



**Environment
Agency**

Conditions of Contract Services

(Version: October 2019)

London Basin Groundwater Model Update



1. DEFINITIONS

1.1. In the Contract, unless the context requires otherwise, the below words and expressions shall have the following meanings assigned to them.

1.1.1. Agency

The Environment Agency, its successors and assigns.

1.1.2. Agency Property

All property issued or made available for use by the Agency to the Contractor in connection with the Contract.

1.1.3. The Appendix

The Appendix to these Conditions.

1.1.4. The Contract

These Conditions, including the Appendix, any Special Conditions, Specification, Pricing Schedule, Contractor's tender, acceptance letter and any relevant documents agreeing modifications exchanged before the Contract is awarded, and any subsequent amendments or variations agreed in writing.

1.1.5. The Contractor

The person, firm company or body, who undertakes to supply the Services to the Agency as defined in the Contract.

1.1.6. Contract Period

The time period stated in the Appendix or otherwise provided in the Contract, for the performance of the Services.

1.1.7. Contractor Personnel

means all directors, officers, employees, agents, consultants and contractors of the Contractor and/or of any sub-contractor engaged in the performance of its obligations under this Contract

1.1.8. Contract Price

The price exclusive of VAT set out in the Contract for which the Contractor has agreed to supply the services.

1.1.9. Contract Supervisor

Any duly authorised representative of the Agency notified in writing to the Contractor for all purposes connected with the Contract. Any Notice or other written instruction given by or made to the Contract Supervisor, shall be taken as given by or made to the Agency.

1.1.10. Contracting Authority

means any contracting authorities (other than the Environment Agency) as defined in regulation 2 of the Public Contract Regulations 2015 (SI 2015/102) (as amended).

1.1.11. Data Protection Legislation

means: (i) the General Data Protection Regulation (Regulation (EU) 2016/679) or GDPR, the Law Enforcement Directive (Directive (EU) 2016/680) ("LED") and any applicable national implementing Laws as amended from time to time (ii) the Data Protection Act 1998 ("DPA 1998") and/or the Data Protection Act 2018 ("DPA 2018") to the extent that it relates to processing of personal data and privacy; (iii) all applicable Law about the processing of personal data and privacy

1.1.12. Data Protection Schedule

The Schedule attached to this Contract describing how the Parties will comply with the Data Protection Legislation.

1.1.13. Intellectual Property Rights

All Intellectual Property Rights including without limitation, patents, patent applications, design rights, registered designs, utility models, trade and service marks and applications for same, copyright know-how, rights in semi-conductor chip topography, and in each case, whether protectable at law or not, and if protectable, whether an application has been made for such protection or not, and all similar industrial, commercial, monopoly or other intellectual property rights, whether present or future, vested or contingent wherever protected.

1.1.14. Law

means any law, subordinate legislation within the meaning of Section 21(1) of the Interpretation Act 1978, bye-law, enforceable right within the meaning of Section 2 of the European Communities Act 1972, regulation, order, regulatory policy, mandatory guidance or code of practice, judgment of a relevant court of law, or directives or requirements with which the Contractor is bound to comply

1.1.15. Notice

Any written instruction or notice given to the Contractor by the Contract Supervisor, delivered by:

- i. Fax, or hand delivery to the Contractor's registered office or other address notified for the purposes of the Contract and deemed to have been served at the date and time of delivery;
- ii. First class post to the Contractor's registered office. Such Notices are deemed to have been served 48 hours after posting.

1.1.16. Results

All things produced in performing the Services, including maps, plans, photographs, drawings, tapes, statistical data, experimental results, field data, analysis of results, published and unpublished results and reports, inventions, computer programmes and user documentation.

1.1.17. The Resulting Rights

All Intellectual Property Rights in the Results that are originated, conceived, written or made by the Contractor, whether alone or with others in the performance of the Services or otherwise resulting from the Contract.

1.1.18. Permission

Express permission given in writing before the act being permitted.

1.1.19. Services

All Services detailed in the Specification including any additions or substitutions as may be requested by the Contract Supervisor.

1.1.20. Regulations

Means the Public Contract Regulations 2015 (SI 2015/102) as amended.

1.2. Except as set out above and in the Data Protection Schedule, the Contract shall be interpreted in accordance with the Interpretation Act 1988.

1.3. All headings in these Conditions are for ease of reference only, and shall not affect the construction of the Contract.

1.4. Any reference in these Conditions to a statutory provision will include all subsequent modifications.

1.5. All undefined words and expressions are to be given their normal English meaning within the context of this Contract. Any dispute as to the interpretation of such undefined words and expressions shall be settled by reference to the definition in the Shorter Oxford English Dictionary.

2. PRECEDENCE

To the extent that the following documents form the Contract, in the case of conflict of content, they shall have the following order of precedence:

- Conditions of Contract including Appendix, Data Protection Schedule and any Special Conditions;
- Specification;
- Pricing Schedule;
- Drawings, maps or other diagrams.

3. CONTRACT SUPERVISOR

The Contractor shall strictly comply with any instruction given by the Contract Supervisor concerning or about the Contract provided such instructions are reasonable and consistent with the nature, scope and value of the Contract. All such instructions shall be in writing. The Contractor is not obliged to comply with any verbal instruction from the Contract Supervisor that is not confirmed in writing within 7 working days.

4. THE SERVICES

4.1. The Contractor shall provide all staff, equipment, materials and any other requirements necessary for the performance of the Contract using reasonable skill, care and diligence, and to the reasonable satisfaction of the Contract Supervisor.

4.2. The Contractor shall only employ in the execution and superintendence of the Contract persons, who are suitable and appropriately skilled and experienced. The Contract Supervisor shall be at liberty to object to and require the Contractor to remove any person employed in or about the Contract, who is unsuitable, misconducts himself, is incompetent or negligent in the performance of his duties or persists in conduct which could endanger the health or safety of others. Such persons shall not be employed again on the Contract without the Permission of the Contract Supervisor.

5. ASSIGNMENT

5.1. The Contractor shall not assign, transfer or sub-contract the Contract, or any part of it, without the Permission of the Contract Supervisor.

5.2. Any assignment, transfer or sub-contract entered into, shall not relieve the Contractor of any of his obligations or duties under the Contract.

5.3. Nothing in this Contract confers or purports to confer on any third party any benefit or any right to enforce any term of the Contract.

6. CONTRACT PERIOD

The Contractor shall perform the Services within the time stated in the Appendix, subject to any changes arising from Condition 10 (Variations) and/or Condition 11 (Extensions of time).

