

### Appendix 3 Progress on Gateway 2 programme

Item	Progress summary	Outputs to date	Indicative Cost (£)	Spend to date (committed end Jan 2022)
Framework Development	Project plans have been developed for year 1 and years 2/3	Project Plan Cool Streets & Greening – Year 1 Project Plan Cool Streets & Greening – Year 2/3	£50K	7K
Resilience measures catalogue	Beta version of the resilience measures catalogue in use for site prioritisation Resilient planting catalogue scoping and evaluation of existing sites underway	Beta version of resilience measures catalogue listing 34 measures with indicative costs and benefits	£10K	10K
Smart sensors & monitoring	Collaboration with Kings College London and COL Boys' School - sensors installed, data gathering underway	Temperature, humidity, soil moisture and air quality sensors installed and gathering data. Weather station installed on roof of Boys' School and gathering data	£85K	£12K
Smart sensors & monitoring	Urban Controls Mesh connected sensors – order to be placed by end Feb 2022 installation due by summer 2022	Specification and quotes for Mesh network connected sensors		£33K
Smart sensors & monitoring	10 Gully sensors – order to be placed by end Feb 2022 installation due by summer 2022	Specification and quotes for gully sensors		£29K

Data collection & analysis	<p>Climate Action Strategy dashboard has been developed to provide an overview of the progress on all CAS projects.</p> <p>Data collection and analysis from sensor network will be through an Azure IOT hub allowing outputs in Power BI or via the Free-station public access website</p>	<p>Climate Action Strategy dashboard</p> <p>Specification for sensor outputs to be analysed via Azure IOT hub</p> <p>Free-station outputs for Cheapside sunken garden and Boys' School weather station</p>	£20K	
Opportunity mapping & data gap analysis	Cubic Mile partnership project underway with British Geological Survey (BGS) funded by NERC. Project completion Nov 2022	Data sources spreadsheet and collation of existing mapping	£75K	£20K
Site identification & prioritisation	<p>Year 1 Complete</p> <p>Year 2 Complete</p> <p>Year 3 Projects underway to identify further sites</p>	<p>Year 1 – six projects identified - 9 sites</p> <p>4 sites implementation &amp; monitoring 5 sites – monitoring only</p> <p>Year 2 – six projects identified – 6 sites</p> <p>4 sites implementation &amp; monitoring 2 sites – monitoring only</p> <p>New sites – Areas of search defined</p>	£30K	5K
Staff costs site identification & prioritisation	Public Realm Team and Open Spaces team staff costs for sites designs		£50K	7K
Staff costs CS&G workstream management	Environmental Resilience team staff costs	Environmental Resilience Officers	£100K	tba
			£320K	£123K

## Appendix 4 Progress on Year 1 Projects

Site	Proposed measures	Progress summary	Outputs	Indicative Cost (£)	Spend to date
Bevis Marks	Installation of rain garden permeable paving trees and climate resilient planting	In design Gateway 5 approval early 2022 delegated Construction Start date April 2022 Completion June 2022	<b>Measures</b> included in the design for Bevis Marks <ul style="list-style-type: none"> <li>• SuDS – raingardens with channels and reprofiled footways</li> <li>• Permeable paving</li> <li>• Trees</li> <li>• Climate resilient planting</li> </ul> <b>Monitoring</b> planned <ul style="list-style-type: none"> <li>• Temperature, humidity, and soil moisture – Urban controls – connected to mesh network</li> <li>• Gully sensors - supplier tba</li> </ul>	250K	Subject to Gateway 5 approval
Jubilee Gardens	Installation of Sustainable Drainage System (SuDS) green wall trees and climate resilient planting	In design Gateway 5 approval April 2022 delegated to chief officer Construction Start date summer 2022 Completion Autumn 2022	<b>Measures</b> included in the design for Jubilee Gardens <ul style="list-style-type: none"> <li>• SuDS soakaways</li> <li>• Green wall</li> <li>• Trees</li> <li>• Climate resilient planting</li> </ul> <b>Monitoring</b> planned <ul style="list-style-type: none"> <li>• Temperature, humidity, and soil moisture Urban Controls – connected to mesh network</li> <li>• Gully sensors - supplier tba</li> </ul>	150K	Subject to Gateway 5 approval
Greening Cheapside	Installation of SuDS, permeable	In design	<b>Measures</b> included in the design for Greening Cheapside site: <ul style="list-style-type: none"> <li>• SuDS soakaways – reprofiling footways to drain to landscaping around trees</li> </ul>	180K	Subject to Gateway 5 approval

	paving and climate resilient planting	Gateway 5 approval Jan 2022 Construction Start date April 2022 Completion June 2022	<ul style="list-style-type: none"> <li>• permeable paving – bound gravel for all paved surfaces</li> <li>• Climate resilient planting</li> </ul> <b>Monitoring</b> In collaboration with Kings College London and Ambiotek the following sensors are in place: <ul style="list-style-type: none"> <li>• Temperature &amp; humidity</li> <li>• Soil moisture</li> <li>• Air quality</li> <li>• Weather station (on Boys' School Roof)</li> </ul>		
Riverside Planters City of London School	Climate resilient planting in water retentive soils, removal of artificial irrigation, retention of existing trees	In design Planting date spring/ autumn 2022 Completion November 2022	<b>Measures</b> included in the design for the Riverside Planters <ul style="list-style-type: none"> <li>• Alternative planting mediums – water retention</li> <li>• Retention of existing trees</li> <li>• Climate resilient planting</li> </ul> <b>Monitoring</b> planned in conjunction with Kings College London & Ambiotek <ul style="list-style-type: none"> <li>• Temperature &amp; humidity</li> <li>• Soil moisture</li> <li>• Chlorophyll leaf monitoring sensors</li> </ul> Plus comparison with commercial sensors	55K	Subject to Gateway 5 approval
Climate Resilient Planting	Climate resilient planting at four pedestrian priority sites	Planting complete monitoring programme in design	<b>Measures</b> <ul style="list-style-type: none"> <li>• Planting for these sites was completed in 2021</li> </ul> <b>Monitoring</b> planned <ul style="list-style-type: none"> <li>• Temperature, humidity and soil moisture – Urban Controls connected to the mesh network</li> <li>• Chlorophyll leaf monitoring sensors</li> </ul>	20K	See Gateway 2 update

35 Vine Street	Tree planting (6 trees- 3 species)	Planting date Spring/ Autumn 2022  Completion Nov 2022	<b>Measures</b> <ul style="list-style-type: none"> <li>Eight trees of 2 different species</li> </ul> <b>Monitoring</b> <ul style="list-style-type: none"> <li>Temperature, humidity and soil moisture Urban Controls connected to mesh network</li> <li>Chlorophyll leaf monitoring sensors</li> </ul>	5K	See Gateway 2 update
Total	Capital costs			660K	Nil
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 to be included in total	
<b>Total</b>	<b>Capital and revenue costs</b>			<b>774K</b>	<b>Nil</b>

