



LONDON FIRE BRIGADE

Decision title

Single Environment Plan

Recommendation by

Assistant Director, Technical and Commercial

Decision Number

LFC-0217-D

Protective marking: **NOT PROTECTIVELY MARKED**

Publication status: Published in full

Summary

Report LFC-0217 sets out the proposed Single Environment Plan for the London Fire Commissioner (LFC), providing one plan to cover all relevant areas of environmental risk, impact and targets. It also addresses the policy areas that the Greater London Authority (GLA) Group are expected to deliver on as set out in the Mayor's London Environment Strategy. It replaces all previous environmental plans, including the Travel Plan, Biodiversity Action Plan and Waste Management Plan.

Decision

The London Fire Commissioner approves the Single Environment Plan as set out in Appendix 1 of report LFC-0217.

Dany Cotton QFSM
London Fire Commissioner

Date 19-08-19

Access to Information – Contact Officer

Name	Steven Adams
Telephone	020 8555 1200
Email	governance@london-fire.gov.uk



LONDON FIRE BRIGADE

Report title

Single Environment Plan

Report to

Commissioner's Board

Date

31 July 2019

Report by

Assistant Director, Technical and Commercial

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This report sets out the proposed Single Environment Plan for the London Fire Commissioner (LFC), providing one plan to cover all relevant areas of environmental risk, impact and targets. It also addresses the policy areas that the Greater London Authority (GLA) Group are expected to deliver on as set out in the Mayor's London Environment Strategy. It replaces all previous environmental plans, including the Travel Plan, Biodiversity Action Plan and Waste Management Plan.

Recommended decision(s)

The London Fire Commissioner approves the Single Environment Plan as set out in Appendix 1.

Background

1. The London Safety Plan (LSP), in addition to its 3 aims: prevention and protection; response and resilience; and people and resources, has underlying principles, one of which is sustainability. This details the need to balance the environmental, social and economic impacts of the activities the Brigade undertakes in providing its services, and looking for opportunities to provide positive benefit to the community of London.¹
2. The LFC's Sustainable Development Strategy (2016-20) (FEP2580) sets out how we intend to deliver on that principle and lead the way on sustainable development within the UK fire and rescue service. The Sustainable Development Strategy included an action to develop a single environment action plan in support of the Mayor's London Environment Strategy (LES) addressing our risks and impacts related to climate change mitigation and adaptation, travel, air quality, waste minimisation (including the circular economy), biodiversity, and water.
3. The LES published in May 2018, covers the period up to 2050, and sets the aim for London to be a greener, cleaner city that is ready for the future. One of the core principles of the LES is that the Mayor and the GLA Group, including LFC, should lead by example in their operations by tackling environmental challenges and procuring responsibly – delivering, driving and enabling best practice.
4. The environmental challenges for London, highlighted in the LES include:

¹ London Safety Plan 2017

- a) poor air quality
- b) availability and quality of green space
- c) the biodiversity of green spaces
- d) continuing to reduce greenhouse gas emissions
- e) the reduction in energy use
- f) reduce, reuse and recycle more waste
- g) increased flood risk
- h) increased heat risk
- i) risk of water scarcity
- j) poor river water quality
- k) increased ambient noise levels

5. The LES brings together approaches to address every aspect of London's environmental challenges as listed above, and sets aims and policies under the six themes of:
- a) air quality
 - b) green infrastructure
 - c) climate change mitigation and energy
 - d) waste
 - e) adapting to climate change
 - f) ambient noise
6. Specific aims within the LES that the LFC is expected to show leadership in delivering are set out in Appendix 1, Table 1. This covers 5 of the 6 LES themes; air quality, green infrastructure, climate change mitigation and energy, waste and adapting to climate change. Ambient noise is not included in the proposed plan as there are no specific policy areas identified for the LFC to address to reduce the adverse impacts of ambient noise. Relevant environmental actions included in the LSP and those still to be completed from the Sustainable Development Strategy have also been carried over into the new plan.
7. Additional actions have been proposed in the single environment plan where it is considered appropriate in order for the LFC to address the relevant challenges and achieve targets set. These cover the areas of sustainable business travel and commuting; protecting the environment from harm; and supporting the broader community through our prevention and protection work.

