Environment Agency
NEC4 professional services contract (PSC)
Scope

Project / contract Information

Project name	Luton Lea Resilient and Adaptive Communities
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Author	[redacted]

Revision history

Revision date	Summary of changes	Version number
01.12.20	First issue	0.1
18.12.20	[redacted]	0.2
21.12.20		1.0

This Scope should be read in conjunction with the version of the Minimum Technical Requirements current at the Contract Date. In the event of conflict, this Scope shall prevail. The *services* are to be compliant with the version of the Minimum Technical Requirements.

Document	Document Title	Version No	Issue date
412_13_SD01	Minimum Technical Requirements	10	February 2020

Details of the Scope

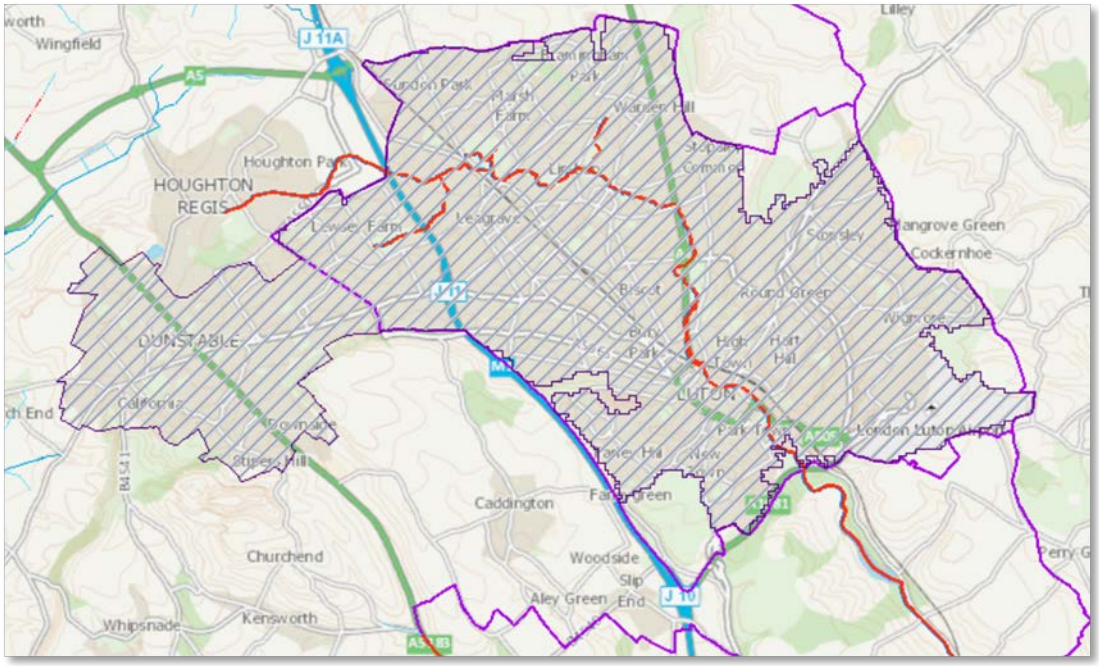
1. Description of the work

1.1. Context

Luton and Dunstable (L&D) has been identified as a new Flood Risk Area (FRA) in the Thames River Basin District Flood Risk Management Plan (FRMP) Cycle 2 (2021-2027). They are major urban areas that lie within a valley across the Chilterns Area of Outstanding Natural Beauty, South East England. The resultant steep topography and runoff from impermeable areas create significant surface water flooding issues.

Luton is the source of the River Lea, a chalk stream running straight through the heart of the town centre. Rapid urbanisation has left it much degraded and hidden underground, resulting in both flood risk and wider environmental issues.

This Resilient and Adaptive Communities (RAC) project will develop a long term management plan across this FRA, trialing an adaptive pathway approach in collaboration with partner organisations and local communities, to achieve multiple integrated benefits.



