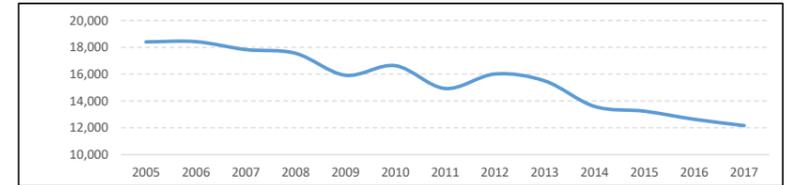


Annex 02 Environment Team Performance Overview

GM CO2 Emissions (kt CO2)



Risk	Programme Issues	Resources	Costs	Overall Delivery Confidence
Amber	Green	Amber	Green	Green

Individual Work Programme Delivery Confidence					
Energy	Buildings	SCP	Natural Environment	Climate Change	Transport
Green	Green	Green	Green	Green	Green

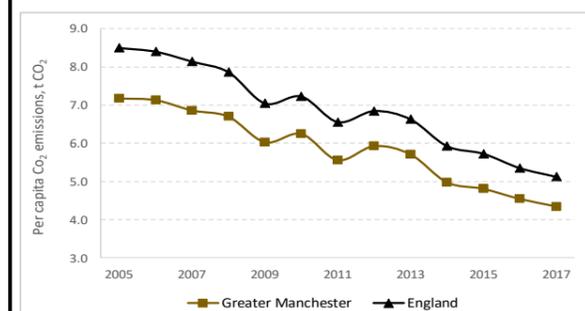
Key Risks (Top 5)				Work Programme Issues (Top 5)		
Risk Event	Risk	Mitigation Plan	Post Risk	Issue	Status	Mitigating Action/s
Failure of Environment Plan to achieve a step change in carbon emissions.	Red	Regular reporting to LC Programme Group, LC Hub Board and WLT.	Amber	TRANSPORT: Decarbonising freight transport and shifting freight to rail and water transport.	Red	Refreshed working draft of GM Freight Strategy which includes strong reference critical importance of environmental issues, and outline of how policy can assist with freight-related emissions targets.
Level and depth of retrofit required to meet our overall ambitions is highly challenging.	Red	Focus on retrofit accelerator proposals as way of overcoming these barriers in a coordinated way.	Amber	SCP: Delay in delivery of GMCA Waste and Resources Strategy.	Red	A 5-year SCP plan to be produced in 2020. Waste and Resources Strategy to be developed following government consultations.
Failure to meet recycling and diversion targets.	Red	New contract in place. Waste composition will assess feasibility of achieving targets. Waste and Resource strategy to be developed.	Amber	NE: Difficulties in uptake and use of natural capital tools by LAs and partners. Slow uptake in delivery of BNG policies and development management.	Amber	Engage with LAs and partners on uptake of natural capital tools and what further support is needed. BNG Task and Finish Group to support delivery. Identification of pilot habitat bank will provide replicable models.
Failure to deliver the aims of the IGNITION project and attract private investment.	Red	Regular reporting to LC Programme Group, LC Hub Board and WLT.	Amber	CC - GM Resilience Strategy delayed.	Red	GM Resilience Strategy is being reviewed in light of Covid-19, and a one-year living with Covid plan is being drafted.
Unable to meet accelerated deployment of renewable energy generation.	Amber	New projects in place and/or in development including expansion of Solar PV offer, LA Renewable Energy, LEM & DEEP.	Amber	BUILDINGS: Availability and consistency of building data and asset knowledge is varied. Level of engagement is varied and needs to increase. High level engagement required in some cases.	Amber	Commenced standardised approach to data and baselining. Instigated a DoPE meeting which aims to bridge the gap between officers and strategic level engagement, with supplementary support in the form of Dr John Hindley (TwelveTrees consulting) up to November 20. This will be reviewed again in October 20.