Current Environmental Plans and policies

8. The diagram below shows how the proposed Single Environment Plan aligns to existing LFC plans and the more specific strategies and policies relating to the environment, and the reporting process.

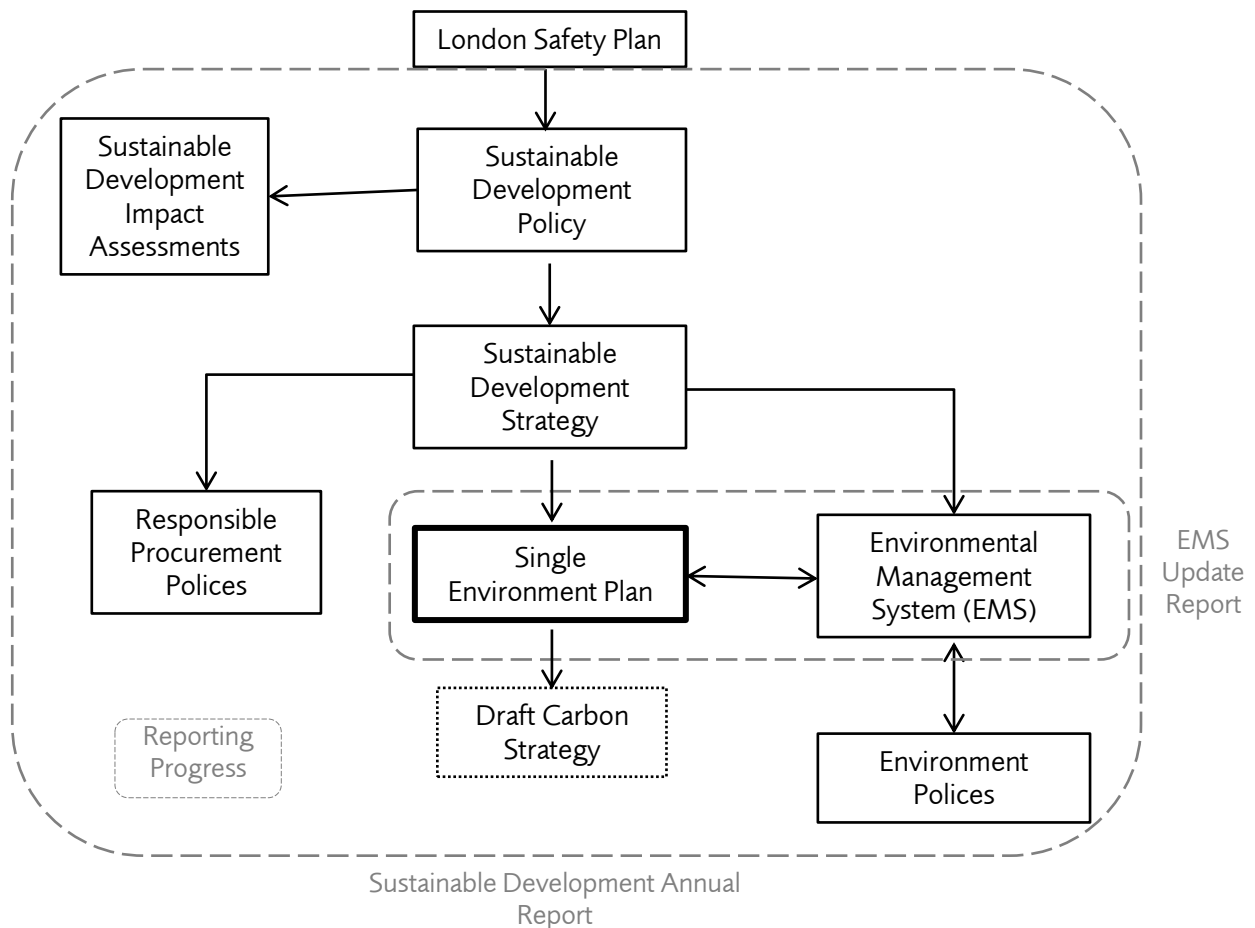


Diagram 1: Alignment of corporate plans to the Single Environment plan and reporting process

