Department for Environment Food & Rural Affairs

www.gov.uk/Defra

Appendix 2 – Call-Off Procedure:

for The Research, Development and Evidence Framework 1

Tender Reference: C26584 – Groundwater Natural Capital Project

Date: 11th October 2024

1.0 Request for Proposal

1.1 The following document is to be used as a Call-Off template to be sent to all Contractors on a sub-lot by the Project Manager of the Contracting Authority for completion and return in accordance with the Call-Off procedures detailed in the Form of Agreement.

Research, Development and Evidence Framework **REQUEST FOR PROPOSAL**				
Project title:	Groundwater Natural Capital Project			
Call off Reference:	RDE697			
Atamis project ref (if applicable):	C26584 / **Contract Ref: C27354**			
Cost Centre Code **(for admin purposes only)**	10004413			
Date:	11/10/2024			
Contracting Authority (Defra and its arms-length bodies etc)	Environment Agency			
Project Manager:	[redacted]	**Phone number:**	[redacted]	
Authorized by:	Liane Baiao	**Email:**	[redacted]	
Commercial Contact (if applicable):				
Project Start Date	09/12/2024			
Project Completion Date	14/03/2025			
For any projects over the direct award threshold, full competition is required (i.e. all contractors on the Sub-Lot are invited to quote).	**Direct Award**	No	**Mini-comp**	Yes
Call off from Sub-Lot number	5.2 - R&D for water quality, water resources and coastal erosion risk management			
Proposal return date:	08/11/2024 @ 12:00			

Evaluation criteria: Within the submission, the contractor should give due consideration

to the following quality and price weighting as well as the quality sub-criteria weightings.		
Contractors: Failure to meet any minimum score threshold stated will result in the bid being removed from the process with no further evaluation regardless of other quality or price scores.		
Quality	**Weighting**	**70%**
Price	**Weighting**	**30%**
Quality Sub-Criteria Weightings: (Indicative only)		
Approach & Methodology	• Confirm that your proposal meets our specification, and a viable methodology is suggested. Please ensure your response is clear and well presented; • Set out in detail how each task will be delivered, including the approach, design, analytical strategy; • Demonstrate a detailed understanding of the project, the technical challenges that need to be addressed, and the capabilities required to deliver the project; • Outline any input required from the Environment Agency, as well as the approach to dissemination and review of the findings. The response must be a maximum of 6 sides of A4, font size 11.	**60%**
Proposed Staff (inc Pen Portraits) and Contractor's experience/accreditations.	• Provide details of the proposed project team and team structure intended to deliver this project, including any sub-contractors and/or associates; • Submit CVs for all staff to support the response and include a table showing the staff days expected to be spent on the project per task, this table should match the staff days in the cost proposal; • Demonstrate knowledge and previous experience of work relating to groundwater environments; • Demonstrate an understanding of the natural capital approach and its relevance to groundwater; • Demonstrate good project planning and management skills. The response must be a maximum of 3 sides of A4, font size 11 plus copy of CVs.	**20%**
Project Management (including project plan)	• Outline the proposed project management arrangements including day to day working for the project, the proposed timetable for the project, risk log and mitigation actions; • Provide a Gantt chart presenting milestones,	**10%**

	deliverables, timelines and inter-dependencies; • The response should demonstrate how the project will be delivered efficiently, enabling the Environment Agency to use outputs as quickly as possible throughout the project. The response must be a maximum of 2 sides of A4, font size 11.	
Risk:	• Complete a risk register and identify project risk against the risk identified by the PM; • Proposes mitigation measures that will address identified risks in an adequate way; • Demonstrate consideration of potential issues relating to data licensing and ensure full compliance with this and any associated legislation or Governmental guidance. The response must be a maximum of 1 side of A4, font size 11.	**5%**
Health & Safety	N/A	**N/A**
Sustainability – Mandatory	The Authority has set itself challenging commitments and targets to improve the environmental economic and social impacts of its estate management, operation, and procurement. These support the Government's green commitments. The policies are included in the Authority's sustainable procurement policy statement published at: https://www.gov.uk/government/publications/defra-s-sustainable-procurement-policy-statement Within this context, please briefly explain your approach to delivering the services and how you intend to reduce negative sustainability impacts. Please discuss the methods that you will employ to demonstrate and monitor the effectiveness of your organization's approach for this requirement. The response must be a maximum of 1 side of A4, font size 11.	**5%**

Specification
1. Description of work required – overall purpose & scope (including reporting requirements)
Key project elements • The priority of this work is to understand the provision of ecosystem services through the development of the ASM and the identification of appropriate indicators and metrics. The quantification or attribution of value (neither monetary or non-monetary) is not part of the

current scopes.

- All work at the EA must consider the needs and perspectives of a broad range of stakeholders and external user groups. Your submission should evidence how you would engage with relevant stakeholders.