GMS/5-Year Environment Plan Performance Overview

Greater Manchester Strategy (GMS) Performance (NB: GMS is currently undergoing a refresh)			
Ref	Key Targets (2020)	Status	Commentary
5.7	Continue to reduce harmful emissions from transport sector. By 2020 GM to have reduced Co2 emissions to 11mt.	↓ Amber	Further work underway to ensure GM Clear Air Plan can achieve 2020 target for performance. An informal 'clean air conversation' has taken place, and a public consultation is to be launched.
7.1	Have co-produced a pathway for the next 5 years setting out actions to achieve an accelerated date for carbon neutrality.	↑ Green	GM now has the first city-region level science based target and pathway.
7.2	Accelerated deployment of energy generation/efficiency technologies.	↔ Amber	Progress is being made however GM currently has less than 50% of the UK average renewable energy installed, so further acceleration is still needed.
7.3	Develop mechanisms to encourage the retrofit of public, commercial and domestic buildings.	↑ Green	On track to achieve 2020 action.
7.4	Influence consumer behaviour/choice to achieve 60% recycling by 2025 and 90% diversion from landfill by 2020.	↑ Amber	Landfill diversion rate is on track to exceed the 2020 target; current diversion is 94%. Current household waste recycling rate is 48% (unverified data for 2018/19). Measures are underway to increase recycling rates at HWRCs & household kerbside recycling to deliver against 2025 target.
7.5	Ensure the 2040 Transport Strategy – and wider transport investment – is fully aligned with our carbon neutral ambitions.	↔ Amber	On track to achieve 2020 action.
7.6	Deliver the Urban Pioneer programme as part of Defra's 25 year Environment Plan to become an exemplar in managing the urban environment.	↔ Green	On track to achieve 2020 action.