9. The LFC's Sustainable Development Policy PN897 sets out our high level commitments to continuously improve how we deliver our service in relation to environmental, social and economic outcomes. It defines the key areas we intend to take action, our governance approach and how this policy relates to other existing policies.
10. The Sustainable Development Strategy sets out the specific targets and actions to be delivered over a fixed time period to implement the sustainable development policy. The strategy sets out a number of environment related objectives up to 2020:
 - a) Reduce our CO₂ emissions by 45% from 1990 levels by 2020 (now superseded by 60% by 2025)
 - b) Ensure that we have the capacity to respond to the challenges posed by climate change
 - c) Protect the environment from harm through emergency response and how we deliver our service
 - d) Support our staff to ensure that Sustainability runs through all our activities
11. The proposed action plan sets out aims that reflect the LES and the LFC's plans, ensuring that the scope is appropriate to the LFC's areas of responsibility. Actions included represent those taken from existing approved plans that are relevant as noted above. The draft single environment plan runs until 2025 as does the draft Carbon Strategy, whereas the Ultra Low Emission Fleet Plan goes to 2030.

12. Environmental risks, impacts and performance have to date been managed through a range of measures, policies and plans, including a certified Environmental Management System (EMS), that provides a systematic approach to environmental management and continual improvement.
13. The Single Environment Plan will form the targets and objectives of the EMS as required by ISO 14,001 Standard (2015). The Environment Policy provides the framework for setting environmental objectives and actions, incorporating more detailed policy statements than that included in the higher level sustainable development policy.

Environmental Plans the Single Environment Action Plan will Replace

14. The LFC's Travel Plan 2013 - 2018 (FEP 1243) aimed to minimise environmental impacts resulting from LFC's travel and transport. 16 of 22 travel plan measures have been completed, and the remaining outstanding measures are in progress.
15. Staff travel surveys have been completed biannually since 2011, to inform proposals and analyse performance against targets and future actions. It is considered that the changes observed and the quality of data collected from one survey to the next, does not warrant a biannual survey, given the significant workload required to promote and analyse the data. The next survey was due to take place in 2019 to identify the different constraints in promoting sustainable business travel, and identifying trends. It is proposed that under the new plan, the travel survey questions are revised to develop a shorter survey to inform progress against target, with a more detailed survey undertaken as required in preparation for the development of a new plan.
16. The Biodiversity Action Plan 2015 - 2018 (CMB 044/15) aimed to minimise any negative impacts upon biodiversity resulting from the LFC's activities, relevant in regard to the way we manage our estate and the way we respond to operational incidents. All actions have been completed.
17. The Waste Management Plan 2011-2016 (CMB 189/11) aimed to send zero waste to landfill, reduce the total waste produced by minimising our consumption of resources, increasing reuse and recycling, and by using refurbished, recycled and recyclable equipment, products and materials. All actions have been completed. The waste management plan actions were completed by 2016 and the plan was not replaced due to LES being in development.

Budget

18. Proposals contained in this report are within existing budget requirements, with the exception of those set out in paragraphs 18-20 and the 'to investigate' proposals that require further work. These may require additional funding, which will be identified when proposals are brought forward, with opportunities for external funding explored and identified. This includes actions such as:
 - a trial to enhance green space at a station
 - investigate accessing an e-bike trial
19. The proposals set out at action 8 under the Climate Change Mitigation and Energy section of appendix 1 are a selection of proposals included in the draft Carbon Strategy, which is the subject of a separate report to be presented to Corporate Services Directorate Board (CSDB) in August. The proposals included in appendix 1 under action 8 will be revised in line with the final approved Carbon Strategy.
20. The LFC is a member of the London Energy Project, which is currently tendering a new energy supply framework on behalf of members providing renewable energy supply and the opportunity

to take forward Power Purchase Agreements, which support the policies set out in the LES, and the proposal set out in this plan. The outcome of the tender and any resulting budget implications will be addressed in a future report in August 2019.