- We would like to ensure that the assessment process incorporates diverse perspectives and remains unbiased. The assurance process must be transparent and rigorous, engaging external expertise. Your submission should evidence how you would achieve this.

Introduction

The natural capital approach is a framework that helps making informed decisions about land use/management (inc. marine). At its core, it helps us understand the multiple benefits (environmental, societal, and economic) we gain from the environment, and importantly, it allows us to value these benefits quantitatively in both monetary and non-monetary terms. The approach enables us to understand any trade-offs or synergies between different benefits and management options, and to factor these into decision making.

The natural capital approach relies on us understanding the state (quantity, quality and location) of natural assets. The 'state' of an asset refers to its ability to provide the ecosystem service in question and is therefore relative to the specific ecosystem service. As a result, the reported state of an asset may vary depending on the service being considered. For example, a river can be in a good state for supporting wildlife, but at the same time may not be in a good state for supporting the ecosystem service of recreation (such as swimming or rowing).

We use asset indicators to understand the state of natural capital assets, and therefore their expected ability to provide ecosystem services. Additionally, it is crucial to establish what data and method we use to measure and report on the indicator, referred to as the indicator's metric.

- **Natural Asset Indicator:** A specific characteristic of the environment, from which we can infer a more general understanding of the state of a natural asset.
- **Metric:** A standardised quantitative system of measurement, including units.

More details on the natural capital approach and the role of indicators are provided in the following document:

The freshwater environment is intricately interconnected; however, the natural capital approach requires the delineation of distinct natural assets as a necessary simplification to facilitate our comprehension. Many assets are interdependent, and essential in supporting one another in order to provide ecosystem services. For example, the ecosystem services provided by a river or wetland may be reliant on, and impacted by, the state of the groundwater asset that sustains it, making the groundwater an indirect contributor.

An Asset Service Matrix (ASM) is a tool that describes the broad linkages between natural assets and the ecosystem services they provide or contribute to. Developing an ASM for the freshwater environment presents a challenge due to the dependencies between freshwater assets and how they interact to provide ecosystem services. To address this, we have adopted a pragmatic, use-

oriented approach for the ASM, in which only the direct linkages between assets and ecosystem services are identified. This is then complemented by the identification of the critical dependencies between different natural assets. This approach helps to avoid double counting or attribution of ecosystem service provision, while ensuring that consideration is given to the vital supportive roles that some assets provide to others.

This project focuses on developing methods that enable the application of the natural capital approach to groundwater management. Our objective is to improve our understanding of the ecosystem services provided by groundwater, how the 'state' of the groundwater assets are changing, and what this means for ecosystem service provision. We will investigate the underlying processes and functions that enable these ecosystem services and identify suitable indicators that will inform us of the state of the groundwater and its ability to provide them. This will allow us to express change in asset state in terms of change in expected ecosystem services.

This work aligns with and supports the broader objectives of the Natural Capital & Ecosystem Assessment programme lead by the Department for Environment, Food & Rural Affairs (Defra), which seeks to integrate natural capital into policy appraisal.

Given groundwater's significant contribution to the health and function of all freshwater ecosystems, this work will support the development of an ASM for groundwater, development of appropriate groundwater asset quality indicators to improve the understanding of the overall asset state, and therefore allow the application of the natural capital approach. This will be achieved through the following tasks:

TASK 1: Understanding groundwater's role in ecosystem service provision – This will i) review and refine the preliminary groundwater ASM developed by the Environment Agency Natural Capital & Evidence Synthesis team, ii) determine groundwater's role in supporting other freshwater natural assets (to allow them in turn to provide ecosystem services) including highlighting the processes and functions that underpin this relationship.

TASK 2: Identifying asset quality indicators and appropriate measurements metrics for ecosystem services directly provided by groundwater - This will generate a comprehensive list of indicators that will i) inform the quality of the groundwater assets and outline how this quality impacts their ability to provide ecosystem services; ii) enable monitoring to detect changes in the assets and the expected impact on ecosystem service provision.

TASK 3: Identifying asset quality indicators and/or metrics for freshwater assets supported by groundwater – This will i) build on the information developed under Task 1 to outline the interdependencies between groundwater and other freshwater assets and ii) guide the development of a methodology to accurately account for groundwater's contribution when developing quality indicators for other freshwater assets.

TASK 4: **Technical assurance for the methodologies used in task 1, 2 and 3, as well as for the final outputs** – This includes the engagement of independent technical experts to verify the credibility of the methodologies. The contractor is responsible for arranging and managing this assurance process.

Proposed methodology:

Note: A working version of Ecosystem Service and natural asset definitions used by the EA is

provided here:

EA_NC_definitions_20240718.xlsx

Task 1:

a) Reviewing and finalising the EA asset-service matrix for groundwater.
b) Developing narratives for the dependencies of other assets (and the ecosystem services they directly provide) on groundwater.
c) Developing a system map to delineate the role of groundwater, that aligns with the natural capital logic chain.

