

Environment Agency

NEC4 Professional Service Contract (PSC)

Scope


Project / contract information

Project name	Silk Stream FAS
Project SOP code	ENV0000136C
Contract number	34189
Date	29 th October 2021

Assurance

Author		Date: 24/09/21
Consulted		Date: 29/09/21
Reviewed		Date: 29/09/21
Checked prior to issue		Date: 27/10/21
Consulted		Date: 27/10/21
Reviewed		Date: 24/09/21

Revision History

Revision date	Summary of changes	Version number
24/09/2021	First issue	V0
29/09/2021	Updated based on the review of SU, PE and Procurement Lead	V1
27/10/2021	Updated following receipt of the delivery partner proposal, comments removed due to no further delivery partner feedback.	V2
28/10/2021	 comments incorporated. Previous studies reviewed, some removed. Appendices updated.	Final

This Scope shall 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 *service* is to be compliant with the following version of the Minimum Technical Requirements:

Document	Document Title	Version No	Issue date
412_13_SD01	Minimum Technical Requirements	11.0	05/05/2021

1 Overview

1.1 Background

This project is just one being progressed across the River Brent catchment under the Brent 2100 Programme and will act as a Pathfinder Project to establish the best approach to delivering schemes across this catchment.

The Silk Stream catchment is in the Edgware area of north-west London. The catchment covers an area of circa 32.4km²; covering the Silk Stream and its tributaries. The Silk Stream and its tributaries drain the largely residential and commercial areas of Stanmore, Edgware, Colindale and Burnt Oak.

The most significant events known to have affected the area occurred in 1992 and 2015, both of which resulted from fluvial sources following periods of severe weather. For further detail around historical flooding and its mechanisms please see the Strategic Outline Case (SOC) found in Appendix 4.

Studies have been ongoing in the Silk Stream Catchment since 1998 to understand and improve flood risk. Substantial improvements were made by way of the Silk Stream Flood Alleviation Scheme in 2007 in the upper catchment, which included the construction of new FSAs (e.g. Edgwarebury Park, Bury Farm), upgrading existing FSAs (e.g. Stoney Wood Lake, Summerhouse Lake), and the construction of bypass culverts. Following completion of the 2007 Silk Stream Flood Alleviation Scheme, the latest hydraulic model (JBA Consulting, 2019) suggests that at least 264 properties still remain at risk of fluvial flooding in events up to the 1% AEP across the Silk Stream catchment.

Many more properties are known to be at risk from surface water flooding through the Drain London CDA studies. Harrow and Barnet Councils have been actively working in the catchment to seek to address surface water flood risk, most notably with schemes delivered at Stanmore Marsh, Silk Stream Park and Montrose Park.

Informed by the latest fluvial modelling exercise, the Silk Stream Viability Assessment (JBA Consulting, 2018-2019) focussed on alleviating fluvial flooding in the lower reaches of the Silk Stream. The Viability Assessment highlighted that no individual measure would be able to address the flooding experienced at the different locations within the catchment and that a combination of schemes will be required.

The Silk Stream has previously flooded and, over the years, time and effort have been expended in understanding the mechanisms, causes and potential solutions. Approaches to date tended to look at fluvial flood risk benefits separately from surface water and environmental management benefits and generally resulted in proposals with insufficient Partnership Funding scores and too great a funding gap to be deliverable, often considering high Standards of Protection (SoP) of 1.33% AEP and above.

The most recent assessment suggests that if the current approach to flood risk management continues, up to 264 properties would be at moderate to very significant risk and considerably more taking into account climate change. Many more properties could also benefit from surface water and sewer flooding issues by reducing peak fluvial flows.

11 potentially viable options were identified in the Viability Assessment which are estimated to protect up to 264 properties. The Viability Assessment recommended that a suite of FRM measures are needed in order to deliver the greatest benefits for the catchment.

1.2 Previous Studies

- 1.2.1 In undertaking the *service* the *Consultant* shall take account of the previous studies detailed in the table below and produce a short technical summary explaining how best use will be made of historical data.