The Authority wish to include a break clause within the contract, following the delivery of Task 1 [*Update the conceptual model, including quality control (QC) of existing data*] in March 2021. The Authority retain the right to end the contract at this point at their sole discretion and will give 30 days' notice of their wish to implement this break clause.

7. PROPERTY

7.1. All property issued by the Agency to the Contractor in connection with the Contract shall remain the property of the Agency, and shall be used in the execution of the Contract, and for no other purpose whatsoever without the prior approval of the Contract Supervisor.

7.2. The Contractor shall keep all Agency Property in safe custody and good condition, set aside and clearly marked as the property of the Agency.

7.3. On expiry or earlier termination of the Contract the Contractor shall, if so required, either surrender such property to the Agency or otherwise dispose of it as instructed by the Contract Supervisor.

8. MATERIALS

8.1. The Contractor shall be responsible for establishing his own sources of supply for goods and materials and will be responsible for ensuring the reasonable and proper conduct by his suppliers and staff whilst on the Agency's premises.

8.2. The Contractor shall not place, or cause to be placed, any orders with suppliers or otherwise incur liabilities in the name of the Agency or any representative of the Agency.

9. SECURITY

9.1. The Contractor shall be responsible for the security of all goods and equipment belonging to the Agency and used by the Contractor in the provision of the Services, belonging to the Contractor, or Contractors staff, or sub-contractors whilst on Agency premises.

9.2. This Condition shall not prejudice the Agency's rights under Condition 15.

10. VARIATIONS

10.1. The Contract Supervisor may vary the Contract by adding to, deleting or otherwise modifying the Services to be supplied, by written order to the Contractor provided such variations are reasonable and consistent with the nature, scope and value of the Contract.

10.2. The value of any such variation, other than any variation arising out of Condition 10.3, shall be determined by reference to the rates contained in the Pricing Schedule. Where the Services so ordered are not covered in the Pricing Schedule, they shall be valued at a fair and reasonable rate agreed between the Contract Supervisor and the Contractor.

10.3. Where a variation is the result of some default or breach of the Contract by the Contractor or some other cause for which he is solely responsible, any additional cost attributable to the variation shall be borne by the Contractor.

10.4. The Contractor may also propose a variation to the Services but no such variation shall take effect unless agreed and confirmed in writing by the Contract Supervisor.

10.5. No variation shall have the effect of invalidating the Contract, or placing the Contract at large, if that variation is reasonably consistent with the nature, scope and value of the Contract. The Agency may vary the Contract to comply with a change in English Law. Such a change will be effected by the Contract Supervisor notifying the Contractor in writing.

10.6. The Agency may assign, novate or otherwise dispose of its rights and obligations under the Contract or any part thereof to:

10.6.1. any Contracting Authority; or

10.6.2. any other body established by the Crown or under statute in order substantially to perform any of the functions that had previously been performed by the Agency; or

10.6.3. any private sector body, which substantially performs the functions of the Agency, provided that any such assignment, novation or other disposal shall not increase the burden of the Contractor's obligations under the Contract.

10.7. Any change in the legal status of the Agency such that it ceases to be a Contracting Authority shall not affect the validity of the Contract. In such circumstances, the Contract shall bind and inure to the benefit of any successor body to the Agency.

11. EXTENSIONS OF TIME

11.1. Should the performance of the Contract be directly delayed by any cause beyond the reasonable control of the Contractor, and provided that the Contractor shall first have given the Contract Supervisor written notice within five working days after becoming aware that such delay was likely to occur, then the Contract Supervisor, if satisfied that this Condition applies:

11.1.1. in the case of any delay of which the Agency is not the cause, may grant the Contractor such extension of time, as in his opinion is reasonable, having regard without limitation, to any other delays or extensions of time that may have occurred or been granted under the Contract. The Contract Price shall not increase as a result of such an extension of time.

11.1.2. in the case of any delay of which the Agency is the cause, shall grant the Contractor a reasonable extension of time to take account of the delay.

11.2. No extension of time shall be granted, where in the opinion of the Agency the Contractor has failed to use reasonable endeavours to avoid or reduce the cause and/or effects of the delay.

11.3. Any extension of time granted under this Condition shall not affect the Agency's rights to terminate or determine the Contract under Conditions 13 and 14.

12. DEFAULT

12.1. The Contractor shall be in default, if he:

12.1.1. fails to perform the Contract with due skill, care, diligence and timeliness;

12.1.2. refuses or neglects to comply with any reasonable written instruction given by the Contract Supervisor;

12.1.3. is in breach of the Contract.

12.2. Where in the opinion of the Contract Supervisor, the Contractor is in default, the Contract Supervisor may serve a Notice giving at least five working days in which to remedy the default.

12.3. If the Contractor fails to comply with such a Notice the Contract Supervisor may, without prejudice to any other rights or remedies under the Contract, take over for as such a period as is necessary the performance of the relevant part of the Contract and make other arrangements for its completion. Any extra costs arising from this action will be paid by the Contractor or deducted from any monies owing to him.

13. TERMINATION

13.1. The Agency may immediately, without prejudice to any other rights and remedies under the Contract, terminate all or any part of the Contract by Notice in writing to the Contractor, Receiver, Liquidator or to any other person in whom the Contract may become vested, if the Contractor:

13.1.1. fails in the opinion of the Contract Supervisor to comply with (or take reasonable steps to comply with) a Notice under Condition 12.2.

13.1.2. becomes bankrupt or insolvent, or has a receiving order made against him, or makes an arrangement with his creditors or (being a corporation) commences to be wound up, not being a voluntary winding up for the purpose of reconstruction or amalgamation, or has a receiver, administrator, or administrative receiver appointed by a Court.

'Termination under the Regulations'

13.2. The Agency may terminate the Contract on written Notice to the Contractor, if:

13.2.1. the contract has been subject to a substantial modification, which requires a new procurement procedure pursuant to regulation 72(9) of the Regulations;

13.2.2. the Contractor was, at the time the Contract was awarded, in one of the situations specified in regulation 57(1) of the Regulations, including as a result of the

application of regulation 57(2), and should therefore have been excluded from the procurement procedure, which resulted in its award of the Contract; or

13.2.3. The Contract should not have been awarded to the Contractor in view of a serious infringement of the obligations under the Treaties and the Regulations that has been declared by the Court of Justice of the European Union in a procedure under Article 258 of the TFEU.