Purple lines: local authority boundaries – Luton Council, Central Bedfordshire Council
Red lines: main rivers – Upper Lea, Houghton Brook, Lewsey Brook, Cat Brook
Grey stripes: flood risk area

Central Bedfordshire Council (CBC) is in the midst of implementing some regeneration plans along Dunstable High Street to create an attractive green place that people want to spend time in, with a particular focus on sustainable drainage systems. Luton Borough Council (LBC) is in the process of preparing a new vision and masterplan for the town centre. They have just completed a second phase of public consultation which closed at the end of November 2020, with the masterplan due to be complete in Spring 2021. The master plan includes a new, greener vision for the town centre, with plans to de-culvert the river and shape the town centre with blue green infrastructure at it's heart.

The *Client is* in the process of constructing the Houghton Brook Flood Storage Area (FSA) to immediately reduce fluvial flood risk to over 600 properties in the area. This project can help

plan for the residual flood risk following the FSA's implementation, as well as support and build upon the wider regeneration opportunities in the area.

1.2. Project ambitions

The new National Flood and Coastal Risk Management (FCRM) strategy (2020) strives for a longer term, adaptive approach to managing flood risk, enabling it to be carried out in a way that is agile to the latest climate science, growth projections and other changes to the local environment. Adaptive pathways give local places a series of resilience tools and review points to help navigate through an ambiguous future in collaboration with local partners and communities. This project will pilot this adaptive approach in the *Client's* Hertfordshire and North London Area, developing a Strategy and subsequent Adaptive Implementation Plan (AIP) for the L&D FRA that considers short, medium and long term horizons in building resilience to climate change.

The National FCRM Strategy also seeks to build communities that understand their risk of flooding, know their responsibilities and how to take action. This project will have a strong community focus and facilitate both a bottom-up and top-down approach to action. The project intends to enhance our links with this traditionally hard to reach local community, and strengthen their involvement.

The Flood and Coastal Erosion Risk Management Policy Statement is clear in its direction that flood risk projects must seek to deliver multiple additional benefits that contribute to sustainable growth and development including topics such as water resources and nature recovery. This project will seek to form a wide partnership with both new and known stakeholders, to ensure that the achievement of multiple integrated benefits through project delivery can be realised. For example, L&D lies within the OxCam Growth Arc, which has an ambition to double the amount of land actively managed for nature by 2050 and to enhance environment assets; something this project would hope to contribute to.

By adopting an adaptive pathways approach, maximising multiple benefits, and empowering local communities, this project aims to help LBC and CBC address their flood risk together in a more strategic and integrated way, and help meet the measures set out in the FRMP to address flood risk in the area. Early engagement with LBC, CBC and the Luton Lea Catchment Partnership has generated a lot of support for this work.

1.3. Contract objectives

The project will be split into 3 phases:

- Phase 1 – Strategy and flood model updates
- Phase 2 – Adaptive Implementation Plan and engagement tools
- Phase 3 – delivery of pilot projects

This contract relates solely to Phase 1. The objectives are as follows:

A. Develop a Strategy for the Luton & Dunstable Flood Risk Area
This will take a long-term place-based approach to identify a vision and strategic objectives for the FRA. The 2 key drivers for the strategy are the river corridors and surface water flood risk, whilst at the same time it must also consider the wider water environment including climate change, Water Framework Directive, water resources, growth, recreation, sustainable travel, to name a few. Stakeholders and partners with an interest in / influence over the water environment in and around Luton and Dunstable should be invited to collaborate in its development. The Strategy will consider their ambitions and priorities in an integrated way, seeking wider opportunities to maximise environmental, social and economic benefits for all. It will be produced in partnership between the *Client*, LBC and CBC.

B. Analysis of local flood models to identify hotspots
Review the outputs of existing fluvial (EA), surface water (LBC and CBC) and sewer (Thames Water) models for the study area together to identify any key areas of flood risk that could provide some focal points for the strategy. Following this analysis, an integrated catchment model of any such smaller focus areas will be considered and may be subsequently commissioned.

C. Review and update the Lewsey Brook fluvial flood model
Carry out a flood model review to ensure it is fit for the following purposes:

i. To support this RAC project in developing adaptive pathway scenarios, opportunity maps and actions.
ii. Understanding the residual flood risk to properties following implementation of the Houghton Brook flood storage area.