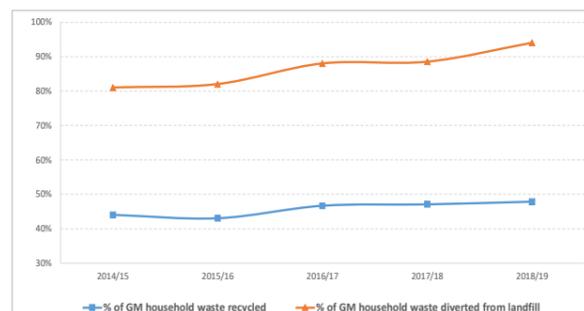
5-Year Environment Plan			
Ref	Priorities (2024)	Status	Progression towards targets
Overall	For our city region to be carbon neutral by 2038 and meet carbon budgets that comply with international commitments.	↔ Amber	GM emissions data for 2017: 12,165 kt CO2, down 469 kt (-3.7%) compared to 2016 (12,634 kt). Reduction is slightly lower than that between 2015 and 2016, when emissions were down 604 kt or -4.6% over the year. GM is slightly behind the anticipated trajectory towards the 2020 GMS target, which has been revised to align with the ambitious trajectory in the GM 5-Year Environment Plan.
Energy	Reduce CO2 emissions that are produced by the energy we generate to power our buildings, transport and heat - shifting to renewable sources.	↔ Green	132 MW of renewable capacity generated in March 2019, 5MW higher than in June 2018 and 11% progression towards target. NOTE: Due to the closure of the Feed-in-Tariff in March 2019, there will be no further releases of data. • 82 MW of GM accredited renewable heat sources generated up to May 2020 (non-domestic only, no change from Jan-20).
Buildings	Reduce CO2 emissions produced by excessive use of energy particularly in heating our homes and commercial and public buildings.	↑ Amber	Reporting on retrofit measures to reduce heat loss by 57% in homes will come from ERDF projects and self-reporting from stakeholders. • 86.9% of GM lodgements have an energy efficiency rating of D or above (EPC/DEC) in Q2 2019. This is a slight decrease from Q2 2018 of 0.7%. Overall we outperformed the national average by more than three percentage points in the Q2 2018 data.
SCP	Promote economic and resource productivity, eliminate waste and increase business opportunities through innovation.	↔ Amber	Refill pilot launched in Bury and Tameside. 'Grab your Cup' pilot launched in Jan 2020. 20% progression towards 5-year re-use target (3 per year). • Increase of 40.53kg/household of residual waste from 2017/18 to 2018/19. • Recycling rate (2018/19) is 47.9% up 0.8% from 2017/18 against a target of 55% for 2024. Landfill diversion rate (2018/19) is 94%.
Natural Env.	Protect, maintain and enhance our key natural assets (air, land, water and biodiversity).	↑ Amber	2019/2020 target of 100,000 trees to be planted with 1 million by 2024. Currently at 459,929 trees planted against 1 million target by 2024. • 47km of water body enhanced in 2016-2018. Target of 542km by 2027. • NOTE: 2018/19 was last reporting year of MENE. To be replaced with People and Nature survey from 2020/21. Experimental UK statistics available at :https://www.gov.uk/government/statistics/the-people-and-nature-survey-for-england-monthly-interim-indicators-for-may-2020-experimental-statistics. Currently investigating additional sampling for GM.
Climate Change	Deliver robust action on climate adaption to protect vulnerable communities, our economy, key infrastructure and our natural environment.	↔ Green	Indicators to be confirmed as part of the IGNITION project and Resilience Strategy.
Transport	Improve our air quality and reduce CO2 emissions that are produced by the way we, and the goods we use, travel within our city region.	↑ Green	Current ratio of journeys made by car vs sustainable modes of transport is 39/61 against a target of 50/50 for 2040. • 28.5% of all trips made by cycling/walking in 2017/18 up from 27% in 2015/16. • 4,951 plug-in vehicles registered at end Q1 2020, 20% increase from Q2 2019. • GM Zap Map data as of 13/07/2020: 4 ultra rapid charges (-), 58 rapid charges (+2), 442 fast devices (-4) and 29 slow devices (-). • 3 zero emission buses in TfGM fleet to-date. Stagecoach deployed first of 32 full EV double deck buses. • 150+ buses retrofitted to date through Clean Bus Technology Fund. Full reporting to be aligned with Clean Air Plan. • Refreshed working draft of GM Freight Strategy has been developed which will be used to provide a key building block in developing a costed roadmap for reducing freight emissions.

Carbon emissions - per capita emissions



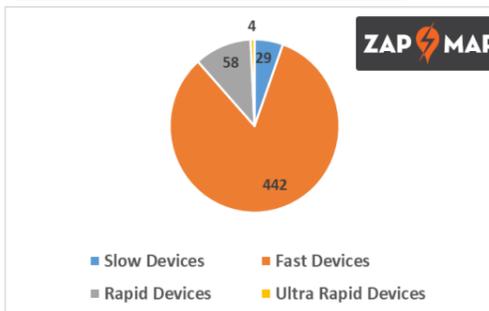
Source: UK LA and regional CO2e emissions national statistics: 2005-2017
<https://www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics>

Waste and recycling diverted (excludes Wigan)



Source: Greater Manchester Waste Disposal Authority

GM EV Device Count as at 13/07/2020



Source: zap-map.com

Supporting indicators

- ↔ **82 MW** of GM accredited renewable heat sources generated up to Jan 2020 (non-domestic only, no change from Nov-19).
- ↑ **86.9%** of GM lodgements have an energy efficiency rating of D or above (EPC/DEC) in Q2 2019. This is a slight decrease from Q2 2018 of 0.7%.
- ↑ **4,951** plug-in vehicles registered at end Q1 2020. Increase of 51% from 2018.
- ↑ **150+** buses retrofitted to date through clean bus technology fund
- 459,929** trees planted in GM since 2016
- 32** full EV buses deployed by Stagecoach