Task 2:
For each ecosystem service directly provided by groundwater:

a) Identify relevant indicators and explain their relevance in building our understanding in the ecosystem service provision.
b) Establish what data could be used and measured to inform the indicators (e.g. what is the underpinning metric).
c) Identify where existing data sources can be used to inform/use as indicators and metrics, assessing their suitability in understanding groundwater's provision of ecosystem services. This will also take into account the forthcoming data from the NCEA groundwater monitoring networks.
d) Understand and outline the origin, coverage, limitations and licencing of the data.
e) Gap analysis to identify if/where there is insufficient data to fully understand the state of groundwater assets and their ability to provide the ecosystem service. Or if there is insufficient geographical data to inform national understanding.
f) Provide recommendations for indicators and data sources, to address the identified gaps. To include suggestions on how data could be collected for this, which will be used to inform the development of future monitoring initiatives.
g) Provide recommendations on how the indicators can be geospatially represented.
h) Provide recommendations on how the indicators can be used in combination to inform overall expected ecosystem service provision.
i) Pilot and demonstrate the use of the developed indicators, using 'real' data. EA project team will help collate/source data to be used.

Task 3
For each groundwater supported freshwater asset and their ecosystem services:

a) Develop a robust methodology to select appropriate indicator(s) that reflect the role of groundwater when assessing the state of other freshwater assets.
b) Identify indicators that can quantify using fully- or semi-quantitative methods the role of groundwater in supporting the state of other freshwater assets and distinguishing whether its role is critical (i.e. the asset cannot function without groundwater input) or supportive (i.e. groundwater enhances functionality but is not the sole contributor).
c) Outline the situations in which the indicator(s) would be applicable and should be used.
d) Identify where existing data sources can be used to inform/use as indicators and metrics,

assessing their suitability in understanding the role of groundwater in the provision of ecosystem services by the other freshwater asset. This will also take into account the forthcoming data from the NCEA groundwater monitoring networks.

e) Establish what data could be used and measured to inform the indicators (e.g. what is the underpinning metric).
f) Understand and outline the origin, coverage, limitations and licencing of the data.
g) Gap analysis to identify if/where there is insufficient data to use as an appropriate indicator(s). Or if there is insufficient geographical data to inform national understanding.
h) Provide recommendations for indicators and data sources, to address the identified gaps. To include suggestions on how data could be collected for this, which will be used to inform the development of future monitoring initiatives.
i) Provide recommendations on how the indicators can be geospatially represented.
j) Demonstrate the selection process outlined in (Task 3c). Pilot and demonstrate the use of the developed indicators, using 'real' data. EA project team will help collate/source data to be used.

2. Required skills / experience from the contractor and staff. Include any essential qualifications or accreditations required to undertake the work.

- Demonstrable experience in developing and applying natural capital frameworks to the assessment, evaluation, and management of environmental assets, with a preference for freshwater assets.
- Specialised expertise in hydrogeology with the ability to identify, measure, and interpret indicators that reflect the condition and changes in groundwater and the impact on the ecosystem services it provides.
- Familiarity with data sources for groundwater natural capital indicators, particularly in relation to datasets managed by the Environment Agency or equivalent bodies.
- Ability to work collaboratively across disciplines, including ecology, hydrology and hydrogeology, to develop a comprehensive picture of freshwater systems, ensuring that the role of groundwater is accurately represented in environmental assessments and decision-making.
- Strong analytical skills to allow the development and integration of indicators and metrics of natural capital for groundwater.

3. Proposed program of work and payment table (Detailing specific tasks, key milestones, deliverables & completion date where appropriate)

Task no.	Task and deliverable	Completion date	Payment schedule
1a	Project Inception meeting and minutes	06/12/2024	10%
1b	Draft Narrative report for the groundwater ASM describing: i) the ecosystem services coming from groundwater, their importance and bibliographic evidence; ii) inter-asset dependencies on groundwater, their importance and bibliographic evidence.	03/01/2025	40%
1c	Excel spreadsheet summarising the ASM for groundwater and inter-asset dependencies.		
1d	System map (conceptualisation) describing the role of groundwater in		

	ecosystem service provision.		
2 & 3	Report outlining the indicators and recommended metrics for both direct groundwater ecosystem service provision, and the supporting role of groundwater on other assets. The report should follow and develop the methodology described in section 1.	14/02/2025	15%
2 & 3	Excel spreadsheet listing the indicators, recommended metrics and associated metadata.	28/02/2025	15%
2 &3	Worked example of both of the above.		
4	Technical assurance process.	14/03/25	20%

4. Risk

Note: *This section is to be used to detail any risks or key elements relevant to the project i.e. Programme deliverable dates, workshops or external requirements, data, consultees, stakeholders etc that could impact the success of the project if they are not managed.*

- **Challenges securing access to critical data on groundwater and freshwater assets held by the Environment Agency** - It is important for the contractor to identify all data sources early on to address issues related with data privacy regulations, proprietary restrictions, or technical barriers, that could hinder data acquisition.