21. The proposal detailed in appendix 1, action 12 to reduce single use plastic drink bottles by working with the GLA to provide public drinking water fountains, is subject to external funding. An application was submitted to the GLA for external funding to install one water fountain at Islington Fire Station. They have advised it has passed the first stage of review and is expected to go ahead.

Reporting Progress

22. Performance against the targets and highlights of progress on actions set out in this plan will be included in the more public facing Sustainable Development Annual Report. The proposed actions set out in this plan also form the objectives and targets of the EMS, as per the requirements of the ISO 14001 Standard. The EMS management review as required by the Standard, will provide a more detailed progress update on actions, and address the other management review requirements of the Standard. The approach is demonstrated in diagram 1.
23. It is intended that the Single Environment Action Plan in appendix 1 will be published on the LFB external website, under: Sustainability- Our Ambitions.

Finance comments

1. This report recommends that the LFC approves a Single Environment Plan and notes that most of the proposals will be contained within existing budget requirements. The report goes on to note that there are some proposals that may require additional funding, including a trial to enhance green space at a station and to investigate accessing an e-bike trial. The potential cost of these and suitable funding will need to be identified before these items are actioned.
2. The report notes that the financial implications of the proposals under 'action 8', at paragraph 18, were considered by CSDB in the draft Carbon Strategy on 26 June, and are set out in that report, which will be returned to CSDB for further consideration and reported to Commissioner's Board in due course.
3. The report also notes that the LFC is a member of the London Energy Project which is currently tendering a new energy supply framework, the financial outcomes of which will be included in a future report and considered as part of the budget process for future years.
4. Finally the report explains that an application was submitted to the GLA for external funding to install a water fountain at a Fire Station. If successful this proposal will have no impact on the financial position of the LFC.

Workforce comments

5. Those actions included in the plan that have direct staff side implications such as car schemes have already been the subject of staff side consultations that have concluded, there are no other direct implications identified that require consultation.

Legal comments

6. Under section 9 of the Policing and Crime Act 2017, the London Fire Commissioner (the "Commissioner") is established as a corporation sole with the Mayor appointing the occupant of that office. Under section 327D of the GLA Act 1999, as amended by the Policing and Crime Act

2017, the Mayor may issue to the Commissioner specific or general directions as to the manner in which the holder of that office is to exercise his or her functions.

7. Under section 351A of the GLA Act 1999 the Mayor is required to prepare and publish a London Environment Strategy. One of the core principles of the London Environment Strategy is that the Mayor and the GLA Group, including LFC, should lead by example in tackling environmental challenges.
8. The proposed Single Environment Plan is consistent with Section 5A Fire and Rescue Services Act 2004 (FRSA 2004), under which the London Fire Commissioner, being a 'relevant authority,' may do 'anything it considers appropriate for the purposes of the carrying- out of any of it's functions...'

Sustainability implications

9. This Plan sets out environmental actions, in accordance with the objectives and set out in the London Environment Strategy.

Equalities implications

10. There are no direct implications associated with this report

List of Appendices

Appendix	Title	Protective Marking
1.	Single Environment Plan	

Consultation

[Note: this section is for internal reference only – consultation information for public consideration should be included within the body of the report]

Name/role	Method consulted
Corporate Services Directorate Board	CSDB meeting
Rhys Powell- Deputy Assistant Commissioner Technical & Service Support	Circulation of report by email
Robert Whitmore- Engineering (Fleet and Equipment) Manager	Circulation of report by email
Lloyd Bentley- Principal Property Operations Manager	Circulation of report by email

Appendix 1: Single Environment Plan

1. Introduction

1.1. In aiming to achieve sound environmental performance, LFC has recognised the need for a systematic approach to environmental management. The diagram below shows how this plan aligns to the London Safety Plan (LSP) and other strategies and policies relating to the environment