14. DETERMINATION

14.1. Without prejudice to any other rights or remedies under the Contract, the Agency reserves the right to determine the Contract at any time by giving not less than one month's Notice, (or such other time period as may be appropriate).

14.2. The Agency shall pay the Contractor such amounts as may be necessary to cover his reasonable costs and outstanding and unavoidable commitments necessarily and solely incurred in properly performing the Contract prior to determination.

14.3. The Agency will not pay for any costs or commitments that the Contractor is able to mitigate and shall only pay those costs that the Agency has validated to its satisfaction. The Agency's total liability under this Condition shall not in any circumstances exceed the Contract Price that would have been payable for the Services if the Contract had not been determined.

15. INDEMNITY

15.1. Without prejudice to the Agency's remedies for breach of Contract, the Contractor shall fully indemnify the Agency and its staff against any legally enforceable and reasonably mitigated liability, loss, costs, expenses, claims or proceedings in respect of:

15.1.1. death or injury to any person;

15.1.2. loss or damage to any property excluding indirect and consequential loss;

15.1.3. infringement of third party Intellectual Property Rights, which might arise as a direct consequence of the actions or negligence of the Contractor, his staff or agents in the execution of the Contract.

15.2. This Condition shall not apply, where the damage, injury or death is a direct result of the actions, or negligence of the Agency or its staff.

16. LIMIT OF CONTRACTOR'S LIABILITY

16.1. The limit of the Contractor's liability in aggregate for claims made by the Agency, other than for death or personal injury, whether by way of indemnity or by reason of breach of contract, or statutory duty, or by reason of any tort shall be:

16.1.1. the sum stated in the Appendix;

16.1.2. if no sum is stated, the Contract Price or five million pounds, whichever is the greater.

17. INSURANCE

17.1. The Contractor shall insure and maintain insurance against liabilities under Condition 15 (Indemnity) in the manner and to the values listed in the Appendix to these Conditions. If no sum is stated, the value insured shall be £5M (five million pounds.)

17.2. If specifically required by the Agency, nominated insurances shall be in the joint names of the Contractor and the Agency.

17.3. The Contractor shall, upon request, produce to the Contract Supervisor documentary evidence that the insurances required are fully paid up and valid for the duration of the Contract.

18. PREVENTION OF FRAUD AND CORRUPTION

18.1. The Contractor shall not offer, give, or agree to give anything, to any person an inducement or reward for doing, refraining from doing, or for having done or refrained from doing, any act in relation to the obtaining or execution of the Contract or for showing or refraining from showing favour or disfavour to any person in relation to the Contract.

18.2. The Contractor shall take all reasonable steps, in accordance with good industry practice, to prevent fraud by the Contractor's staff and the Contractor (including its shareholders, members and directors) in connection with the Contract and shall notify the Agency immediately, if it has reason to suspect that any fraud has occurred or is occurring or is likely to occur.

18.3. If the Contractor or the Contractor's staff engages in conduct prohibited by this clause 18 or commits fraud in relation to the Contract or any other contract with the Crown (including the Agency), the Agency may:

18.3.1. terminate the Contract and recover from the Contractor the amount of any loss suffered by the Agency resulting from the termination, including the cost reasonably incurred by the Agency of making other arrangements for the supply of

the Goods and any additional expenditure incurred by the Agency throughout the remainder of the Contract; or

18.3.2. Recover in full from the Contractor any other loss sustained by the Agency in consequence of any breach of this clause.

18.4. The Contractor shall not, directly or indirectly through intermediaries commit any offence under the Bribery Act 2010 (as amended), in any of its dealings with the Agency.

19. MONITORING AND AUDIT

19.1. The Contract Supervisor may inspect and examine the Services being carried out on the Agency's premises, or elsewhere at any reasonable time. Where the Services are being performed on other than the Agency's premises, reasonable notice to inspect shall be given to the Contractor. The Contractor shall give all such facilities as the Contract Supervisor may reasonably require for such inspection and examination.

20. CONTRACT PRICE

20.1. The Contract Price will be paid by the Agency to the Contractor as amended by any Variations ordered under Condition 10 (Variations).

20.2. In addition to the Contract Price, the Agency will pay to the Contractor such Value Added Tax (if any) as may properly be chargeable at rates ruling at the time of invoice.

21. INVOICING AND PAYMENT

21.1. Invoices shall only be submitted for work already satisfactorily completed, and accompanied by such information as the Contract Supervisor may reasonably require to verify the Contractor's entitlement to payment. Such invoices will be paid in 30 days from receipt by the Agency.

21.2. If any sum is payable under the Contract by the Contractor to the Agency, whether by deduction from the Contract or otherwise, it will be deducted from the next available invoice.

21.3. If the Contractor enters into a sub-contract with a supplier for the purpose of performing its obligations under the Contract, it shall ensure that a provision is included in the sub-contract, which requires payment to be made of all sums due from it to the sub-contractor within 30 days from the receipt of a valid invoice.

22. INTELLECTUAL PROPERTY RIGHTS

22.1. All Prior Rights used in connection with the Services shall remain the property of the party introducing them. Details of each party's Prior Rights are set out in the Prior Right Schedule to this contract.

22.2. All Results shall be the property of the Agency.

22.3. The Resulting Rights in any Results, and any interim results shall, from the time they arise, be the property of the Agency and the Agency shall be free, should it so wish, to apply at its own expense for patent or other protection in respect of the Results or any interim results. The Agency's intention to apply for such patent or other protection shall be notified to the Contractor. Such applications for patents or other registered intellectual property rights shall be filed in the name of the Agency.

Unless otherwise agreed in writing between the Contractor and the Agency, the Contractor hereby:

22.3.1. assigns to the Agency all Resulting Rights

22.3.2. grants the Agency a non-exclusive, non-transferable (save for the purposes of sub-licensing, reorganisation or transfer to a successor body, for the purposes of all the successor body's normal business use), irrevocable, royalty free perpetual licence to the Agency in respect of all the Contractor's Prior Rights necessary in order for the Agency to use or exploit the Resulting Rights.

22.4. The Contractor undertakes to the Agency not to use, exploit or deal with any of the Agency's Prior Rights, other than in the performance of the Contract unless the Contractor has first obtained a written licence from the Agency, in specific terms to do so.

22.5. The Agency undertakes to the Contractor not to use or exploit the Contractor's Prior Rights, save as provided in Condition 22.3.2.