- **Insufficient collaboration with stakeholders and experts across the various disciplines pertinent to this project** can significantly compromise the understanding of groundwater's contribution to ecosystem services and the correct application of the methodology. Thorough consultations are crucial to ensure that key insights and needs are fully integrated into the project.

- **Project's tight timeline** poses a risk of potential delays, which could arise from various factors such as unforeseen complexities, resource availability, or coordination challenges.

- **Bias in recommendations for indicators and metrics** - Chosen contractor may have existing preferred approach to identify and develop indicators and metrics. This may limit the proposed approach in the future and reduce innovation and quality. Mitigation: link all recommendations to evidence and trials; introduce a range of independent contributors and reviewers to provide transparent and constructive critical input and feedback.

5. Health and Safety Requirements

***Note**: Only include if high risk activities being undertaken e.g. working at height, near or over water). Do not request RAMS or similar risk assessments are returned with submissions. These should only be requested at contract award.*

NA

6. Further Sustainability Considerations

The existing sustainable procurement policy statement published at: https://www.gov.uk/government/publications/defra-s-sustainable-procurement-policy-statement address all relevant aspects. No further additions are deemed necessary for this project.

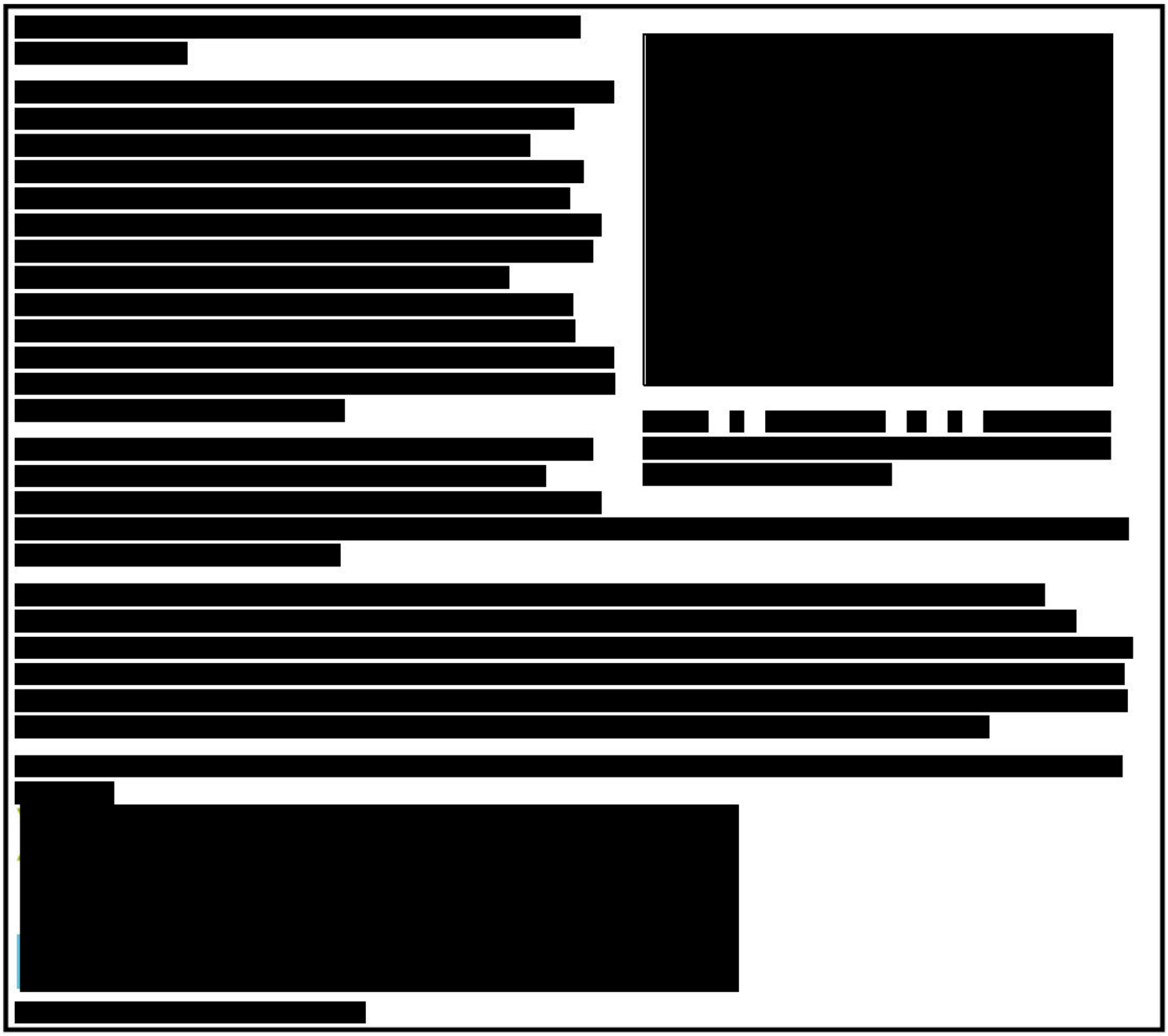
2.0 Proposal

2.1 The following document is to be used as a Call-Off template to be sent to all Contractors on a sub-lot for completion and return in accordance with the Call-Off procedures detailed in the Form of Agreement.