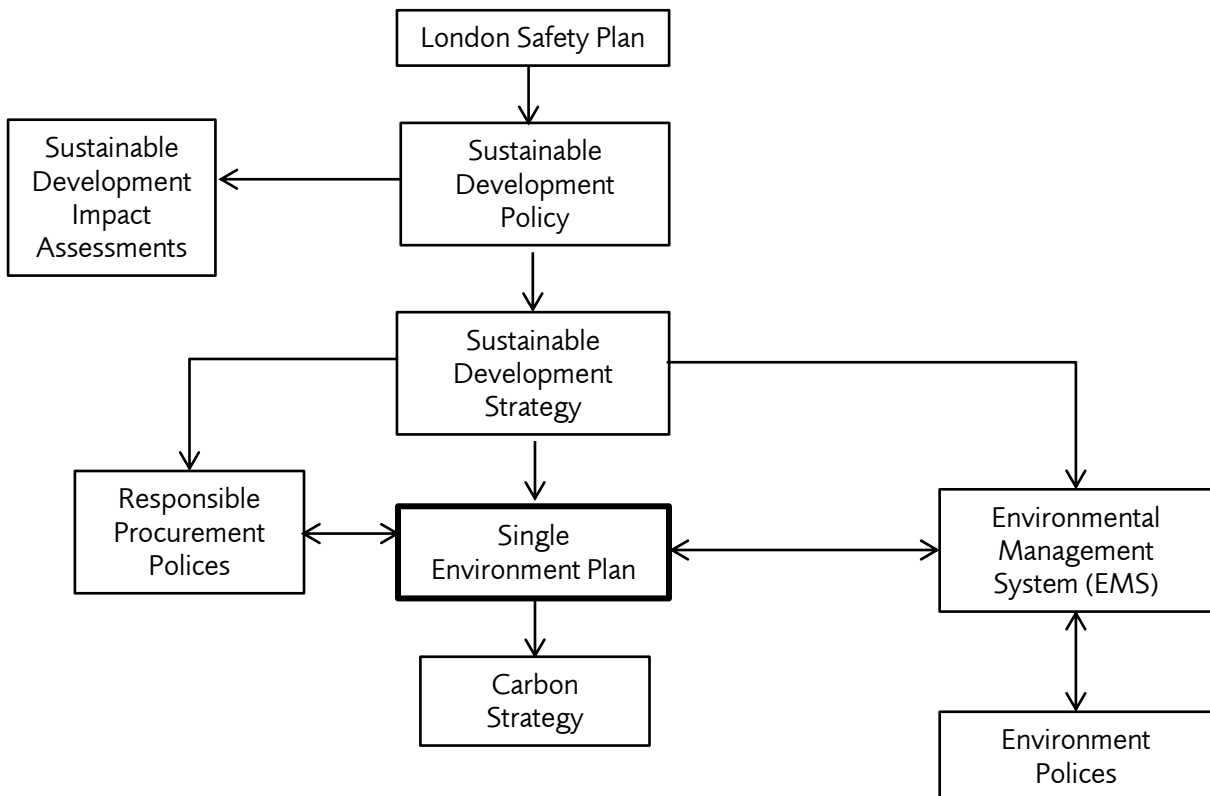


Diagram 2: Alignment of corporate plans to the Single Environment plan

- 1.2. Previously LFC had several plans covering staff travel and air quality, biodiversity and waste and recycling, these areas are still relevant to the LFC and actions covering these areas will be included into this single environment plan. Producing a single environment plan in line with the LES provides an integrated approach to addressing environmental challenges facing the LFC.
- 1.3. The Mayor's London Environment Strategy (LES) sets the aims for London to be a greener, cleaner city which is ready for the future. One of the core principles of the LES is that the Mayor and the GLA group, including LFC, should lead by example in its own operations by tackling environmental challenges and procuring responsibly – delivering, driving and enabling best practice.
- 1.4. The LES incorporates the following themes; Air quality; Green infrastructure; Climate change mitigation and energy; Waste; Adapting to climate change and Ambient noise. We have reviewed the LES themes, and taken across the aims which are relevant for the LFC, as shown in table 1 below.

