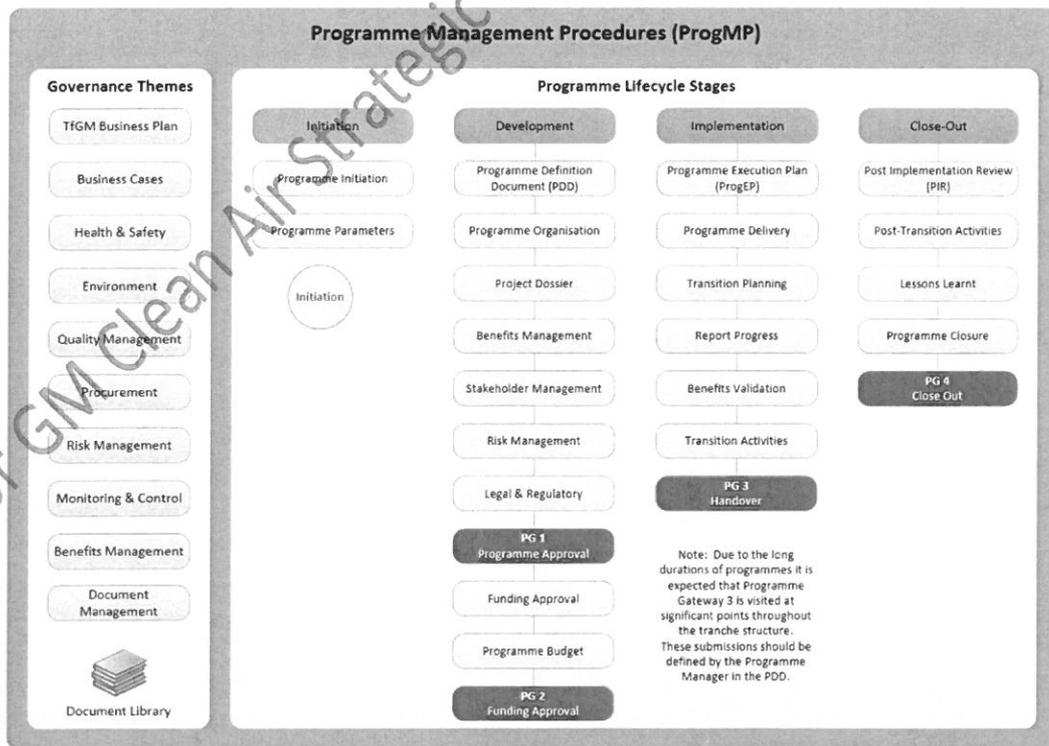
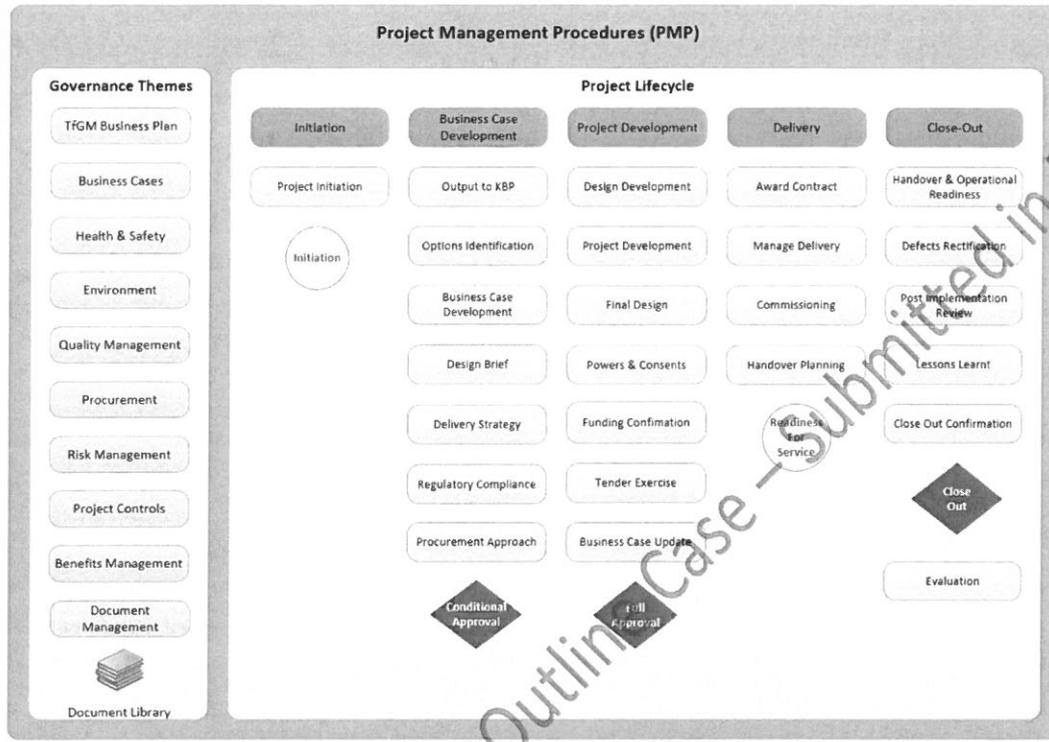
Short List