Environment Team Updates

Key Achievements/Updates Qtr. 1 (Apr-Jun 2020)		Key Work Programme Milestones Qtr. 2 (Jul-Sept 2020)	
Energy	<ul style="list-style-type: none"> Local Area Energy Planning project delayed further due to COVID related matters. Decision to repeat/expand Solar PV offer is pending completion of the initial programme of activity which has been delayed due to COVID and the inability for contractors to enter homes. Decision was taken not to make a submission to a national ERDF call as this funding was repurposed for Covid related activity. DEEP programme has identified 41 projects and 9 focus areas for phase 2 outline business cases. Soft market test commenced in June to review a cross section of LA sites for renewable energy projects. This will focus on gathering market intelligence on capex, partner and lease approaches to renewable deployment. A review of existing onshore wind analysis is to be updated, commencing in June 2020. ETR and more specifically the Energy Innovation Agency concept has been shared with innovation board receiving broad support. Soft market test is underway with 4 organisations to understand the differing approaches to overcoming technical and funding challenges to the deployment of low carbon heating alternatives in buildings. Revised draft of the Hydrogen Strategy is pending the sharing of a ENWL / Cadent Navigant report. GM Energy Company tender on hold/review. ENW Network Management System (NMS) programme has been pushed back a few months to Autumn of this year, but otherwise ENW remains on track to deliver the rest of the SMART Grid transition programme and is committed to delivering the Active Network Management (ANM) platform in Summer 2021. 	Energy	<ul style="list-style-type: none"> Commence Local Area Energy Planning project - expected start date July 2020. Anticipate completion of current programme of Solar PV activity and make informed decision on a 2nd phase. DEEP phase1 final report due July 20 with a decision on phase 2 funding due there after. Soft market test update due August 2020 for LA renewable energy generation project. Review of onshore wind analysis due to be completed in August 20. Outline business case for Energy Innovation Agency due by September 2020. Soft market test detail on low carbon heating deployment due back in August 2020. Revise Hydrogen Strategy inclusive of wider industry feedback.
Buildings	<ul style="list-style-type: none"> GM response to Environment Audit committee consultation included a paragraph on RAB. The LEAP service was suspended in March due to lockdown. Discussions are continuing with Ofgem as regards restarting the service and Groundwork has continued to provide over the phone support to households in the interim period. STEP-IN: iteration 2 (of 3) concluded in February prior to lockdown. Alternative plans have been put in place for iteration 3, which will be held virtually, rather than using on-site visits. GM housing stock data baseline on track to be developed by Summer 2020 with final project outputs expected by January 2021. For new build, Currie & Brown report for GMSF has provided minimum standards. This is complete and will be considered within policy approach. Retrofit accelerator tender is due to be released to gain consumer and demographic insight across GM, to understand what form of retrofit proposition they would respond to. This will be utilised to compliment the retrofit/stock condition modelling in order to propose a retrofit accelerator proposition to the GM market. Additionally, the GM skills team are producing a Skills Action Plan to support the varying areas of retrofit. Soft market testing taking place as part of DoPE to assess potential projects for the top 100 consuming buildings across GM. Individual interviews have taken place with each LA. DEEP work to assess low carbon heat potential is ongoing. 	Buildings	<ul style="list-style-type: none"> Develop common position on RAB with ENWL Sustainability Group. Retrofit accelerator tender to be issued and awarded. DoPE soft market testing to be completed by August 2020. Follow up required on renewable tariffs and this will be requested at the next DoPE. Renewable energy tariff as is position to be established by July 2020 (across all LAs) Follow up to be made with Daryl Quantz and John Hindley on operational performance monitoring including sustainability indicators in building reviews.