Research, Development and Evidence Framework 2 **PROPOSAL**
To be completed by the Contractor
Contractor's Name: AECOM Ltd **Call off Reference:** **Sub-Lot Number:** **Date: 26/11/2024**
Note: Your proposal must not exceed 6 sides of A4 plus the Costs Proposal in Section 4 (unless otherwise indicated in project client's specification above). Attachments must not be included unless requested except for a programme diagram and full cost schedule if you consider these would support your proposal. **Do not make or append Caveats and Assumptions in your proposal – any points of uncertainty must be raised as a clarification point prior to submitting the proposal. Where assumptions are to be made, these will be stated by the Authority's Project Manager.**

1. Approach & Methodology *(Max 6 pages)*

[redacted]



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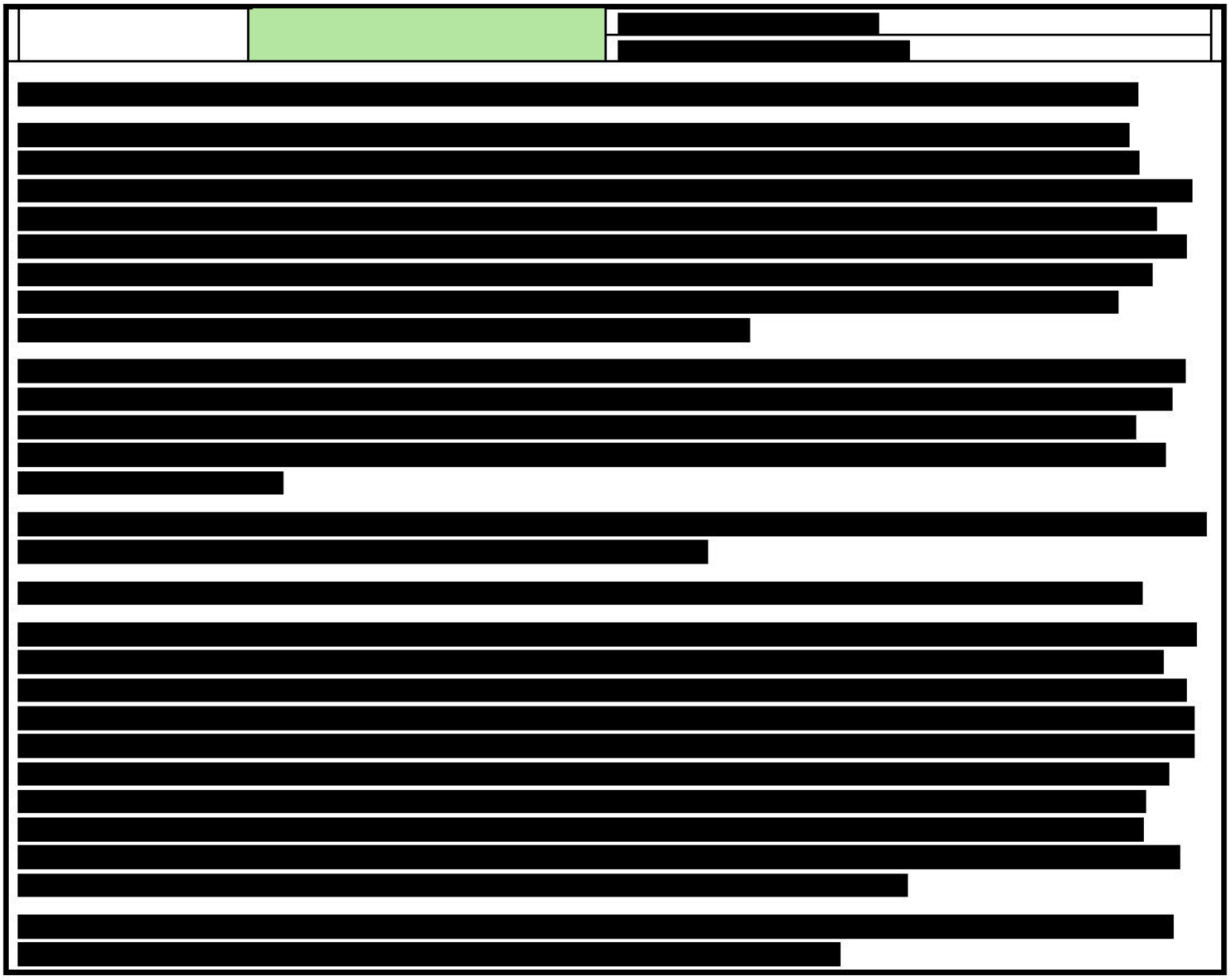