Report	Date	Format	Outcomes of study
Strategic Outline Case	01/06/2021	Digital format	Progression to Appraisal
■■■■ Viability Assessment	25/10/2018	Digital format	Identification of long list and short list options
2017-18 ■■■■ Modelling Study	2019	Digital format	JBA remodelled the watercourse for the Viability Assessment
EA ■■■■ Silk Stream 2019 Model Review	2021	Digital format	Details known model issues
■■■■ Initial Assessment	14/03/2016	Digital format	Schemes unaffordable
River Brent Strategy Inception Report (■■■■)	2007	Digital format	Strategic appraisal of flood risk throughout the Brent catchment
Rushgrove Park planning application	19/08/2020	Digital format (available from LB Barnet's planning portal ref 20/3817/FUL)	09/08/21 – "Pending Consideration"
Rushgrove Park improvements consultation including the masterplan	2021	Online available at - https://engage.barnet.gov.uk/rushgrove-park-masterplan	Ongoing
Silk Stream Flood and Resilience Innovation (SSFRI) project	2021	Project in progress: https://www.harrow.gov.uk/news/article/10935/silk-stream-flood-and-resilience-innovation-ssfri-project	Ongoing
NEAS Screening Register	April 2021	Digital format	Options Screening

- 1.2.2 The previous studies have been undertaken by or for the *Client* using reasonable skill and care and have been accepted. The *Consultant* shall review the information provided and notify the *Client* of any deficiencies in its adequacy. Following this review, and completion of any work required to rectify the deficiencies identified, the *Consultant* shall take the risk of any deficiencies in existing data quality and quantity which have not been notified to the *Client*. For the avoidance of doubt, the *Consultant* shall not carry the risk of any deficiencies not identified at the time of the deficiency review in the event that a subsequent change of scope or focus of the project changed the intended purpose or use of the previous studies.

1.3 Objective

The overall objective for this stage of the project is to better understand and appraise options to reduce the risk of flooding on the Silk Stream and its tributaries, producing an Outline Business Case (OBC) for a viable preferred option, or combination of options.

This scope relates to the *Consultant's* familiarisation with project and is intended to provide a period to collaboratively define the needs for the 'full' appraisal and allow both parties to hold less risk when entering the *Client* Set Target Price contract to follow.

The following four points are the central objectives of this contract;

1. The *Consultant* requires a better understanding of the options (and their interventions) that have been considered to date and the reasons why they have been progressed;
 2. Completion of a hydraulic model review in the catchment to better understand both the fluvial model and the forthcoming ICM;
 3. Collaboratively determine whether we are pursuing a catchment wide focus with LLFAs or a more fluvial-focussed approach;
 4. Production of a technical note for Long List Option 16 (Earth bunds around Rushgrove Park) – this option is also contained within Short List Option 5 (Flood Bunds).
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2 The service

2.1 Outcome Specification

The *Consultant* shall deliver the *service* such that it meets the outcomes listed in this section.

2.1.1 The primary outcomes of this commission are;

- The Consultant is familiar with this scheme and understands the objectives and the benefits the scheme needs to achieve;
 - Production of the Rush Grove park technical note;
 - Work collaboratively with the *Client* to develop the Scope of the appraisal Option C NEC4 PSC contract.
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2.2 Constraints

2.2.1 The study area can be found in Appendix 3 – Study Area

2.3 *Consultant* Project Management

2.3.1 In managing the *service* the *Consultant* shall follow all the requirements as set out in the Collaborative Delivery Framework schedules and the relevant content of the Minimum Technical Requirements.

2.3.2 In managing the *service* the *Consultant* shall:

- Attend fortnightly project team meetings discuss project progress and key issues;
- Deliver a monthly progress report giving progress against programme, deliverables received and expected and financial summary against programme;
- Attend project board meetings as required;
- Support partner engagement meetings as required.

2.3.3 The contract will be administered using FastDraft.

2.4 Outputs and Deliverables

2.4.1 The *Consultant* shall produce the following key documents for this commission:

- Summary technical note to demonstrate understanding of the project.
 - Modelling documentation required under Section 3.
 - Technical note for Long List Option 16 (Earth bunds around Rushgrove Park) – this option is also contained within Short List Option 5 (Flood Bunds). This note shall demonstrate:
 - Economic viability including economic analysis of this option including costs and benefits to a level to effectively demonstrate economic viability;
 - Technical viability including;
 - Confirm the option doesn't significantly increase flood risk elsewhere;
 - Analysis of geotechnical information to be provided by Thames Water to confirm viability of on-site material reuse;
 - Drawings detailing the indicative alignment, size and location of the option.
 - A mutually agreeable Scope for the appraisal works including the necessary documents to complete the *Client* Set Target process.
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3 Hydrology and Hydraulics

3.1 General

- 4.1.1. The existing modelling is identified in the table in section 1.2. The extents of the modelling and assumptions made are within the Model Report.
- 4.1.2. The *Consultant* shall provide a hydraulic model review in accordance with the Modelling Technical Scope, clauses 1 and 2 only. Please see Appendix 2.

