Lee Valley Regional Park Authority	Agenda Item No:
LEE VALLEY REGIONAL PARK AUTHORITY	5
SCRUTINY COMMITTEE	Report No:
22 JUNE 2023 AT 13:00	**S/64/23**

SCRUTINY SCOPING REVIEW - ENVIRONMENTAL STRATEGY, ACTION PLAN AND BASELINE INFORMATION

Presented by the Head of Projects and Funding Delivery

SUMMARY

The Authority adopted a new Environment Policy on 27 April 2023 (Paper A/4332/23). The recommendation from the Authority meeting in April 2023 was:

- that Scrutiny Committee continued to review and guide the development of the draft Environmental Strategy and Action Plan.

Officers have been working on the second phase of this workstream and have developed a draft Strategy and Action Plan which has been informed by the now adopted policy and seeks to move to the next stage of identifying next steps. This will drive the Authority on the next stage of the journey to becoming as close to carbon neutral as possible and supporting government and international targets for carbon emission reductions, as well as biodiversity improvements and overall sustainability improvements linked to the principle of the circular economy as laid out in the Authority's Policy.

Officers are setting up benchmarking meetings with colleagues from Hertfordshire organisations following an introduction from a Member of Scrutiny Committee. These include Hertfordshire Climate Change and Sustainability Partnership, Sustainable Hertfordshire and the Biodiversity Net Gain and Local Nature Recovery Strategy team at Herts County Council to understand if there are any lessons learnt from their work that can be adopted on our journey.

This paper introduces a draft Strategy and Action Plan (**Appendix A** to this report) as a first real opportunity to seek guidance from Scrutiny Committee on the next steps of the journey.

A spend to save group have been progressing some of the quick wins and delivering projects to reduce our energy usage. A list of projects the group is working through is included at **Appendix B** to this report.

Authority Officers have also been collating information collected to seek to develop a baseline of environmental performance as laid out in the draft strategy and this paper will present the current position and explain why this will not be fully available until July 2023.

Members are asked discuss and propose the next steps for officers and are welcome to make comments on the Strategy and Action Plan to the Head of Projects & Funding Delivery for discussion at the September Scrutiny Committee meeting.

RECOMMENDATIONS

Members note:	(1)	the report; and
Members approve	(2)	the proposed next steps for the draft Strategy and Action Plan and make comments if required for discussion at a later meeting.

BACKGROUND

1 In April 2023 the Authority adopted a new Environment Policy following work through the Scrutiny Committee to develop the Policy). The Policy works within five areas of operation which are:

1 - New Construction and Projects
2 - Open Spaces Management
3 - Facilities Management
4 - Events
5 - Corporate

Under each area of operation there are a list of key themes as follows:

- Travel
- Organisational resource use (paper, supplies etc.)
- Machinery
- Water usage and quality
- Energy usage
- Waste management
- Property and Land use (including contaminated land)
- Biodiversity and nature improvement
- Learning
- Sustainable Design + Build
- Procurement – (Corporate)
- Communications – (Corporate)

2 Underneath the Policy a draft Strategy and Action Plan has been developed **(Appendix A** to this report). The Strategy and Action Plan will be the detailed working document for the Authority to develop and deliver specific actions which will meet the objectives of the Policy.

3 During 2022 and 2023 officers have been attempting to collect baseline data on performance aligned to the proposed key performance indicators as set out on page 17 of the Strategy and Action Plan. This data is now being analysed and a report will be available in July. Data feeding into this report, in particular from our electricity and gas usage, takes a few months past the end of the financial year to be fully collected as bills and final usage are not provided by our suppliers at the end of the financial year.

4 Officers have drafted and been working on the Strategy and Action Plan and

this document will now be the focus of the next stage of work to seek to detail and agree an Action Plan with timescales to deliver the objectives set out in our Policy.

BENCHMARKING

5 The Strategy and Action Plan has been commented on and fed into by a range of officers from the Authority to ensure specific areas such as procurement, events and Asset Protection & Maintenance Department (APMD) have been able to comment and the proposals are feasible.

6 We have also received helpful comments from the Association of Public Service Excellence (APSE) who we are working with on a range of actions via their Energy team.

7 We have also commissioned APSE to support in calculating our carbon footprint baseline data from the monitoring in 2022/23 and a report on this will be delivered in July.

ENVIRONMENTAL CAPACITY BUILDING AND CURRENT WORK

8 A spend to save group have been looking at and implementing some quick wins to attempt to reduce in particular utilities consumption – this has included things such as fitting LED lighting or trialling electric vehicles. Many of these actions are listed in the Strategy and Action Plan so some are being delivered at various venues **(Appendix B** to this report). Officers are looking at the option of a dedicated resource which would support the APMD team in assessing required actions at various venues and undertaking work to understand the costs, payback time and specific actions to achieve operational net zero for each venue.

9 The Property team has commissioned a consultant to look at options across the estate for a range of energy generating development opportunities/initiatives that may also result in income generation. Further analysis on this workstream will be reported at future Scrutiny Committees. Officers have attended conferences and are looking at regular information from APSE to keep up to date with current information on the subject of energy and national environmental performance. Senior management (Heads of Service and Senior Management Team) training on carbon literacy will be delivered in June.

FUTURE WORK WITH THE STRATEGY AND ACTION PLAN

10 The draft Environmental Strategy and Action Plan (**Appendix A** to this report) is now the focus of further Scrutiny review to develop and refine. Officers propose to spend the next three months reviewing internally, along with consideration of any comments from Members. Officers also have a range of comments to feed in from the original "Have your Say" exercise where stakeholders and members of the public were able to comment and these will also be reviewed as part of this workstream.

11 Officers have also set up a benchmarking meeting with Hertfordshire organisations via the county and local authorities including Hertfordshire Climate Change and Sustainability Partnership, Sustainable Hertfordshire and the Biodiversity Net Gain and Local Nature Recovery Strategy team at Herts County Council to seek to understand any lessons learnt from their activities as they are

a little bit ahead of the Authority in terms of their journey towards net zero.

BASELINE INFORMATION

12 Officers propose that the Strategy and Action Plan is monitored through a review of performance indicators, which will be set out in the monitoring and review section of the Strategy. The Action Plan will set out actions over a period of time (timescales yet to be agreed). We propose the Authority's performance management framework will use the agreed range of performance indicators developed to support this Strategy and these will be brought to Scrutiny Committee on an annual basis for review.

13 A baseline of information has been collected to understand performance over the financial year 2022/23 and this will be presented to Scrutiny Committee in late 2023. The performance and monitoring team are working closely with officers to report on these measures and refining to ensure they are meaningful and relevant.

AIMING FOR NET ZERO COST IMPLICATIONS

14 Officers are aware that to meet net zero there will be an investment requirement. This will require an understanding of the costs and payback of various actions to reduce our carbon footprint per venue and across our open spaces. As noted in paragraph 8 a role description is being developed for a resource to look specifically at this issue and pull together specific reports venue by venue on the required actions, cost implications and payback times of proposals from the Action Plan. Officers will update Scrutiny Committee on this activity at future meetings.

ENVIRONMENTAL IMPLICATIONS

15 Any environmental implications are set out in the body of this report.

FINANCIAL IMPLICATIONS

16 There are currently no financial implications arising directly from the recommendations in this report.

HUMAN RESOURCE IMPLICATIONS

17 There are no human resource implications arising directly from the recommendations in this report.

LEGAL IMPLICATIONS

18 There are no legal implications arising directly from the recommendations in this report.

RISK MANAGEMENT IMPLICATIONS

19 There are potentially some risk management implications arising directly from the recommendations in this report which may lead to reputational damage if the Authority is seen to not be progressing the adopted Policy through the next phase of work on the Strategy and Action Plan.

EQUALITY IMPLICATIONS

20 There are no equality implications arising directly from the recommendations in this report.

Author: Paul Roper, 01992 709 845, proper@leevalleypark.org.uk

BACKGROUND REPORTS

None

PREVIOUS COMMITTEE REPORTS

Executive	E/234/11	Environment Strategy	24 November 2011
Authority	A/4137/12	Draft Environment Strategy	26 January 2012
Executive		Contaminated Land Strategy	20 September 2012
Executive		Contaminated Land Strategy	26 March 2015
Authority	A/4208/15	Contaminated Land Strategy	30 April 2015
Scrutiny	S/59/21	Scrutiny Scoping Review – Environmental Policy	18 November 2021
Scrutiny	S/61/22	Scrutiny Scoping Review – Environmental Policy	23 June 2022
Scrutiny	S/62/23	Scrutiny Scoping Review – Environmental Policy	28 February 2023
Executive	E/804/23	Environment Policy	23 March 2023
Authority	A/4332/23	Environment Policy	27 April 2023

APPENDICES ATTACHED

Appendix A	Draft Environment Strategy and Action Plan
Appendix B	Environmental and spend to save actions and projects currently being delivered/developed by the Authority

LIST OF ABBREVIATIONS

APMD	Asset Protection & Maintenance Department
APSE	Association of Public Service Excellence

Responsibilities

The development of a strategy and action plan have been overseen by the Authority's Scrutiny Committee and will be adopted by all staff within the Authority. Overall responsibility for this strategy lies with all Authority staff accountable to the Senior Management Team, with delivery delegated to an Environmental/Energy Group which will be set up as a cross department project group chaired by the Head of Projects and Funding delivery. The Group will oversee the implementation of the strategy and associated action plan, which will include activities to meet aims, enable communications and monitor progress on a regular basis.

Implementation will require ownership across the Authority. Members of the Environmental/Energy Working Group will become Champions who will monitor and encourage compliance with this strategy, and will feed back through the Group to SMT and Members on progress and any barriers to implementation.