2. Project Management. ***A project plan may be provided as an attachment with your reply*** *Max 2 pages*

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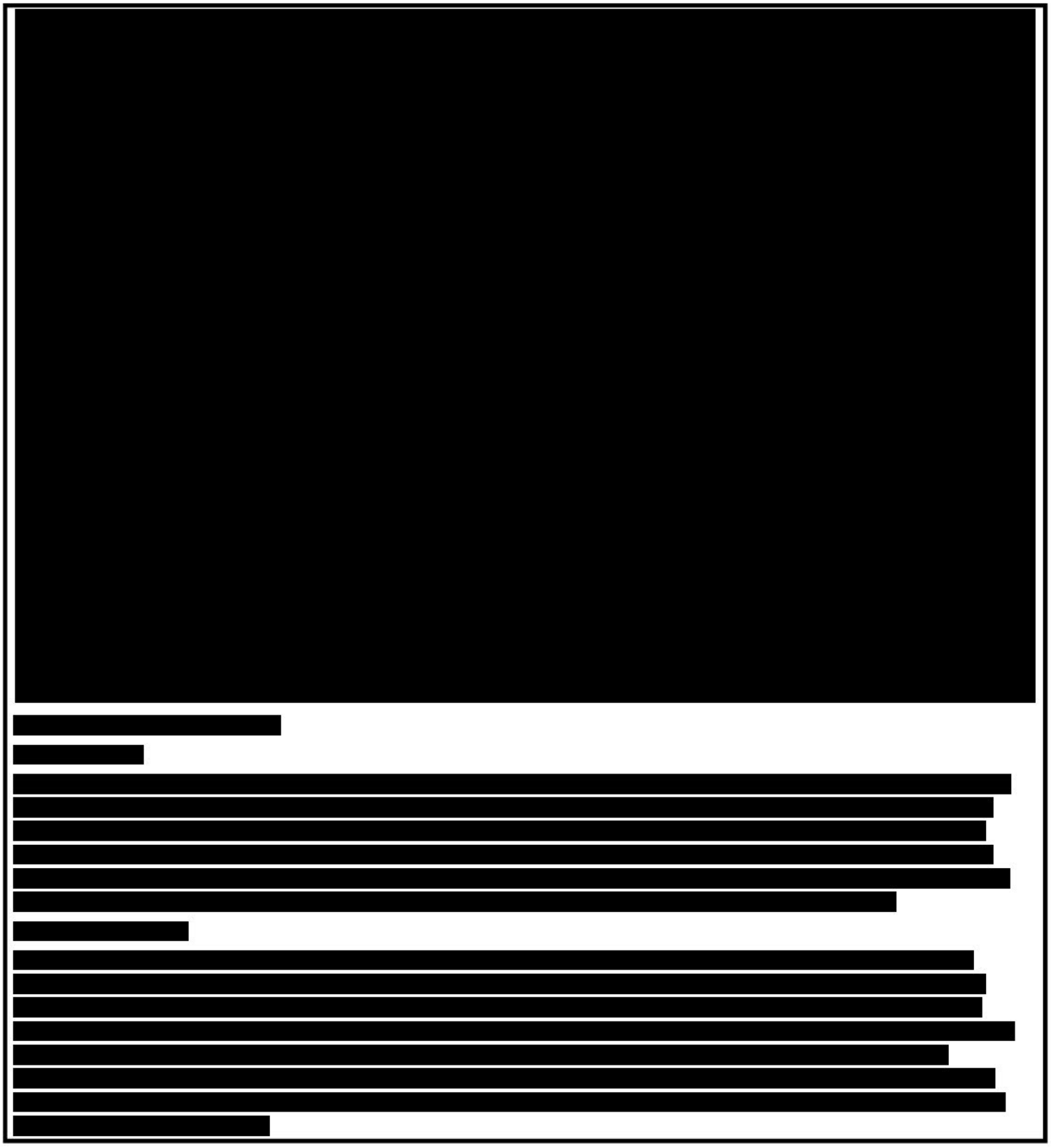

3. Proposed Staff who will do the work and briefly state previous relevant qualification/experience. Contractors experience of undertaking similar projects and accreditations (if requested) *Max 3 pages*