- 4.1.3. The *Consultant* shall complete a hydrology review in accordance with the Modelling Technical Scope. Please see Appendix 2.
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4 Health and Safety

- 4.1.1 Health, Safety and Wellbeing (HSW) is the number one priority of the *Client*. The *Consultant* shall promote and adopt safe working methods and shall strive to deliver design solutions that provide optimum HSW to all.
- 4.1.2 The *Consultant* shall follow and comply with the requirements outlined in the Safety, health environment and wellbeing (SHEW) Code of Practice ([LIT 16559](#)).
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5 General

- 5.1.1 Not used.
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6 Relevant guidance

The *Consultant* shall deliver the *service* using the following guidance:

Ref	Report Name	Where used
LIT 16559	Safety, health environment and wellbeing (SHEW) Code of Practice	Throughout
183_05	Data management for FCRM projects	Mapping and modelling
379_05	Computational Modelling to assess flood and coastal risk	Modelling
	Project Cost Tool	Costs
LIT 12982	Working with Others: A guide for staff	Consultation & Engagement
	Flood and Coastal Erosion Risk Management: A Manual for Economic Appraisal (the 'Multi Coloured Manual')	OBC
OI 1334_16	Benefits management Framework	OBC
Gov.uk	Partnership Funding Calculator Guidance	OBC

7 Requirements of the Programme

- 7.1.1 The *Consultant* shall provide a detailed programme in Microsoft Project format meeting all requirements of Cl.31 of the Conditions of Contract.
- 7.1.2 The *Consultant* shall provide a baseline programme for the project start up meeting and shall update the programme monthly for progress meetings with actual and forecast progress against the baseline.
- 7.1.3 The programme shall cover all the activities and deliverables in the project.
- 7.1.4 The programme shall identify time risk allowance on the activities and float.
- 7.1.5 The *Consultant* shall produce a Programme such that the following milestone dates are achieved:

Date	Event
28/01/2022	Long List Option 16 Technical Note (Earth bunds around Rushgrove Park)

- 7.1.6 The following are absolute requirements for Completion to be certified:
- Transfer to the *Client* of BIM data
 - Clause 11.2(2) work to be done by the Completion Date
 - The *Client's* acceptance of the Rush Grove Park technical note or the commencement of the Appraisal Scope, whichever is completed latest, unless agreed otherwise.
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8 Services and other things provided by the *Client*

- 8.1.1 Access to Environment Agency systems and resources including:
- Asite.
 - FastDraft.
 - Collaborative Delivery Community SharePoint access.
- 8.1.2 Site access authorisation letter(s) if required.
- 8.1.3 Previous studies listed in Section 1.2.1. The *Client* will provide the previous studies within two weeks of contract award.
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9 Data

9.1.1 Not used.

10 *Client's* Advisors

- 10.1.1 The *Client* for the Contract is represented by the Programme & Contract Management (PCM) team, primarily the EA Project Manager, acting as the *Service Manager*, and in their absence the Project Executive. Instructions may only be given by these staff.
- 10.1.2 The *Client* has a number of advisory departments. Instructions will only be deemed enacted from them when they are confirmed by an Instruction from the *Client*. These departments include Asset Performance, Partnership & Strategic Overview, NEAS, etc.
- 10.1.3 The *Client's* organisation has a regulatory function. Communications from the Environment Agency in its capacity as a regulator are not to be confused with communications as the *Client*.
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Appendices

Appendix 1 – BIM Protocol

The *Consultant* shall adhere to the Environment Agency's Employers Information Requirements (EIR) framework level minimum technical requirements.

All *Client* issued information referenced within the Information Delivery Plan (IDP) requires verifying by the *Consultant* unless it is referenced elsewhere within the Scope.

