

Risk Assessment – 12-month e-scooter trial in London



Applicable to: Transport for London

Assessed By: Transport for London

Residual Risk **WITHIN TOLERANCE**

Reference: APPENDIX I

No	Hazard	Activity / plant / Material	Persons that could be harmed	Consequence	Likelihood: Frequency and Probability (Very Low, Low, Medium, High, Very High)	Impact (Very Low, Low, Medium, High, Very High)	Mitigation / Actions
1	Anxiety and Possible increase in fear of going out and experiencing a collision with a trial rental e-scooter.	Going out in public	People, especially those with protected characteristics, including those with visual impairments, pregnant women, older people and those who find change difficult to manage.	- People, especially those with protected characteristics, including those with visual impairments, pregnant women, older people and those who find change difficult to manage, change their behaviours and do not go out in public	SHE: This relates to the likelihood of any detriment associated with possible anxiety and increased fear of going out. Anxiety and possible increase in fear of going out are very serious and amongst certain groups quite likely. Several stakeholder groups have raised the concern of anxiety and fear associated with the improper	SHE: This relates to the impact of any detriment following anxiety associated with the trial. The wellbeing of everyone, regardless of their background is very important. The mitigations that have been put in place will help to limit this impact, but it is ultimately assessed as	-The co-ordinated pan London trial with higher safety standards -Education, training and marketing programmes delivered by operators, TfL, boroughs etc focusing on safe, legal and considerate use -Community outreach delivered by operators and boroughs

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					use of trial rental e-scooters, in addition to existing anxieties. However, there is no evidence that this specifically will lead to mental health injury. With the mitigations that have been put in place for the trial, there is an opportunity for this risk to be reduced. Therefore, the likelihood of mental health injury being caused from the	High. Customer & Stakeholder For TfL, every journey matters. An important feature of The Mayor's Transport Strategy is increasing the amount of Active Travel journeys undertaken in London. It will ultimately have impact on the delivery of this MTS goal if people don't feel that it is	<ul style="list-style-type: none"> -Enhanced vehicle safety features e.g., lighting, bells etc -No-go and Go-slow areas can be introduced -Number of rental e-scooters available can be amended -Monitoring and evaluation programme including data collection -EQIA compiled from engagement with
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					<p>anxiety associated with the trial is assessed as Low</p> <p><u>Customer/Stakeholder</u> There is no evidence to show that people, especially those with protected characteristics, including those with visual impairments, pregnant women, older people and those who find change difficult to manage</p>	<p>safe to carry out Active Travel journeys. The mitigations in place and constant reviews with the aim of improving the public experience will help to limit this, but the impact is assessed as Medium.</p> <p><u>Finance</u> It is unlikely that there will be a direct financial impact to TfL</p>	<p>important stakeholder groups</p>
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					change will not go out due to anxiety or fear of collisions. The EQIA for the trial highlights concerns raised by several groups, but none say that they would not go out as a result. Therefore, the likelihood of this impacting the delivery of the Mayor's Transport Strategy is assessed as Low	in this case. Therefore, it is assessed as Low Stakeholder Confidence This relates to the impact of negative media comments and coverage due to anxiety by people (especially with protected characteristics) in relation to the trial. This coverage and the extensive reach of social media at a	
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					<p>Finance It is unlikely that there will be a direct financial impact to TfL in this case. Therefore, the likelihood is assessed as Low.</p> <p>Stakeholder Confidence This relates to the likelihood of negative media comments and coverage due to anxiety by people (especially with protected characteristics) in relation to the</p>	<p>time when confidence in going out generally (especially on public transport) due to the pandemic is low, means that the impact is assessed as High.</p>	
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					trial. If the use of trial rental e-scooters is not managed effectively, this will be likely. However, the mitigations that have been put in place mean that the likelihood of this is assessed as Medium .		
2	Collision with other vehicles. This includes other trial rental e-scooters.	Trial rental e-scooters being used correctly or incorrectly according to trial rules and	-Trial rental e-scooter rider -Pedestrians -Occupants/	-Injury (physical or psychological) to trial rental e-scooter riders. This includes death or serious injury. -Injury (physical or psychological) to members of the public/other drivers, rider/pillion/occupants of	SHE: In the most relevant study available, there are approximately 20 rider injuries	SHE: The loss of any life, or any serious injury on our network is severe. Given	-The co-ordinated pan London trial with higher safety standards

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	<p>Some concerns associated with riding trial rental e-scooters include small vehicle size with fast sudden acceleration; motorised use of shared cycle tracks; small and ground level vehicle frame which is less visible; the rider is in a standing</p>	<p>regulations. This includes vehicles that become defective while in use.</p>	<p>riders/pillion of other vehicles</p>	<p>other vehicles. This includes death or serious injury.</p> <ul style="list-style-type: none"> -Reputational harm to TfL -Anxiety and Possible increase in fear or negative mental health effects from witnessing collisions 	<p>per 100,000 e-scooter trips¹. This study was published in April 2019 and was based in Texas, US. The same study does not provide analysis of the likelihood of shared rental e-scooters colliding with other vehicles but notes that 16% of the incidents with injured riders involved a</p>	<p>our vision zero aims, regardless of likely frequency, this impact is assessed as High.</p> <p>Customer & stakeholder: Should any of the foreseeable incidents listed occur, the result is likely to be a relatively small number of customers/sta</p>	<ul style="list-style-type: none"> -Enhanced vehicle safety features e.g., lighting -Operator safety processes e.g., confirming training understood -Education, training and marketing programmes delivered by operators, TfL, boroughs etc focusing on safe use

