

Committee(s): Epping Forest & Commons Committee - For Decision	Dated: 12/07/2021
Subject: Climate Action Strategy – Open Spaces “Carbon Removals” – Site Plans 2021 (SEF 30/21)	Public
Which outcomes in the City Corporation’s Corporate Plan does this proposal aim to impact directly?	11
Does this proposal require extra revenue and/or capital spending?	N
If so, how much?	See Committee report SEF 23/21 for current budgetary information on this project
What is the source of Funding?	Climate Action Strategy - <i>Carbon Removals</i> approved budget
Has this Funding Source been agreed with the Chamberlain’s Department?	Y
Report of: Colin Buttery, Director of Open Spaces	For decision
Report author: Sally Gadsdon, Epping Forest, Open Spaces	

Summary

This report provides further information on Phase 1 land management works for the first nominated sites to be utilised to support the Open Spaces Department’s *Carbon Removals* project, which helps deliver the City of London Corporation’s Climate Action Strategy. The aim of the *Carbon Removals* project is to increase the amount of carbon that habitats across the Open Spaces remove and isolate from the atmosphere to contribute to tackling climate change and to meet the City Corporation’s *net zero* target by 2027; the Government’s Nationally Determined Carbon Contribution and the 2015 Paris international agreement on climate change.

The first sites proposed to be utilized to support this project include:

- 1) **Netherhouse** (Compartment 61) for which the conversion from an arable field to a wildflower meadow with edge scrub, ponds and larger, wider hedges is recommended; and
- 2) **Gifford’s Meadow/Bottom** (Compartment 53), which it is recommended, subject to an Ecological Impact Assessment, would be planted with a small number of trees to supplement existing natural regeneration and within which a new pond would be created. The recommended proposal also includes the proposed commemoration of the past Lord Mayor, the late Sir Roger Gifford’s work to raise funds for the conservation work at the nearby site of Gifford’s Wood.

Recommendation(s)

Members are asked to:

- approve the Option 1 plan for Netherhouse and approve the revival of the field name to 'Patmore's Field'.
- approve the Option 1 outline plan for Gifford's Meadow/Bottom and approve a final name for the site.

Main Report

Background

1. The report to your Committee in March (SEF 10/21b) presented the City of London Corporation's Climate Action Strategy (CAS) and Open Spaces' *Carbon Removals Project* (CRP) within that programme, which outlines the City Corporation's commitment to tackling its carbon emissions as its response to the climate change crisis.
2. The CAS reflect work by Government to reduce emissions in 2030 by at least 68% compared to 1990 levels through the UK's latest Nationally Determined Contribution, together with the legally binding international treaty obligations outlined in the Paris Agreement (2015) to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.
3. The CRP focuses on increasing the amount of carbon that habitats remove from the atmosphere (termed carbon sequestration) across the Open Spaces where such change in land management will have a net increase in ecosystem services and biodiversity. This paper provides an update on presents site plans for the first sites to be utilized to support the CRP.
4. Further to an initial analysis of the availability of opportunities at Open Spaces sites, Epping Forest and the Buffer Land offers some immediate opportunities. The report to your Committee (SEF 23/21) in May 2021 outlined the first proposed phase of works which include tendering for studies to calculate carbon sequestration and the opportunities to increase sequestration across the Open Spaces. This research would be accompanied by further studies to understand the impacts of these opportunities on biodiversity and the other ecosystem services these habitats could provide. The report also described the Phase 1 land management works, which this report provides further details on.

Current Position

5. The first sites proposed to be included in the first year (2021 – 2022) Phase I land management works of the CRP are located at Netherhouse and Gifford's Meadow on the Epping Forest Buffer Lands and in Epping Forest respectively.
6. Netherhouse is currently managed under a short-term Farming Business Tenancy (FBT), the termination of which was approved by your Committee last

September (SEF 19/20). The tenant will be vacating the site after the harvest has been taken by September 2021. The field is 17 hectares in extent and is a single arable field, with conservation grassland corner, grass field margins and ancient hedgerows.

7. Gifford's Meadow/Bottom is one of three fields purchased by the Epping Forest Fund to support the Lord Mayor's Appeal (2012-13) during the term of Lord Mayor Sir Roger Gifford. The other two fields were planted with trees and scrub and became Gifford's Wood. Work is now proposed in the meadow (see *Proposals* below) with a view to commemorating the dedication of the late Alderman Sir Roger Gifford to Epping Forest through his Lord Mayor's Appeal, his service on the Epping Forest & Commons Committee, and his wider commitment to improving the environment in his role as Chairman of the Green Finance Institute.