22.6. The Contractor warrants to the Agency that the performance of the Services, the Contractor's Prior Rights and the Results shall not in any way infringe any intellectual property rights of any third party.

22.7. If the Contractor is prevented from carrying out his obligations under the Contract due to any infringement or alleged infringement of any Intellectual Property Rights, the Agency may without prejudice to any other rights and remedies under the Contract, exercise the powers and remedies available to it under Conditions 13 and 14, Termination and Determination respectively.

22.8. The Contractor shall not be liable, if such infringement arises from the use of any design, technique or method of working provided by or specified by the Agency.

22.9. The Contractor waives in favour of the Agency its rights to object to derogatory treatment of the Results of the Work and the Contractor also agrees that he will not assert or seek to enforce against the Agency and/or any other person,

firm or company any of its moral rights as defined in the Copyright Designs and Patents Act 1988 (as amended) without the prior agreement of the Agency.

22.10. The Contractor shall not be liable for any consequential losses, damage or injuries arising from third party misuse of the Results, of which the Contractor is not aware.

23. WARRANTY

The Contractor warrants that the Services supplied by him will be discharged with reasonable skill, care and diligence.

24. STATUTORY REQUIREMENTS

The Contractor shall fully comply with all relevant statutory requirements in the performance of the Contract, including, but not limited to the giving of all necessary notices and the paying of all fees.

25. ENVIRONMENT, SUSTAINABILITY AND DIVERSITY

25.1. The Contractor in the performance of this Contract should adopt a sound proactive environmental approach, designed to minimise harm to the environment, to conserve energy, water, wood, paper and other resources, reduce waste and phase out the use of single-use plastic, ozone depleting substances and minimise the release of greenhouse gases, volatile organic compounds and other substances damaging to health and/or the environment, and be able to provide proof of so doing to the Agency on demand.

25.2. The Agency is committed to ensuring that workers employed within its supply chains are treated fairly, humanely and equitably. The Agency expects the Contractor to share this commitment and to understand any areas of risk associated with this and work to ensure they are meeting International Labour Standards. The Contractor ensures that it and its sub-contractors and its supply chain:

25.2.1. comply with the provisions of the Modern Slavery Act 2015;

25.2.2. pay staff fair wages (and pays its staff in the UK not less than the Foundation Living Wage Rate); and

25.2.3. Implement fair shift arrangements, providing sufficient gaps between shifts, adequate rest breaks and reasonable shift length, and other best practices for staff welfare and performance.

25.3. The Contractor should support the Agency to achieve its Public Sector Equality Duty by complying with the Agency's policies (as amended from time to time) on Equality, Diversity and Inclusion (EDI). This includes ensuring that the

Contractor (and their sub-contractors) in the delivery of its obligations under this Contract:

25.3.1. eliminates discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Equality Act 2010;

25.3.2. advances equality of opportunity between people, who share a protected characteristic and those who do not; and

25.3.3. fosters good relations between people who share a protected characteristic and those who do not.

25. PUBLICITY

The Contractor shall not advertise or publicly announce that he is supplying Services or undertaking work for the Agency without the Permission of the Contract Supervisor.

26. LAW

This Contract shall be governed and construed in accordance with the Law, and subject to the jurisdiction of the courts of England.

27. WAIVER

27.1. No delay, neglect or forbearance by the Agency in enforcing any provision of the Contract shall be deemed to be a waiver, or in any other way prejudice the rights of the Agency under the Contract.

27.2. No waiver by the Agency shall be effective unless made in writing.

27.3. No waiver by the Agency of a breach of the Contract shall constitute a waiver of any subsequent breach.

28. ENFORCEABILITY AND SURVIVORSHIP

28.1. If any part of the Contract is found by a court of competent jurisdiction or other competent authority to be invalid or legally unenforceable, that part will be severed from the remainder of the Contract, which will continue to be valid and enforceable to the fullest extent permitted by law.

28.2. The following clauses shall survive termination of the Contract, howsoever caused: 13, 14, 15, 22, 23, 24, 27, 29, 30, 31 and 32.

29. DISPUTE RESOLUTION

29.1. All disputes under or in connection with this agreement shall be referred first to negotiators nominated at a suitable and appropriate working level by the Agency and the Contractor.

29.2. If the parties' negotiators are unable to resolve the dispute within a period of forty five days from its being referred to them, the dispute shall be referred at the instance of either party to the parties' respective senior managers or directors (supported as necessary by their advisers).

29.3. If the parties' respective senior managers or directors are unable to resolve the dispute within forty five days, the dispute shall be referred to the Centre for Dispute Resolution, who shall appoint a mediator and the parties shall then submit to the mediator's supervision of the resolution of the dispute.

29.4. Recourse to this dispute resolution procedure shall be binding on the parties as to submission to the mediation but not as to its outcome. Accordingly, all negotiations connected with the dispute shall be conducted in strict confidence and without prejudice to the rights of the parties in any future legal proceedings. Except for any party's right to seek interlocutory relief in the courts, no party may commence other legal proceedings under the jurisdiction of the courts or any other form of arbitration until forty five days after the appointment of the mediator.

29.5. If, with the assistance of the mediator, the parties reach a settlement, such settlement shall be put in writing and, once signed by a duly authorised representative of each of the parties, shall remain binding on the parties.

29.6. The parties shall bear their own legal costs of this dispute resolution procedure, but the costs and expenses of mediation shall be borne by the parties equally.

29.7. Any of the time limits in Conditions 30 may be extended by mutual agreement. Such agreed extension shall not prejudice the right of either party to proceed to the next stage of resolution.

30. GENERAL

30.1. Neither party to the Contract will be liable to the other for any delay in performing or failing to perform its obligations (other than a payment obligation) under the Contract because of any cause outside its reasonable control. Such delay or failure will not constitute a breach of the Contract and the time for performance of the affected obligation will be extended by a reasonable period.

30.2. The Contract contains the whole agreement between the parties and supersedes all previous communications, representations and arrangements, written or oral. It is accepted that the Contract has not been entered into on the basis of any representations that are not expressly contained in the Contract.

31. FREEDOM OF INFORMATION ACT

31.1. The Agency is committed to open government and to meeting its responsibilities under the Freedom of Information Act 2000 (as amended) ('Act') and the Environmental Information Regulations 2004 (as amended) (Regulations').

31.2. The Contractor agrees that:

31.2.1. All information submitted to the Agency may need to be disclosed by the Agency in response to a request under the Act or the Regulations; and

31.2.2. The Agency may include information submitted (in whole or in part) in the publication scheme which it maintains under the Act or publish the Contract, including from time to time agreed changes to the Contract, to the public.

