

Committees: Streets & Walkways Sub – for decision Projects Sub – for decision	Dates: 08 July 2021 23 July 2021
Subject: Climate Action Strategy – Cool Streets and Greening Programme Unique Project Identifier: PV ID 12267	Gateway 3/4: Options Appraisal Regular
Report of: Director of the Built Environment Report Author: Janet Laban	For Decision
<h1>PUBLIC</h1>	

1. Status update	<p>Project Description: Cool Streets and Greening is a Climate Action Strategy programme to pilot climate resilient streets and open spaces in the Square Mile.</p> <p>RAG Status: Gateway 2 Green, Gateway 3-4 Green</p> <p>Risk Status: Gateway 2 Low, Gateway 3-4 Low</p> <p>Total Estimated Cost of Project (excluding risk): £6.8M</p> <p>Change in Total Estimated Cost of Project (excluding risk): Increase/Decrease of £0 since last report to Committee</p> <p>Spend to Date: £0</p> <p>Costed Risk Provision Utilised: £0</p> <p>Funding Source: Climate Action Strategy - On Street Parking Reserve (CAS – OSPR)</p> <p>Slippage: None</p>
2. Next steps and requested decisions	<p>Next Gateway: Gateway 5: Authority to Start Work on individual projects</p> <p>Next Steps: Detailed designs will be drawn up for incorporation of the resilience measures into the year 1 projects identified in this report. This will include proposals for implementation, maintenance and evaluation. Monitoring which will be carried out over a four-year period to assess the effectiveness of the</p>

range of climate resilience measures. Individual Gateway 5 reports will be submitted for each of the proposed projects making it clear where the Cool Streets and Greening funding supplements other funding sources to improve climate resilience at each site.

Requested Decisions:

1. That **Option 1** Redesign of 6 existing projects to include climate resilience measures - to be implemented in year 1 be approved. Individual Gateway 5 reports will be prepared for each project.
2. That a budget of **£660K** is approved in principle for design & installation of climate resilience measures on Year 1 projects to enable redesigns to be progressed.
3. Note that revenue costs of £114K associated with additional maintenance and monitoring will be funded from Climate Action Strategy (CAS) revenue budget.
4. Note the revised project budget for Year 1 of **£980K** (excluding risk) which is made up of £320K for evaluation and programme development which was approved at Gateway1/2 and £660K for design and implementation. In addition, revenue budgets of 114K over a period of 5 years for maintenance and monitoring of Year 1 projects are required.
5. Note that progress has been made on other elements of the Cool Streets and Greening programme since the Gateway 2 approval in April and costs will be incurred during the remainder of 2021.
6. Note the total estimated cost of the project at £6.8M (excluding risk).

3. Resource requirements to reach next Gateway

The next Gateway for this work will be integrated into individual Gateway 5 reports for each project. No additional funding is required at this stage. Members are requested to note the overall envelope of £774K which will be required at Gateway 5 as itemised in the table below.

Item	Reason	Funds/ Source of Funding	Indicative Cost (£)
Bevis Marks	Installation of rain garden permeable paving trees and climate resilient planting	Climate Action Strategy (CAS) funding On Street Parking Reserve (OSPR)	250K

	Jubilee Gardens	Installation of Sustainable Drainage System (SuDS) green wall trees and climate resilient planting	CAS OSPR	150K
	Greening Cheapside	Installation of SuDS, permeable paving and climate resilient planting	CAS OSPR	180K
	Riverside Planters City of London Boys' School	Climate resilient planting in water retentive soils, removal of artificial irrigation, retention of existing trees	CAS OSPR	55K
	Climate Resilient Planting	Climate resilient planting at four pedestrian priority sites	CAS OSPR	20K
	35 Vine Street	Tree planting (6 trees- 3 species)	CAS OSPR	5K
	Total	Capital costs		660K
	Maintenance and monitoring of all sites	To evaluate the effectiveness of the measures for combating climate risks and identify any additional operational costs	To be met by Climate Action Strategy revenue funds	114K funded from CAS revenue – not included in total
	Total	Capital and revenue costs		774K