This strategy seeks to cover all areas of Authority operations including venues (contracted out and Authority run), open spaces, new construction, events and corporate activities. It will seek to include all leased and management contracted sites, and future contracts will demand compliance with minimum standards. It will also seek to influence suppliers and the types of contractors that we procure. All staff will have some form of part to play and should be encouraged to think about all their actions, if they are necessary and if alternatives are an option or preferable. Every member of staff will be encouraged to become an energy manager and act accordingly to reduce energy usage through training and support from the senior team. Procurement and communications will also play a leading role in delivery of this strategy and we will work to ensure they can deliver the aims we are setting out.

Detail

This procedure covers the following points:

Background

The IPCC 2018 report on climate change found that meeting a 1.5°C target is still achievable, success is dependent on an ambitious international effort and an increase in investment. Exceeding the 1.5°C target would affect weather patterns, cause sea

levels to rise further, create food and water shortages, and affect human security and economic growth. The special report Global Warming of 1.5°C (IPCC, 2018. Summary for Policymakers) shows that 420 million additional people will be exposed to extreme heat and up to 270 million additional people to water scarcity if global temperatures rise by 2°C, compared with a 1.5°C scenario. The world is now clearly in the midst of a climate and ecological emergency and there is now a unanimous consensus from the scientific community on the need for rapid action.

There is clear recognition that this challenge can only be overcome by taking urgent, radical action. This crisis is something that will have an effect on us all, and for some the impact of climate change is already being felt. The UK is committed to playing its full part in meeting the international target to limit the global average temperature rise to well below 2°C above pre-industrial levels by the year 2100, and aiming for 1.5°C, known as the Paris Agreement within the United Nations Framework on Climate Change.

Understanding climate risk, in particular to our own organisation, and what implications it may have to the public and our users is key to developing a robust policy and strategy for the Authority. There are many reports alongside the 2018 IPCC report, which detail short, medium and long term risks. These have informed the development of the Environment Policy. Along with the policy this strategy seeks to ensure that it is resilient and can adapt to climate change, new technologies and flex as new information unfolds as well as having the key aim of contributing to limiting global warming. However, the Authority recognises that most individual organisations cannot provide all of the solutions, as combating climate change needs system-wide change that involves world leaders, governments, communities, businesses, individuals and stakeholders across all sectors of the economy, across the country and the wider world. This Strategy will seek to adapt where it can as other changes to how we live start to take shape. The reputation of the Authority is key and developing a strategy seeking to support the current global issues on climate change will demonstrate that the Authority is seeking to play its part and contribute to the solution.

The Authority recognises it has a responsibility and needs to do what it can to minimise the negative impacts on the environment and support the climate change emergency within the requirements of the Park Act, the need to operate as an effective business and the requirement to reduce the burden on the taxpayer. It also acknowledges the contribution it can make to protecting and enhancing the land and buildings in its custody whilst being sensitive to environmental, economic and social considerations. The Authority has an opportunity to develop an integrated approach to its Environment Policy and Strategy.

Context to the Development of the Authority's Environment Strategy

The Authority is uniquely placed to respond to the climate change challenge. It is guardian and manager of the Regional Park; a 'green lung', providing open spaces and leisure opportunities for people to enjoy. The Park is an important element of the

region's green infrastructure; it contributes to air quality, assists in reducing urban heat island effect, provides open spaces to meet the needs of a growing population, and a diverse range of ecological habitats and species. The Park forms part of the wider Lea Valley hydrological system storing and supplying water, helping to maintain the quality of water and manage flood risk.

The Authority has an overarching Environment Policy which is influenced by a range of documents including the Park Act, Business Plan, PDF and other relevant policies and procedures. The policy sets out five areas of operation under which we will seek to manage our Environmental performance. Under each area of operation we detail further a suite of common themes forming a framework for specific actions. We will develop an action plan under each area of operation which are specific to those areas of organisational operation (Fig 1).

The Authority's adopted Park Development Framework (PDF), 'Vision, Aims and Principles' (2010) identifies environmental sustainability as an important 'principle' to guide the development and management of the Regional Park. The PDF recognises that the Park contributes to the environmental sustainability of the region and that it will play an increasingly important role in helping to mitigate and adapt to the impacts of climate change. The PDF sets out a series of objectives and proposals to guide the Authority and its partners in the sustainable management and development of the Park, recognising the importance of co-ordinated and collaborative working.

The Authority's performance management framework includes key performance indicators (KPI's) on a range of measures. This Strategy will propose measures and KPI's which will monitor the performance under each area of operation and common theme. It is important however that the Authority has an Environment Policy and Strategy to support continued work coming out of the PDF, the business plan and any further proposals it may develop in the future. This Strategy is therefore focused on the work of the Authority, and its approach to the design, delivery and ongoing management of open spaces, venues, new builds, corporate activities and events. As the guardian of the Park the Authority will take a leading role in the sustainable development and management of its estate. This will also help to influence partners and stakeholders and enable expertise, resources and advice on success to be shared.

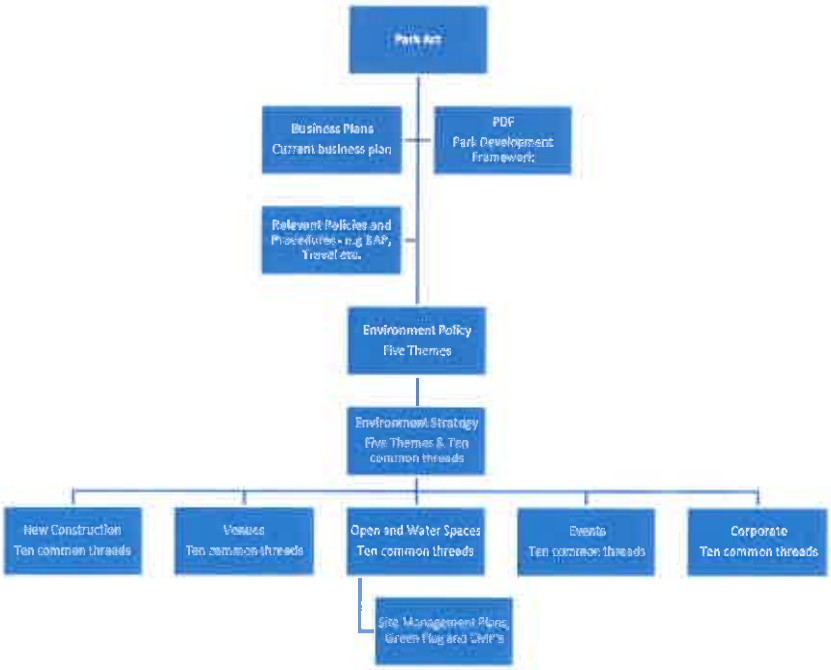

Fig 1 Structure of Environment Policy, Strategies and relevant documents

This Strategy recognises the impact of the rising costs of resources and raw materials and the pressure this places on the Authority to look at new ways of managing its venues and open spaces. However, new practices will only be adopted after a thorough evaluation of their sustainability and/or carbon footprint. This may involve an analysis of the product 'lifecycle' or the cost in terms of environmental sustainability or damage. There are a range of climate impact assessment tools available and the Authority will seek to find an appropriate one to use which will be used to assess projects, new builds and development works to ensure we are doing the best we can in these areas of regeneration. We will investigate things such as the Passivhaus standards on new builds and assess if they are able to be applied going forwards. This strategy is designed to influence suppliers, contractors, staff, visitors and customers in order to ensure they also contribute to a sustainable environment and in particular to a reduction in global warming in any actions they undertake on behalf of or for the Authority.

The Authority's Business Plan will always include some form of development and renewal of facilities and spaces. Any new development will increase consumption of resources such as energy and water above existing baseline levels. It is important that the Authority maintains a programme of action consistent with this strategy to ensure improvement in these areas strive towards a net zero operational management ethos and where possible the lowest carbon footprint of all new builds.

The Authority's mission statement for how it will manage the Environment is set out in our policy and repeated below:

"The Authority will, in the context of its statutory remit, pursue best practice in environmental innovation for the design, delivery and management of its operation across its, open spaces, biodiversity and built facilities. It will support the UK Government and climate emergency agenda and is committed to its achieving a net zero position, working in partnership with various agencies and the Park's many communities."

This strategy will enable us to deliver this mission statement.

Areas of Operation

The strategy will outline aims under each of areas of operation below together with the relevant measures required to achieve or assist in achieving the Vision. These measures will guide the Authority in the way it manages its estate and operations to achieve the vision. An Action Plan included at Appendix A identifies how these aims and measures could be delivered.

The focus is on five key areas of operation and sub divisions as set out in the Authorities Environment Policy and reminded here:

New Construction

- New builds and major projects
- Minor construction works/extensions/refurbs etc

Open and Water Spaces

- Multi use Parklands
- Water bodies
- Nature Reserves or designated and non-designated sites
- Event Spaces
- Gardens
- Public Car Parks

Venues

- The six contracted out venues
- Leased out Venues
- Other buildings and venues

Events

- Lee Valley Park led Events
- Major External Provider Events

- External and Community Events

Corporate

- Procurement
- Travel
- Vehicles and Machinery
- Public Awareness
- Waste and recycling
- Energy suppliers

Strategy Common Themes

The aims and measures have been grouped under common themes most, but not all of which will be relevant to each of the above areas of operation. These may be subject to further refinement or change as technologies develop. Two areas, Procurement and Communications will be considered separately as corporate elements but not common themes. An action plan for each theme will set out how the aims and measures can help the Authority achieve its mission and vision. The common themes will cover:

- Travel
- Organisational Resource use (paper, supplies etc.)
- Machinery
- Water usage and quality
- Energy usage
- Waste management
- Property and Land use (including contaminated land)
- Biodiversity and nature improvement
- Learning
- Sustainable Design
- Procurement – (Corporate)
- Communications – (Corporate)

The Action Plan included at Appendix 1 includes a programme which will change the Authority's approach over time in line with its mission and vision.