Table 1- Alignment to the LES

LES themes	LFC actions set out in LES	LFC additional actions to the LES
Air quality	✓	✓
Green infrastructure	✓	✓
Climate change mitigation and energy	✓	✓
Waste	✓	
Adapting to climate change	✓	
Ambient noise		

2. Air Quality

Key Issues for London

- 2.1. The quality of London's air is poor and damaging pollutants harm human health and quality of life. Annually over 9,000 Londoners' lives end sooner than they should because of air pollution².
- 2.2. The LES has identified that air quality is the most pressing environmental threat to the future health of London, and has accordingly set the aim for London to have the best air quality of any major world city by 2050.

Key Issues for LFC

- 2.3. London's poor air quality will have a negative health impact on everyone, with LFC staff working within the capital on a daily basis. We know that vulnerable people are most affected, and are also at most risk from fires. The LFC is also a contributor to poor air quality with a fleet of some 460 vehicles, of which around 12% are zero emission capable. Our 103 fire stations and other corporate buildings also contribute to the emissions through heating and hot water provision.
- 2.4. Our challenges include vehicle mileage that is largely dictated by incident numbers that we can only influence through prevention and protection measures; the operational need for an estate of multiple small scale buildings spread across London; and staff moving further from London due to housing/rental and quality of life³, reducing opportunities for commutes by walking and cycling.
- 2.5. Key findings from the most recent 2017 travel survey were:
- staff commuting distances are continuing to increase with a third travelling more than 30 miles each way, particularly operational staff;
 - staff walking and cycling to work has dropped and whilst the predominant incentives to change are outside of the LFCs control, or are due to operational constraints there are still some potential easy to address measures;

² <https://www.london.gov.uk/what-we-do/environment/london-environment-strategy>

³ Travel Plan and Staff Travel Survey Update 2017

- measures that would encourage staff to walk or cycle are beyond our scope of responsibility, for example, living closer to their work location and safer cycle routes

Aims

- To achieve compliance with the Ultra Low Emission Zone (ULEZ)
- Working towards targets set out in the LES:
 - all cars in GLA group support fleets being zero emission capable by 2025;
 - all new cars and vans (less than 3.5 tonnes) in GLA group fleets, including response vehicles, being zero emission capable from 2025;
 - all heavy vehicles (greater than 3.5 tonnes) in GLA group fleets being zero emissions capable or fossil fuel-free from 2030;
 - zero emission GLA fleets by 2050.
- To increase sustainable travel choices amongst employees for commuting and business travel.

Actions

1. To reduce our fleet emissions and deliver on our fleet aims we will take forward our Ultra Low Emission Fleet Plan including:
 - Working with partners and industry to develop a low emission fire pumping appliance. Develop plans for our future infrastructure requirements to support our future fleet needs
 - Review the potential for the Fleet Operator Recognition Scheme (FORS) to support the LFCs ambitions to achieve FORS Gold.
 - Implement changes to include 'eco-driving' to reduce emissions within the driver training programme
2. To increase sustainable travel choices by staff we will:
 - Reduce the need for business travel by improving access to teleconferencing and video conferencing facilities and access to online training .
 - All grey fleet will be ULEZ compliant.
 - From January 2025, all new cars on the lease and essential car user schemes must be zero emissions capable, with no diesel vehicles.
3. To encourage our staff to choose more sustainable forms of travel we will:
 - Undertake periodic staff travel surveys to inform progress against targets.
 - Continue to support Ride to Work.
 - Investigate accessing an e-bike trial to encourage take up of Ride to Work in light of the increasing staff commuting distances.

- Conduct a workplace cycle audit to identify areas of improvement for staff business travel.
4. To encourage our supply chain to reduce transport related emissions:
 - By supporting the take up of the Mayors Direct Vision Standard and plans to reduce Work Related Road Risk with key suppliers.
 5. Zero air travel emissions through off-setting.