	<p>3.1 Policy and Resources Committee has approved funding for the Cool Streets and Greening project under the Climate Action Strategy (CAS) programme with draw-down of funding subject to further approval of the Resource Allocation Sub Committee.</p> <p>3.2 All staff costs for project management, are included in the above figures against each project site. Costs for maintenance and monitoring of the resilience measures will be met from CAS revenue funding under the Cool Streets and Greening Programme.</p> <p>3.3 The Cool Streets and Greening project activities already approved are progressing in line with the timetable set out in the Gateway 2 report. For example: specifications are progressing for the commissioning of a smart sensor network and work has begun on opportunity mapping and gap analysis. These activities will continue in parallel with the development of designs for the prioritised sites and will incur costs later in 2021.</p>
<p>4. Overview of project options</p>	<p>Option 1 – Redesign of existing projects to include climate resilience measures – Preferred Option</p> <p>4.1A total of 18 sites were identified as suitable for incorporation of climate resilience measures. These sites were prioritised using the following hierarchy:</p> <ul style="list-style-type: none"> • Priority 1 – Construction date. Priority has been given to sites where projects are already planned which are due for construction during 2021-22 but are currently still in the design stage. The designs will be enhanced to incorporate climate resilience measures. This will enable early evaluation of resilience measures to inform future years of the programme • Priority 2 – Climate resilience benefits. Assessment of the potential climate resilience benefits is taken from the Climate Resilience Measures Catalogue which was prepared for the City Corporation by Buro Happold. • Priority 3 – Cost per benefit. This ensures that the projects chosen, represent a cost-effective approach to climate resilience. • Priority 4 – Benefits per square metre. The most effective measures will have multiple benefits in the same space and will score higher. <p>4.2 The six projects which have been prioritised for redesign to include climate resilience measures in year 1 are</p> <ul style="list-style-type: none"> • Bevis Marks/ Dukes Place • Jubilee Gardens • Greening Cheapside • Riverside – City of London Boys’ School • Resilient Planting - 4 pedestrian priority locations • 35 Vine Street

	<p>These sites will enable implementation of a range of additional climate resilience measures including raingardens, permeable paving, tree planting, green walls, reduced irrigation and climate resilient planting.</p> <p>4.3 The Climate Action Strategy funding will fund the design, installation, maintenance and monitoring of climate resilience measures for these sites.</p> <p>4.4 This report seeks approval for the capital expenditure on the 6 projects.</p> <p>4.5 Maintenance and monitoring are an integral part of this programme which aims to assess whole life costs of each measure and evaluate its effectiveness through monitoring over a five-year period. These costs will be covered by the wider Climate Action Strategy funding and we will work with chamberlains to confirm the details and include this information at Gateway 4a which will be reported to the Resource Allocation Sub-Committee.</p> <p>4.6 The majority of the year 1 projects are also funded from other sources which have been approved separately. The Cool Streets and Greening funding is in addition to these other sources and will enable climate resilience measures to be implemented, maintained and evaluated. The most effective measures will then be included in design guidance for public realm, open spaces and highways projects.</p> <p>4.6 The remaining sites will be carried forward into year 2 for consideration through the next round of funding. Any residual funds from the year 1 Climate Action Strategy allocation will be rolled forward for funding of year 2 measures.</p> <p>Option 2 – Identify new sites for climate resilience</p> <p>4.6 Specific sites could be identified in the City for comparative implementation of different resilience measures to be implemented separately from existing proposed works.</p> <p>4.7 This would entail additional works on sites that are not due to be developed leading to additional costs and delays in implementation.</p>
<p>5. Recommended option</p>	<p>5.1 Option 1 is the recommended option. The sites that have been chosen are all due for construction in 2021-22 and represent a range of different climate resilience measures. It is important to begin evaluation of these measures quickly to identify which are the most successful and cost effective in combatting the risks that the City faces from climate change: flooding, heat stress, biodiversity loss, water shortages, disruption to food and trade and emerging pests & diseases.</p>

	5.2 Evaluation of these sites will inform decisions on future sites and technologies for subsequent years.
6. Risk	<p>6.1 There is a potential risk that detailed design and surveys identify constraints to the implementation of some measures. In this case the design would need to revert to traditional drainage, planting or paving. This might incur additional design cost but would be offset by a reduction the cost of the resilience elements.</p> <p>6.2 This would form part of the evaluation to inform future site prioritisation.</p> <p>6.3 It is anticipated that no Costed Risk Provision (CRP) will be required since there are no high-risk elements to these projects.</p> <p>6.4 Further information available in the Risk Register (Appendix 2) and Options Appraisal.</p>
7. Procurement approach	<p>7.1 Design and installation of the resilience measures will be included in the project plans for each site alongside the existing works.</p> <p>7.2 Approval of final designs and authority to start work will be through the Gateway 5 reports for each individual project using CAS funding to cover installation, maintenance and monitoring of the resilience measures.</p> <p>7.3 All Civil works will be carried out by the Highways term contractor and all planting works will be carried out by the Open Spaces in-house team.</p> <p>7.4 Any further design, maintenance or monitoring work will be procured in accordance with the City Procurement procedures</p>

Appendices

Appendix 1	Project Coversheet
Appendix 2	Risk Register (for recommended option)
Appendix 3	CS&G Site Prioritisation Spreadsheet
Appendix 4	Visuals for year 1 priority sites

