Committee(s):	Date:
Safe City Partnership	30th August 2019
Subject: River Cameras Project – Update	**Public** Not for Public Information.
Report of: Commissioner of Police	**For Information**
Report author: T Det Supt Pete Digby – Director Secure City Programme Inspector Lorenzo Conigliaro – Crime and Counter Terrorism	

Summary

Please note that where SCP is referred to in this report it relates to Secure City Programme and not Safe City Partnership.

Members will recall that during the Health and Wellbeing July 2018 Committee the subject of river based cameras to aid suicide prevention was discussed with reference to the 'River Cameras Project' which was part of the Ring Steel Programme during 2016.

Rivera Cameras Project was part of the larger Ring of Steel Programme, which included the Barbican CCTV project and IMS/DRS as other headline projects. The River Cameras Project had reached a fairly advanced stage, with an assessment and full costings being established and ready to move towards a Gateway 3/4 process.

At the beginning of 2018 the Ring of Steel Programme was shut down, in order to review the management of the programme to ensure better and more effective outcomes. The only element of the programme taken forward at that time was the IMS/DRS project and this was maintained as a standalone project.

The Ring of Steel and CCTV Cameras now forms part of the strands of the Secure City Programme (SCP) which is now led by T Det Supt Pete Digby as its Director. This programme has been in place since October 2018 and is the joint programme between the Corporation of London and City of London Police to redesign, enhance and uplift the security of the City of London and to make it an internationally recognised as a Secure City. It looks to underpin both corporate plan objectives as well as the City Plan 2036 and the Transport Strategy which are both in draft form at this time.

The work that has been completed to date on the River Cameras Project remains valid and the work will be within scope of the CCTV and Infrastructure strand of the SCP. Security on the Bridges in the City of London is a continual concern and one that features in the Secure City Programme. It is further heightened with the terrorist attacks at Westminster and Borough Market and will undoubtedly feature in the forthcoming findings of the Borough Market inquest.

The delivery of the IMS/DRS project remains a dependency on the feasibility of the River Cameras Project. This is near its completion and has been the main works being conducted on the interim Joint Contact and Control Room (JCCR). It has been imperative that this work is completed as without an IMS/DRS there would not be a database to build the CCTV capability on. The CCTV strand of SCP is the next piece of work for SCP and is about to be commenced. The CCTV Terms Of Reference (TOR) includes River Cameras for suicide prevention and counter terrorism measures (Appendix 1). This CCTV strand and TOR will ensure that the £30k assessment previously authorised and used to put together the plan for River Cameras is still up to date and a realistic budget for the Total Cost of Ownership (TCO). The detailed spend of this £30k assessment is outlined in Appendix 2.

Recommendation(s)

For members to note the report.

Main Report

Background

1. The River Cameras Project was part of the Ring of Steel Programme and had been set up in response to the increased number of vulnerable people committing suicide from the City Bridges. It followed an innovation suggestion from one of our control room operators who documented the benefit of instant thermal imaging in order to help save people who had fallen into the Thames. Their first-hand experience in managing the initial response highlighted how valuable this technology could be in helping to save lives. This project has now been extended following the recent terrorist attacks and potential threat on the City of London Bridges from such attacks, to include Security and Counter Terrorism.

2. In June 2016 a Gateway 1/2 paper entitled 'River Cameras Project' was presented to Project Sub Committee. The paper outlined the ambition of the project and requested £30,000 in staff funding, with relevant rationale and confirmation that the funding had been agreed from Bridge House Estates. This paper was accepted.

3. The project team began the necessary work in order to prepare and submit a gateway 3/4 paper, outlining cost and rationale for the installation of cameras. This included but not exclusively;

    - Privacy Impact Assessment screening phase.
    - Operational Requirement and assessment.
    - User Requirement and functionality.
    - Feasibility study and proof of concept.

4. A gateway 3/4 paper was drafted for Policy and Resources Committee providing the full operational requirement for the project and providing three options with costing. Option three, which was the installation of fixed thermal imaging cameras along with advanced analytics came with an estimated cost of £1,388,000. However this cost will be reviewed as with the SCP and dedicated staff it is felt that delivery of a new camera system on the five bridges could be achieved within 18 months and not the 3 years as previously thought. The cost of this project will therefore likely reduce due to this.