Performance Indicators

Measure	Target
Percentage of business trips by non-operational staff will be made on foot, by cycle or using public transport	80% by 2041
The percentage of normal commuting trips carried out by staff (excluding operational staff on the flexi duty system) will be made on foot, by cycle or using public transport by 2041	Monitored KPI
Compliance with ULEZ	Monitored KPI
Zero emission capable fleet	Monitored KPI

3. Green infrastructure

Key Issues for London

- 3.1. London's green infrastructure is the network of parks, green spaces, gardens, woodlands, rivers and wetlands and in addition features such as street trees and green roofs.
- 3.2. Green spaces benefit us in a number of ways, including; promoting healthier living; lessening the impacts of climate change; improving air quality and water quality; encouraging walking and cycling; storing carbon and improving biodiversity and ecological resilience.
- 3.3. There has been a gradual loss of green space across London in recent years as development encroaches on open space and gardens.
- 3.4. The LES aims for London to be the world's first National Park City where more than half of its area is green and for tree canopy cover to increase by ten per cent by 2050.

Key Issues for LFC

- 3.5. Sites of Special Scientific Interest (SSSI's) are the country's very best wildlife and geological sites, currently there are 36 sites designated within London. Wildlife and geological features are under pressure from development, pollution, climate change and unsustainable land management. Being designated as a SSSI gives legal protection to the best sites for wildlife and geology in England, protecting and managing SSSI's is a shared responsibility, and an investment for the benefit of future generations.
- 3.6. Access to good quality green space has an impact on the health and wellbeing of LFC staff. Trees, shrubs and vegetation can, in some cases, improve outside air quality and reduce air

pollution from traffic as the right green infrastructure in the right place can reliably reduce exposure to air pollution. A vegetation barrier can as much as halve the levels of pollutants just behind the barrier.⁴

3.7. It is recognised that many of our stations and offices have outdoor space, with ecological, aesthetic, and amenity value to both our staff and the community we serve. This ranges from simple grass verges to the front of stations, to gardens within the station grounds. The number of gardens at stations is increasing, being used to grow food, increasing biodiversity and a general place to de-stress.

Aims

- Protect the environment from harm through emergency response and delivery of our service including incidents at designated (protected) sites
- To manage our estate in a way that delivers net gain for biodiversity through implementing sustainable drainage systems, planting trees and gardens, and installing green roofs

Actions

6. To protect the environment from harm we will:
 - Introduce the use of the National Environment Risk Assessment (NERA) to improve consistency of environmental risk assessments.
 - Work with the Environment Agency to confirm our risk analysis of SSSI's in London in order to roll out its use with the Hazardous Materials and Environmental Protection Officers (HMEPO's)
7. To deliver net gain for biodiversity on our estate we will:
 - Ensure Standard Station Design Brief (SSDB) supports blend of delivering renewable energy and green infrastructure
 - Encourage gardens at Stations by continuing to support Brigade in Bloom
 - Identify opportunities for tree planting at Stations with poor green infrastructure in support of the National Park City
 - Undertake a trial to enhance green space at a station with poor ecological value to improve local amenity and air quality

Performance Indicators

There are no proposed performance indicators

⁴ <https://www.london.gov.uk/WHAT-WE-DO/environment/environment-publications/using-green-infrastructure-protect-people-air-pollution>

4. Climate change mitigation and energy

Key Issues for London

- 4.1. The UN Paris Climate Agreement commits to keeping global warming below 2°C. In addition, the 2008 Climate Change Act requires at least an 80 per cent reduction in CO₂ emissions (compared to 1990 levels) for the whole of the UK.⁵
- 4.2. Although London has reduced its emissions since they peaked in 2000, it is not yet on track to reduce its emissions quickly enough to avoid the worst impacts of climate change. London remains over-reliant on the fossil fuels that are a major contributor to climate change.
- 4.3. The LES aims for London to be a zero carbon city by 2050, with energy efficient buildings, clean transport and clean energy.