1.4. Outcome Specification

The *Consultant* shall deliver the following activities and outcomes through this contract:

1. A Strategy detailing an agreed collaborative vision that will guide stakeholders and future activities within and around the FRA towards a common goal
   i. Literature review summary to provide context for the Strategy – this should have a strong focus on the water environment, however information relating to integrated benefits that could be achieved through this work, such as for health or education, should also be considered.
   ii. Summary of the water environment baseline across the study area – including but not limited to flood risk, water resources and water quality.
   iii. Summary of future challenges and opportunities across the FRA that could impact on the water environment – including but not limited to possible climate change and growth and development scenarios.
   iv. Preparation, delivery and summary of 2 stakeholder workshops to develop the collaborative vision and objectives for the Strategy.
   v. Drafting of design options for the Strategy that will make it a visual and engaging document that appeals to both partner organisations and local communities.
   vi. Drafting and final production of the Strategy with a minimum of 2 review cycles from the *Client.*

2. Identification of any specific locations within the FRA that could become focal points of the Implementation Plan
   i. Analysis of existing fluvial, surface water and sewer models to determine any areas of particularly complex integrated flood risk
   ii. Potential to prepare an integrated water model of any complex areas of flood risk identified above, upon instruction by the *Client*. This would be commissioned through a compensation event if required.

3. Enhanced fluvial flood model for the Lewsey Brook to better inform action identification
   i. Review of existing flood model to understand whether it is fit for the following purposes:
      - To improve understanding of the residual risk following implementation of the Houghton Brook flood storage area
      - To support development of the Adaptive Implementation Plan in phase 2 of this RAC project e.g. establishing different future climate change scenarios, informing sustainable drainage system (SuDS), natural flood management (NFM), and property flood resilience (PFR) street level opportunity mapping, aiding action identification etc.
      - To support physical project development and implementation in phase 3 of this RAC project

- To understand whether the Lewsey Brook's ability to discharge is restricted when Houghton Brook levels are high, and whether that has any flood risk consequences

ii. Summary report and recommend updates required to make it fit for these purposes, using the templates provided in Appendix 1.

iii. Potential to update the flood model as per the recommendations of the review upon instruction by the *Client.* This would be commissioned through a compensation event if required.

2. Project management

The project timeline is challenging, with the budget for this work falling within this financial year i.e. to be spent by 31st March 2021. The *Consultant* should prepare a project plan for how they can achieve the work within this timeframe. If the *Consultant* is unable to deliver the work within this timeframe, then a project plan demonstrating the earliest possible delivery date should be submitted.

As a minimum, the *Consultant* shall allow for attendance at the following meetings with the *Client* and project partners:

- One online start up meeting lasting 2 hours
- One online stakeholder workshop preparation meeting lasting 2 hours
- One online stakeholder workshop lasting 3 hours
- Two online draft strategy review meetings lasting 1 hour each

In addition, the *Consultant* shall also allow for once fortnightly teleconferences with the *Client* and project partners to provide feedback on progress against each of the objectives.

3. Constraints on how the *Consultant* provides the services

a) The *Consultant* shall ensure that appropriate use is made of existing data, to avoid duplicating work already undertaken.

b) Where specified, the *Consultant* shall use the *Client's* standard review templates.

4. Exclusions

The *services* specifically exclude:

a) Phases 2 and 3 of the project
b) Any integrated water model unless specifically commissioned
c) Lewsey Brook flood model update unless specifically commissioned

5. Specifications or standards to be used

Health and safety is the number one priority of the *Client*. This includes the well-being of staff. The *Consultant* will promote and adopt safe working methods.

The templates provided in Appendix 1 shall be used to inform the flood model review.

6. Specific Project Requirements

Not applicable

7. Services and other things provided by the *Client*

a) Some early project scoping discussions have been held and are summarised in the Technical Note in Appendix 2.

b) Any other data relevant to the project owned by the *Client* which is requested by the *Consultant* will be provided along with a data licence.

Appendix 1: Model Review Templates

LIT 17618 - Hydrology Review Ter

Copy of LIT 17617 - Non-real time Hydrau

Appendix 2: Early engagement Technical Note

RAC Tech Note v002_Final.pdf