5. The rationale was largely weighted towards the ability to quickly identify and track people in water to assist with search and rescue operations and mobilisation of water assets. The paper also highlighted the benefit to the City in terms of Counter Terrorism. To quote the paper; 'The number one priority of both the City of London Police and the Safer City Partnership is Counter Terrorism. The proposals in this paper will assist the police in Prevention Reassurance and Engagement (P.R.E.), during and post investigations and there is no doubt that they will result in a fundamental improvement in security. The technology will also support and improve the deployments of Project Servator on the bridges to help detect and deter criminal behaviour'. This extract was written prior to the terrorist attacks on Westminster Bridge and London Bridge.

6. At the beginning of this year, the Ring of Steel Programme was stopped in order that the whole programme could assessed, revaluated and relaunched with more strategic direction, support and importantly measurable outcomes. The closure of the Ring of Steel programme was communicated to members at the time. The IMS/DRS element remained in motion due to the advanced position of the project and investment to date. However the River Cameras Project was stopped awaiting the refresh of Ring of Steel.

7. The River Cameras work now forms part of the SCP and the CCTV strand within the programme. It is also imperative that both the Video Management System (VMS) and Security Management System (SMS) are designed and the Scope of Works for these are in place so that the River Camera system can feed into them.

This will ensure that the River Camera system is correctly monitored, assessed and reacted to utilising machine learning and Artificial Intelligence (AI) where it is appropriate to do so.

8. It should be noted that the delivery of river based cameras as set out in the original gateway 3/4 cannot be achieved without the successful implementation of IMS/DRS and elements of the CCTV strand of SCP namely the scoping of the VMS and SMS. The technology behind IMS/DRS VMS and the SMS is the enabling factor for advanced technology such as tracking CCTV cameras, thermal imagery and analytics.

Current Position

Secure City Programme

9. This new joint programme with the City of London Corporation is about creating a secure environment, using the most up to date technology now and in the future, to make the City an attractive place to visit and locate business. The programme consists of a number of strands:

- CCTV and Hardware
- IMS/DRS (digital upgrade of CCTV back office system)
- Joint Contact and Control Room
- Physical Infrastructure
- Future Technologies
- Cyber

10. The project team have provisionally identified the River Cameras Project as within scope of the CCTV strand and are now awaiting staff and funding to move this strand forward. Much of the foundation work for river cameras has been completed however the team will need to review the operational requirement, location feasibility and funding requirements/agreements, as would be expected given the time period between the original gateway 3/4 and now. The only funding spent on the River Cameras Project remains the initial staffing costs to get the project to gateway 3/4.

11. As mentioned previously in this report, river cameras are entirely dependent on the delivery of IMS/DRS, VMS and SMS. This is true for much of the advanced technology that would be within scope of the CCTV strand of SCP. This strand is now seeking funding by CoLP and once the funding is secured the CCTV strand will commence and will take several months to complete.

12. What is not in question is the pressing need to address two priorities for the City of London. Protecting people from harm and ensuring the City if a safe place for everyone who visits it. The addition of intelligent river cameras that can support

search and rescue in the river, but also provide enhanced counter terrorism capabilities will place the City in an advanced position in terms of capability and investment into security and safety.

Recommendation

13. It is recommended that Members note the contents of this report.

Appendix 1

Secure City Programme

CCTV Hardware

CCTV Review, Feasibility Study, 5 year Strategy and Concept Design

Terms of Reference

Objectives:

A core component of the Secure City Programme (SCP) is the CCTV Hardware Strand. Whilst the legacy back-end video management systems have been replaced with IMS-DRS which will be transitioned into operational service in June 2019, it is recognised that the City's CCTV infrastructure is built on analogue technologies that are beyond end-end-of-life and offer operational capability that is not commensurate with the requirements of modern day policing and city-wide management. The existing CCTV systems (cameras and supporting network infrastructure) need to be replaced.

However, the City's CCTV asset is comparatively small (108 cameras) and its footprint does not necessarily align with current operational needs: cameras that were installed over 25 years ago, in some cases, are now incorrectly positioned to meet prevailing needs and some cameras are no longer compliant with Surveillance Camera Commissioner's Code of Practice. Furthermore there are now significant blind-spots in capability, for example across the City (Eastern) Cluster.

This SCP strategic approach to CCTV will be to integrate, through ethical partnerships, with 3rd party CCTV systems wherever possible. Operational needs (through an analysis of current and future crime hot-spots and blind-spots) will partially determine the extent to which 3rd party external CCTV systems will be included in the SCP Strategy. Such an approach will ensure that the City derives best-value from any investments made in CCTV architecture moving forward.