Measure		Prioritised List	Description
CAZ (as required by Government)			
CZ1	Charge Based CAZ - Class B or C; different geographical boundaries / time restrictions	Charging CAZ	Class B includes bus, coach, taxi/PHV and HGV. Class C includes the above plus LGV
CZ2	Charge Based CAZ - Class D; different geographical boundaries / time restrictions	Charging CAZ	Class D includes all of Class C plus car
Parking			
PA1	Differential parking charges	Primary Measures	Related to usage/capacity (e.g. different charges for times of day to reduce congestion) and vehicle type (e.g. free for electric or reduced for car sharers or for emission standard/engine size) and/or workplace parking levy
Public transport			
PT1	Retrofitting or upgrade of public transport fleet and introduction of stringent emissions standard through contracts or partnership	Primary Measures	Retrofitting of public transport fleet to cleaner alternatives. Set stretching targets to improve the efficiency of fleet and specify emission standards in bus contracts
PT3	Increase capacity of public transport on specific routes	Secondary Measures	
Infrastructure - Alternative Fuels			
AF1	Switch bus, HGV/LGV depot fuelling stations or GM fleet to GtL	Primary Measures	Use of GtL fuel as a diesel alternative. (If Public Transport retrofit is standard measure then would not need GtL for commercial bus but could apply to community transport)
AF2	LGV - EV incentivisation	Primary Measures	Funding of electric, petrol, GtL at source
AF3	Improve Local Authority fleet to electric/LPG/low emission through a procurement policy	Secondary Measures	
Infrastructure - Traffic Control			
TC1A	Congestion Plan traffic management - increased capacity	Secondary Measures	Providing more capacity - Review of existing junction improvement plans. Assess existing schemes to understand potential benefit on specified links; with a view to bringing schemes forward sooner
TC1B	Congestion Plan traffic management - encouraging alternatives	Secondary Measures	Encouraging alternative travel choices - Road space reallocation in order to suppress latent demand released through implementation of other measures
TC1C	Congestion Plan traffic management - network management	Secondary Measures	Signal optimisation - changes to traffic signal timing to optimise flows in order to reduce congestion on specified links
Taxis			
TX1	Incentives for private hire vehicles to change to EV vehicles. Installation of rapid EV infrastructure for taxi and private hire vehicles	Primary Measures	Incentivise private hire vehicles to changes to EV/ULEV vehicles through reduced licence fees/ free top up at taxi charge points.
TX3	Retrofitting of black taxis to LPG/Euro 6. Increase LPG refuelling infrastructure for Hackney Carriages	Secondary Measures	Retrofitting of black taxi's to LPG/Euro 6.
Non-charge-based CAZ awareness activities			
ED2	Communications campaigns/awareness raising of health and cost benefits of different modes or around a particular community/schools.	Secondary Measures	Communications campaigns/awareness and signage
ED3	Travel choices programme (businesses & individuals)	Secondary Measures	Dependent on scale of programme.
ED4	Active travel programme - engagement	Secondary Measures	
Cycling & Walking			
CW1	Active travel programme - infrastructure	Primary Measures	Including provision of measures to enable travel to PT hubs and for short journeys

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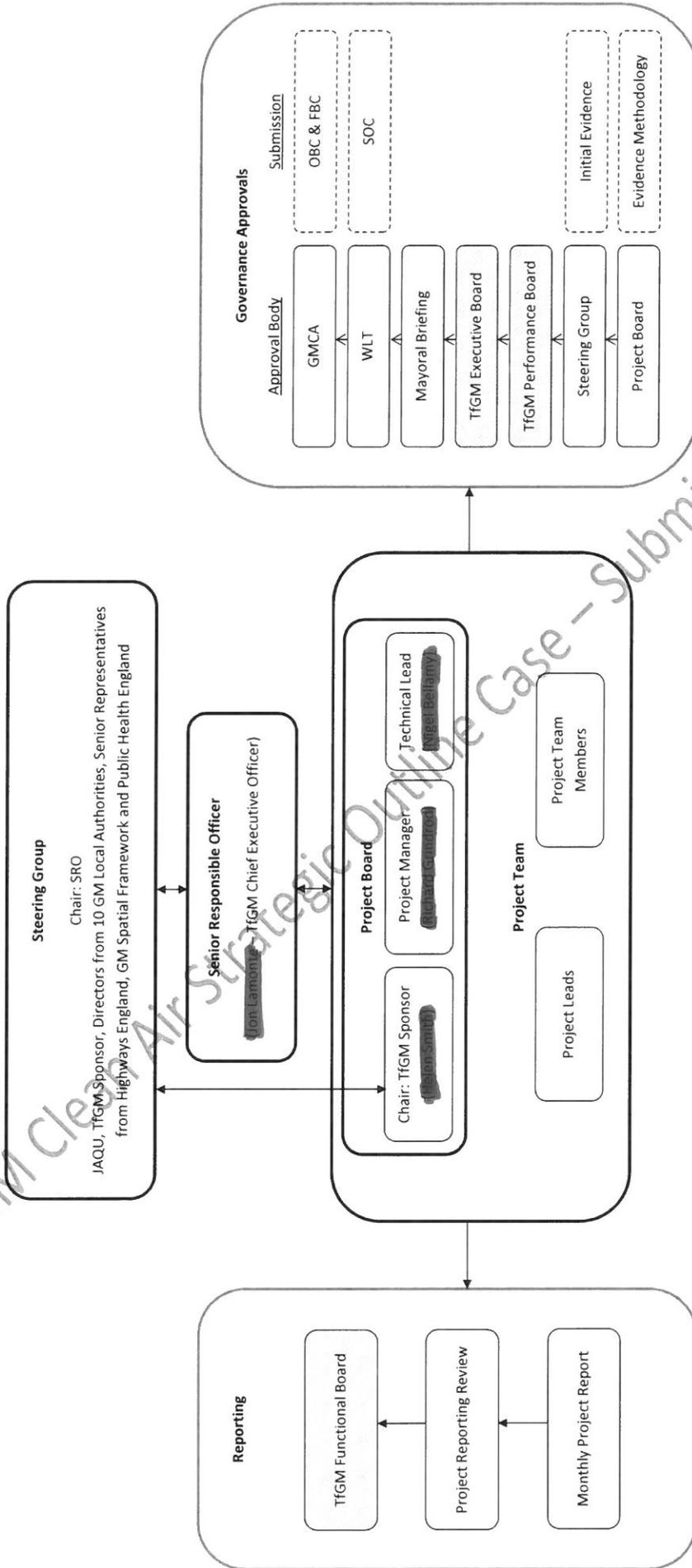
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Appendix E: Project and Programme Lifecycle Stages



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Appendix P: GM Clean Air Plan Feasibility Study Project Organisational Structure and Governance



Notes:

- GMCA – The GMCA is run jointly by the leaders of the ten councils and the Mayor of Greater Manchester.
- Wider Leadership Team (WLT) – An informal body made up of the Chief Executives of the GM local authorities and senior officers of other key bodies. The WLT's remit is to provide support to the GMCA in the discharge of their strategic functions across Greater Manchester.
- TfGM Executive Board – The decision making body within TfGM responsible for determining strategic issues consistent with GMCA's policies. It is composed of the Chief Executive, the Non Executive Directors, the Director of Finance and Corporate Services and the Chief Operating Officer.