SCP	<ul style="list-style-type: none"> During Oct 19 to Mar 20, 69 SMEs have been supported to reduce resource consumption saving 2,159t CO2e/ea, the 38 grants issued leveraged £148kk of private investment, with a further 106 companies supported in Low Carbon Sector. Development of Carbon financial calculator (Stockport-led) is currently delayed due to Covid-19. H2020 bid with MMU on 'Food Living Lab' was unsuccessful. Potential for GM food procurement facilitation bid in SBRI fund. GM to be a case study region in shortlisted UoM £4.2M bid on interdisciplinary circular economy centre focusing on the built environment (housing and infrastructure). (CircBE) Discussions with Districts on the roll-out of external Refill water stations has been postponed due to Covid-19 with concerns raised over health and safe use of fountains. Guidance on safely offering water refills at refill stations due to be circulated by City to Sea in July 2020. Plastics consultation to Tourism and Hospitality sector is currently delayed due to Covid-19. LA single-use plastic spend review on catering consumables and disposables has been commissioned and first meeting held with HoP. Plastic/glass ready reckoner to inform decision making is currently delayed due to Covid-19. Work is now progressing with Suez to open 3 re-use hubs at GM HWRCs by March 2021. Initial meeting held with UoM to agree methodology of CE resource flow mapping. Three approaches have been shortlisted. A draft survey is being developed for GM organisations to inform decision. Consultants finalising the last stages of the food waste collection modelling (focused on treatment) and applying some sensitivities. The outputs will inform GMCA's response to the UK Gov consultation on consistent collections. Covers household arisings but will touch on commercial arisings in passing. Due to recent increased contamination in waste streams R4GM campaigns will now focus on reducing contamination (paper and card) and promotion of home composting. Progression with GM food strategy and vision delayed due to Covid-19. 	SCP	<ul style="list-style-type: none"> Complete desktop study on potential areas of focus for local taxation levers. Growth Company to continue support for partners in delivery of resource efficiency, eco-innovation and low carbon sector programmes. Investigate with the Better Drinking Company to see if water refill stations can be adapted for contactless use. Gather advice from Public Health England and City to Sea. Explore 'reusables on the menu' campaign with National Refill to be launched summer 2020. Supplier mapping on the purchasing of single-use plastics (catering) and data gathering across LAs to commence. Work to commence with Carbon Literacy project on adapting generic LA carbon literacy course for procurement people. Finalise indicative survey questions for resource mapping and commence contact with initial cohort of 10-15 large cross-sector organisations in GM to inform approach for mapping of resource flows. R4GM to launch contamination campaign with a focus on back to basics. E.g. right stuff right bin. Final report on food waste modelling to be presented to SOG. Launch home composting campaign in July 2020. GM Food Board to reconvene in late July 2020 to review food strategy in light of Covid-19.
Natural Env.	<ul style="list-style-type: none"> LWT confirmed as Defra ELMS pilot with funding to develop and test Nature Recovery Network. Update presentation delivered to NCG meeting in June. Update of Natural Environment Toolkit to ensure Covid appropriate. Developing evaluation survey to engage with LAs and partners on uptake of natural capital tools including how they have been used and if they haven't why not and what further support is needed. Continue to promote My Wild Garden booklet/flier and nature engagement survey. Natural England submitted final draft report on GM Peatland Restoration Pilot to DEFRA and wider social barriers report completed. Consultant to deliver GM micro plastics study selected and draft contract prepared. City of Trees re-commenced on-site work at Dales Brow, Swinton, to mitigate water quality and quantity issues. On-going advice to waterside development projects as part of GM River Ecology Action. Second workshop not able to take place because of furlough arrangements. Update BNG action plan. Delivery of new governance arrangements including NRN and BNG task and finish groups. Groundtruthing' to assess viability of sites for the waste water banding charge reduction funding stream (FS1) delayed by lockdown restrictions. FS1 desktop assessments progressed though impacted by partner furloughing. Baseline report on GM's urban green infrastructure produced along with an evidence base of NBS benefits. Investigation of value propositions continued, aimed at developing additional innovative funding streams. Tenders for an NBS Living Lab at UoS completed, however works delayed by campus closure due to COVID. EF continuing to support the development of the GMEF including potential habitat banking and carbon trading pilots. LWT appointed as Charitable Partner to set up and manage the fund. Stakeholder engagement carried out with feedback being used to inform Investment Strategy. Env Fund partnership opportunity awarded to Lancashire Wildlife Trust (LWT) a month behind schedule due to Covid-19. Fund is progressing with LWT's involvement whilst joint agreement is drafted. Environmental Finance and LWT working together to finalise GMEF investment strategy and secure funding streams and pilot projects. 	