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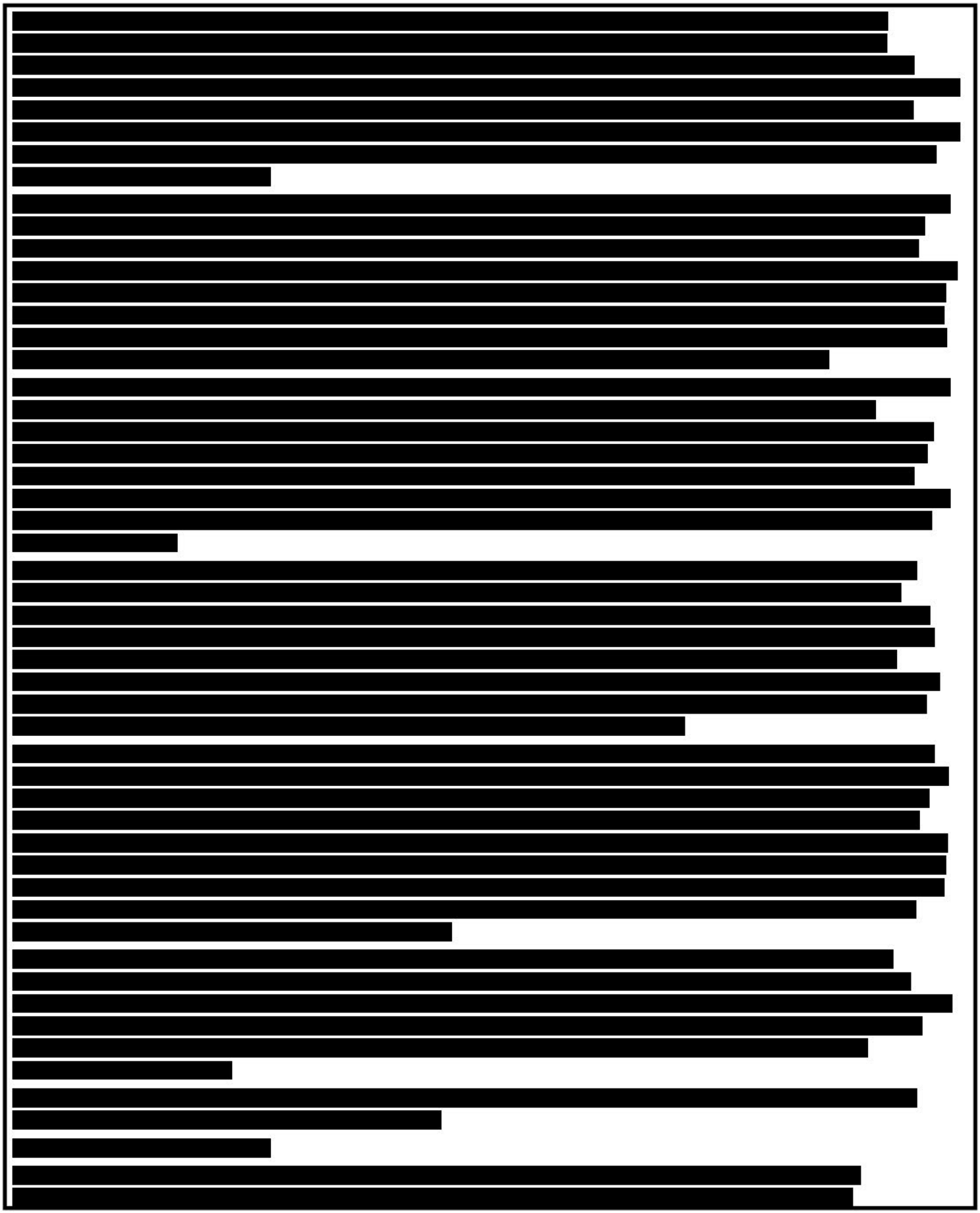