31.3. If the Contractor considers that any of the information included in its tender, or that it has submitted to the Agency or that is otherwise contained in the Contract, is commercially sensitive, it shall identify and explain (in broad terms) what harm may result from disclosure if a request is received, and the time period applicable to that sensitivity. The Contractor acknowledges that if it has indicated that information is commercially sensitive, such information may still be required to be disclosed by the Agency under the Act or the Regulations. The receipt of any material marked 'confidential' or equivalent by the Agency shall not be deemed to infer that the Agency agrees any duty of confidentiality by virtue of that marking.

32. DATA PROTECTION

32.1. In the event that the Contract requires data to be processed within the meaning of the Data Protection Legislation the Data Protection Schedule shall be completed by the Parties and provisions and definitions therein shall apply and bind the Parties as part of this Contract.

Appendix 1 to Conditions Services

Ref: [REDACTED]
Title: London Basin Groundwater Model Update

Condition

1 Contract Supervisor

3

Contact Supervisor – [REDACTED]

Address:

[REDACTED]

2 Contractor

Atkins Limited – [REDACTED]

Address:

[REDACTED]

3 Completion

6

Contract Start Date

21st December 2021

Contract End Date

18th February 2022

4 Delivery 11

Address:-

Insert delivery address, if different to above

5 Insurance 17

Professional Indemnity Min. Cover £1,000,000

Third Party Minimum Cover £1,000,000

Public Liability Min. Cover £1,000,000

6 Limit on Liability 16

Limit on Contractors Liability £5,000,000

Appendix 2 – Specification

Scope

1 Background History & Objectives for the Update

1.1 Initial Model Development to Aid as Rebound Assessment and Decision Support Tool

The decline of industries situated in the area of London in the mid-20th century and associated reductions in groundwater abstractions resulted in a rapid rebound / recovery of groundwater levels. The rise of groundwater levels that occurred post the mid-1960s posed a risk to infrastructure and was mitigated by increased abstractions.

Initially, created to assess the rebound and recovery of depressed groundwater levels in the Central London area, the London Basin Model (LBM) was developed more than 20 years ago. It was jointly developed by Thames Water and the Environment Agency to provide a decision support tool to aid the delivery of the GARDIT (General Aquifer Research Development and Investigation Team) Strategy.

Over the years and since the initial development, model updates resulted in increasing use of the model as outlined below.

1.2 Further Model Development to Act as Water Resources Decision Support Tool

A fundamental study and groundwater model update to the London Basin was carried out by ESI between 2010 and 2013. The main objective of the study was to produce a groundwater model to significantly improve the Environment Agency's ability to make water resources decisions on a robust scientific basis.

During the study, the area modelled was extended to roughly cover the area of Greater London. Eastwards, the model was extended up to the River Medway and northwards the extension included portions of the Chilterns, where the Chalk is unconfined, overlapping with the 'Vale of St. Albans' model. To the south, the model was extended to include the North Downs. *[Note: in the area of the Darent catchment, flow into the model also occurs from an area (i.e. upper reaches of the River Darent) that is outside the model. This is because along the southern boundary of the Darent catchment, the model considers the Chalk only. Therefore, inflows from the upper reaches of the River Darent — an area that is underlain by the Gault and Formations of the Lower Greensand, in the area of Otford and beyond — are accounted for by means of the recharge model].*

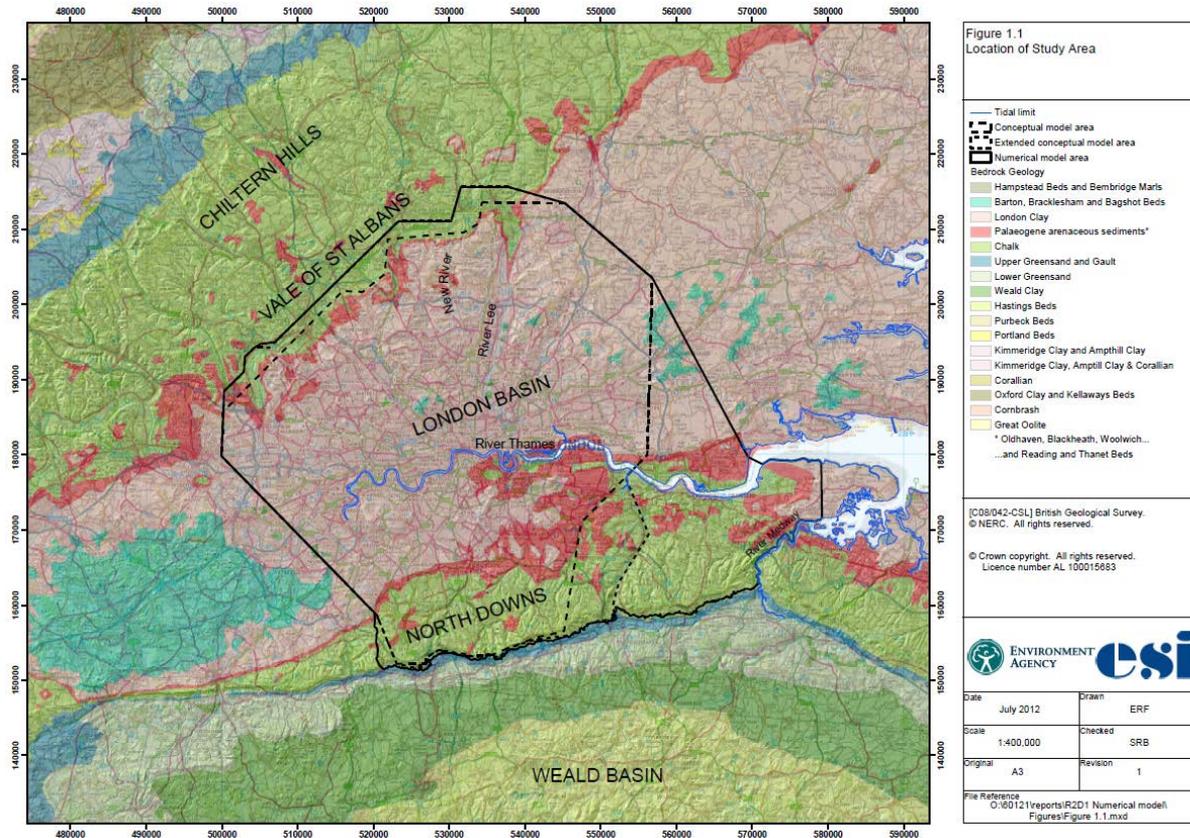


Figure 1: Model area

The numerical model used a modified version of Modflow96VKD named MF32hfbND.exe and the recharge model was 4R, version rrrr041t.exe, with a smoothing post-process.