For each common theme we will seek to meet the following aims in the specific way relevant under each theme. These will be set out clearly and in more detail in the Action Plan at Appendix 1 where we will propose specific actions under each area of operation and common theme.

Travel

Officers of the Authority need to travel for business and also to get to their place of work. Individual officers may choose to use public transport or purchase electric vehicles which support the global aim to reach carbon neutral and reduce climate

change. Technology is not yet at a point where this is possible for everyone and the Authority is now looking at EV charging points around the park to support the drive to phase out fossil fuel vehicles. Authority vehicles will eventually all require to be electric and this should be investigated to better understand what is required to move from a fleet of fossil fuel vehicles to electric. Our working policy should encourage staff to seek to travel to work as sustainably as possible or work from home where this is an option to reduce travel to and from the office. The Authority has a Corporate Travel Policy which is regularly reviewed and will seek to drive towards a carbon neutral travel position.

With a large number of visitors to the park each year the Authority should seek to ensure that visitors are aware that travelling to the park in a sustainable way is the preferred option. We currently seek to encourage this but further measures such as supplying EV points in our car parks will go a step further in achieving this.

The Authority will:

Aim to make business travel carbon neutral

It will aim to achieve this by:

- Changing its fleet to electric vehicles
- Ensure the travel policy encourages sustainable travel
- Investigate a roll out of EV points for staff and public to use
- Investigate ways to encourage staff to make their travel to and from their place of work carbon neutral
- Investigate ways to understand the travel of contractors, suppliers, consultants and if these activities can be reduced or made carbon neutral
- Encouraging visitors to visit facilities by public transport
- Consider utilising a standardised working from home policy to reduce the need to travel
- Work with our riparian authorities and statutory bodies to improve public transport options and cycle/walking routes for accessing the Park
- Working with contractors to reduce construction traffic

Organisational Resource use (paper, supplies etc.)

The Authority uses many resources and this theme seeks to address some of the resources that might not always be considered in these types of policy. When carrying out our activities we should always consider if we need to actually do something or is there a better or different way that might not use up so much resource. For example printing off documents can sometimes not be avoided but there are many instances when we print things off that we do not need to. Resources can also include various chemicals or consumables that we use in the day to day operations that we undertake. Ensuring we do not over use or use the right quantities is a good practice to adopt and all staff should be aware and think about their actions. As well as the environmental implications this also has a cost implication for the Authority and could potentially save money in various areas.

The Authority will:

- Aim to ensure that it does not unnecessarily use organisational resource in a wasteful way.

It will aim to achieve this by:

- Educating staff on resource use.
- Seeking to not over order resources.
- Recycling or reusing any resources not required any further.
- Review paperless administration, making greater use of electronic documents

Machinery

The Authority uses a large range of different types of machinery from ranger brush cutters and chain saws, farm machinery, generators, printers etc. In recent times many of these pieces of machinery have been replaced with electric versions or energy efficient versions. This should continue to be investigated and all machinery the Authority operates should eventually move to either an electric version or a low energy rating piece of equipment ensuring the equipment is suitable for the work required. Staff should be made aware of the environmental implications of sourcing particular types of machinery and should always seek to find the most environmentally friendly option.

The Authority will:

- Aim to ensure that as it replaces all machinery it will move to electric and low energy machinery where possible.

It will aim to achieve this by:

- Educating staff in machinery use and replacement.
- Seeking to replace all machinery with electric or low energy rating versions.

Water usage

Water represents a critical and increasingly threatened resource. The regions covered by the Regional Park are regularly experiencing reductions in rainfall. Demand for water has increased in recent years and further new housing growth proposed for sites around the Park will put more pressure on that demand.

The Authority's annual water usage is high and measures should be put in place to investigate areas where this can be reduced as well as stabling a baseline of use to set targets to reduce usage where possible. Many new technologies are now available and these should be implemented where ever possible.

Water quality remains an issue. There are concerns over the quality of water throughout the park given increasing amounts of nitrates (from leachate) from surrounding agricultural areas. The Authority currently carries out water monitoring and uses barley straw to prevent blue/green algae – a perennial problem across some sites.

The Authority will:

- Improve its management of water use and quality.

It will aim to achieve this by:

- Adopting best practice measures to manage water consumption and will retro fit measures to reduce consumption where economically feasible to do so.
- Examining opportunities to increase flood mitigation measures on its land.
- Using available systems to monitor water quality.

Work in tandem with riparian landowners to agree a protocol in the reduction of nitrate rich fertilisers, leading by example

Energy usage

The continued decline in available energy resources, associated rises in energy costs and the development of energy sources derived from renewables require the Authority to continually review this area.

The Authority has introduced a range of energy measures over the last ten years fitting photo voltaic panels, LED lights, rainwater harvesting and ground source heat pumps. It can however do more and all new builds should look at every option to ensure that the latest energy efficient fittings or solutions are used.

Now more than ever is energy use a key consideration and one of the main drivers in the climate change challenge. However, it is not just about use of energy but supply of energy. Green energy is starting to reduce in price and options for this should continue to be investigated. Much of the supply of energy will rest with other organisations and governments in how quickly they can implement a green and affordable energy source – either solar, wind or other. Much progress has been made but before the Authority is in a position to go fully green energy more competitive options need to be available. We will continue to monitor and investigate options until we meet our aim.

The Authority will continue to review options for the future.

The Authority will:

- Maximise the efficient use of energy and seek to ensure energy supplies are from green energy to meet our target of net zero operational for our buildings.

It will aim to achieve this by:

- Ensure all it's built facilities are to the highest specification possible with respect to the fabric of the building. This may require investigation into improvements to insulation, windows and doors where heat loss can occur from poorly maintained or old parts of the buildings.
- Reducing demand for energy through the introduction of measures such as condensing boilers and low energy electrical fittings.
- Seeking to fit and manage LED lighting in all new builds and retro fit where economically feasible. Including sensors to enable automatic shutdown of lights.
- Assessing opportunities for green energy derived from renewable resources.
- Investigate options for generating solar, wind producing units.
- Investigating ground source heat systems to replace fossil fuel systems

Waste management

Waste management for the Authority has been a long running issue which we have not been able to analyse fully. The baseline data supplied from our waste removal contractors is sometimes ambiguous and needs more clarity. Several attempts to understand what percentage of our waste is recycled overall have failed. Some small wins at various events has proven successful and we have been able to understand the impact of some activities but not the organisation as a whole. It is unlikely that we know as a whole what our waste production is on an annual basis and this is something that should be investigated. Landfills in the UK are closing and there is a move towards incineration of waste. This will by default result in reduced volumes of waste going into landfill but this is not of the Authority's doing. Staff should also be educated to produce less waste and consideration should be given to the best option for cafés that we operate, events we run and our daily operation on the best way to manage our waste.

The Authority will:

- Minimise our waste generation and contribute to sustainable waste management practices.

It will achieve this by:

- Understanding how much waste we produce.
- Developing a baseline of recycling and waste to measure improvement actions.
- Reducing the volumes of waste generated through re-use and recycling targets.
- Ensuring contractors and operators are monitored and meet their contract requirements with regard to waste management and in particular recycling as a percentage of waste.

Property and Land use (including contaminated land)

There are a range of aspects to the Authority's role here. The Authority owns 1560ha within the Regional Park. As well as the various uses of land owning such as providing different types of open space we should consider addressing the legacy of contaminated land, and sustainable management practices for grounds maintenance.

Much of the Authorities land holding acts as a carbon sink and continues to sequester carbon on an annual basis. Calculating how much carbon various types of habitat contain as a sink is a fairly new science and a simple calculation for a land use is not easy to come to however it is fair to say that some of the Authority's land holdings do contribute to negative emissions. Much of the work today has been undertaken on woodland and farmland because woodland potentially holds the highest amount and farmland is one of the most common global land uses. Although wetlands are good with much of the valley being this type of habitat, grassland and in particular amenity parkland is probably of a fairly low level of carbon capture. Clearly the Authority needs to manage its land in accordance with the Park Act and although there are opportunities for tree planting, to make the valley a woodland would in fact be detrimental to other biodiversity.

The creation of the Regional Park from what the Civic Trust described as London's 'privy.....and workshop'[1] means there are large areas of contaminated land (the legacy of heavy industrial use in the Lower Lea Valley). In many areas landfill has been insufficiently regulated resulting in contaminants being introduced to sites which had previously been used for mineral extraction.

The Authority employs contractors to carry out the grounds maintenance of its estate. On each renewal of the contract this strategy will seek to ensure sustainable practices are in place and contractors have an acceptable environment policy in place.

The Authority will:

- Seek to calculate the carbon sink value and carbon sequestration of its land holding and measure going forwards any improvements.
- Seek to mitigate or remediate the impacts of past land uses and activities particularly in respect to contaminated land.
- Work with our ground maintenance contractor to introduce sustainable practices for grounds maintenance.
- Remediate where possible all contaminated land in line with the Authority's contaminated land strategy.

It will aim to achieve this by:

- Seeking a way to measure carbon capture and sequestration for the different types of land use.
- Reviewing the extent of our contaminated land holding.
- Developing a strategy to inform the Authority's approach to remediating sites and assess risks for public access.
- Requiring the inclusion of sustainable practices in the grounds maintenance contract in the future.