¹ https://www.austintexas.gov/sites/default/files/files/Health/Epidemiology/APH_Dockless_Electric_Scooter_Study_5-2-19.pdf

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	position; less easy to distinguish from pedestrians at times.				motorised vehicle. There was no mention of incidents with non-motorised vehicles. As this is a percentage of the injured people who took part in the trial, (there were 200 injuries per 1000,000 trips), the likelihood is assessed as Low . However, this study was in the U.S and many factors in the London trial will be different. Customer & Stakeholder: In	keholders affected with minimal disruption to service delivery or impact to assets. However, the possible impact of people with some protected characteristics becoming afraid to travel is very important. Therefore, the impact is assessed as Medium .	<ul style="list-style-type: none"> -Existing TfL road safety campaigns -Operator maintenance programmes for rental e-scooters -Community outreach delivered by operators and boroughs -Monitoring and evaluation programme including data collection -Parking
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					<p>the same study, only 10% of injuries involved collisions with motorised vehicles. Therefore, the likely service disruption is 5%-25% of injuries, meaning that the likelihood is assessed as Low.</p> <p>Finance: In most cases, it is expected that financial losses following collisions will be managed through the operator's</p>	<p>Finance: Losses are likely to be less than £1m. Operators are contractually required to carry insurance. Therefore, the impact is assessed as Very Low.</p> <p>Stakeholder confidence: The likely impact of the foreseeable incidents occurring is On-going negative media</p>	<p>provision on the Transport for London Road Network (TLRN) will be risk assessed</p>
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					<p>insurance, which they will be contractually required to have in place. Therefore, the likelihood of TfL incurring losses of £1m or more from vehicle collisions is assessed as Very Low.</p> <p>Stakeholder Confidence: TfL has received strong public reaction from cyclist deaths in the past, so it is likely that multiple fatalities will attract the</p>	<p>coverage resulting in loss of confidence with significant regulator or stakeholder intrusion. Therefore, the impact is assessed as Medium.</p>	
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					same level of public attention. The number of fatalities of e-scooter riders globally is estimated at over 29 since the rentable market started in 2018. ² . Given the potential effect of press and social media attention, the likelihood is assessed as Medium.		
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² <https://qz.com/1793164/at-least-29-people-have-died-in-electric-scooter-crashes/>

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3	-Collision with anything that is not a vehicle, including people of any background or capability.	Trial rental e-scooters being used correctly or incorrectly according to trial rules and regulations. This includes vehicles that become defective while in use.	-Trial rental e-scooter rider. This includes riders of any background and capability. -Pedestrians -Occupants/riders/pillion of other vehicles	-Death to trial rental e-scooter riders -Injury (physical or psychological) to trial rental e-scooter riders, pedestrians and other road users. -Anxiety and Possible increase in fear or negative mental health effects -Reputational harm to TfL	SHE: in the most relevant study available, there are approximately 20 rider injuries per 100,000 e-scooter trips ³ . This study was published in April 2019 and was based in Texas, US. The same study does not provide analysis of the likelihood of shared rental e-scooters colliding with	SHE: the loss of any life, or any serious injury on our network is severe. Given our vision zero aims, regardless of likely frequency, this impact is assessed as High . Customer & stakeholder: Should any of the foreseeable incidents listed	-The co-ordinated pan London trial with higher safety standards -Enhanced vehicle safety features e.g., lighting, bells etc -Education, training and marketing programmes delivered by operators, TfL, boroughs etc focusing on safe, legal and

³ https://www.austintexas.gov/sites/default/files/files/Health/Epidemiology/APH_Dockless_Electric_Scooter_Study_5-2-19.pdf

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					other vehicles but notes that 16% of the incidents with injured riders involved a motorised vehicle. There was no mention of incidents with non-motorised vehicles. As this is a percentage of the injured people who took part in the trial, (there were 200 injuries per 1000,000 trips), the likelihood is assessed as Low . However, this study was in	occur, the result is likely to be a relatively small number of customers/stakeholders affected with minimal disruption to service delivery or impact to assets. However, the possible impact of people with some protected characteristics becoming afraid to travel	considerate use -Operator safety processes e.g., confirming training understood -No-go and Go-slow areas can be introduced -Notifications to alert of discarded rental e-scooters - Operators contact details clear and accessible -Community outreach delivered by

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					<p>the U.S and many factors in the London trial will be different.</p> <p>Customer & Stakeholder: In the same study, only 10% of injuries involved collisions with motorised vehicles. Therefore, the likely service disruption is 5%-25% of injuries, meaning that the likelihood is assessed as LOW</p> <p>Finance: In most cases, it is expected that</p>	<p>is very important. Therefore, the impact is assessed as Medium.</p> <p>Finance: Losses are likely to be less than £1m. Operators are contractually required to carry insurance. Therefore, the impact is assessed as Very Low</p> <p>Stakeholder confidence: The likely impact of the</p>	<p>operators and boroughs</p> <p>-Police enforcement programmes</p> <p>-Monitoring and evaluation programme including data collection to inform safety improvements</p>
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					financial losses following collisions will be managed through the operator's insurance, which they will be contractually required to have in place. Therefore, the likelihood of TfL incurring losses of £1m or more from vehicle collisions is assessed as Very Low . Stakeholder Confidence: TfL has received strong public	foreseeable incidents occurring is On-going negative media coverage resulting in loss of confidence with significant regulator or stakeholder intrusion. Therefore, the impact is assessed as Medium .	
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					reaction from cyclist deaths in the past, so it is likely that multiple fatalities will attract the same level of public attention. The number of fatalities of e-scooter riders globally is estimated at over 29 since the rentable market started in 2018. ⁴ . Given the potential effect of press and social		