The model has a regular, 200 x 200m grid cells arranged as 335 rows and 406 columns that are aligned with the national grid (NG). The model has four layers and was set up with a computational time interval for the simulations of three stress periods per month. The time period covered by the model was 1965 to 2007.

Subsequent updates to the model were as follows:

- A) Update for Thames Water Utility Limited (TWUL) for the North London Artificial Recharge Scheme (NLARS) area by Environmental Simulations International Ltd (ESI) in 2014.

The aforementioned model that had been developed to act as a water resources decision support tool was used and refined/calibrated to estimate the approximate spatial extent of drawdown during the operation of the North London Artificial Recharge Scheme (NLARS).

Calibration was refined in the NLARS-impacted area around the River Lee, incorporating some corrections to the abstraction record.

However, there is no mention of recharge model or files, and therefore, it is assumed recharge model input parameters were as per the original modelling reported in 2014.

The calibration time period between 1965 and 2007 encompassed much of the main operational phases of NLARS.

B) Model update to recalibrate an area in the valley of the Caterham Bourne

B1) Recalibration to account for the conditions at Kenley in 2014

Commissioned by the Environment Agency, in January 2016 Mott MacDonald reported (see ref.: 360130-01RevA, 2016) on their works of recalibrating the model in the area of the Caterham Bourne valley. In an attempt to mimic the pumping rate at Kenley pumping station during the 2014 groundwater flooding event, the recalibration was undertaken to account for and assess abstractions at Kenley pumping station. [Note: final 'run LBM101_H' included in the aforementioned report (see Mott MacDonald ref.: 360130-01RevA, 2016) is incorrect.

B2) Model update to include time-variant datasets of the runoff-recharge and groundwater models until December 2013

Commissioned by the Environment Agency, in January 2016, Mott MacDonald reported (see ref.: 360130-01 RevA, 2016) on the model update they completed to include and calibrate the model against more recent (i.e. up until Dec 2013) data of time-variant datasets of the runoff-recharge and groundwater models. (Note: 'LBM085_H' data represents the results of the final historical model run reported).

C) Update for the EA and TWUL in 2018, by Mott MacDonald for the river Cray area

In order to simulate the Lower Cray surface water body, as part of its AMP6 National Environment Programme (NEP), the model was utilised to assess the potential impacts of the abstraction on river flows. However, during the investigation, it was noted that the model did not accurately simulate the gauged flows in the River Cray at Crayford. Therefore, the objectives of this work were to correct some abstractions and to refine the calibration around the River Cray near the Bexley abstraction. The results of model runs 86 to 101 that were completed as part of this work were reported as part of technical note issued by Mott MacDonald's in March 2018 (see Mott MacDonald ref.: 389976-01RevB, 2018). *(Note: reportedly, the final run is LBM101_H, in which Bean wellfield has been updated. The corresponding final recharge model run is LBE_103).*

D) Other model updates

In terms of other model updates, the model is known to have been updated to incorporate the Swanscombe model. However, no documentation covering this work is available.

In general, updates have not undergone close scrutiny, the only verification completed by the Environment Agency are approximate checks of the flow and head calibration charts.

1.3 Aims and Objectives of the Model Update

Over the years and since the initial development, model updates resulted in the use of the model increasing, with the London Basin Model (LBM) now being used as a vital assessment tool, when making decisions on how to manage groundwater resources in the most sustainable way possible.

The main aims of the project are as follows:

- To ensure the LBM retains its integrity as a vital asset; for it to be used and recognised in this way, it needs to be updated to incorporate more recent data and knowledge gained;
- To inform our regulatory (hence legal) position for which this update will be required. The estimated cost of this update requires a procurement strategy, which considers The Public Contract Regulations (2015) and will be led by Defra group Commercial (DgC) to ensure it is compliant;
- For the updated/enhanced numerical model with associated digital computer files and reporting to represent an intangible asset recognised as an assessment tool that will be recognised as such by the wider community, involved in the management and regulation of groundwater resources;
- For the model to maintain its function of being used as an assessment tool for the Environment Agency, together with the Water companies, making decisions on how to utilise groundwater of the Chalk Principal aquifer as a resource, whilst keeping detrimental impacts to the environments that are sensitive to water shortages to a minimum;
- For the model to support and facilitate numerous investigations and assessments that are required to manage water resources sustainably as per the requirements of the Water Industry National Environment Programme (WINEP) supported by WISER (Water Industry Strategic Environmental Requirements);
- For the model to be supported by a core version of a software package that is newer and more widely utilised/accepted. This will be achieved by means of converting the model from Modflow 96 to the Modflow 6 software package. In addition, the model that was created more than ten years ago was extended to cover a wider area and as part of the update, the additional area will be fully included in the model set up. Further, the model update will provide a better representation of the area with respect to the current climate and geology.

In brief, the update shall be accomplished by completing the following activities:

- Produce an update to the conceptual model to reflect up to date information and knowledge that has become available since earlier phases of groundwater modelling completion, plus changes in abstractions,
- Run the following model scenarios:
 - 'Historical scenarios' / calibration of the updated model to match up until December 2019 data, involving multiple model runs;
 - Generate additional/four standard scenarios for the same period.
- Undertake a review of source protection zones (SPZs) for the North Downs area.

Work Scope Summary

The activities for the scope can be broadly split into five task headings:

Task 1: Update the conceptual model, including quality control (QC) of existing data

- i) Obtain and as part of QC produces, review new data: observation (obs) and abstraction (abs) station data, extended time series of artificial and hydrometric data sets, large infrastructure project data.
- ii) Review the current conceptual model. The review is to include but is not limited to the following:
 - a. A review of the combination of the Swanscombe model area with the rest of the North Downs,
 - b. A complete review of piezometry and related hydrogeology data,
 - c. Inspection of the model in terms of its geological representation, including the review of the areal extent of aquifers being confined or unconfined,
 - d. An examination of time-variable datasets such as rainfall, potential evapotranspiration, abstractions, flow measurements.