Biodiversity

The Authority's estate includes areas of unique habitat some of which is internationally recognised. There are eight SSSIs within the boundary of the park, four of which join together to form the Lee Valley Special Protection Area and Ramsar site. Alongside these statutory designated sites there are a number of non-statutory, locally designated sites of importance for nature conservation. The Lee Valley Regional Park Biodiversity Action Plan (BAP) is a tool which guides work on the protection of habitat and species within the regional park. The current ten-year BAP plan was approved in 2019 , ensuring sites across the Park are protected and enhanced to the highest standards.

The Authority will:

- Work with partners and communities to conserve, create, restore and enhance the biodiversity of the park, providing access to and appreciation of this area

It will aim to achieve this by:

- Delivery of the four key objectives of the BAP
- Ensuring that all open spaces have a current management plan recognising the biodiversity value of the site itself and within the wider context of the regional park.
- Ensuring that biodiversity is a key consideration in all future Authority led projects.

Learning

The Authority should start with the education and development of its staff and seek to develop a "Golden thread" running through the organisation which considers environmental sustainability in everything it does. It should be the responsibility of all staff to ensure they are considering the impact of everything they do and challenging practice where there might be better more sustainable options. It can also demonstrate by clear and effective action and successful projects which meet aims and targets in this strategy and associated action plan. This will demonstrate good practice and encourage others to seek similar actions. It can also encourage all of its users to be considerate in how they use the park right down to how they travel to the park to how they dispose of any waste they bring or generate. The Authority's large estate also provides an extensive and varied resource for learning. The Authority's Youth and Schools team run courses and activities in environmental education for over 20,000 people per annum. This is supplemented by guided walks, interpretation and other activities for adults and families provided by the Biodiversity Team. The continued development of this service can be used to serve the region.

The Authority will:

- Seek to train and educate all staff to undertake their duties in the most sustainable way.

- Encourage all park users to consider their impact when using the Park.
- Provide learning opportunities for all.

It will aim to achieve this by:

- Educate and train staff in the best possible practice and in delivering this strategy and action plan.
- Seek to influence all Park users in sustainable use of the Park as well as informing them about our projects, operation and land management.
- Continuing to run and further develop its environmental education programme to meet curriculum objectives.
- Promoting educational programmes on biodiversity, habitat management, water treatment and farming
- Developing a strategy to inform the Authority's approach to remediating sites and assess risks for public access.
- Promoting recycling through use of recycled products and promotion of a waste free lunch.
- Encouraging visitors to continue to follow environmental practices by making a pledge to protect the environment.

Sustainable Design

The Park Development Framework includes a number of overarching principles governing the Authority's approach to the future development and management of the Regional Park. Two of these underpin sustainable design multifunction – the provision of facilities and open spaces designed to serve as many uses as possible, and flexibility – the provision of facilities and open spaces which can be adapted to meet changes in demand over time.

An example of multifunction is the use of areas of the Park for flood mitigation. Several external developers from sites around the Park have engaged in dialogue with the Authority looking at the possibility of using land in the Park for flood storage to mitigate the impact of their new development. These areas can be enhanced for biodiversity given the wider range of habitats which can be created.

The inclusion of flexibility into the design of buildings and open spaces reduces wastage in the use of materials and extends their 'life' and allows them to adapt to different patterns of demand.

BREEAM is a voluntary code for sustainable design of buildings. The latest standard (2011) now includes a framework for the built environment. This covers how building design addresses energy and water consumption, access to public transport and the sourcing of materials. The Authorities Olympic legacy facilities and Lee Valley Athletics Centre comply with this code, each rated as 'good'. It is recommended that this standard is adopted by the Authority to guide the future development of its facilities and any new built facilities or developments.

The Authority will:

- Adopt sustainable standards of design and management.

It will aim to achieve this by:

- Adopting BREEAM standards and seek a 'good' score for new facilities.
- Designing open spaces and built facilities to serve as many uses as possible to allow their adaptation over time to meet changing patterns of demand.
- Seeking net gain for biodiversity – and considering Urban Greening Factor (London).

In addition we will look at two other areas procurement and communication.

Procurement

The Authority is a signatory to the Mayor's Green Procurement Code. It uses approximately 70% of its annual budget on the purchase of goods and services from external suppliers. The Authority's adopted procurement strategy includes a commitment to 'sustainable' procurement.

The Authority will:

- Set up a "Pass/Fail" assessment for all Tenders based on a "Price" only assessment including environmental credentials of each contractor.
- "Request for Quotes (RFQ)" & "Invitation to Tender (ITT)" would take into account the environmental impacts of a particular product or service over its whole-life cycle, and appropriate assessment criteria and weightings will be used.
- Ask contractors to provide information and data on their emissions and any plans they have with regards to reducing their own emissions during their contract for the Authority. This will enable information for the Authorities Scope 3 reporting and will be written into the procurement process.

It will aim to achieve this by:

- Implementing & updating all our Procurement Documents and Assessment Criteria as a mandatory process to adopt a pragmatic approach for a "Green Procurement" and obtain "Carbon Footprint" for all Procurement.

Communication

It is important that our audiences – internally and externally - understand our environment strategy and policy and the actions we are taking and those which they can take.

There is also an opportunity here to show the public and others what we are doing and to encourage a more sustainable use of the park, including travel to and within gate

park. If we can make visitors think about how they are using the estate and demonstrate we are striving to support the drive to reduce global warming then we will also meet some of our learning aims within this strategy.

The Authority will:

- Influence park users and internal audiences to support a more sustainable use of the park.

It will aim to achieve this by:

- Generate and sharing stories and information about our environmental credentials and the changes we are making through a variety of media. Within this, having a "drumbeat" of social media about new initiates, changes we are making and the effects we are having. This will be linked to the programme of investments in our open spaces
- Educate, excite and empower our own staff and volunteers through a variety of channels - intranet, social media, briefings, show and tell demonstrations etc.
- Use all forms of media to bring the policy and strategy to life such as embedding key information on the website and having these available to view

Relevant Policy Strategy and Procedure Documents

This strategy has implications for all service areas and a range of policies and procedures. It will require solid, deliverable communication plans in order to achieve aims and outcomes. The document that this strategy sits under is the Authority's Environment Policy and both documents should be referred to in conjunction with each other. The strategy should take account of the relevant policies and procedures and these currently are:

- Environment Policy
- Procurement Policy
- Biodiversity Action Plan
- Corporate Travel Policy
- Corporate Land and Property Strategy
- Contaminated Land Strategy
- The Quality Management System and various relevant procedures
- Cycling Strategy
- Housing and Accommodation Policy

These will be reviewed regularly through the Policy and Procedure Group and Member sign off procedures to ensure compliance with this strategy.

Monitoring and Review

The effectiveness of the policy will be monitored through a review of performance indicators and delivery of the action plan which will be regularly reviewed by the Environmental Group.

The action plan sets out actions over the next ten years. This will be updated through the service planning process and future development. Progress will be monitored quarterly.

Within the Authority's performance management framework we will develop a range of performance indicators that align to this strategy, these will be reported quarterly through the usual reporting lines to Members.

The proposed measures to gain a base line in year one are as follows:

KPI Measures

KPI Number	Measure Subject	Measure Output	Final Target
E1	Utilities Usage (Electric and Gas)	tonnes of CO_2 pa	Green Electric only use to meet zero CO_2 annual emissions for electricity. Annual reduction in gas usage to a point of no gas usage in the future.
E2	Water Usage	Cubic litres pa	30% reduction from baseline
E3	Waste	% Waste recycled pa	100% recycled or to incineration that is net zero
E4	Utilities Supply (electric)	Supply source % Green electric supply v % non-green (fossil fuel) supply	All electric use coming from green energy no electric supply from any fossil fuel generation.
E5	Travel	Business Miles Petrol pa Business Miles Electric pa	All business miles are EV's only. Public transport carbon footprint to be investigated to understand if this can be reduced at all to a net zero position.
E6a	New Construction (new builds/refurb/extension etc)	tonnes of CO_2 pa	All new builds carbon neutral. Climate Impact assessment tool used on every project to

		(Climate Impact Assessment tool use)	determine new build CO_2. Seek to have buildings energy negative and longer term aim to produce more energy from a building than it uses.
E6b	New Construction (new builds/refurb/extension etc)	Average BNG per annum from all new builds	All new builds to achieve the maximum BNG possible 30% and above.
E7a	Open Spaces Carbon Capture	t CO_2 ha $^{-1}$ pa	Establish base line measure and report increases/decreases to determine land use strategy
E7b	Farm Carbon Footprint	CO_2 cost per annum	Establish baseline and monitor
E8	Operator/Contractor Measures	tonnes of CO_2 pa	All operators/contractors net zero.
E9	Events	tonnes of CO_2 pa	Achieve a 50% reduction in all outdoor event-related greenhouse gas emissions by 2025 to net zero in 2050
E10a	Corporate	% of contracts awarded that have an environment policy or acceptable standards in place along with an action plan to meet net zero and information on performance and data supplied for Scope 3 data to the Authority.	All procurements meet environmental standards required by Authority 2030
E10b	Corporate	% of staff trained in Environment Policy and Strategy Course and Environment Awareness course	All staff trained
E10c	Corporate	% of property which meets energy standard rating B	All properties to meet energy rating B
E10d	Corporate	Paper usage – photocopier pages per annum	Aim to become a paperless organisation

Review

(This strategy will be reviewed every three years or more frequently if new legislation is introduced which will impact on the Authority.)

Appendix 1 – Action Plan

The plan has been developed to inform the delivery of the objectives identified above. In addition a further section has been added on internal communications to assist in the roll out and ownership of this strategy.