⁴ <https://qz.com/1793164/at-least-29-people-have-died-in-electric-scooter-crashes/>

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					media attention, the likelihood is assessed as Medium.		
4	Other road users taking evasive action to avoid trial rental e-scooters. Factors giving rise to such a concern includes upright position of rider, less distinguishable from	Trial rental e-scooters being used correctly or incorrectly according to trial rules and regulations. This includes vehicles that become defective while in use.	-Trial rental e-scooter rider -Pedestrians Anyone, but particularly people with some protected characteristics (eg older people or pregnant women)	-Anxiety and Possible increase in fear of going out -Collision with other vehicles. This includes other trial rental e-scooters. -Collision with anything that is not a vehicle, especially people. -Injury (physical or psychological) to trial rental e-scooter riders. This includes death or serious injury. -Injury (physical or psychological) to members of the public	SHE: in the most relevant study available, there are approximately 20 rider injuries per 100,000 e-scooter trips ⁵ . This study was published in April 2019 and was based in Texas, US. The same study does not provide	SHE: the loss of any life, or any serious injury on our network is severe. Given our vision zero aims, regardless of likely frequency, this impact is assessed as High. Customer&	-The co-ordinated pan London trial with higher safety standards -Enhanced vehicle safety features e.g., lighting, bells etc -Education, training and marketing programmes

⁵ https://www.austintexas.gov/sites/default/files/files/Health/Epidemiology/APH_Dockless_Electric_Scooter_Study_5-2-19.pdf

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	pedestrians, fast acceleration, novice riders, low position of vehicle/lights and unfamiliarity.			-Reputational harm to TfL	analysis of the likelihood of shared rental e-scooters colliding with other vehicles but notes that 16% of the incidents with injured riders involved a motorised vehicle. There was no mention of incidents with non-motorised vehicles. As this is a percentage of the injured people who took part in the trial, (there were 200 injuries per	stakeholder: Should any of the foreseeable incidents listed occur, the result is likely to be a relatively small number of customers/stakeholders affected with minimal disruption to service delivery or impact to assets. However, the possible impact of people with	delivered by operators, TfL, boroughs etc focusing on safe, legal and considerate use -Operator safety processes e.g., confirming training understood -No-go and Go-slow areas can be introduced -Notifications to alert of discarded rental e-scooters -Community outreach delivered by
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					<p>1000,000 trips), the likelihood is assessed as Low. However, this study was in the U.S and many factors in the London trial will be different.</p> <p>Customer & Stakeholder: In the same study, only 10% of injuries involved collisions with motorised vehicles. Therefore, the likely service disruption is 5%-25% of injuries, so the likelihood is assessed as</p>	<p>some protected characteristics becoming afraid to travel is very important. In addition, the possible impact of people with some protected characteristics becoming afraid to travel is very important. Therefore, the impact is assessed as Medium.</p> <p>Finance:</p>	<p>operators and boroughs</p> <p>-Monitoring and evaluation programme including data collection to inform safety improvements</p>
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					<p>LOW Finance: In most cases, it is expected that financial losses following collisions will be managed through the operator's insurance, which they will be contractually required to have in place. Therefore, the likelihood of TfL incurring losses of £1m or more from vehicle collisions is Very Low Stakeholder</p>	<p>Losses are likely to be less than £1m. Operators are contractually required to carry insurance. Therefore, the impact is assessed as Very Low Stakeholder confidence: The likely impact of the foreseeable incidents occurring is On-going negative media coverage</p>	
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					<p>Confidence: TfL has received strong public reaction from cyclist deaths in the past, so it is likely that fatalities will attract the same level of public attention. The number of fatalities of e-scooter riders globally is estimated at over 29 since the rentable market started in 2018.⁶. Given</p>	<p>resulting in loss of confidence with significant regulator or stakeholder intrusion. Therefore, the impact is assessed as Medium.</p>	

⁶ <https://qz.com/1793164/at-least-29-people-have-died-in-electric-scooter-crashes/>

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					the potential effect of press and social media attention, the likelihood is assessed as Medium.		
5	DLR (driverless trains and some unstaffed stations)- trial rental e scooters being ridden onto the platform, or onto the tracks.	Trial rental e-scooters in use. This includes vehicles that become defective while being used.	-Trial rental e-scooter rider -Occupants/riders/pillion of other vehicles Anyone, but particularly people with some protected characteristics (eg older people or	-Anxiety and possible increase in fear of going out -Injury (physical or psychological) to trial rental e-scooter riders. This includes death or serious injury. -Injury (physical or psychological) to members of the public/other drivers, rider/pillion/occupants of other vehicles. This includes death or serious injury. -Financial losses -Insurance pay outs	SHE: Through a competitive procurement process, the three selected operators - Dott, Lime and Tier – have met and in many places exceeded our high safety and operating requirements with regards to vehicles,	SHE: TfL has ambitions of providing a harm-free transport network, so any injury on the TfL network is a serious occurrence. The monitoring and analysis that will be carried out by	-Education, training and marketing programmes delivered by operators, TfL, boroughs etc focusing on safe, legal and considerate use -Operator safety processes- eg. Checking that the training has