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The SRO has confirmed that the feasibility study project does not need to report to seek approvals from the TGM Functional Board, TGM Performance Board and the TGM Executive Board due to the establishment of the Steering Group and the position of the SRO within TGM. These groups are shown with the shaded background in the organisational structure.

- The Project Board meet on a weekly basis to review the progress of the project, including the schedule and costs and assess the forthcoming activities and actions.
- The Project Leads for each Department/Team meet on a monthly basis with the Project Board members to review the resource and support requirements from the relevant departments and teams. Attendance will vary depending on the stage of the project.
- Specific meetings for the Project Team Members will be set up as required for the relevant stage of the project.

The table below identifies the Department / Teams and project workstream that they will be involved in for the feasibility study (dotted lines are teams within a department).

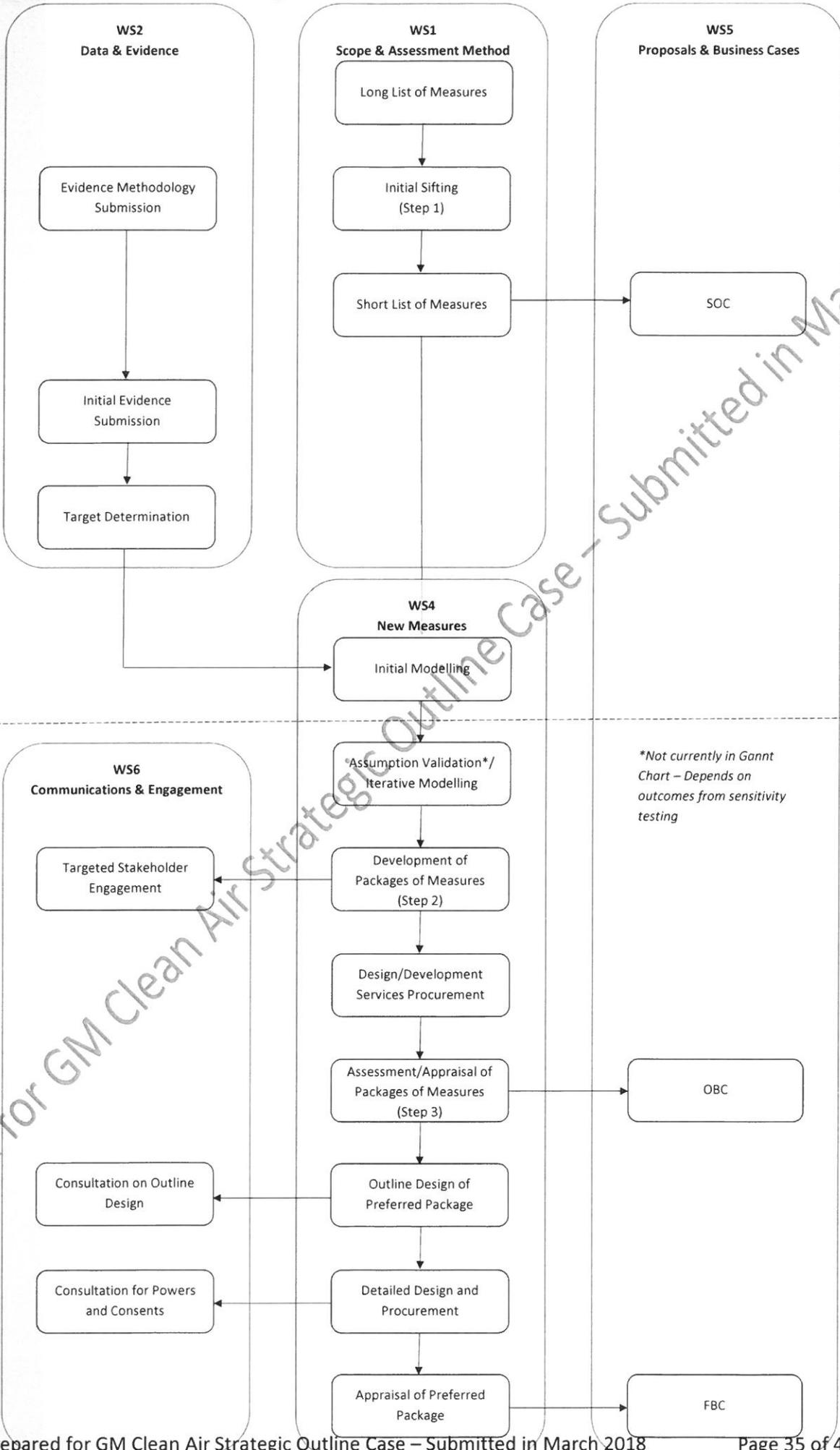
Department / Team	Workstream
Logistics, Environment & Active Travel (Air Quality)	1-6
Projects Group	1-6
Cost Engineer	
Risk Management	
Technical Lead (Jacobs)	1-6
Modelling and Analysis	1-5
Strategic Planning and Research	1-5
Research and Evaluation	
Development and Innovation	4,5
Highways	1-4
HFAS	
Key Route Network	
Highways Reform	
IS Strategy and Delivery	2-4
Geospatial	
IS Future Solutions	
Policy	3-6
Safer Travel and Demand Management	3,4
Travel Choices	
Finance	1-6
Legal	3-6
Bus Services	3,4,5
Bus Reform	3,4,5
Facilities Management	3,4
Asset Management	3,4
Communications	6
Cartography and design	6
Procurement	3, 5, 7
Data Solutions	As required
Rail	As required
Metrolink	As required

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Appendix F: Funding Sources Options