Proposals

8. Netherhouse (Compartment 61 – buffer land)
This site sits in a wider ancient woods and field landscape with the nearby Trueloves and Fernhills (Compartment 17) grassland-scrub mosaic. The creation of a wildflower meadow at Netherhouse would extend the area of high nature conservation value grassland and scrub.
9. Work funded by the CRP would begin on site in September 2021 with the sowing of a wild-flower meadow. Other planned work would include pond creation and the installation of water troughs to allow conservation grazing. Over time the hedges and scrub would be allowed to widen as they contain many important tree species including ancient pear, oak pollards and many willows.
10. A report by Anderson for the Chartered Institute of Ecology and Environmental Management (CIEEM 2021) states that in reviewing land management for increasing carbon sequestration, diverse species grasslands offer carbon capture potential equivalent to that of some woodlands, with 80% of carbon stored in soils in such habitats. Most importantly, reversion from arable to grassland with no further disruption to the soils is likely to provide a much more rapid net gain in carbon stores in the soils than any tree planting and speed in carbon capture is of the essence given the present crisis.
11. It is further proposed that the site name should be changed from Netherhouse back to its historic name of Patmore's Field. The current tenant, whose family has farmed in the area for over a century, confirms that this had always been the local name prior to the fields purchase by the City Corporation as Buffer Land.
12. Gifford's Meadow/Bottom (Compartment 53)
This small and sheltered grassland site (3.5ha), adjacent to the newly-planted Gifford's Wood and ancient green lanes (integral parts of Epping Forest), could benefit from planting with a small number of open-grown oaks and scrub species to consolidate the scrub-grass mosaic habitats in the area. Some trees, especially the oaks would be allowed to become the veteran trees of the

future. The scrub in the planting would provide a pollen and nectar source as well as nesting and food source for other species.

13. Any planting, however, would need to consider the existing grassland flora and an Ecological Impact Assessment would need to be carried out to ensure that existing scarce grassland flowers, like Sneezewort, would not be lost as a result of any planting work. More open tree planting or use of the existing oak natural regeneration on site, would allow the protection of the existing grassland flora on the upper parts of the site. Also, importantly, the carbon store present in the roots of this flora and the grasses would be preserved in what is clearly an old established sward. Tree planting, although eventually storing more carbon above ground, can initially release more carbon than it captures when in old grass swards.
14. Given this and the small size of the site, limiting any planting to a much lower number of trees would not result in any notable difference in carbon sequestration in relation to the CRP target. However, such an approach would allow existing flora to be protected whilst adding some new structural interest to the habitat and for visitors' interest.
15. It is hoped, with the invisible fence GPS collars technology, that the site could be grazed in the future, which would add to the biodiversity enhancements and better preserve the grassland sward and consolidate its root mass.
16. It is proposed to seek funding or in-kind support to contribute to the costs of both sites if possible. Given any grants are likely to be of low value, it is recommended that delegation be granted to the Director of Open Spaces (or successor) to approve any grants, other funding or in-kind support.
17. A flexible approach to the long term (>10 years) management of the sites would take account of how they develop in their response to management and climate change. This approach is important in the long-term to ensure that the management is adapted to match resources and for the benefit of an appropriate balance between carbon sequestration, biodiversity and ecosystem services.
18. Alongside the work on these two sites, consultants will be commissioned during summer 2021 to undertake a review of the Open Spaces habitats, by spring 2022, and identify further opportunities to increase carbon sequestration or prevent/reduce carbon/greenhouse gas losses to meet the CRP target.

Options

19. Netherhouse Option 1. Sow a wildflower meadow, create pond(s), install water to allow the site to be grazed long-term and allow the ancient hedges and scrub to develop over time preserving carbon and providing habitat for red-listed and other bird species such as Yellowhammer and Cuckoo. Estimated cost would be a maximum £80,000 approved as part of the CRP budget.
20. The proposed benefits would be the creation of a habitat of high nature conservation value that has an increased carbon sequestration potential of

approximately 0.03 ktCO₂-e. The site would conserve, and should enhance, the existing breeding Skylark population – a UK red-listed species.