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			pregnant women)	-Damage to trial rental e-scooter(s), personal property and/or TfL infrastructure	maintenance regimes, parking and customer education, including having strategies in place to mitigate risky behaviours. Further detail is included in an updated version of the EQIA published June 4, 2021. Added to this, the application of geofence technology at some DLR stations will reduce the likelihood of	operators and TfL throughout the trial will provide information that can aid operational (and police if required) deployment to "hotspot" locations. The ability to pause or cancel the trial can also minimise the impact of this occurrence. Therefore, the impact is assessed as Low Customer &	been understood. -Enhanced vehicle safety features e.g., Braking, lighting, bells etc -Geofence technology to stop trial rental e-scooters from being ridden in risky areas (eg. platform). Certain criteria apply (eg. No-go areas will not be applied where there is parking or in close proximity to significant

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					injury from riding on the platform or onto tracks. Trial rental e-scooters will also not be permitted on DLR trains (as per TfL Conditions of Carriage) and disincentivised from DLR stations through things such as the weight of the vehicles and hire pricing structure, thereby reducing the likelihood of this occurrence	Stakeholder: Should such an incident occur, it is not likely that there will be any disruption to the overall TfL network, unless it causes injury, damage or loss. In those instances, disruption will still be minimal, as most DLR services are near to other TfL services. Therefore, the impact is	<p>cycling infrastructure (eg. Cycle Superhighway or TLRN). Further No-go and Go-slow areas can be introduced.</p> <p>-Number of rental e-scooters available can be amended</p> <p>-Monitoring and evaluation programme including data collection</p> <p>-EQIA compiled from engagement with</p>
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Risk Assessment – 12-month e-scooter trial in London



Applicable to: Transport for London

Assessed By: Transport for London

Residual Risk **WITHIN TOLERANCE**

Reference: APPENDIX I

No	Hazard	Activity / plant / Material	Persons that could be harmed	Consequence	Likelihood: Frequency and Probability (Very Low, Low, Medium, High, Very High)	Impact (Very Low, Low, Medium, High, Very High)	Mitigation / Actions
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					<p>further. Therefore, likelihood is assessed as Very Low.</p> <p>Customer & Stakeholder: In the event of such incidents occurring, it is likely that there will be minimal (if any) disruption to TfL services on the network. Therefore, the likelihood is assessed as Very low.</p> <p>Finance: Other than the possibility of</p>	<p>assessed as low.</p> <p>Finance: The likelihood of costs being incurred by TfL has been assessed as very low. Therefore, the impact on TfL is also likely to be Very low.</p> <p>Stakeholder confidence: Given the profile and status of London, and the various ways in which complaints can be made, the</p>	<p>important stakeholder groups</p> <p>-Trial rental e-scooters are not allowed on Buses, London Underground, Trams, London Overground, TfL Rail and DLR.</p>
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Risk Assessment – 12-month e-scooter trial in London



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Residual Risk **WITHIN TOLERANCE**

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					<p>replacing damaged infrastructure, there are no foreseeable financial implications to TfL resulting from this hazard. Therefore, the likelihood is assessed as Very low.</p> <p>Stakeholder Confidence: Looking at the coverage that has been received in other trial areas across the UK and the status of</p>	<p>potential effects of negative press and social media commentary are significant. TfL is in contact regularly with important stakeholder groups. However, some stakeholders, especially young and those with some protected characteristics (eg older</p>	
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Risk Assessment – 12-month e-scooter trial in London



Applicable to: Transport for London

Assessed By: Transport for London

Residual Risk **WITHIN TOLERANCE**

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					London, the trial itself will be under some scrutiny. TfL is working closely with important stakeholder groups throughout the trial but given the potential effect of press and social media attention, the likelihood is assessed as Medium .	people or pregnant women) may be negatively affected. This can cause reluctance to travel or even leave the home, meaning that the overall impact is assessed as Medium .	
6	Trial rental e-scooter users targeted by criminals. This includes	Trial rental e-scooters in use or parked. This includes trial rental e-scooter	-Trial rental e-scooter rider -Occupants/riders/pillion of	-Anxiety and Possible increase in fear of going out -Injury (physical or psychological) to trial rental e-scooter riders. This includes death or serious injury.	SHE: In discussions with CPOS, it is apparent that the number of	SHE: TfL can pause or restrict operations if required, as	-Education, training and marketing programmes delivered by