Measure	Funding Source								
	Clean Bus Technology Fund	Green Bus Fund	Growth Deal Funding	CCAG	Walking & Cycling to Work Fund	JAQU Early Measures Fund	Implementation Fund	Clean Air Fund	Congestion Plan Funding (TBC)
CAZ (as required by Government)									
Charge Based CAZ - Class B or C; different geographical boundaries / time restrictions	Potential partial	Potential partial					Potential full		
Charge Based CAZ - Class D; different geographical boundaries / time restrictions	Potential partial	Potential partial					Potential full		
Parking							Full		
Differential parking charges									
Public transport									
Retrofitting or upgrade of public transport fleet and introduction of stringent emissions standard through contracts or partnership	Potential partial	Potential partial					Potential partial	Potential partial	
Increase capacity of public transport on specific routes							Full		
Infrastructure - Alternative Fuels									
Switch bus, HGV/LGV depot fuelling stations or GM fleet to GIL							Full		
LGV - EV incentivisation							Potential partial		
Improve Local Authority fleet to electric/LPG/low emission through a procurement policy							Potential partial		
Infrastructure - Traffic Control									
Congestion Plan traffic management - increased capacity			Potential partial	Potential partial			Potential partial		Potential partial
Congestion Plan traffic management - encouraging alternatives			Potential partial	Potential partial			Potential partial		Potential partial
Congestion Plan traffic management - network management							Potential full		Potential partial
Taxis									
Incentives for private hire vehicles to change to EV vehicles.							Potential partial		
Installation of rapid EV infrastructure for taxi and private hire vehicles							Potential partial		
Retrofitting of black taxis to LPG/Euro 6. Increase LPG refuelling infrastructure for Hackney Carriages							Potential partial		
Non-charge-based CAZ awareness activities									
Communications campaigns/awareness raising of health and cost benefits of different modes or around a particular community/schools.							Potential partial	Potential partial	Potential partial
Travel choices programme (businesses & individuals)							Potential partial	Potential partial	Potential partial
Active travel programme - engagement							Potential partial	Potential partial	Potential partial
Cycling & Walking									
Active travel programme - infrastructure			Potential partial	Potential partial			Potential partial		Potential partial

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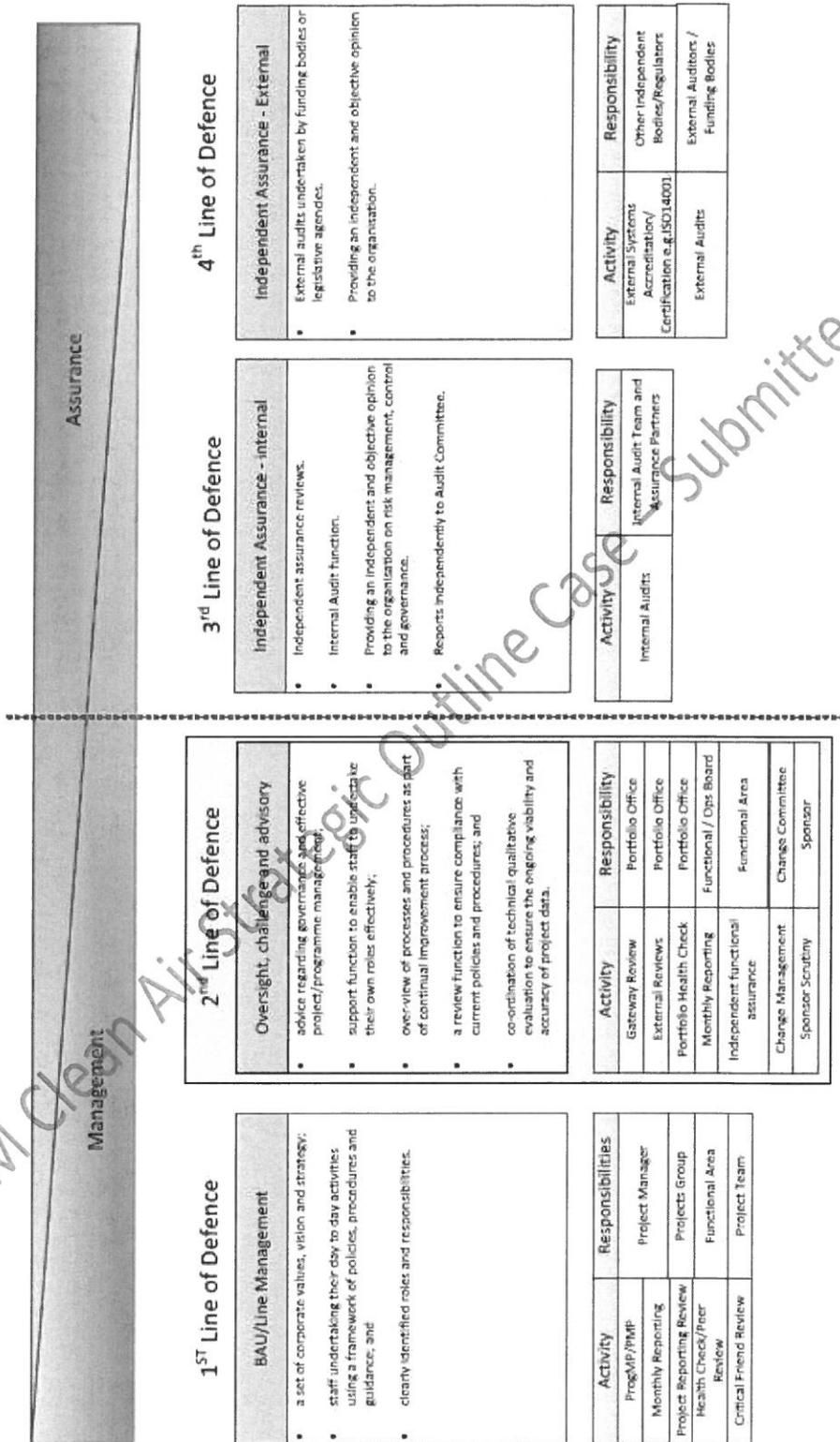