Natural Env.	<ul style="list-style-type: none"> GMEU to develop Nature Recovery Network and further meetings of Task and Finish Group to take place. Release of Natural Environment Toolkit resources. Launch of film at Green Summit. Carry out evaluation survey to engage with LAs and partners on uptake of natural capital tools including how they have been used and if they haven't why not and what further support is needed. Continue to promote My Wild Garden booklet/flier and disseminate results from nature engagement survey. National report on 5 Peatland Restoration Pilots to be considered by steering group. Respond to national policy discussion around development of England Peat Strategy. Agree next steps for GM Peatland Restoration Pilot. Finalise contract for commission of research into sources of microplastics contamination of rivers in GM. Agree programme of work for next phase of activity to improve fish passage on tributaries of the River Croal in Bolton. Start work on next phase of Moston Brook and GM water governance projects. Revise plans for second River Croal workshop. Environment Agency to finalise ITT for consultants to produce River Irk Action Plan. Continue to support LAs in developing BNG policies and determining applications including use of guidance. Progress 'groundtruthing' of potential FS1 sites to assess the scale and viability of the funding stream, with a view to producing a business case. Develop a (virtual) schools engagement programme to develop awareness of climate adaptation and NBS. Review progress on the value propositions and allocate resources for further development if business model(s) deemed viable. Commence installation of the Living Lab. Delivery of online webinar to update on proposals. Development of Investment Strategy. Launch of the GMEF as part of Green Summit. Partner to establish GMEF as a legal entity. Partnership agreement to drafted and signed by GMCA and LWT. Communications and promotion of Fund to begin.
Climate Change	<ul style="list-style-type: none"> The draft GM Resilience Strategy is currently being reviewed in light of Covid-19, and the one-year living with Covid plan is currently being drafted by the GM Covid-19 Recovery Coordinating Group. Dependent on any further response activity a draft will be circulated in September 2020. Brief for GIS mapping complete. Discussion ongoing internally to see how this complements wider IGNITION work and the DWMP portal that UU are progressing, Baseline evidence for Strategic Flood Risk Assessment being finalised. Once finished this will inform next iteration of GMSF policy. Scope for potential supplementary guidance on SUDs supported by IGNITION. Environment Agency reviewing future programme for flood risk schemes to be included in the next cycle (2021/22 - 2027/28). Work on remaining capital schemes ongoing. 	Climate Change	<ul style="list-style-type: none"> Circulate GM Resilience Strategy draft in September 2020. Identify resource to progress with GIS mapping/analysis. Finalise critical drainage area evidence and remaining flood assessments for the allocations. Pipeline to be updated on future programme for flood risk schemes.
Transport	<ul style="list-style-type: none"> CYCLOPS junction complete. Active neighbourhoods project and construction of 2 further MCF funded projects commenced. Bee Network Wayfinding package submitted to DfT for approval. Zebra trials project paused due to Covid. GM Local Authorities will commence a public consultation on GM Clean Air Plan once there is a clear timeframe for exiting lockdown and moving to the next phase of the COVID-19 response. Due to COVID-19 the implementation of a GM Clean Air Zone (CAZ) is delayed to 2022, however work continues on the preparatory implementation and contract arrangements to deliver the CAZ and other GM CAP measures. Be.EV brand launched on 19 June via press release and www.be-ev.co.uk Gov feedback is that EV Infrastructure is not required for NOx compliance and not supported by implementation fund monies. (Gov agreed to work with TfGM on securing alternative funding). EV charging demand forecasting undertaken for GM up