Risk Assessment – 12-month e-scooter trial in London



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	vehicles being taken with force, personal belongings or data being stolen, and vandalism or tampering with/theft of vehicle parts.	users downloading the app, reading training documents online with a mobile device, or searching for parking locations.	other vehicles -Emergency services personnel acting in official capacity Anyone, but particularly people with some protected characteristics (eg older people or pregnant women)	-Injury (physical or psychological) to members of the public/other drivers, rider/pillion/occupants of other vehicles. This includes death or serious injury. -Injury (physical or psychological) to emergency services personnel acting in official capacity -Financial losses -Insurance pay outs	criminal incidents associated with e-scooters is growing. The likelihood is that such incidents in the e-scooter trial may be higher at the start of the trial due to them being new on our roads, but are likely to reduce over time, and taken as a percentage of overall hires, the likelihood	some other authorities in the UK have done at the time of this assessment ⁷ . Added to this, the vehicle specifications and close working with police mentioned in the mitigation actions mean that the impact will be kept Low Customer & Stakeholder:	operators, TfL, boroughs etc focusing on safe, legal and considerate use -Parking provision made available for rental e-scooters -No-go and Go-slow areas can be introduced -Programmes to remove poorly left rental e-scooters

⁷ <https://www.bbc.co.uk/news/uk-england-coventry-warwickshire-54164922>

Risk Assessment – 12-month e-scooter trial in London



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					<p>will be Medium.</p> <p>Customer & Stakeholder: In the event of the reasonably foreseeable criminal behaviour occurring, it is likely that there will be minimal (if any) disruption to TfL services on the network. Therefore, the likelihood is assessed as Very low.</p> <p>Finance: Other than the possibility of replacing</p>	<p>As the likelihood of service disruption following criminal activity is very low, the likely impact to TfL customers and stakeholders overall is also assessed as Very low.</p> <p>Finance: The likelihood of costs being incurred by TfL from criminal activity has been assessed as very low.</p>	<ul style="list-style-type: none"> -Notifications to alert of discarded rental e-scooters - Operators contact details clear and accessible -Community outreach delivered by operators and boroughs -Police enforcement programmes -Monitoring and evaluation programme
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Risk Assessment – 12-month e-scooter trial in London



Applicable to: Transport for London

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					<p>damaged infrastructure, there are no foreseeable financial implications to TfL resulting from this hazard. Therefore, the likelihood is assessed as Very low.</p> <p>Stakeholder Confidence: Looking at the coverage that has been received in other trial areas</p>	<p>Therefore, the impact on TfL is assessed as Very low.</p> <p>Stakeholder confidence: Given the profile and status of London, and the various ways in which complaints can be made, the potential effects of negative press and social media commentary</p>	<p>including data collection</p> <p>-Boroughs have a legal duty to take necessary steps to prevent crime and disorder⁸</p> <p>-Vehicles designed with physical measures to prevent theft and</p>

⁸ <https://www.legislation.gov.uk/ukpga/1998/37/section/17/2005-01-18?timeline=true>

Risk Assessment – 12-month e-scooter trial in London



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					across the UK and the status of London, the trial itself will be under some scrutiny. Given the potential effect of press and social media attention, the likelihood is assessed as Medium.	are significant. However, the ability to pause or cancel the trial provides TfL an opportunity to limit this. In addition, the possible impact of people with some protected characteristics becoming afraid to travel is very important. Therefore, the impact is assessed as Medium.	vandalism
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Risk Assessment – 12-month e-scooter trial in London



Applicable to: Transport for London

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7	Trial rental e-scooters used for criminal activity. This includes traffic offences, parking offences and riding on pavements.	Trial rental e-scooters used illegally. This includes riding on pavements or in contravention on any rules (eg TfL CoC), committing crimes (eg theft) and evading police.	<ul style="list-style-type: none"> -Trial rental e-scooter rider -Occupants/riders/pillion of other vehicles -Emergency services personnel acting in official capacity <p>Anyone, but particularly people with some protected characteristics</p>	<ul style="list-style-type: none"> -Anxiety and Possible increase in fear of going out -Injury (physical or psychological) to trial rental e-scooter riders. This includes death or serious injury. -Injury (physical or psychological) to members of the public/other drivers, rider/pillion/occupants of other vehicles. This includes death or serious injury. -Injury (physical or psychological) to emergency services personnel acting in official capacity -Financial losses -Insurance pay outs 	SHE: As trial rental e-scooters are new to London, and with a lack of relatable studies to draw from, it is difficult to determine the likelihood of this occurring. However, the mitigations in place, such as police, enforcement, distinctively marked vehicles and operator	SHE: TfL can pause or restrict operations if required, as some other authorities in the UK have done at the time of this assessment ⁹ . Added to this, the vehicle specifications and close working with police mentioned in the mitigation actions mean	<ul style="list-style-type: none"> -Education, training and marketing programmes delivered by operators, TfL, boroughs etc focusing on safe, legal and considerate use -No-go and Go-slow areas can be introduced -Notifications to alert of discarded rental e-scooters -

⁹ <https://www.bbc.co.uk/news/uk-england-coventry-warwickshire-54164922>

Risk Assessment – 12-month e-scooter trial in London



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			(eg older people or pregnant women)		contact details being visible on vehicles may help to reduce the likelihood. It is therefore assessed as Medium . Customer & Stakeholder: Using the Santander Cycle Hire scheme as a comparator, there is minimal (if any) disruption to services on the network caused by the foreseeable criminal activity noted.	that the impact is assessed as Low . Customer & Stakeholder: The likelihood of service disruption following criminal activity is very low, the likely impact to TfL customers and stakeholders overall is also assessed as Very low . Finance: The likelihood of costs being incurred by TfL from criminal	Operators contact details clear and accessible -Community outreach delivered by operators and boroughs -Police enforcement programmes -Monitoring and evaluation programme including data collection
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Risk Assessment – 12-month e-scooter trial in London