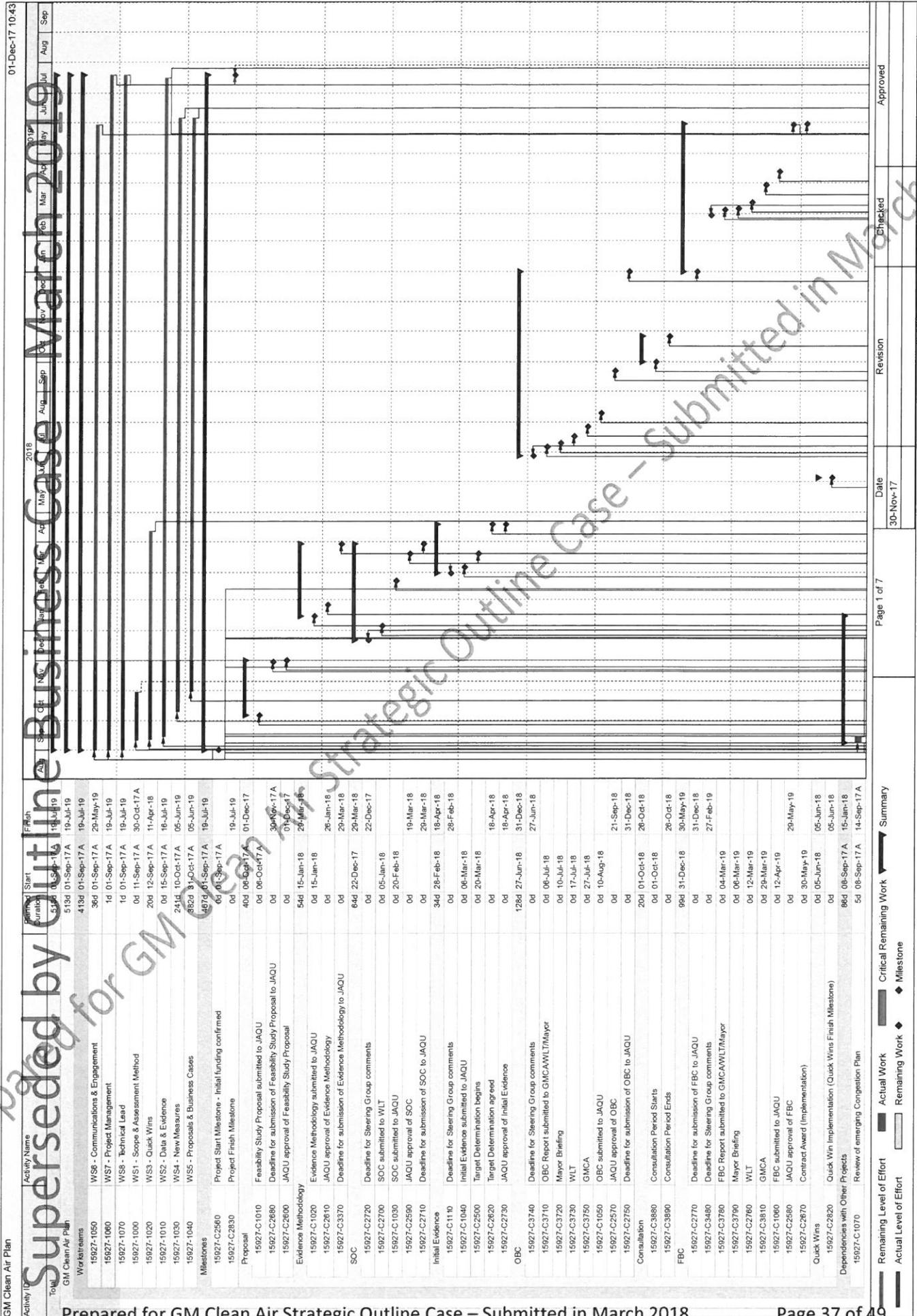
Higher certainty
Lower certainty

**Not currently in Gantt Chart – Depends on outcomes from sensitivity testing*

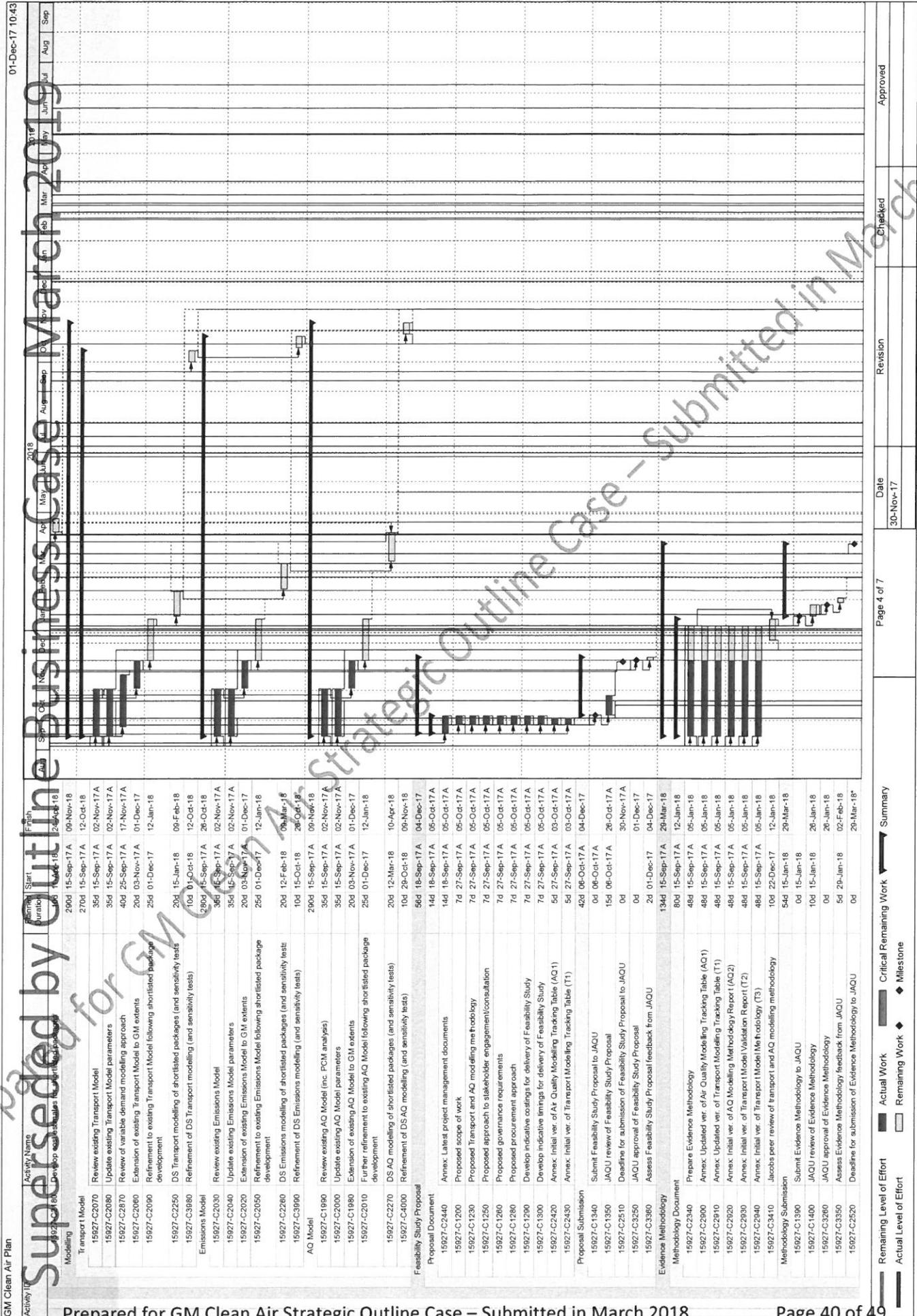
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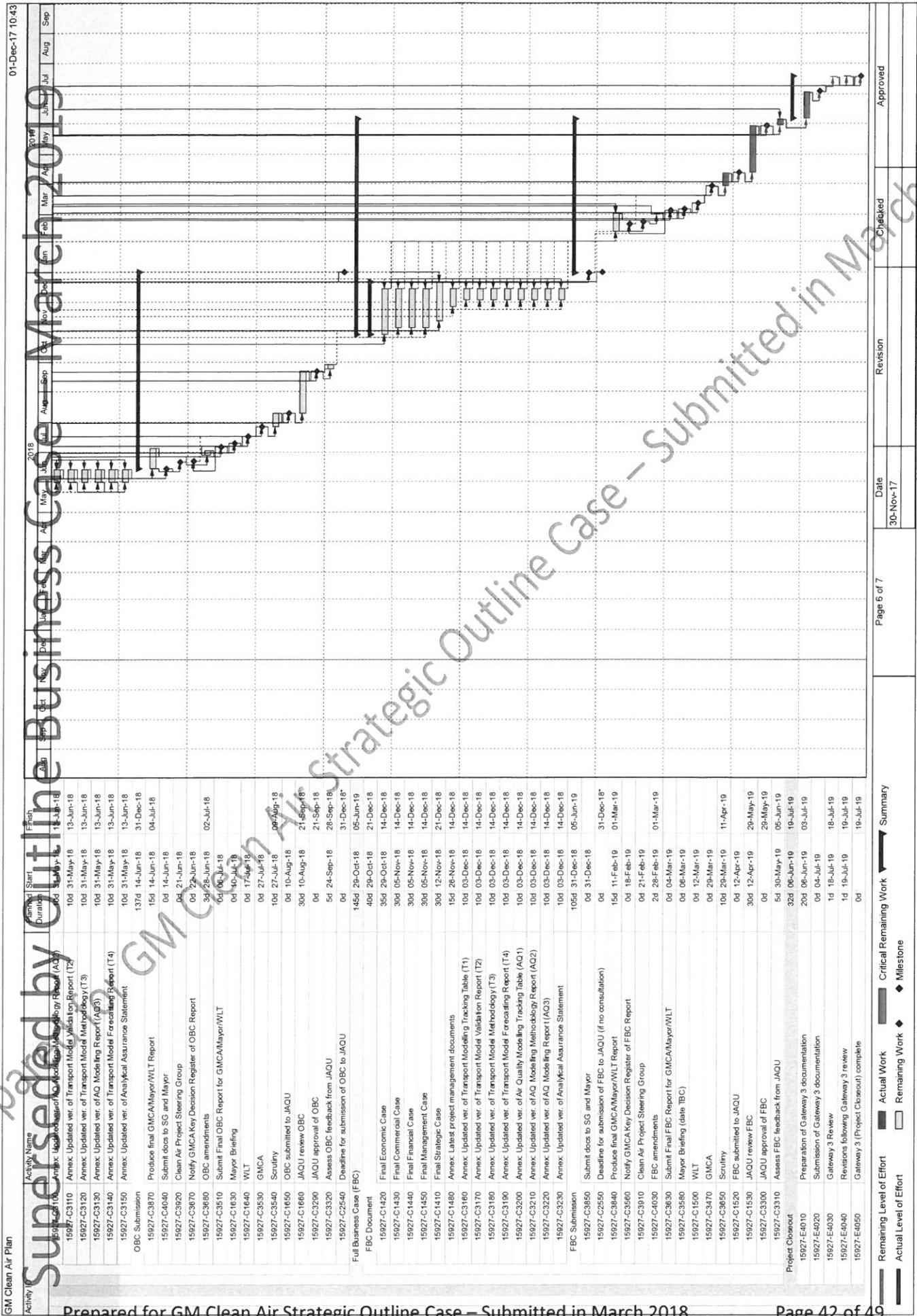
Appendix J: Four Lines of Defence Model





Superseded by GM Clean Air Strategic Outline Case - Submitted in March 2018





01-Dec-17 10:43	2018	2019	2019
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GM Clean Air Plan