Area of operation	Common Theme	Action	Lead	Planned outcome	Target Date	KPI/ Measure
New Construction New builds and major projects Minor construction works/extensions/refubs etc	Travel	Contractors to demonstrate keeping travel to a minimum.	AMPD	Reduced carbon footprint	2022 then ongoing	E6
		Working with contractors to reduce construction traffic.	AMPD	Reduce carbon footprint	2022 then ongoing	E6
	Organisational Resource	n/a				
	Machinery	n/a				
	Water Usage	Fit water saving devices at all new facilities.	AMPD and project managers	Reduced water consumption	2022 then ongoing	E2
		Plan in opportunities to increase flood mitigation measures for new builds.	AMPD and project managers	Improved environmental practice	2022 then ongoing	n/a
		Water reduction measures on construction projects	AMPD and project managers	Reduced water consumption	2022 then ongoing	E6
	Energy Usage	Reducing demand for energy through the introduction of measures such as condensing boilers and low energy electrical fittings.	AMPD and project managers	Reduced Energy consumption	2022 then ongoing	E1
				Reduced Energy consumption		E1

		Seeking to fit LED lighting in all new builds or replacements economically feasible.	AMPD and project managers		2022 then ongoing	
		Assess opportunities for green/renewable energy supply for new builds.	AMPD and project managers	Reduce demand for fossil fuel energy provision	2022 then ongoing	E4
		Investigate options for generating solar, wind producing units in new builds.	AMPD and project managers	Reduce demand for fossil fuel energy provision	2022 then ongoing	E4
		Investigating ground source heat systems rather than fossil fuel systems.	AMPD and project managers	Reduce demand for fossil fuel energy provision	2022 then ongoing	E4
	Waste Management	Promote use of products derived from recycled material.	AMPD and project managers	Reduce waste and increase recycling	2022 then ongoing	E3
		Ensure comprehensive recycling on new builds	AMPD and project managers	Reduce waste and increase recycling	2022 then ongoing	E3
	Property and Land Use	n/a				
	Biodiversity	Ensure that all new builds and their associated planning applications achieve at least the required 10% net gain required and where	AMPD and project managers	Improve the biodiversity of new builds	2022 then ongoing	E6b

		possible seek to increase this gain.	AMPD and project managers	Improve the biodiversity of new builds	2022 then ongoing	E6b
		Ensure that all new builds have a biodiversity statement for on-going management of biodiversity features.				
		Support delivery of BAP actions and SMART targets.	AMPD and project managers	Improve the biodiversity of new builds	2022 then ongoing	E6b
	Learning	n/a				
	Sustainable Design	Ensure that biodiversity implications are taken into consideration during project planning.	AMPD and project managers	Improve the biodiversity of new builds	2022 then ongoing	E6b
		Introduce rainwater harvesting options in new build designs where economically feasible.	AMPD and project managers	Reduce water use	2022 then ongoing	E2
		Introduce whole life costing involving the carbon footprint for new builds.	AMPD and project managers	Understand the carbon footprint of each new build	2022 then ongoing	E6a
		Look at viability for installation of non-fossil fuel schemes i.e. feed-in tariff, RHI, Adopting BREEAM standards and	AMPD and project managers	Reduce the reliance on fossil fuel energy provision	2022 then ongoing	E4

		seeking a 'good' score for new builds.				
		Designing built facilities and the open spaces around to serve as many environmental uses as possible including adaptation over time to meet changing patterns of climate.	AMPD and project managers	Contribute to the climate crisis by improving all our new build programmes	2022 then ongoing	E6a
		Seeking net gain for biodiversity – and considering Urban Greening Factor (London).	AMPD and project managers	Improve biodiversity for each new build	2022 then ongoing	E6b
		Look at Passivhaus standards and understand if they can be applied to each project.	AMPD and project managers	Building to the highest possible standards		
		Undertake a climate impact assessment (using climate impact assessment tool) for all projects and new builds.	AMPD and project managers	Understanding the climate impact of a project and enabling mitigating actions to be implemented.		
Open Spaces Multi use Parklands Water bodies Nature Reserves or designated and non-designated sites Event Spaces Gardens	Travel	Changing ranger fleet to electric vehicles. As and when suitable vehicles become available switch to these.	Head of Parklands	Electric fleet	Review 2027	E5
			Head of Parklands	Reduce carbon footprint	2025	E5

		Operate under travel policy encouraging sustainable travel.	APMD and project managers	Reduce carbon footprint	2030	E5
		Investigate a roll out of EV points for staff and public to use.	Head of Parklands	Reduce carbon footprint	2025	E5
		Investigate ways to encourage staff and public to travel carbon neutral.	APMD and project managers	Included as part of tender requirements	2023	E8
		Investigate ways to understand the travel of contractors, suppliers, consultants and if these activities can be reduced or made carbon neutral.	Head of Parklands	Reduce carbon footprint of visitors	2023	n/a
		Encouraging visitors to visit facilities by public transport.	APMD and project managers	Reduce carbon footprint of visitors	2023	n/a
		Work with our riparian authorities and statutory bodies to improve public transport options and cycle/walking routes for accessing the Park				
	Organisational Resource	Encourage environmental thought and consideration in all resource use in every element of operation.	HR and line managers	All staff trained and aware	2025	E10b

	Machinery	Educating staff in machinery use and replacement.	HR and line managers	All staff trained and aware	2025	E10b
		Seeking to replace all machinery with electric or low energy rating versions.	Head of Parklands	All machinery where possible battery powered	2025	n/a
	Water Usage/quality	Retro-fit water saving devices at all facilities.	Head of Parklands and AMPD	Reduce water usage	2025	E2
		Continue to use available systems to monitor water quality.	Head of Parklands and Biodiversity	Improve and maintain water quality	2025	n/a
		Introduce rainwater harvesting in all facilities where economically feasible.	Head of Parklands	Reduce water usage	2025	E2
		Adopting best practice measures to manage water consumption and will retro fit measures to reduce consumption where economically feasible to do so.	Head of Parklands and AMPD	Reduce water usage	2025	E2
		Examining opportunities to increase flood mitigation measures on its land.	Head of Parklands and Biodiversity	Improve flood protection	2025	n/a
		Work in tandem with riparian landowners to agree a protocol in the	Head of Parklands and Farm Manager	Improve and maintain water quality	2025	n/a

		reduction of nitrate rich fertilisers, leading by example.				
	Energy Usage	Reducing demand for energy through the introduction of measures such as condensing boilers and low energy electrical fittings.	Head of Parklands and APMD	Reduce energy use	2025	E1
		Seeking to fit LED lighting in all new builds and retro fit where economically feasible.	Head of Parklands and APMD	Reduce energy use	2025	E1
		Assessing opportunities for green energy derived from renewable resources.	Head of Parklands and APMD	Reduce reliance on fossil fuels	2030	E4
		Investigate options for generating solar, wind producing units.	Head of Parklands and APMD	Reduce reliance on fossil fuels	2030	E4
		Investigating ground source heat systems to replace fossil fuel systems.	Head of Parklands and APMD	Reduce reliance on fossil fuels	2030	E4
	Waste Management	Ensure comprehensive recycling for all open spaces including investigating needs for way to improve Green Waste Recycling.	Head of Parklands	Reduce waste to landfill and increase recycling and composting	2025	E3

		Understanding how much waste we produce by developing a baseline of recycling and waste to measure improvement actions.	Head of Parklands	Baseline obtained and measurement system put in place	2023	E3
		Reducing the volumes of waste generated through re-use and recycling targets including review of contracts to ensure this element is included.	Head of Parklands	Reduce waste to landfill and increase recycling and composting	2025	E3
		Ensuring contractors and operators are monitored and meet their contract requirements with regard to waste management and in particular recycling as a percentage of waste.	Head of Parklands	Reduce waste to landfill and increase recycling and composting	2025	E8
	Property and Land Use	Ensure that all open spaces have a conservation management plan.	Head of Parklands	Support BAP	2023	BAP Targets
	Biodiversity	Ensure that all open spaces have a current management plan which pays due regard to the biodiversity value of the site.	Head of Parklands	Support BAP	2023	BAP Targets

		Support delivery of BAP actions and SMART targets.	Head of Parklands	Support BAP	2023	BAP Targets
	Learning	n/a				
	Sustainable Design	Undertake a climate impact assessment (using climate impact assessment tool) for all projects	Project managers	Understanding the climate impact of a project and enabling mitigating actions to be implemented.		
Venues The six contracted out venues Leased out Venues Other buildings and venues	Travel	Changing fleet to electric vehicles.	Venue Managers	No fossil fuel vehicles	2030	E5
		Ensure the travel policy encourages sustainable travel.	Venue Managers	Reduced use of fossil fuels	2023	E5
		Investigate a roll out of EV points for staff and public to use.	AMPD and Venue Managers	Provision of EV charging points for staff and visitors	2025	E5
		Investigate ways to encourage staff and visitors to make their travel carbon neutral.	Venue Managers	Reduce fossil fuel use and reduce carbon footprint	2025	E5
		Investigate ways to understand the travel of contractors, suppliers, consultants and if these activities can be reduced or made carbon neutral.	Procurement and Venue Managers	Reduce fossil fuel use and reduce carbon footprint	2030	n/a
			Comms and Venue Managers	Reduce fossil fuel use and reduce carbon footprint	2025	n/a