Applicable to: Transport for London

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					Therefore, the likelihood is assessed as Very low . Finance: Other than the possibility of replacing damaged infrastructure, there are no foreseeable financial implications to TfL resulting from this hazard. Therefore, the likelihood is assessed as	activity has been assessed as very low. Therefore, the impact on TfL is assessed as Very low . Stakeholder confidence: Given the profile and status of London, and the various ways in which complaints can be made, the potential effects of	-Boroughs have a legal duty to take necessary steps to prevent crime and disorder ¹⁰ -Vehicles can be disabled remotely

¹⁰ <https://www.legislation.gov.uk/ukpga/1998/37/section/17/2005-01-18?timeline=true>

Risk Assessment – 12-month e-scooter trial in London



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					<p>Very low. Stakeholder Confidence: Looking at the coverage that has been received in other trial areas across the UK and the status of London, the trial itself will be under some scrutiny. Given the potential effect of press and social media attention, the likelihood is assessed as Medium.</p>	<p>negative press and social media commentary are significant. The ability to pause or cancel the trial provides TfL an opportunity to limit this. However, the possible impact of people with some protected characteristics becoming afraid to travel is very important. Therefore, the</p>	
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Risk Assessment – 12-month e-scooter trial in London



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						impact is assessed as Medium.	
8	Increased use of illegal e-scooters	E-scooters that are not part of the trial in use.	Trial rental e-scooter rider -Occupants/riders/pillion of other vehicles -Emergency services personnel acting in official capacity	-Anxiety and Possible increase in fear of going out -Injury (physical or psychological) to trial rental e-scooter riders. This includes death or serious injury. -Injury (physical or psychological) to members of the public/other drivers, rider/pillion/occupants of other vehicles. This includes death or serious injury. -Injury (physical or psychological) to emergency services personnel acting in official capacity	SHE: Prior to the trial starting, there has been an increase in the sale of e-scooters. These are not allowed to be used other than on private property. When used otherwise, it is illegal. The messaging from	SHE: The messaging from TfL, Operators and Boroughs is one of the mitigations against illegal e-scooter use; as well as police enforcement and some of	-Education and marketing programmes delivered by operators, TfL, boroughs etc -Community outreach delivered by operators and boroughs -Police

Risk Assessment – 12-month e-scooter trial in London



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			Anyone, but particularly people with some protected characteristics (eg older people or pregnant women)	-Financial losses	TfL, Operators and Boroughs is one of the mitigations against illegal e-scooter use; as well as police enforcement and some of the specifications of the trial rental e-scooters (eg distinctive markings). However, the uptake of illegal e-scooters is likely to continue, so the likelihood of injuries associated with illegal e-	the specifications of the trial rental e-scooters (eg distinctive markings). However, the uptake of illegal e-scooters is likely to continue. Despite the mitigations in place, the impact of injuries associated with illegal e-scooters is assessed as Medium .	enforcement programmes -Monitoring and evaluation programme including data collection around illegal use
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Risk Assessment – 12-month e-scooter trial in London



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					<p>scooters is assessed as High.</p> <p>Customer & Stakeholder: The likelihood of disruption to the TfL network due to illegal e-scooters being used is assessed as very low.</p> <p>Finance: It is unlikely that there will be any financial implications to TfL if the use of illegal e-scooters grows. Therefore, the likelihood is</p>	<p>Customer & Stakeholder: The likelihood of disruption to the TfL network due to illegal e-scooters being used is assessed as very low.</p> <p>Finance: It is unlikely that there will be any financial implications to TfL if the use of illegal e-scooters grows. Therefore, the likelihood is</p>	
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Risk Assessment – 12-month e-scooter trial in London



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					<p>assessed as Very Low.</p> <p>Stakeholder Confidence: Looking at the coverage that has been received across the UK around e-scooters, the media have not differentiated clearly between legal and illegal vehicles. Due to the status of London, the trial itself will be under some scrutiny. Given the potential effect of press and social</p>	<p>assessed as Very Low.</p> <p>Stakeholder Confidence: Looking at the coverage that has been received across the UK around e-scooters, the media have not differentiated clearly between legal and illegal vehicles. Due to the status of London, the trial itself will be under some scrutiny. Given</p>	
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Risk Assessment – 12-month e-scooter trial in London



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					media attention, the likelihood is assessed as Medium.	the potential effect of press and social media attention, the impact is assessed as Medium.	
9	Trial rental e-scooter Operator staff targeted by criminals. This includes vehicles being taken with force, personal belongings or	Field-based activities, including distributing, cleaning and collecting vehicles.	-Trial rental e-scooter Operator staff -Emergency services personnel acting in official capacity	-Anxiety and Possible increase in fear of going out -Injury (physical or psychological) to trial rental e-scooter Operator staff. This includes death or serious injury. -Injury (physical or psychological) to members of the public/other drivers, rider/pillion/occupants of other vehicles. This includes death or serious injury.	SHE: In discussions with CPOS, it is apparent that the number of criminal incidents associated with e-scooters is growing. The	SHE: TfL can pause or restrict operations if required, as some other authorities in the UK have done at the time of this	-Operator risk assessment and training for staff carrying out field-based operations. -Education, training and marketing