to 2030 EV Infrastructure project identified 63 locations with LAs to accommodate 300 charging devices with outline design and costs (funding to be agreed with government) EVI Taxi project case for measure and delivery plan developed to deliver 40 rapid charging devices, site selection process commencing and planning to engage stakeholders. Early Measures Project - 24 rapid charging devices with detailed design and costings submitted to TfGM for public host sites • Taxi 'Try before you Buy' proposal scoped. EVCI Contract press release announcement made 19 June 2020. Locations identified for 30 OLEV charging points for Taxi/PHV trade. To support the upgrade of LA fleet to EVs, Amey (Charging network contractor) has worked with LAs to determine the best location and suitability of power supplies for EV charging points at LA depots. MCC waste contractor ordered 27 electric waste disposal vehicles on behalf of MCC. Formal Operator and Supplier engagement on Electric Buses has been postponed due to COVID-19. 150+ buses retrofitted to date through Clean Bus Technology Fund (CBTF). £15.4m received from JAQU on Clean Bus Fund (CBF) and first draft of delivery plan submitted to JAQU. Refreshed working draft of GM Freight Strategy which includes strong reference critical importance of environmental issues, and outline of how policy can assist with freight-related emissions targets. 	Transport	<ul style="list-style-type: none"> GM bike hire to complete first stage of tender process. GM crossings package to complete full business case. Further Challenge fund development costs and business cases approved with more schemes started on site. GM Local Authorities agree to move to a statutory public consultation on GM Clean Air Plan. Undertake preparatory procurement arrangements with potential suppliers on behalf of the GM Authorities on CAZ and CAP measures to final evaluation. A report will be provided to GM Authorities for decision on award of contracts to the successful supplier(s). Be.EV membership scheme and pay as you charge model scheduled for launch in Sept 2020. EV strategy drafted. EV Infrastructure project funding agreed with government. EVI Taxi project locations identified to locate 40 to meet Taxi / PHV trade needs. Early Measures Project - 24 rapid charging devices at detailed design with a number of schemes installed and operational Commence engagement with Taxi trade on potential OLEV charging sites. Installation of the first charging points at LA depots. Salford council have committed to 12 EV vehicles that are imminent and infrastructure installed. GM to secure funding from the £5 billion of new funding for buses and cycling announced in the March budget. (Budget 2020 suggested c.£2 billion/4,000 zero-carbon buses nationally). Resume formal Operator and Supplier engagement on Electric buses. CBTF - Works planned until December. Agreement required on unallocated funding CBF - Submil final business case documents to JAQU. Gain District and Stakeholder feedback on draft GM Freight Strategy and use to provide a key building block in developing a costed roadmap for reducing freight emissions.
Communications	<ul style="list-style-type: none"> Challenge Group meetings taken place via zoom with presentations on progress from all Task and Finish groups: Behaviour Change, Ambassador and Talent, Case Studies and Key Messages. Challenge Group work progressing with key messages being reviewed for post-pandemic environment. Green City Region narrative signed-off after post-pandemic review. Work commenced on new Green City Region (external) website. Approval gained via Challenge Group Chair to use the 'Green Bee' as a Green City emblem. Big Clean switch action paused, requires review and integration within key messages. Carbon Literacy course currently being reviewed with the view to moving to a blended learning experience (self-learning and online workshop). Potential to trial with emergency services colleagues at GMP funded as part of BEIS pilot. Plans progressing on virtual Green Summit 'week' taking place 21st - 24th September 2020. All themes covered cumulating on final day with Building Back Better. Event to ensure youth participation and cross-generational messaging and sessions. (See separate report for further details). 	Communications	<ul style="list-style-type: none"> Key messages agreed in line with advice from Behaviour Change Task and Finish group. Ambassador list increased. Case Study work commenced. New Green City Region website developed and launched with open invite for content contributors. Finalise plans for virtual Green Summit. Online suitable Carbon Literacy course to be developed and paper progressed to SMT for review.