		Encouraging visitors to visit facilities by public transport. Consider utilising a standardised working from home policy to reduce the need to travel. Work with our riparian authorities and statutory bodies to improve public transport options and cycle/walking routes for accessing the Park Working with contractors to reduce construction traffic. Work with GLL and other contractors to reduce travel.	HR and Venue Managers Corporate and Venue Managers AMPD and Venue Managers Procurement and Venue Managers	Reduce fossil fuel use and reduce carbon footprint Reduce fossil fuel use and reduce carbon footprint Reduce fossil fuel use and reduce carbon footprint Reduce fossil fuel use and reduce carbon footprint	2025 2030 2030 2030	n/a n/a n/a E8
	Organisational Resource	Encourage environmental thought and consideration in all resource use in every element of operation. Work with GLL and other contractors to reduce resource use.	Venue Managers Contract management and Venue Managers	Increase learning and awareness of environmental issues to reduce use of resources Reduce resource use and ultimately carbon footprint	2025 2025	n/a E8
	Machinery	Educating staff in machinery use and replacement.	Venue Managers	Increase learning and awareness of environmental issues	2025	E10b

		Seeking to replace all machinery with electric or low energy rating versions.	Venue Managers	Reduce carbon footprint	2030	n/a
		Work with GLL and other contractors to investigate options for improvements in machinery use and replacement.	Contract management and Venue Managers	Reduce carbon footprint	2025	E8
	Water Usage	Continue to use available systems to monitor water usage.	Venue Managers	Reduce water usage	2025	E2
		Retro-fit water saving devices at all facilities Introduce rainwater harvesting in all facilities where economically feasible.	AMPD and Venue Managers	Reduce water usage	2030	E2
		Adopting best practice measures to manage water consumption and will retro fit measures to reduce consumption where economically feasible to do so.	AMPD and Venue Managers	Reduce water usage	2025	E2
		Examining opportunities to increase flood mitigation measures on its land.	Biodiversity and Venue Managers	Improve environmental conditions Improve water quality	2025	n/a

		Using available systems to monitor water quality. Work with GLL and other contractors to reduce water consumption.	Biodiversity and Venue Managers Contract Management and Venue Managers	Reduce water usage	2025 2025	n/a E8
	Energy Usage	Introduce voltage optimisers in facilities where necessary.	AMPD and Venue Managers	Reduce energy usage	2030	E1
		Reducing demand for energy through the introduction of measures such as condensing boilers and low energy electrical fittings.	Venue Managers	Reduce energy usage	2030	E1
		Seeking to fit LED lighting in all new builds and retro fit where economically feasible.	AMPD and Venue Managers	Reduce energy usage	2030	E1
		Assessing opportunities for green energy derived from renewable resources.	Venue Managers	Reduce reliance on fossil fuel supplied energy	2030	E4
		Investigate options for generating solar, wind producing units.	AMPD and Venue managers	Reduce reliance on fossil fuels	2030	E4
		Investigating ground source heat systems to replace fossil fuel systems.	AMPD and Venue Managers	Reduce reliance on fossil fuel supplied energy	2030	E4

		Work with GLL and other contractors to reduce energy consumption.	Contract Management and Venue Managers	Reduce energy use	2025	E8
	Waste Management	Ensure comprehensive recycling at all facilities Introduce waste reduction targets for facilities.	Venue Managers	Zero waste to landfill, all waste recycled or composted	2025	E3
		Work with GLL and other contractors to reduce waste.	Contract Management and Venue Managers	Zero waste to landfill, all waste recycled or composted	2025	E8
	Property and Land Use	n/a				
	Biodiversity	Undertake a biodiversity audit of facilities to identify and prioritise opportunities to enhance habitat management or retro-fit biodiversity features.	Biodiversity and Venue Managers	Increased biodiversity	2025	BAP Targets met
		Support delivery of BAP actions and SMART targets.	Biodiversity and Venue Managers	Increased biodiversity	2025	BAP Targets met
	Learning	Work with GLL and other contractors to establish if their staff are educated in environmental awareness.	HR and Procurement	All contracts confirm staff training on environmental awareness	2030	E8, E10 and E11
	Sustainable Design	Seek to ensure all new products for venues (e.g.	Various and Venue Managers	Ensure all designs of products going into venues are sustainable	2025	E6a

		camp site pods or marina equipment) is sourced with the most sustainable operation in mind				
		Undertake a climate impact assessment (using climate impact assessment tool) for all projects	Project managers	Understanding the climate impact of a project and enabling mitigating actions to be implemented.		
Events Lee Valley Park led Events (for example Countryside Live, Wild About Wetlands or small venue led events)	Travel	Ensure the travel policy encourages sustainable travel.	Event Team	Reduction in environmentally damaging travel to events	2025	E5
		Investigate ways to encourage staff running events and visitors to make their travel to and from events carbon neutral.	Event Team and Comms	Reduction in environmentally damaging travel to events	2025	E5
		Reduce car travel and support an increase in car occupancy or group travel by bundling a proportion of event tickets with dedicated coach travel or car sharing for greenfield events.	Event Team	Reduction in environmentally damaging travel to events	2025	E5
		Seek options for on-site EV charging points were available.	Event Team and AMPD	Reduction in environmentally damaging travel to events	2025	E5
		Choose local contractors and suppliers, prioritising the most significant by	Event Team	Reduction in environmentally damaging travel for events	2025	E5

		distance or transport volume				
	Organisational Resource	Reducing energy use and purchasing or using renewable and/or sustainable energy sources	Event Team	Reducing our carbon footprint for events	2030	E1
		Investigate ways for conserving water	Event Team	Reducing water usage	2025	E2
		Seek to provide and supporting measures to reduce, reuse and recycle waste	Event Team	Reducing waste to landfill	2025	E3
		Supporting and promoting the use of low or zero carbon travel options to the event site	Event Team and Comms	Reducing staff travel and encouraging green travel	2025	E5
		Choose catering providers with strong sustainability credentials or from our select list of catering providers	Event Team	Reducing carbon footprints for events	2025	E10a
		Choosing food and drink providers, merchandise and give-aways which have been sustainably and/or locally sourced	Event Team	Reducing carbon footprints for events	2025	E10a
		Seek to use reclaimed, reused, sustainable	Event Team	Improving our recycling and sustainability credentials	2025	E3

		sourced and low impact materials at events				
		Investigate establishing an event waste management system to minimise waste to landfill.	Event Team	Reducing our waste at events	2025	E3
		Reduce avoidable food waste	Event Team	Reducing our waste at events	2025	E3
	Machinery	n/a				
	Water Usage	Investigate systems to monitor water usage	Event Team	Reduce water usage	2025	E2
		Investigate systems to monitor water quality – measure pre and post event and record to prevent pollution of local waterways	Event Team	Improve water quality	2025	E2
		Use water conserving technology on event sites and seek to minimise leaks	Event Team	Reduce water usage	2025	E2
	Energy Usage	Reducing demand for energy through the introduction of measures such as assessing opportunities for green energy derived from renewable resources.	Event Team	Reducing fossil fuel energy use	2025	E1
			Event Team	Reducing fossil fuel energy use	2030	E4

		Investigate possibilities for generating solar, wind producing units for events. Investigate longer-term plans for phasing out of diesel generators to reduce energy use via this method to zero provided by 2040 shifting to mains grid, battery and or alternative power sources. Investigate green energy or biofuel use Develop fuel reduction targets into events.	Event Team Event Team	Reducing fossil fuel energy use Reducing fossil fuel energy use	2030 2025	E4 E4
	Waste Management	Developing a baseline of recycling and waste then investigate and develop improvement actions. Seek to reduce volumes of waste generated through re-use and recycling actions. Aim for total recycling and composting rate of all event waste.	Event Team Event Team Event Team	Reduce waste from events Reduce waste from events Reduce waste from events	2025 2025 2025	E3 E3 E3
	Property and Land Use	n/a				

	Biodiversity	Undertake preliminary ecological appraisals on key event sites in the Regional Park to identify potential impacts from events and seek mitigation activities where required.	Event Team and Biodiversity	Protect Biodiversity and nature	2023	BAP Targets met
		Ensure that all events consider their potential impact on biodiversity and where necessary ensure that mitigation measures are put in place	Event Team and Biodiversity	Protect Biodiversity and nature	2023	BAP Targets met
	Learning	n/a				
	Sustainable Design	Undertake a climate impact assessment (using climate impact assessment tool) for all events	Event Managers	Understanding the climate impact of a project and enabling mitigating actions to be implemented.		
Events Major External Provider Events External and Community Events	Procurement	Establish minimum sourcing standards and event provider procurement guidelines so all event organisers are seeking to reduce the carbon footprint of all the events they run.	Event Team	Reduce the carbon footprint of major event providers (such as "We are the Fair")	2025	E8
		Request all event organisers to calculate and report on their CO2e figure and make this a requirement for all events by 2025.	Event Team	Establish a baseline then measure to reduce carbon footprint of all major event providers	2025	E8

		Seek a a 50% reduction in outdoor event-related greenhouse gas emissions by 2025	Event Team	Reduce carbon footprint of all major event providers	2025	E8
Corporate Procurement Travel Vehicles and Machinery Public Awareness Waste and recycling Energy suppliers	Travel	Encourage where practical teleconferencing and webinars, Skype, Teams or Zoom meetings where this is feasible	HR	All staff to consider best method of meeting and use to reduce business travel where not necessary.	2030	E5
		Changing its fleet to electric vehicles Ensure the travel policy encourages sustainable travel	HR and SMT	All Authority vehicles to be electric or zero emission	2030	E5
		Investigate a roll out of EV points for staff and public to use	AMPD and SMT	EV points fitted in all car parks and at venues and offices.	2030	E5
		Investigate ways to encourage staff to make their travel to and from their place of work carbon neutral	HR	Salary sacrifice schemes in place to encourage staff to purchase EV's.	2030	E5 and E11
		Investigate ways to understand the travel of contractors, suppliers, consultants and if these activities can be reduced or made carbon neutral	Procurement Comms	All contractors to demonstrate attempts to reduce travel or travel sustainably with EV fleets.	2030 2050	E10 E11