Risk Assessment – 12-month e-scooter trial in London



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	data being stolen.		Anyone, but particularly people with some protected characteristics (eg older people or pregnant women)	<ul style="list-style-type: none"> -Injury (physical or psychological) to emergency services personnel acting in official capacity -Financial losses -Insurance pay outs 	likelihood is that such incidents in the e-scooter trial may be higher at the start of the trial due to them being new on our roads, but are likely to reduce over time, and taken as a percentage of overall hires, the likelihood is assessed as Medium. Customer & Stakeholder: In the event of the	assessment ¹¹ . Added to this, the vehicle specifications, operator risk assessments and close working with police mentioned in the mitigation actions mean that the impact is assessed as Low Customer & Stakeholder: As the likelihood of service	<ul style="list-style-type: none"> programmes delivered by operators, TfL, boroughs etc focusing on safe, legal and considerate use -Programmes to remove poorly left rental e-scooters -Notifications to alert of discarded rental e-scooters Operators contact details to be clear and
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¹¹ <https://www.bbc.co.uk/news/uk-england-coventry-warwickshire-54164922>

Risk Assessment – 12-month e-scooter trial in London



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					<p>reasonably foreseeable criminal behaviour occurring, it is likely that there will be minimal (if any) disruption to TfL services on the network. Therefore, the likelihood is assessed as Very low.</p> <p>Finance: Other than the possibility of replacing damaged infrastructure, there are no foreseeable</p>	<p>disruption following criminal activity is very low, the likely impact to TfL customers and stakeholders overall is also assessed as Very low.</p> <p>Finance: The likelihood of costs being incurred by TfL from criminal activity has been assessed as very low. Therefore, the impact on TfL is assessed as</p>	<p>accessible.</p> <ul style="list-style-type: none"> -Community outreach delivered by operators and boroughs -Police enforcement programmes -Monitoring and evaluation programme including data collection -Boroughs have a legal duty to
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Risk Assessment – 12-month e-scooter trial in London



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					financial implications to TfL resulting from this hazard. Therefore, the likelihood is assessed as Very low . Stakeholder Confidence: Looking at the coverage that has been received in other trial areas across the UK and the status of London, the trial itself will be	Very low. Stakeholder confidence: Given the profile and status of London, and the various ways in which complaints can be made, the potential effects of negative press and social media commentary are significant. However, the ability to pause	take necessary steps to prevent crime and disorder ¹² -Vehicles designed with physical measures to prevent theft and vandalism

¹² <https://www.legislation.gov.uk/ukpga/1998/37/section/17/2005-01-18?timeline=true>

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					under some scrutiny. Given the potential effect of press and social media attention, the likelihood is assessed as Medium.	or cancel the trial provides TfL an opportunity to limit this. In addition, the possible impact of people with some protected characteristics becoming afraid to travel is very important. Therefore, the impact is assessed as Medium.	

Risk Assessment – 12-month e-scooter trial in London



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10	Nuisance: -noise, light or other issues associated with any parking or docking facilities.	<ul style="list-style-type: none"> -Storing or parking trial rental e-scooters -Discarding or failing to correctly store or park trial rental e-scooters 	<ul style="list-style-type: none"> -Trial rental e-scooter rider -Pedestrians -Local residents or businesses -Anyone, but especially people with some protected characteristics (eg visually impaired) 	<ul style="list-style-type: none"> -Harm to pedestrians -Anxiety or possible increased fear of going out -Damage to trial rental e-scooters, -Damage to mobility aids and vehicles -Private nuisance action by affected individuals leading to fines against operators -Reputational harm to TfL, trial boroughs and/or operators -Insurance pay out(s)/ premium rise -Complaints -Dumping of trial rental e-scooters in waterways 	<p>SHE: Due to the controls in place, including close liaison with stakeholder groups, the likelihood of these consequence occurring is assessed as LOW</p> <p>Customer & Stakeholder: TfL has learned a lot from Cycle Hire's operations, including what is required for docking stations, as well as dock less</p>	<p>SHE: Due to the size of the trial and TfL's ability to manage, restrict or pause the growth of operators based on performance, the impact is assessed as Low</p> <p>Customer & stakeholder: Taken as a part of the whole TfL operation, the consequence would be a small number</p>	<ul style="list-style-type: none"> -Messaging before, during and after trial to stakeholders from the trial boroughs, TfL and operators -Training/briefing provided with Terms and Conditions, as well as on-going support from the operator -operator staff in the field deployed quickly to investigate and address local problems -Intervention or possible enforcement action by Local

Risk Assessment – 12-month e-scooter trial in London



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					<p>provision. This knowledge will be shared; therefore, the likelihood is assessed as Very Low</p> <p>Finance: Should these consequences occur, the likely costs to TfL would be less than £1m. Therefore, the likelihood is assessed as Very Low</p> <p>Stakeholder Confidence: Given the various ways in which</p>	<p>of customers/stakeholders affected with minimal disruption to service delivery or impact to assets. Therefore, the impact is assessed as Very Low</p> <p>Finance: Should these consequences occur, TfL can act in various ways, so the impact is assessed as Very Low</p>	<p>Authority to abate any statutory nuisance</p> <p>-Vehicle specifications include contact details for reporting back to the operator and specific identification numbers that link back to the operator and trial</p> <p>-Design of any parking in line with requirements</p> <p>-Close liaison between boroughs, operator and TfL</p> <p>-All trial rental e-</p>
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Risk Assessment – 12-month e-scooter trial in London