Key Issues for LFC

- 4.4. It is clear that climate change will impact considerably on the provision of an emergency response service in the number and type of incidents that we attend and planning our resourcing accordingly.
- 4.5. LFC is on the frontline of climate change impacts including flooding and heatwaves which could increase the demands placed on our resources and our ability to respond. In London there is an increased risk of flooding and related rescues; and hotter drier summers are expected, increasing the risk of grass fires.

Aims

- Reduce our CO₂ emissions by 60% from 1990 levels by 2025

Actions

8. To reduce our CO₂ emissions by 60% from 1990 levels by 2025 we will deliver our carbon strategy, which includes key measures such as:
 - Achieve an average Display Energy Certificate rating of a C across all sites
 - photovoltaic energy installations at 28 Stations
 - LED lighting upgrades at 30 sites
 - boiler replacements at 15 stations
 - trialling air source heat pumps
 - a feasibility study into a zero carbon fire station
 - source renewable energy supply from the grid
 - investigate the use of Power Purchase Agreements to encourage new renewable energy generation
9. Encourage staff to reduce emissions through behaviour change:

⁵ <https://www.london.gov.uk/what-we-do/environment/climate-change/londons-climate-change-expertise>

- Work with other brigades to encourage energy saving
 - Working with green champions to identify opportunities for improvements through energy audits
10. Support the community to use energy more appropriately through our prevention and protection work:
- Support community fuel poverty/healthy homes networks with referrals and service promotion where appropriate.

Performance Indicators

Measure	Target
Reduction in GLA group CO2 emissions	60% by 2025

5. Waste

Key Issues for London

- 5.1. London produces too much waste, with around 7million tonnes coming from London's homes, public buildings and businesses each year, too much of which goes to landfill and incineration. Of this, only 41 per cent is currently recycled and performance has stagnated. Landfill capacity is set to run out by 2026.
- 5.2. Use of single use packaging, including coffee cups and plastic bottles, is growing and putting increasing pressure on local waste management services. Plastic packaging not only litters London streets, but pollutes the environment on a global scale.
- 5.3. The LES aims to ensure London will be a zero waste city. By 2026 no biodegradable or recyclable waste will be sent to landfill, and by 2030 65 per cent of London's municipal waste will be recycled.

Key Issues for LFC

- 5.4. LFC has a duty to ensure that all waste streams are disposed of responsibly, using the appropriate schemes in place. Due to the diverse nature of the LFCs activities, a variety of waste is produced, from general waste and recyclable materials, to special and hazardous waste.
- 5.5. The LFC is committed to maintaining a 'zero waste to landfill' disposal rate and applies a 'waste hierarchical approach', to reduce, reuse, recycle and recover waste products in preference to the disposal of waste to landfill.
- 5.6. Waste disposal represents a financial and environmental cost to LFC and waste reduction, reuse and recycling can help reduce this cost.

Aims

- Cutting waste and achieving recycling rates of 80% by 2020
- Reducing single use packaging

Actions

11. To cut waste and achieve a rate of 80% recycling we will:

- Supporting our staff to undertake waste audits at Stations to identify local improvement actions.
- Removal of all individual bins at HQ & meeting rooms
- To support waste reduction and initiatives through our green champions behaviour change programme.
- Conduct a circular economy pilot project for our workwear.

12. To reduce single use packaging we will take forward our single use plastic action plan including:

- Eradicate unavoidable use of single use plastics within our catering contract.
- Cutting all unavoidable use of micro plastics in cleaning products used through our cleaning contract and products provided on POMS.
- Cutting all unavoidable use of single use plastic for internal meetings and events at HQ.
- Reduce single use plastic drink bottles by working with the GLA to provide public drinking water fountains.

Performance Indicators

Measure	Target
Increased recycling rates percentage	80% by 2020
Maintain zero Waste to landfill	Maintain 0

6. Adapting to climate change

Key Issues for London

6.1. Climate change is likely to cause seasonal rainfall changes, with summers generally becoming drier, and winters wetter. The rainfall that does occur is likely to be in more intense storms. This will increase the risk of flooding, especially surface water flooding. London is likely to be at higher risk of drought, as there will be less water to be captured in the summer and the