Task 2: Numerical model update of historical scenario

- i) Review of some specific aspects of the numerical model,
- ii) Collate time variable data into model input files and re-calibrate the historical model against observed data present up until December 2019
- iii) Conversion of the model from Modflow 96 to DIS-type Modflow 6.

Task 3: Four further scenarios & NGMS configuration

Carry out scenario modelling work [Fully Licenced (FL), Recent Actual (RA)¹, Naturalised (NAT)² and Future Predicted (FP)].

Produce a Modflow 6 NGMS ('National Groundwater Modelling System') configuration.

Task 4: Review of groundwater source protection zones (SPZs) of the North Downs area

Task 5: Final reporting

¹ Recent actual: representing aquifer conditions under the current abstraction rates - based on actual abstractions averaged over the last 5 years.

² Naturalized: representing "natural" conditions in the aquifer, with no abstractions and other significant anthropogenic influences removed.

Work Scope with Subtasks

The work to be undertaken under the aforementioned headings are further detailed and subdivided into sub-tasks as indicated below.

1.4 Sub-tasks to Update the Conceptual Model Including Quality Control (QC) of Existing Data

Sub-task 1.1: Groundwater abstractions

The existing model contains 1163 abstractions listed in the latest abstraction spreadsheet 'London_GWABS_LBM065_H.xlsm' file. Successive updates of the model have either verified the correctness of the data contained within the list or corrections were undertaken³.

a) Data requests:

- i) *Request all available (daily) water company groundwater abstractions/injections and surface water discharges/abstractions data from Jan2008 to December 2019*.*
- ii) *Request data from the National Abstraction Licensing Database (NALD) from the Environment Agency (EA) from Jan2008 to December 2019 (as above)**.*
- iii) *Include new abstractions that have been authorised and their data from start-up until December 2019**.*
- iv) *Spreadsheets: London_GWABS_LBM060c_H.xlsm and London_GWABS_LBM065_H.xlsm***

** Data to be requested from the water companies operating in the area of the groundwater model*

*** Data to be requested from the Environment Agency*

- b) Resolve the differences at 31 abstraction points in pre-2007 monthly abstractions between the spreadsheets London_GWABS_LBM060c_H.xlsm and London_GWABS_LBM065_H.xlsm. Liaise with data provider concerning any suspected errors.
- c) Carry out a comprehensive check of all 1163 historical abstractions/injections used in the model input between Jan 2008 and Dec 2013, i.e. for the last update. Liaise with data provider concerning any suspected errors.
- d) Carry out a comprehensive check of all 1163 historical abstractions/injections plus any new authorisations between Jan 2014 and Dec 2019, i.e. for the current model update. Liaise with data provider concerning any suspected errors. NB: NALD data usually requires significant amount of QC work.
- e) Verify that the following corrections already made to abstractions in successive updates are retained in the model:

³ Notwithstanding this, in the latest updated report, it was recommended that further checks are undertaken.

- i) 'Waltham Abbey' correction (see ESI ref: 62781TN3, 2015),
 - ii) NLARS abstraction/recharge corrections (see ESI ref.: 62781TN3, 2015),
 - iii) Correction of TWUL abstractions and non-consumptive abstractions in the river Cray catchment (see Mott MacDonald ref.: 389976-01RevB, 2018).
- f) Make additional corrections, where known or suspected. Corrections are required as illustrated but limited by the following examples:
- i) Environment Agency abstractions for the Darent augmentation scheme at Lullingstone, Eynsford and Farningham (under abstraction licence 37/100) seem to be missing.
 - ii) For the Bean Wellfield, the 2008-2013 abstraction records contains incorrect data. [Data required this purpose has already been received from Thames Water Utility Limited (TWUL)].
- g) Undertake a review of dewatering abstractions for large infrastructure projects. As a minimum, take account of Crossrail and Tideway dewatering schemes (i.e. include any significant abstractions under these projects in the model update, if abstraction rates are available). This can be retrospective to pre-2013, if data are available (see page 104 of ESI ref.: 60121 R2, 2013).
- h) Prepare updated abstractions spreadsheet for the model input, including comprehensive commenting.

Sub-task 1.2: surface water abstractions and discharges

- a) Data requests:
- Data to be requested, at the same time as groundwater abstractions data is enquired about, with all relevant data from January 2008 to December 2019 (as above).
- b) Carry out a comprehensive check of historical surface water abstractions/discharges used in the model input. Liaise with data provider concerning any suspected errors.

Sub-task 1.3: Geological model

- a) Data requests:
- i) London Basin Chalk and Palaeogene models (EA)
 - ii) Existing geological model (ESI)
- b) Check and correct, if necessary, to ensure the EA has the full geological model from the originator (see ESI ref.: 60121 R2, 2013), on the same resolution as it was generated, in a GIS format.
- c) Verify the geological model by comparison with the BGS London and Thames Valley Geological Model and update London Basin Model, if necessary (see <https://www.bgs.ac.uk/research/ukGeology/nationalGeologicalModel/LondonAndThamesValley.html>)

Sub-task 1.4: Station data

As part of the documentation and verifiability of the model setup, we require collation of any readily available factual information with regards to abstraction and observation wells.

By and large, the task will require the collation of readily available (a) location plans, (b) adit plans, (c) logs, illustrating borehole construction details, and (d) borehole geophysical logs and relevant reports. For this purpose, we estimate that readily available information for approx. 207 observation wells and up to approx. 1163 abstraction wells will have to be searched.

In the majority of instances, these plans, logs and illustrations etc. will be found in one or a combination of the following locations: (a) public available sources such as 'geotitles', (b) folders on servers of the Environment Agency, (c) as paper sheets in 'physical' folders contained in two offices, namely the Environment Agency offices in 'Orchard House' and 'Welwyn Garden City' in (a) Addington, West Malling, Kent and (b) Welwyn Garden City in Hertfordshire.

It means that whilst, in some cases, plans, logs and illustrations etc. will already be available in electronic form (i.e. will be present as pictures and pdfs), in most cases, scanning from documents that are situated in the aforementioned EA offices will be required.

For this purpose, we envisage the requirement for a hydrogeologist from the consultant to be based at both offices for a limited time period (approx. 2-3 weeks per office). Due to time constraints on parts of the Environment Agency (EA), apart from receiving introductions and limited guidance on where to find the information, the consultant's hydrogeologist must be prepared to work as independently as reasonably possible.

The consultant's hydrogeologist will be required to comply with and adhere to any EA guidance and restrictions relating to risks from COVID-19, whilst working in the respective EA offices. Should it become foreseeable that due to restrictions relating to COVID-19, it would be easier to complete this work at a later stage of the project, then, the work shall be completed at a later phase (e.g. mid-2021), but prior to the completion of the finalisation of the model calibration.