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					complaints can be made and the amount of negative press and social media commentary that is carried with news cycles, the likelihood of damage being caused to stakeholder confidence is assessed as Medium.	Stakeholder Confidence: Due to the nature of media cycles, there is a possibility (at least at the start of the trial) of short-term negative media coverage. The option of pausing or cancelling the trial on safety grounds gives TfL the opportunity to limit the impact. However, the	scooters have a means of self-standing (e.g., Kickstand) - Operators have devices on their vehicles that report when a parked vehicle has fallen over (when parked) or otherwise removed from a parking area -Operators are contractually obliged to find and adopt new ways of improving user and public safety
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Risk Assessment – 12-month e-scooter trial in London



Applicable to: Transport for London

Assessed By: Transport for London

Residual Risk **WITHIN TOLERANCE**

Reference: APPENDIX I

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						<p>possible impact of people with some protected characteristics becoming afraid to travel is very important. Therefore, the impact is assessed as Medium</p>	<p>-Parking bays at TfL Stations are designed to fit with national DfT parking guidelines</p> <p>-Parking bays at TfL Stations are located according to criteria that includes safety (e.g. well-lit areas; clearly marked out bays; not blocking any signage)</p> <p>-Ongoing monitoring throughout the trial and engagement with Operators and stakeholders to identify and implement improvements as</p>
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							appropriate
11	-Incorrect management of battery lifecycle	-Maintenance of trial rental e-scooters	-TfL -Trial boroughs -Trial Operators	-Breaches of waste legislation -Loss: -Fines against operators -Prosecutions against TfL -Reputational harm to TfL and/or operators			-Operators are contractually obliged to ensure the safe and legally compliant repurposing or disposal of batteries

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12	-No change to the overall level of car use and/or displacement of Active Travel journeys	-Use of rental trial rental e-scooters	-Trial rental e-scooter users -People who visit, live or work in London -Disabled, older, pregnant people	-Undermining Active travel plans and worsening health, as the objective of lowering car use is not met, but Active Travel journeys are rather replaced by trial rental e-scooter journeys -Long term health problems such as obesity and the effects of air pollution -Disabled, older or pregnant people have reduced confidence while carrying out Active Travel journeys	HSE: Given the introduction of new congestion charging terms and the extensive rollout of the London Streetspace Plan, non-car journeys are currently more attractive than ever. If trial rental e-scooter distribution is data led and strategically applied, this may help, but there is little evidence to show that trial rental e-	HSE: Although the identified consequences can contribute to health problems, they are unlikely to be the sole cause, so the impact is assessed as Very Low.	-Adoption of “priority areas” throughout the trial to encourage uptake by specific groups (e.g., some car journeys) -Trial operators under obligation to replenish trial rental e-scooter distribution across participating boroughs daily -The project team collect data to inform future policy and strategy for managing mode shift - TfL customer communications campaign targeted at

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					scooters will replace car journeys. Therefore, the likelihood is assessed as Medium .		sustainable mode shift we want to see from car drivers
13	<p>-Transmission of COVID-19, or other diseases</p> <p>-Adverse reactions from contact with cleaning chemicals</p>	-Routine and emergency cleaning of trial rental e-scooters	<p>-Operators' staff</p> <p>-Members of the public</p> <p>-trial rental e-scooter users</p> <p>-Animals</p>	<p>-Anything ranging from mild illness to death Any conditions resulting from adverse reactions.</p> <p>-Reputational damage to TfL, trial boroughs and/or operators</p>	<p>SHE: This cleaning regime is the same as with Santander Cycle Hire's docking stations and bikes. To date, there have been no confirmed cases</p>	<p>SHE: At the time of this assessment, there is a COVID-19 pandemic. On 31 July 2020, the ONS reported that the number of</p>	<p>-The co-ordinated pan London trial with higher safety standards</p> <p>-Operator maintenance programmes for rental e-scooters</p>

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			-Any other person coming into contact with trial rental e-scooters		of people having caught any diseases or suffered adverse reactions. Therefore, the likelihood is assessed as Very Low	COVID-19 infections appeared to be rising. ¹³ . However, at the same time, the number of deaths with COVID-19 has fallen well below peak levels. Nevertheless, given the pandemic, the impact is assessed as Medium .	-Existing Covid-19 marketing and awareness raising messages -Education, training and marketing programmes delivered by operators, TfL, boroughs etc focusing on safe, legal and considerate use -Monitoring and

¹³ <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19roundupdeathsandhealth/2020-06-26#infectionstudy>

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							evaluation programme including data collection -Contractors employed by the Operator clean the touch points daily; and provide a reactive clean when required (confirmed COVID-19 cases). -Cleaning contractors use antibacterial agents which are equal to, or greater in strength than those used on other TfL assets. -COSHH
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							assessments of cleaning products -Ensuring cleaning products will not have adverse environmental impact -PHE instructions on hand hygiene, face coverings, social distancing/emerging controls

Risk Assessment – 12-month e-scooter trial in London



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