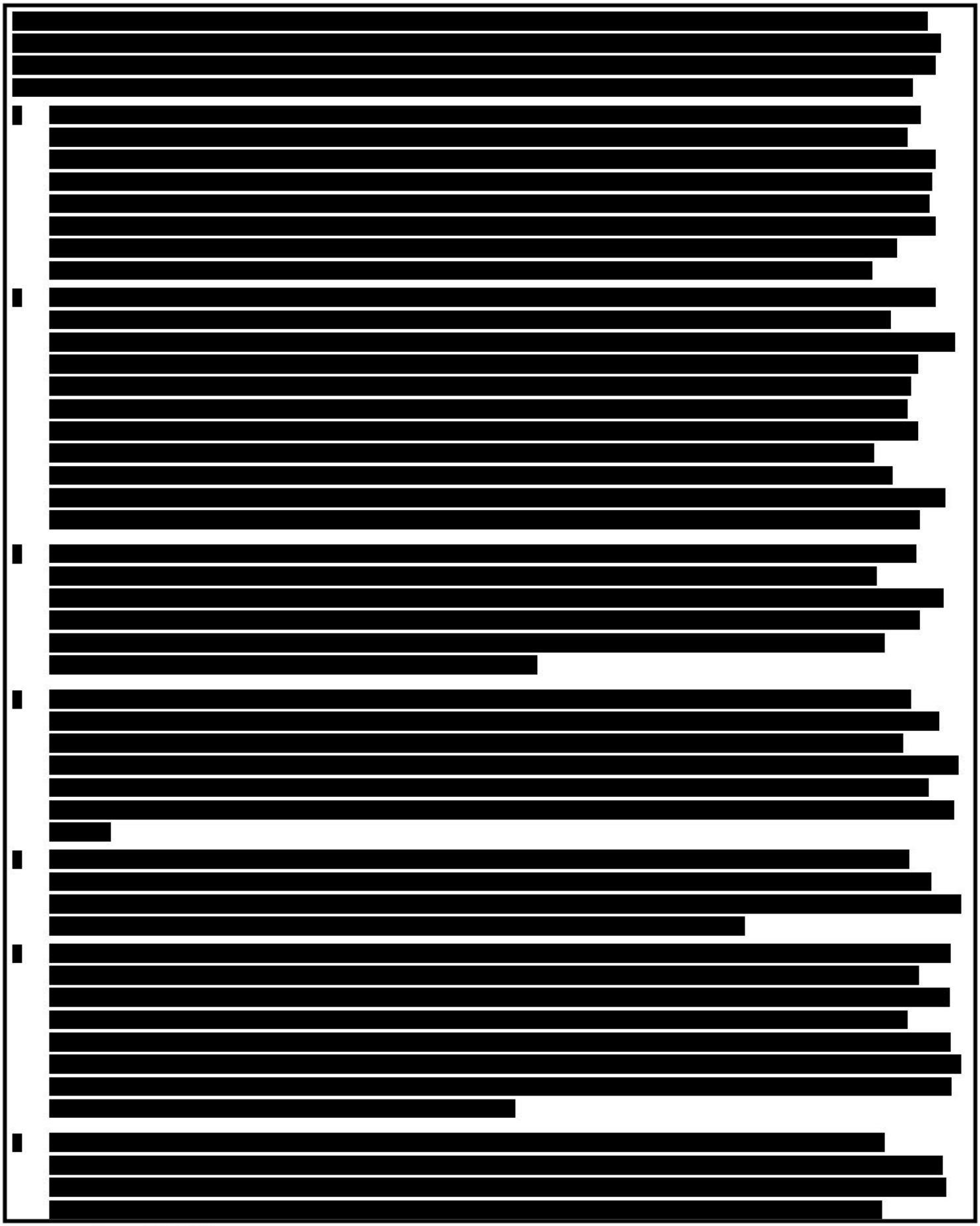

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4. Risk *Max 1 Page*

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5. Health & Safety (only complete if requested in defined evaluation criteria)

N/A

6. Sustainability *Max 1 Page*

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7. Cost Proposal
Please use day rates, including any applicable discounts, as agreed under the framework contract. A full cost schedule may be attached to support the costs summarised below.

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				£52,625.60	

By signing this form *(AECOM Ltd)* agree to provide the services stated above for the cost set out in your Cost Proposal and in accordance with the Research, Development & Evidence Framework 1Conditions of Contract.

Contractor Project Manager:	[redacted]
Signature:	We can sign this following confirmation of intention to award
Date:	We can date this following confirmation of intention to award

3.0 Order Form

3.1 The following document is to be completed by the Contracting Authority and sent to the Contractor for counter signature to form a Call-Off contract.

Research, Development and Evidence Framework 2 **ORDER FORM**
To be completed by Contracting Authority Project Manager and sent to Contractor for countersignature. PLEASE INCLUDE ENTIRE DOCUMENT
Project title: Groundwater Natural Capital Project **Call off Reference: RDE697** **Atamis project ref (if applicable): C27354** **Date: 05/12/2024**

THE Contracting Authority: **Environmental Agency**

THE CONTRACTOR: **AECOM Limited**

APPLICABLE FRAMEWORK CONTRACT

This Order Form is for the provision of the Call-Off Deliverables and dated [Insert date of issue]. It's issued under the Research Development & Evidence Framework Agreement reference 30210 for the provision of [Insert name of project].

CALL-OFF SUB-LOT: **5.2 - R&D for water quality, water resources and coastal erosion risk management**

CALL-OFF INCORPORATED TERMS The following documents are incorporated into this Call-Off Contract. Where numbers are missing we are not using those schedules. If the documents conflict, the following order of precedence applies:

1. Defra Framework Terms and Conditions;
2. Request for Proposal;
3. Proposal;

No other Supplier terms are part of the Call-Off Contract. That includes any terms written on the back of, added to this Order Form, or presented at the time of delivery.

CALL-OFF CONTRACT START DATE: **9th December 2024**

CALL-OFF CONTRACT EXPIRY DATE: **14th March 2025**

CALL-OFF PERIOD: **3 Months**

For and on behalf of the Supplier:

Supplier_Signature

[redacted]

Full Name: [redacted]

Job Title/Role: [redacted]

Date Signed: 01/08/2024

For and on behalf of the Buyer:

Authority_Signature

[redacted]

Full Name: [redacted]

Job Title/Role: [redacted]

Date Signed: 09/12/24