Activity Name: **Superseded by Outline Business Case**

Activity ID: **March 2019**

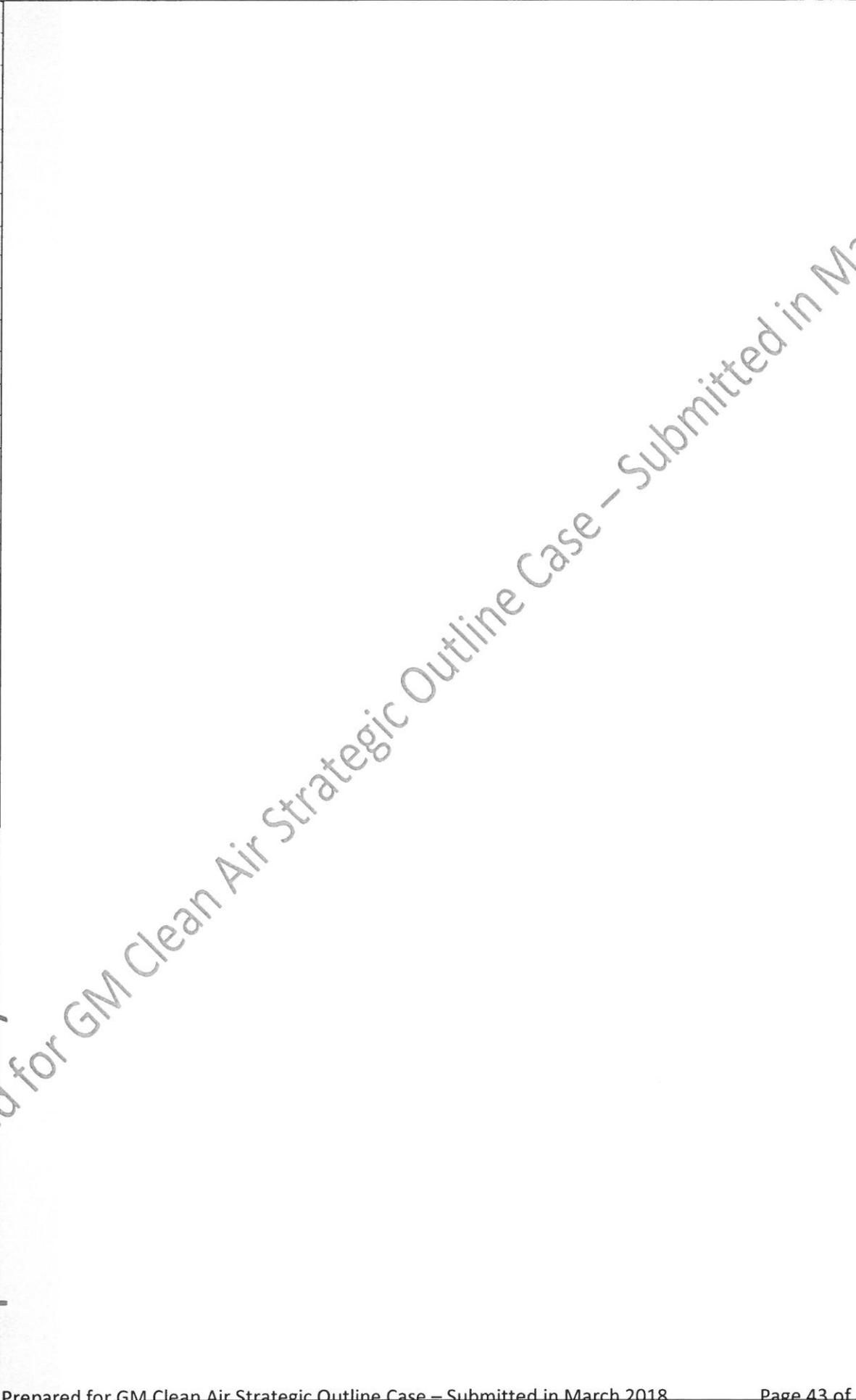
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2018

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Financial Start: **March 2019**

Financial End: **March 2019**



Date	Revision	Checked	Approved
30-Nov-17			

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Summary

Remaining Level of Effort Actual Work Critical Remaining Work Summary
 Actual Level of Effort Remaining Work Milestone

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Measure	TRM1: 10 Local Authorities; Highways England; Public Health England; JAOU; GM Mayor, Alex Gannois; GMCA; Traffic Commissioner	General environmental and interest groups (e.g. Client Earth, FoE)	Bus Operators and Taxi operators & associations	Emergency Services	Freight operators and associations (HGV & LGV)	Active Travel groups	Car support groups (e.g. RAC, AA)	Rail & metrolink	General public	Technology providers (e.g. ANPR, Vehicle Back office systems etc.)	Disability Groups	Press and media	Businesses	Wider Consultation Req'd (Outline Design stage)	Statutory Consultation Req'd (Detailed Design Stage)
CAZ (as required by Government)															
Charge Based CAZ - Class B or C, different geographical boundaries / time restrictions		Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
Charge Based CAZ - Class D, different geographical boundaries / time restrictions		Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
Parking															
PA1 Differential parking charges		Y			Y		Y		Y	Y	Y	Y	Y	Y	Y
Public transport															
PT1 Retrofitting or upgrade of public transport fleet		Y	Y	Y					Y	Y	Y	Y	Y	Y	Y
PT3 Increase capacity of public transport on specific routes		Y	Y	Y					Y	Y	Y	Y	Y	Y	Y
Infrastructure - Alternative Fuels															
AF1 Switch bus, HGV/LGV depot fuelling stations or GM fleet to GIL		Y	Y	Y	Y		Y		Y	Y	Y	Y	Y	Y	Y
AF2 LGV - EV incentivisation		Y	Y	Y	Y		Y		Y	Y	Y	Y	Y	Y	Y
AF3 Improve Local Authority fleet to electric/LP/low emission through a procurement policy		Y	Y	Y	Y		Y		Y	Y	Y	Y	Y	Y	Y
Infrastructure - Traffic Control															
TC1A Congestion Plan traffic management - increased capacity		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
TC1B Congestion Plan traffic management - encouraging alternatives		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
TC1C Congestion Plan traffic management - network management		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Taxis															
Incentives for private hire vehicles to change to EV vehicles.															
Installation of rapid EV infrastructure for taxi and private hire vehicles		Y								Y		Y			Y
TX1 Retrofitting of black taxis to LPG/Euro 6. Increase LPG refuelling infrastructure for Hackney Carriages		Y								Y		Y			Y
TX3		Y								Y		Y			Y
Non-charge-based CAZ awareness activities															
Communications campaigns/awareness raising of health and cost benefits of different modes or around a particular community/schools.		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ED2 Travel choices programme (businesses & individuals)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ED3 Active travel programme - engagement		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ED4		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cycling & Walking															
CW1 Active travel programme - infrastructure		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