21. The reversion to grassland would also preserve the historic Patmore's Field and it is, therefore, further proposed that as part of this project that this name is adopted formally for Compartment 61. The costs above include the contingency of a second sowing in spring, but this is not expected to be required. **This option is recommended.**
22. Netherhouse Option 2. Plant the site with trees. Estimated cost c. £105,000. The potential benefits would be a higher increase in above-ground carbon sequestration but only in the medium to long term but with an associated risk of carbon losses from the soil, which would need to be assessed. Such planting work would remove the open habitats for the red-listed breeding Yellowhammer and Skylarks. **This option is not recommended.**
23. Gifford's Meadow/Bottom Option 1. Subject to an Ecological Impact Assessment of the grassland flora in summer 2021, consider the planting of the lower part of this small site with a low density of trees and scrub with the creation of a pond allowing visitors access across the majority of the site. The potential benefits would be the retention of the known grassland floral diversity, an increase in pollen and nectar from the planted scrub and maintained visitor access. This mosaic planting is likely to increase the biodiversity of the site and ecosystem services. Estimated cost < £15,000 using the approved CRP budget. The name of the site would need to be approved prior to any event. **This option is recommended.**
24. Gifford's Meadow/Bottom Option 2. Plant the site with a dense block of trees. Estimated cost c. £15-20,000 using the approved CRP budget. The potential benefits would be a higher medium-term increase in carbon sequestration than Option 1, although on a very small scale. However, the grassland flora would be lost from site representing a significant loss of biodiversity. This option would also not provide the edge habitats that would enhance the insect and bird biodiversity as in Option 1. The name of the site would need to be approved prior to any event. **This option is not recommended.**
25. Gifford Meadow/Bottom Option 3. Do nothing and leave the site in current condition, with annually cut grassland and possible future conservation grazing, as with Option 1. However, this option would not allow the opportunity or occasion to commemorate Sir Roger Gifford or the start of the CRP. **This option is not recommended.**

Key Data

26. The Open Spaces Department is estimated to already offset approximately 16ktCO₂-e of the City Corporation's emissions (~44%).

27. The City Corporation's Climate Action Strategy aims to reach *net zero* by cancelling out or offsetting its scope 1 and 2 emissions, amounting to a total of 36ktCO₂-e annually.
28. The target for the CRP is to increase sequestration by 1.4ktCO₂-e.
29. Netherhouse (Compartment 61) is forecast to increase carbon sequestration by an estimated 0.03ktCO₂-e per year.
30. Gifford's Meadow/ Gifford's Bottom is forecast to increase carbon sequestration by an estimated 0.01ktCO₂-e per year.

Corporate & Strategic Implications

Strategic implications

31. The Carbon Action Strategy is complementary to London-wide and national efforts to reduced emissions and improve resilience of our communities and urban spaces in the face of the Climate Emergency. This includes the draft London Plan, the Greater London Authority's London City Resilience Strategy 2020, the UK Committee on Climate Change Climate Risk Assessment 2017 and National Adaptation Programme, as well as the landscape of policies set out by government.
32. The CRP within the Climate Action Strategy will meet Outcome 11 of the Corporate Plan: "*We will have clean air, land and water and a thriving and sustainable natural environment*". The Climate Action Strategy builds upon existing City Corporation strategies and policies including: The Responsible Business Strategy 2018-2023, the Climate Mitigation Strategy, the Carbon Descent Plan, the Responsible Investment Policy, the City Procurement Strategy 2020-2024, the Local Plan 2015, the draft City Plan 2036, the Transport Strategy 20218-2043, the Air Quality Strategy 2015-2020, the Transition to a Zero Emission Fleet Policy, the Renewable Electric Policy & Sourcing Strategy.
33. By aiming for net zero, the City Corporation will be contributing to the UK government's Nationally Determined Contribution, which commits the UK to reducing economy-wide greenhouse gas emissions by at least 68% by 2030. This legal commitment has been made by the UK Government under the UK Climate Change Act 2008 (revised 2019), which has enshrined in law both a target of net-zero emissions by 2050 and requirements for measures for climate adaptation.