The 1st critical piece of work that now needs to be undertaken is a feasibility study outlining options for the development of the City's CCTV infrastructure and to develop this into a Concept Design that can be used as a means of procurement as and when capital funding is secured.

The Scope of works will include a review and validation exercise of the works previously undertaken on the River Cameras Project to ensure the proposed technical solution meets prevailing operational requirements. Thereafter the River Camera project will be taken forward through The Gateway process, and aligned with the works set out below.

These Terms of Reference sets out the scope of works that the feasibility study and design exercise will deliver.

The works will be undertaken by a CCTV Working Group, comprising:

- SCP Programme Director
- SCP Advisor

Supported by periodic input from key stakeholders, including but not limited to:

- CoLP CCTV Manager
- COL CCTV Manager
- The City's ICT Dept
- Business Change Leads
- IMS-DRS Project Team
- CCTV Framework Contractors

The Works will be completed in accordance with the agreed SCP Programme, by end Nov 2019. Monthly Highlight Reports shall be presented to members of the SCP Programme Board.

Scope Of Works:

The SCP CCTV Working Group is tasked with:

- Development of operational requirements based on:
  - Key Stakeholders' functional needs
  - Forward look on COL redevelopment plans (Transport Strategy; City Implementation Plan)
  - Analysis of crime hot-spots
  - Identification of CCTV-blind spots (now and in the future)
  - High density footfall and crowded places
  - Iconic and Critical National Infrastructure locations

- Review of existing CoLP / COL CCTV infrastructure
  - Existing Camera Estate
  - Establish whether camera is still needed, is it correctly positioned to meet prevailing and future operational need, or whether it needs to be decommissioned or re-located?
  - Privacy Impact Assessment is relevant and up to date
  - Identify performance requirements for upgrading cameras
  - Review of existing network linking COL / CoLP cameras to IMS-DRS
  - Develop options for digital MPLS network supporting new IP camera infrastructure
  - Review of Bridge CCTV and Suicide prevention assets proposed solution to ensure it is still relevant, up to date and costings are correct.
  - Write a detailed Scope of Works for Bridge CCTV and Suicide prevention assets.

- 3rd party CCTV Capability
  - Identification of 3rd party systems (what, where) that will provide public realm coverage where there is a demonstrable operational need to close any blind-spots
  - Technical assessment of how they can be integrated into IMS-DRS and /or SMS

- Technical assessment of 3rd party external capability (cameras, video analytics etc)

- Network Security
  - Outline Development of security zone to accommodate and secure new COL/CoLP and 3rd party IP camera data feeds into IMS-DRS and/or SMS
  - Undertake review of physical security at each camera location and identification of the measures required to preserve PSN Code of Connection.

- Development of Feasibility Report, that details
  - Current CCTV infrastructure
    - Current deployment
    - Status (technical, commercial, risk assessment)
    - Compliance Statement (legal)
  - Detailed Operational Requirement moving forward
    - Geographical coverage
    - Functional capability
    - Physical security
    - Cyber security
  - River Cameras Project
    - Progress through Gateway approvals process

  - Development of 5 year Strategy
    - End State objectives
    - Options for building the road map (what? When? How?)
    - Cost Analysis

  - Concept Design
    - CCTV Footprint
    - Network Connectivity
    - Security Zone
    - Integrations between 3rd party systems and IMS-DRS and SMS
  - Risks
  - Cost Benefit Analysis
  - Recommendations

Appendix 2

Core Project	Linked Project number	Project Number	Project Name	Top Task	Sub Task	Approval Amount (Budget)	Actuals - AP + Misc	GRN Actual Unmatched	Commitment	Total	Amount Unspent
L5-River Cameras	72800015	72800015	River Cameras (SRP)	3A Staff Costs	Police Staff Costs	6,000.00	6,000.00	0.00	0.00	6,000.00	0.00
				3A Staff Costs Total		**6,000.00**	**6,000.00**	**0.00**	**0.00**	**6,000.00**	**0.00**
				Fees	Consultant Fees	24,000.00	24,000.00	0.00	0.00	24,000.00	0.00
				Fees Total		**24,000.00**	**24,000.00**	**0.00**	**0.00**	**24,000.00**	**0.00**
	72800015 Total					**30,000.00**	**30,000.00**	**0.00**	**0.00**	**30,000.00**	**0.00**
L5-River Cameras Total						**30,000.00**	**30,000.00**	**0.00**	**0.00**	**30,000.00**	**0.00**
Grand Total						**30,000.00**	**30,000.00**	**0.00**	**0.00**	**30,000.00**	**0.00**

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