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Appendix M: Workstream Scope

Workstream	Scope	Delivery
WS1 - Scope & Assessment Method	<p>Identification of long list of measures (including GM level and more geographically focused measures). Define assessment framework and application to the measures. Refine to short list of measures for detailed modelling and package development.</p>	<p>The work will be delivered by:</p> <ul style="list-style-type: none"> • Air Quality • Modelling and Analysis • Strategic Planning and Research • Highways • Finance <p>Work delivered by experienced in-house teams and the Technical Lead. Costs monitored on a monthly basis and schedule monitored on a weekly basis to ensure value for money is being achieved and trends can be identified. Issues to be escalated to JAQU and included in reassessment.</p>
WS2 - Data & Evidence	<p>Collecting and developing the underpinning information on which to model potential measures. Producing a robust and defensible air quality modelling (and associated transport and emissions modelling) for the current year and future case. Target determination process and assessment against DEFRA data.</p>	<p>The work will be delivered by:</p> <ul style="list-style-type: none"> • Air Quality • Modelling and Analysis • Strategic Planning and Research • Highways • IS Strategy and Delivery • Finance <p>Work delivered by experienced in-house teams and the Technical Lead. Costs monitored on a monthly basis and schedule monitored on a weekly basis to ensure value for money is being achieved and</p>

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<p>WS3 - Quick Wins</p>	<p>Identification of planned or potential measures/interventions/schemes which could be delivered rapidly and draw on the JAQU's 'Quick Wins' Fund. Joining up key activities and strategic priorities, including GMSF, GM Congestion Plan, etc. Development and appraisal of quick wins. Preparation of proposals.</p>	<p>trends can be identified. Issues to be escalated to JAQU and included in reassessment.</p> <p>The work will be delivered by:</p> <ul style="list-style-type: none"> • Air Quality • Modelling and Analysis • Strategic Planning and Research • Highways • IS Strategy and Delivery • Policy • Safer Travel and Demand Management • Finance • Legal • Bus Services • Bus Reform • Facilities Management • Asset Management • Procurement
<p>WS4 - New Measures</p>	<p>Detailed assessment of shortlisted measures against agreed criteria, including ability to deliver on both improvements in health and compliance with legal objectives in the shortest possible time (including</p>	<p>Work delivered by experienced in-house teams and the Technical Lead. Costs monitored on a monthly basis and schedule monitored on a weekly basis to ensure value for money is being achieved and trends can be identified. Issues to be escalated to JAQU and included in reassessment.</p> <p>The work will be delivered by:</p> <ul style="list-style-type: none"> • Air Quality • Modelling and Analysis • Strategic Planning and Research • Highways • IS Strategy and Delivery

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	<p>packages of complementary measures and potentially ameliorating options if required). Inclusion of charge-based CAZ option as benchmark for time and cost assessment.</p>	<ul style="list-style-type: none"> • Policy • Safer Travel and Demand Management • Finance • Legal • Bus Services • Bus Reform • Facilities Management • Asset Management • Development and Innovation <p>Work delivered by experienced in-house teams and the Technical Lead. Costs monitored on a monthly basis and schedule monitored on a weekly basis to ensure value for money is being achieved and trends can be identified. Issues to be escalated to JAQU and included in reassessment.</p>
<p>W55 - Proposals and Business Cases</p>	<p>Production of the Strategic Outline Case, Outline Business Case and Full Business Case for the measures / package(s) of measures, developed to meet JAQU guidance.</p>	<p>The work will be delivered by:</p> <ul style="list-style-type: none"> • Air Quality • Modelling and Analysis • Strategic Planning and Research • Development and Innovation • Policy • Finance • Legal • Procurement • Bus Services • Bus Reform <p>Work delivered by experienced in-house teams and the Technical Lead. Costs monitored on a monthly basis and schedule monitored</p>

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<p>WS6 - Communications & Engagement</p>	<p>Immediate and on-going communication and engagement with internal and external stakeholders to ensure consistent, timely and efficient delivery of information. Facilitation of views and input from stakeholders where required. Getting the message right - Delivery of clean air and a healthier environment is essential. Early preparation for potential consultation.</p>	<p>on a weekly basis to ensure value for money is being achieved and trends can be identified. Issues to be escalated to JAQU and included in reassessment.</p> <p>The work will be delivered by:</p> <ul style="list-style-type: none"> • Air Quality • Policy • Finance • Legal • Communications • Cartography and design <p>Work delivered by experienced in-house teams and the Technical Lead. Costs monitored on a monthly basis and schedule monitored on a weekly basis to ensure value for money is being achieved and trends can be identified. Issues to be escalated to JAQU and included in reassessment.</p>
<p>WS7 – Project Management</p>	<p>Set out the process, team members, stakeholders, governance, level of ambition and the definition of success. Project Management delivered by TfGM's Projects Group including project controls, risk management, cost management and document control. Adherence to TfGM's project requirements, including development and drafting of the project execution plan. Monitoring and managing cost, schedule and quality. Coordinate /</p>	<p>Work delivered by experienced in-house team. Costs monitored on a monthly basis and schedule monitored on a weekly basis to ensure value for money is being achieved and trends can be identified. Issues to be escalated to JAQU and included in reassessment.</p>

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<p>WS8 – Technical Lead</p>	<p>manage internal teams and Technical Lead.</p> <p>Advise on the activities and outputs required to deliver the feasibility study. Advise internal and external stakeholders on potential measures. Coordinate technical elements of the work. Work with TfGM's modelling teams to develop analysis / modelling methodology. Training / up-skilling of TfGM resources. Supplementary advice on JAQU guidance and tools. Provide a link to other UK city leads to agree protocols and practical actions for coordinated implementation. Develop proposals with TfGM.</p>	<p>The Technical Lead has been procured for the feasibility study through a competitive tendering exercise using TfGM's Transport Professional Services framework. The Technical Lead provided the most economically advantageous tender. Costs are monitored on a monthly basis and outputs on a weekly basis to ensure value for money is being achieved and trends can be identified. Issues to be escalated to JAQU and included in reassessment.</p>
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