Financial implications

34. This project is funded through the approved CRP in the City Corporation's Climate Action Strategy. However, there are a number of external funding opportunities which may be available to contribute to the cost of delivering the works long-term and maintaining the site after creation. These will be explored, and appropriate funding applications made, when possible, to reduce the amount requested from the Climate Action Strategy for any one project, allowing for additional carbon sequestration or storage work to be undertaken elsewhere.

Resource implications

35. The initial project management is being undertaken by the Environmental Stewardship Officer at Epping Forest and Conservation and Trees Manager at North London Open Spaces. A project manager post is in the process of being recruited to manage the CRP.
36. The initial delivery of works will be undertaken by the Epping Forest Division, with further works and site maintenance by a CRP team to be headed up by the Project Manager. These new posts are being funded by the Climate Action Strategy.

Legal implications

37. Certain qualifying work may require an assessment under the Environmental Impact Assessment as required under Environmental Impact Assessment (Forestry) (England and Wales) Regulations 1999, as amended.

Risk implications

38. None.

Equalities implications

39. An Equality Impact Assessment Test of Relevance was presented in the Gateway 2 report to your committee (SEF 23/21) which identified some potential positive impacts and no negative impacts. The positive impacts would be provided with the creation of newly available public open spaces and additional public goods through increased ecosystem services.

Climate implications

40. The CRP is part of the City Corporation's Climate Action Strategy which demonstrates the City Corporation's commitment to reducing its contribution to factors that cause climate change and adapting to the impact of a changing climatic conditions, including extreme weather events.

Security implications

41. None.

Charity Implications

42. Epping Forest is a registered charity (number 232990). Charity Law obliges Members to ensure that the decisions they take in relation to the Charity must be taken in the best interests of the Charity.
43. In carrying out its charity trustee duties in respect of its various Open Spaces charities, the City Corporation as trustee must have regard only to whether proposals and their effects are in the best interests of each of the charities (not to whether they benefit any wider City Corporation interests, for example by helping achieve *net zero* carbon emission targets for the wider City Corporation).

44. In respect of the proposals in this report, there are clear benefits to the charitable purposes of the various open spaces charities for the reasons set out in this report including, protection of habitats and amelioration of adverse environmental impacts on the open spaces. The strategic aims of the wider City Corporation are explained in this report for context. However, pursuit of the proposals is considered fully justified on the sole basis of the benefits to the Open Spaces' charities.

Epping Forest Consultative Committee

45. This report was not presented to the Epping Forest Consultative Committee due to lack of time after developing the outline budgets for the sites through the *Gateway* approval process for the CRP. However, the Consultative Committee discussed the overall approach of the CRP on the Buffer Lands at its February 2021 meeting, as reported to your Committee in March.

46. At the Consultative Committee meeting, its members agreed that there should be recognition that agricultural habitats may also have value for specialist farmland wildlife and, therefore, there would be a need to try to ensure retention of these species. Skylarks and Yellowhammers - both UK red-listed bird species - were highlighted in the Consultative Committee's discussion as being amongst the conservation priorities.

47. The work proposed at Netherhouse (Patmore's Field) seeks to address this by maintaining optimum open habitats for these birds whilst sequestering and storing more carbon at the same time. These and other specialist farmland red-listed birds are not present as breeding species at Gifford's Meadow.

Conclusions

48. Details on the first two sites to be included in the CRP are presented. The budgets for this work would be provided through the approved CRP separate from local risk. The reversion of the arable Netherhouse to wildflower grassland provides an excellent opportunity to prevent further losses of carbon from ploughed soils while capturing carbon rapidly and considerably enhancing the biodiversity of this historic field known as Patmore's prior to the city Corporation's purchase of the land some decades ago.

49. Gifford's Meadow or Gifford's Bottom would allow the commemoration of the late Sir Roger Gifford. These works will contribute to the project's target of increasing carbon sequestration of the Open Spaces to assist the City Corporation's aim of reaching *net zero* emissions by 2027 through its Climate Action Strategy. At the same time the recommended options proposed here seek to maximise the biodiversity benefits based on the existing wildlife values of the two sites.

Background Papers

Climate Action Strategy – *Carbon Removals* Project (SEF 23/21), a Gateway 2 report, 10 May 2021

Climate Action Strategy – Open Spaces “Carbon Removals” (SEF 10/21b), 8 March 2021

Farm Business Tenancy reviews at Netherhouse and Copped Hall North (SEF 19/20), 6 July 2020

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