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Options Appraisal Matrix

Option Summary	Option 1	Option 2
1. Brief description of option	Redesign of existing projects to include climate resilience measures and monitoring programme to evaluate their effectiveness. This will cover year 1 of the Cool Streets & Greening programme	Identification of new sites for installation and monitoring of climate resilience measures for Year 1 of the Cool Streets & Greening programme
2. Scope and exclusions	A call for sites produced 18 potential sites where work is already planned but could be redesigned to include climate resilience measures. These have been prioritised with 6 projects (including 9 sites) proposed for implementation in year 1.	Identification of new sites would need to follow on from the opportunity mapping which is currently underway. This will identify the most suitable locations for resilience measures such rain gardens, tree planting etc. taking account of the constraints and opportunities identified through mapping.
Project Planning		
3. Programme and key dates	All the proposed sites are due for completion during 2021/22 Estimated Key dates: Detailed design July/ Aug 2021 Construction design Oct 2021 Construction Jan- March 2022	Opportunity mapping is underway but will not be complete until Q1 2022/23. This will enable identification of the locations in the City where there is the greatest opportunity for resilience measures and greening. Estimated key dates: Climate resilience opportunity mapping Q1-Q4 2021/22 Site identification Q1 2022/23 Design & construction 2022/23
4. Risk implications	Overall project option risk: Low There is a risk that detailed surveys show constraints that make installation of SuDs and other climate resilience measures impractical.	<ul style="list-style-type: none"> • Medium risk that no year 1 projects will be progressed • Medium risk that opportunities to incorporate and evaluate climate resilience will be missed for existing projects

Option Summary	Option 1	Option 2
	Further information available within the Risk Register (Appendix 2).	
5. Stakeholders and consultees	<ul style="list-style-type: none"> Residents and businesses adjacent to proposed sites City Corporation officers: Highways, Transport, Historic Environment, Access City Public Realm 	<ul style="list-style-type: none"> External consultation delayed until 2022/23
6. Benefits of option	<ul style="list-style-type: none"> Resilience implemented in 2021/22 Uses sites where work is already planned minimising disruption and cost Provides monitoring data to inform site selection later in the 5 year programme 	<ul style="list-style-type: none"> Identifies sites based on opportunity mapping
7. Disbenefits of option	<ul style="list-style-type: none"> Tight timetable for redesign of sites 	<ul style="list-style-type: none"> Resilience measures not implemented until 2022/23 resulting in delays to the overall programme
Resource Implications		
8. Total estimated cost	<p>Estimated capital cost for 6 projects on 8 sites = £660K</p> <p>There is a high level of confidence in this figure based on estimates from the Public Realm team who have experience in implementing similar schemes elsewhere.</p>	Costs will need to be estimated once the sites have been identified

Option Summary	Option 1	Option 2
9. Funding strategy	This project is fully funded through the Climate Action Strategy – On Street Parking Reserve	Climate Action Strategy – On Street Parking Reserve
10. Investment appraisal	None – scheme is fully funded through Climate Action Strategy	None – scheme is fully funded through Climate Action Strategy
11. Estimated capital value/return	N/A.	N/A
12. Ongoing revenue implications	Ongoing revenue will be needed for maintenance and evaluation of the resilience measures over the 5-year period of the Cool Streets and Greening programme. An initial estimate of 10% of capital costs has been added however evaluation of maintenance costs will be part of the evaluation of each project. Some measures may result in reduced maintenance costs in the longer term.	Ongoing revenue will be needed for maintenance and evaluation for the remaining period of the Cool Streets & Greening programme.
13. Affordability	The scheme is fully funded through the Climate Action Strategy	The scheme is fully funded through the Climate Action Strategy
14. Legal implications	Planning permissions will be sought where necessary	Planning permissions will be sought where necessary
15. Corporate property implications	None	None
16. Traffic implications	None	To be advised based on the sites identified

Option Summary	Option 1	Option 2
17. Sustainability and energy implications	The Cool Streets & Greening programme is a Climate Action Strategy project which aims to ensure that the City remains resilient to the impacts of climate change (hotter drier summers, warmer wetter winters, more frequent weather extremes and sea level rise) All materials used in the projects will be sustainably sourced applying circular economy principles wherever possible	This project would align with the Climate Action Strategy aim that the City is resilient to the impacts of climate change
18. IS implications	N/A	N/A
19. Equality Impact Assessment	Equality Impact Assessment – Test of Relevance will be carried out for all proposed project designs	Equality Impact Assessment – Test of Relevance will be carried out for all proposed project designs
20. Data Protection Impact Assessment	N/A	N/A
21. Recommendation	Recommended	Not recommended