		Encouraging visitors to visit facilities by public transport or travel using EV's		Visitors to Park use more sustainable methods of transport		
	Organisational Resource	Educating staff on resource use.	Line Managers and HR	Reduce resource usage	2025	E10b
		Seeking to not over order resources.	Line Managers	Reduce resource usage	2023	E3
		Recycling or reusing any resources not required any further.	Line Managers and HF	Reducing waste and resource usage	2023	E3
		Review paperless administration, making greater use of electronic documents	Line Managers	Becoming a paperless organisation	2025	E10d
	Machinery	Upgrade to A standard appliances	Facility managers AMPD	Improve energy efficiency	2030	E1
		Educating staff in machinery use and replacement.	HR and Line managers	Improve energy efficiency	2025	E10b
		Seeking to replace all machinery with electric or low energy rating versions.	Line managers	Improve energy efficiency	2030	E1
	Water Usage	Retro-fit water saving devices at all facilities	Facility, AMPD and line managers	Reduce water usage	2030	E2

		Continue to use available systems to monitor water usage Adopting best practice measures to manage water consumption and will retro fit measures to reduce consumption where economically feasible to do so. Examining opportunities to increase flood mitigation measures on its land.	Facility, AMPD and line managers	Reduce water usage	2030	E2
		Using available systems to monitor water quality.	Facility, AMPD and line managers	Improve and maintain water quality	2025	n/a
	Energy Usage	Ensure energy supplies continue to be switched to green sources	Facility, AMPD and line managers	Reduce reliance on fossil fuel provided energy	2030	E1
		Identify opportunities to adapt facilities to allow energy generation from renewables for example wind turbines, photo voltaic cells, solar panels, ground source heat pumps, bio-mass boilers.	Facility, AMPD and line managers	Reduce energy use	2030 2025	E1 E1
		Reducing demand for energy through the introduction of measures	Facility, AMPD and line managers	Reduce energy use	2030	E4

		such as condensing boilers and low energy electrical fittings.				
		Seeking to fit LED lighting in all new builds and retro fit where economically feasible.	Facility, AMPD and line managers	Reduce reliance on fossil fuel provided energy	2030	E4
		Assessing opportunities for green energy derived from renewable resources.	Facility, AMPD and line managers	Reduce reliance on fossil fuel provided energy	2030	E4
		Investigate options for generating solar, wind producing units.	Facility, AMPD and line managers	Reduce reliance on fossil fuel provided energy	2030	E4
		Investigating ground source heat systems to replace fossil fuel systems.	Facility, AMPD and line managers	Reduce reliance on fossil fuel provided energy	2030	E4
	Waste Management	Promote recycling through the use of recycled materials in teaching resources wherever possible.	Facility and line managers	Reduce waste to landfill and improve recycling	2025	E3
		Promote use of products derived from recycled material	Facility and line managers	Reduce waste to landfill and improve recycling	2025	E3
		Understanding how much waste we produce.	Facility and line managers	Reduce waste to landfill and improve recycling	2023	E3
					2023	E3

		Developing a baseline of recycling and waste to measure improvement actions.	Facility and line managers	Reduce waste to landfill and improve recycling	2025	E3
		Reducing the volumes of waste generated through re-use and recycling targets.	Facility and line managers	Reduce waste to landfill and improve recycling	2025	E8
		Ensuring contractors and operators are monitored and meet their contract requirements with regard to waste management and in particular recycling as a percentage of waste.	Facility and line managers	Reduce waste to landfill and improve recycling		
	Property and Land Use	Seeking a way to measure carbon capture and sequestration for the different types of land use.	Environment Group	Developed measure for all land types which shows how much carbon capture each land type has in t CO_2 ha^{-1}	2025	E7
		Reviewing the extent of our contaminated land holding.	Property, GIS and Planning	A full mapping of all landholdings showing levels of contamination	2025	n/a
		Further developing the strategy to inform the Authority's approach to remediating sites and assess risks for public access.	Property	A strategy and action plan for the approach to each section of contaminated land identified in the mapping exercise	2030	n/a
			Property		2025	n/a

		Minimum Energy Efficiency Standards (MEES) a key priority for the Authority in relation to properties that are leased. Subject to limited exemptions, landlords cannot grant a tenancy to either new or existing tenants of properties that have an EPC rating of F or G. Therefore minimum rating required is E.	APMD	A full assessment of all Property holdings energy efficiency resulting in energy efficient properties		
		From 1 April 2023, subject to limited exemptions, landlords must not continue to let properties that have an EPC rating of F or G. This will therefore affect all existing leases.	Property APMD	Energy efficient properties	2023	E10c
		There are also future proposals that from 1 April 2027 it is likely that, subject to limited exemptions, properties will need to have an EPC rating of C before being let. This is expected to increase to a B rating by 1 April 2030.	Property APMD	The Authority as Landlord is also likely to require more control over alterations carried out by tenants to ensure the tenant will not fit out or carry out alterations out to lower the EPC rating.	2027	n/a
		Strategy and action plan to ensure the required	Property APMD	As Landlord will need to ensure that any new leases that are	2025	n/a

		delivery program set by government to meet the MEES is taken into account.		granted contain sufficient reserved rights to enable the Authority to comply with its obligations under the MEES Regulations.		
	Biodiversity	Continue as required to review and develop the BAP to serve the Park.	Biodieversity Team and Environment Team	Meet BAP Targets	2025	BAP Targets
		Delivery of projects and SMART targets in the current BAP.	Biodieversity Team and Environment Team	Meet BAP Targets	2025	BAP Targets
		Ensuring that all open spaces have a current management plan recognising the biodiversity value of the site itself and within the wider context of the regional park.	Biodieversity Team and Environment Team	Meet BAP Targets	2025	BAP Targets
		Ensuring that biodiversity is a key consideration in all future Authority – led projects.	Biodieversity Team and Environment Team	Meet BAP Targets	2025	BAP Targets
	Learning	Train SMT and HOS in Carbon Literacy and ensure buy in from the top of the organisation down.	HR and Environment/Energy Group	SMT and HOS trainged and aware of carbon literacy	By August 2023	E11

		Work in partnership with other bodies to support the development of internal communications campaigns and training packages to engage staff in environmental education.	HR and Comms	All staff trained and have an awareness of environmental issues and key decisions needed. Environmental elements in all internal comms eg Intranet, briefings, newsletter etc	By 2030	E11
		Communicate the Policy and Strategy externally	Comms	Embed elements which convey the successes of the environment policy on web and social	By 2030	E11
		Devise a training campaign to embed the environment Policy and Strategy in all elements of the Authority's work and to educate and train staff in the best possible practice and in delivering this strategy and action plan.	HR and Comms	Training/awareness campaigns to drive staff to be greener in their work and on a personal level, appoint green champions across all sites and at HQ.	By 2030	E11
		Review the Authority's education programmes with the Learning and Engagement team to determine whether an even stronger environmental message can be incorporated into all the programmes.	HR and Learning and Development Team	Increased participation in environmental education programmes. Enhanced suite of educational programmes on biodiversity, habitat management, water treatment and farming.	By 2030	E11
		Seek to influence all park visitors in sustainable use of the park as well as		Park visitors and stakeholders to understand how the Authority is	By 2030	n/a

		informing them about our projects, operation and land management. Run surveys of staff to assess attitudes and changes in behavior	Rangers, Comms, Volunteers, front line staff HR	supporting the climate crisis and action they can take Surveys obtained data on attitudes	2025	n/a
	Communication	Work with similar bodies to audit best practice in comms to communicate information on this internally and externally effectively	Comms	Best practice comms programme internally and externally	2023	n/a
		Create environment pages on our web site which will promote our credentials and display our policy and the strategy and embed environment stories on key sections of the website	Comms	Park visitors and stakeholders to understand how the Authority is supporting the climate crisis and action they can take	2023	n/a
		Use social media to have a constant drumbeat of stories to convey our sustainability credentials and influence park visitors.	Comms	Park visitors and stakeholders to understand how the Authority is supporting the climate crisis and action they can take	2023	n/a
		Create method to channel environmental information and good news stories to the comms team	Rangers, Comms, APMD, contract management	Park visitors and stakeholders to understand how the Authority is supporting the climate crisis and action they can take	2023	n/a

	Procurement	A Pass/Fail and Environmental impact scoring will be integrated to all appropriate Procurement within the Authority's Threshold.	Procurement Team	Environmental best practice threaded into the procurement process and all new contracts	By 2030	E10
		Seek to obtain the carbon footprint as mandatory for above 25k Procurements.	Procurement Team and project managers	All new contracts are able to provide organisational carbon footprint	By 2030	E10
		Requiring the inclusion of sustainable practices in the all new contracts in the future.	Procurement Team	All new contracts demonstrate high level sustainability practices	By 2030	E10
		Including KPI's for environmental practise in major repeat contracts such as LSC, GM, H&S and Quality Monitoring	Procurement Team and project managers	Procurement process has new measures and scores with a percentage allocated to environmental performance and carbon footprint	By 2030	E10
	Sustainable Design	Ensure that the updated specification has targets for the reduction of wastes and the use of ethically sourced materials for any works.	AMPD	Improve our sustainability	2025	n/a
		Complete a Contaminated land strategy and action plan.	Property Project Managers	Reduce our contaminated land holding	2030	n/a

		Undertake a climate impact assessment (using climate impact assessment tool) for all projects		Understanding the climate impact of a project and enabling mitigating actions to be implemented.		