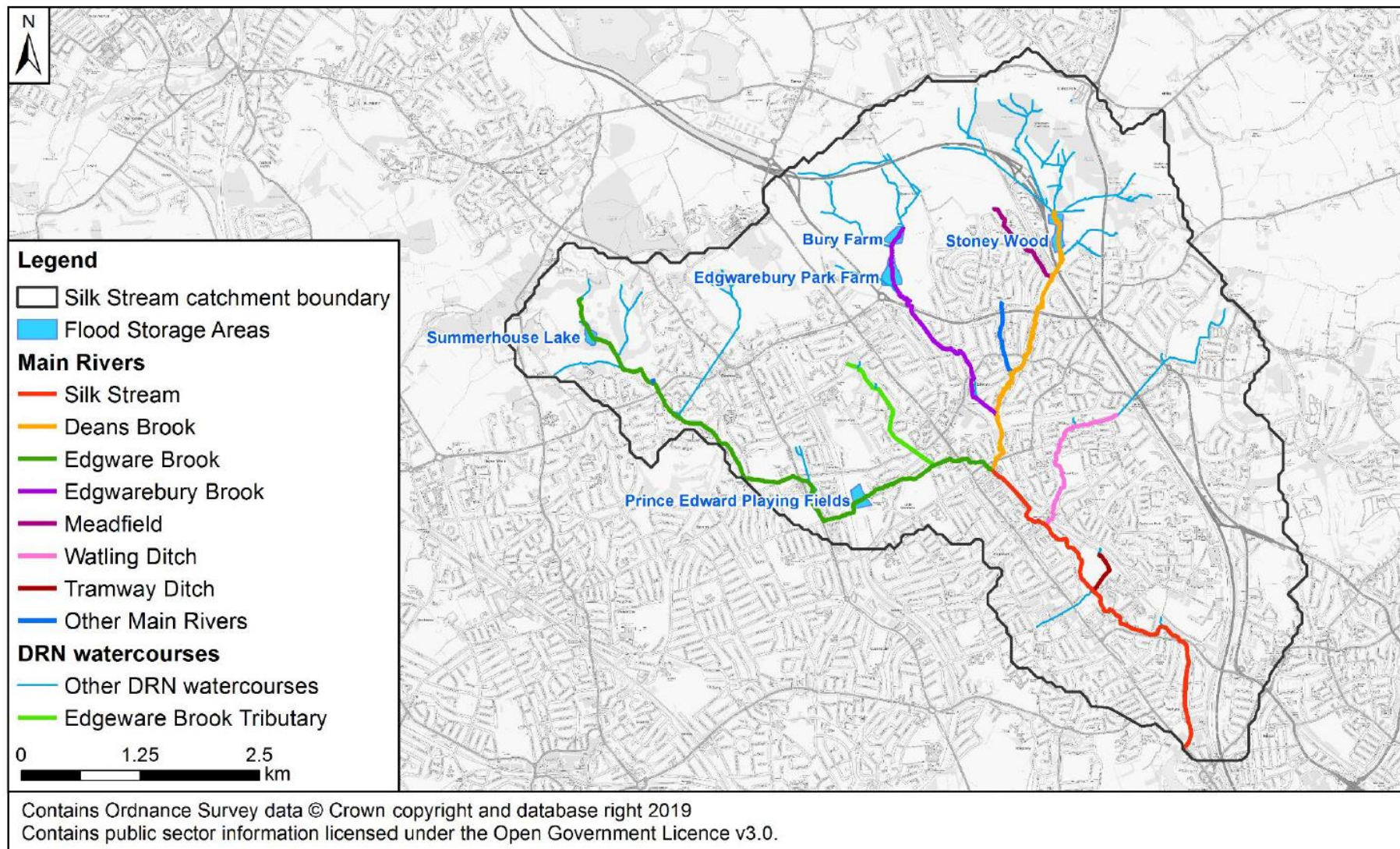
<https://www.asite.com/login-home>

The *Consultant* shall register for an Asite Account and request access to the project workspace to view the IDP.

Appendix 2 – Modelling Technical Scope

Modelling Technical Scope is provided separately as; Appendix 2 – 2021-8_20_Modelling PSC_Silk Stream FAS_V4.

Appendix 3 – Study Area



Appendix 4 – Previous Studies

Due to the file size the model files will be provided via Asite links following contract award. All other items not available from partner websites listed under clause 1.2.1 are provided under Appendix 4 - Previous Studies.