Environmental and spend to save actions and projects currently being delivered/developed by the Authority

Environmental Improvement Projects

- Spitalbrook – creation of a new 200 acre Country Park with significant habitat enhancement.
- St Paul's Field – creation of a new footpath with environmental improvements
- Middlesex Filter Beds – re wetting for environmental and biodiversity improvements
- North Wall Road – potential greening/rewilding project
- East India Dock Basin – desilting and environmental and biodiversity improvements
- Following the pandemic the Authority has continued hybrid working (reducing traffic movements for business and home of office as well as travelling costs by continuing with virtual meetings)

BAP Projects

- River restoration on the River Lynch at Dobbs Weir – funded through S106 with HCC
- Installation of Floating reedbeds on the Lea Navigation at Lee Park Way – funded through the GLA's Rewild London fund
- Enhancements to Hall Marsh Scrape - enhancements identified through the Lee Valley Wader Strategy
- Range of enhancements to the Regional Parks open water habitats in partnership with local landowners, as identified through the 2021 Lee Valley Wetland Assessment (a project has been completed this year on Stanstead Innings)
- Range of enhancements on Water Vole habitat across the Regional Park as identified through the Lee Valley Water Vole Survey (2022) (enhancements undertaken this year at Stanstead Innings)
- Targeted management of Creeping Marshwort on Walthamstow Marshes including propagation of cuttings under Natural England licence
- Working in partnership with British Canoe Union, Angling Trust, EA and CRT to remove the invasive non-native Floating Pennywort from the River Lea and tributaries
- Continuing to fund the Hertfordshire Water Vole and Invasive Non-native Species Project to co-ordinate the targeted work for Water Vole conservation in the region
- Supporting local groups to continue their work to enhance waterways in the south of the Park (Tottenham and Hackney)
- Delivery of a range of environmental enhancements funded through the North London Reinforcement Project (specific projects include creation of a bat hibernaculum, pond restoration and grassland restoration)

Training Activity

- SMT and HOS to undertake Carbon Literacy Training from Association of Public Service Excellence (APSE) as an external provider- spring 2023
- Officers attending APSE seminars and conferences

Spend to Save Projects

The following spend to save projects are being investigated at a range of venues and sites. The list under each is not an exhaustive list and just a small number of examples of energy saving or generation projects being specifically looked at for each site.

- **Lee Valley VeloPark**

    - LED lighting (already installed)
    - Consider solar control measures
    - Add time control to heating system
    - Chiller system be investigated to gain an understanding of its efficiency and possible improvement options
    - Consider installing building mounted wind turbine(s).
    - Movement sensors and LED lighting to back of house areas and corridors

- **Lee Valley Hockey & Tennis Centre**

    - Consider solar control measures such as the application of reflective coating or shading devices to windows.
    - Add time control to heating system.
    - It is recommended that the heat generator system be investigated to gain an understanding of its efficiency and possible improvements.
    - Some windows have high U-values - consider installing secondary glazing.
    - Add local temperature control to the heating system.
    - LED lighting to back of house and public areas with movement sensors

- **Lee Valley White Water Centre**

    - It is recommended that the chiller system be investigated to gain an understanding of its efficiency and possible improvements.
    - Consider installing building mounted wind turbine(s).
    - Consider installing solar water heating.
    - Consider with chefs and kitchen managers how a training programme and monitoring systems with incentives could be implemented.
    - Engage experts to assess the air conditioning systems in accordance with CIBSE TM 44.
    - Consider upgrading major time controls to include optimum start/stop.
    - Consider with experts implementation of an energy efficient equipment procurement regime that will upgrade existing equipment and renew in a planned cost-effective programme.
    - Enable power save settings and power down management on computers and associated equipment.
    - Consider engaging experts to review the condition of the building fabric and propose measures to improve energy performance.
    - Engage experts to propose specific measures to reduce hot water wastage
    - Consider installing a Hydro-electric generator.
    - Consider installing a ground source heat pump.
    - Consider switching to a less carbon intensive fuel.
    - Consider installing building mounted photovoltaic electricity generating panels.
    - Consider installing building mounted solar water heating.
    - Consider upgrading lighting to LED technology.

- Consider upgrading lighting controls to daylight sensing.

- **Lee Valley Athletics Centre**

  - Replace tungsten GLS lamps with CFLs.
  - Consider solar control measures such as the application of reflective coating or shading devices to windows.
  - Add time control to heating system.
  - Enable power save settings and power down management on computers and associated equipment.
  - Review the air conditioning energy performance report and seek to implement any outstanding recommendations for action.
  - Consider fitting existing air curtains with energy saving controls such as door interlocks and occupancy time switches.
  - Consider applying reflective coating to windows and/or fit shading devices to reduce unwanted solar gain.
  - Consider a Combined Heating and Power (CHP) system as an alternative to conventional boilers.
  - Consider installing a ground source heat pump.
  - Consider installing building mounted photovoltaic electricity generating panels.
  - Consider upgrading lighting including automatic controls, daylight & occupancy sensing and LEDs.
  - Fit insulation jackets to valves and flanges within the boiler room to reduce heat losses.
  - Consider updating the hot water time schedules to save energy over night.
  - Investigate Daylight harvesting and LED lights

- **Lee Valley Riding Centre**

  - Consider solar control measures such as the application of reflective coating or shading devices to windows.
  - Add time control to heating system.
  - Some walls have uninsulated cavities - introduce cavity wall insulation.
  - Some windows have high U-values - consider installing secondary glazing.
  - Some solid walls are poorly insulated - introduce or improve internal wall insulation.
  - Consider replacing heating boiler plant with a condensing type.
  - Replace/improve glazing and/or frames.
  - Consider implementing a programme of planned lighting systems maintenance to maintain effectiveness and energy efficiency
  - Fit insulation jackets to valves and flanges within the boiler room to reduce heat losses.
  - Install occupancy sensing control and zoning to the lighting.
  - Replace the halogen spotlights in the shop area with LED lamps.
  - Consider installing a submeter to measure renewable energy produced by the on-site solar PV system.

- **Springfield Marina**

    - Consider installing weather compensator controls on heating and cooling systems.
    - Consider adjusting existing, or installing new, automatic external door closers, or consider adopting revolving door solutions.
    - Consider installing timer controls to energy consuming plant and equipment and adjust to suit current building occupancy.
    - Consider how building fabric air tightness could be improved, for example sealing, draught stripping and closing off unused ventilation openings, chimneys.
    - Consider installing automatic closers to loading bay goods doors or shutters.
    - Consider introducing or improving loft insulation.
    - Consider introducing or improving cavity wall insulation.
    - Consider fitting secondary glazing and/or under glaze sky lights where appropriate.
    - Consider installing flexible air curtains across loading bay doors.
    - Consider introducing or improving wall insulation (internal lining) to solid single skin structures.
    - Consider constructing draught lobbies to reduce unwanted air infiltration.
    - Lobby required in Reception to avoid cold draughts.
    - No bms control of heating in the corridors and so temperatures not always ideal. Provide local control.
    - Consider replacing 3 port valves with two port and variable speed pump controls.
    - Consideration of solar energy collection (either solar thermal and/or photovoltaic) on roof is recommended.
    - No pipe insulation to heating or hot water services
    - Lighting to be redesigned and LED's introduced

- **Stanstead Marina**

    - Consider installing weather compensator controls on heating and cooling systems.
    - Consider adjusting existing, or installing new, automatic external door closers, or consider adopting revolving door solutions.
    - Consider installing timer controls to energy consuming plant and equipment and adjust to suit current building occupancy.
    - Consider how building fabric air tightness could be improved, for example sealing, draught stripping and closing off unused ventilation openings, chimneys.
    - Consider installing automatic closers to loading bay goods doors or shutters.
    - Consider upgrading major time controls to include optimum start/stop.
    - Consider introducing or improving cavity wall insulation.
    - Consider installing flexible air curtains across loading bay doors.
    - Consider installing building mounted solar water heating.
    - Consider replacing or improving glazing.
    - Consider constructing draught lobbies to reduce unwanted air infiltration.

- Consideration of solar energy collection (either solar thermal and/or photovoltaic) on roof is recommended.
- Lighting to be redesigned and LED,s introduced.
- Improve sealing to large doors for winter operation.
- Some glazing is poorly insulated. Replace/improve glazing and/or frames.
- Consider installing an air source heat pump or a ground source heat pump.

- **Dobbs Weir Campsite**

  - Reduce number of immersions being used in winter season (5 down to 2) already completed.
  - Look at timers for night time lighting and or PIR sensors

- **Sewardstone Campsite**

  - Look at timers for night time lighting and or PIR sensors

- **Edmonton Campsite**

  - EPC is registered as Golf Shop but this is one building for campsite adjust for both as well.
  - Introduce HF (high frequency) ballasts for fluorescent tubes: Reduced number of fittings required.
  - Some windows have high U-values - consider installing secondary glazing.
  - Some glazing is poorly insulated. Replace/improve glazing and/or frames.
  - Consider installing an air source heat pump.
  - Consider installing building mounted wind turbine(s).
  - Roof is poorly insulated. Install or improve insulation of roof.
  - Consider installing PV.

- **Myddelton House**

  - Engage experts to assess the air conditioning systems in accordance with CIBSE TM 44.
  - Consider how building fabric air tightness could be improved, for example sealing, draught stripping and closing off unused ventilation openings, chimneys.
  - Consider introducing or improving loft insulation.
  - Consider upgrading major time controls to include optimum start/stop.
  - Consider replacing or improving glazing.
  - Consider a metering survey in accordance with CIBSE TM:39 to understand and update the current metering strategy.
  - Consider reducing heating/cooling set points and setting tighter dead bands between heating/cooling.
  - Consider adding timer controls to electric point of use hot water units.
  - Consider changing conservatory heating system from gas and connecting to wood chip boiler.
  - Consider increasing the server room setpoints to 24C+. This is still within the safe tolerance of server equipment.

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