The information shall be utilised to ensure adit and abstraction well geometries are honoured in the model. It will also be utilised in conjunction with groundwater level (gwls) checks etc. for instance to examine: (a) if a minimum groundwater level (gwl) is at the base of the well, (b) the lithology of the model at the location of the borehole and (c) whether the well interrogates the same elevation as nearby abstraction well. The recommendation for further investigation of Oliver Road and East Ham obs wells (see page 105 of ESI ref.: 60121 R2, 2013) would be addressed as part of this task.

The deliverables would be a set of folders containing easily-referenced scanned data and spreadsheet summaries.

Sub-task 1.5: North Downs conceptualisation

a) Data requests:

- i) WISKI data for all piezometry data in the model study area from Jan 1965 to Dec 2019 (closed and open sites),
 - ii) WISKI data for all permanent flow gauges from Jan 1965 to Dec 2019 (closed and open sites),
 - iii) WISKI data for all spot gaugings in the study area from Jan 1965 to Dec 2019,
 - iv) EA PET gridded data from Jan 1965 to Dec 2019,
 - v) CEH GEAR or Met. Office HADUK gridded rainfall data from Jan 1965 to Dec 2019,
 - vi) Time-variant mains leakage information from water companies,
 - vii) Full documentation for the existing model and updates,
 - viii) Complete Swanscombe report from the EA.
- b) There was a late addition to the original model extent, to cover the area between the Darent and the Medway, which involved incorporating the BGS Swanscombe model. Although the hydrogeology of the area was analysed by the BGS, this conceptualisation was not reviewed or integrated with that of the unconfined Chalk outside the Swanscombe area. There are some interpretations known to be incorrect, e.g. Terry's Lodge gwl minimum is at the base of the borehole.
- c) Throughout the North Downs, the groundwater level (gwl) record needs a review to check if all possible observation wells have been used in the conceptualisation.
- d) Some boreholes in areas, where aquifers are unconfined show a slow recession or minimum static gwl, e.g. at Nork, Woodcote and Addington Lodge. This has been attributed to layers with very high K (hydraulic conductivity) and S_y (specific yield) values; although, it is possible that regional aquifer parameters vary locally to such an extent. There could be other explanations such as lack of conformity of some observation wells to regional patterns. Whilst the conceptual model for groundwater levels (see Section 5.3 of ESI ref.: 60121R1, 2010) is a good start, it needs a more methodical and thorough approach, considering other explanations. If available, some analysis of logged data would also be beneficial.
- e) Update the recharge model with the new gridded rainfall and potential evapotranspiration (PET) datasets. Compare the output against existing recharge model. Wood's 4R code has been upgraded for use with Modflow 6 and this 4R6 version will be used for the upgrade.
- f) There is no bypass recharge and significant runoff recharge because of the presence of Clay-with-flints. Other areas of chalk in the southeast do not consider clay-with-flints to significantly impact recharge. This aspect should be reviewed in the model, possibly including further analysis such as looking for specific rainfall responses in logged gwl time series for the bypass mechanism. (see Figure 2.9 of ESI ref.: 60121 R2, 2013).
- g) Recharge 'attenuation' is variable in 12 zones, as shown in Figure 2.7 and should be reviewed. Attenuation may be related to unsaturated zone thickness, but it is not

a given. Perform a lag analysis by comparing potential recharge to groundwater level seasonal peaks at each observation well in the unconfined zone.

h) Mains leakage

Change the recharge model to enable mains leakage variation with time (see Mott MacDonald ref.: 389976-01RevB, 2018)

- i) There is uncertainty in the Hogsmill catchment water balance down to Ewell, with the possibility of groundwater flow across surface catchment divides [see page 104 of ESI ref.: 60121 R2, 2013 and page 154 of Entec ref.: 21440_rr181i2_final, 2008 (Mole conceptual model report)]. Groundwater flows between the Wandle and Hogsmill surface catchments upstream of Ewell should be quantified in the London model. However, the Mole conceptual model report [see Figure 10.1 of Entec ref.: 21440_rr181i2_final, 2008] suggests there could be crossflow from the Hogsmill catchment into the neighbouring Mole catchment. There is a possibility of using General Head Boundaries (GHBs) in the LBM to account for this, but the preference is to maintain the no-flow boundary as it is and redefine the Hogsmill groundwater catchment from the groundwater contours. The long term plan is to extend the Mole model eastwards to include the Wandle chalk catchment, so that the Hogsmill model will become redundant.

In summary, actions to be taken in the LBM will be to maintain the model boundary as it is, but to redefine the groundwater catchment along observed groundwater contours and, by this means, re-assess the water balance in the conceptual model.

- j) Produce a stand-alone report for the conceptualisation update

Subtask 1.6: Review Central London/confined zone conceptualisation

a) Data requests

- i) Same as above for routine hydrometric data
- ii) Large infrastructure project data

- b) Review conceptualisation of the confined central London zone accounting for any extended time series of heads/flows and large infrastructure project data, where available. Include Tideway and Crossrail 1 as a minimum.

Sub-task 1.7: Parameterise data to be ready for model (Modflow 6) conversion:

- a) Parameterise the stream cell geometry and properties ready for Modflow 6 implementation,
- b) Parameterise VCONT⁴ components ready for Modflow 6 implementation.

⁴ Vertical hydraulic conductivity divided by the thickness from a layer to the layer below.

1.5 Sub-tasks to Numerical Model Update of Historical Scenario

Data requests:

- i) Numerical model files for the latest historical run of the existing model with executable, plus full documentation (EA);
- ii) Numerical model run files for the Hertfordshire (Herts) Chalk model for historical plus three standard scenarios, plus documentation (EA);

Sub-task 2.1: Update the geometry of the London Basin model grid from geology model, if necessary (see also above sub-task 1.3).

Sub-task 2.2: Tideway has produced a refined model of the central London area. Any learnings from this model, for instance in local aquifer property variations or fault conductances, should be incorporated into the LBM.

Sub-task 2.3: The possibility of improving the representation of the Thanet Sands and Upnor formation should be investigated (see page 105 of ESI ref.: 60121 R2, 2013).

Sub-task 2.4: Update representation of the Thanet Sands and Upnor Formation, if necessary

Sub-task 2.5: Define the Chalk portion of the Hogsmill groundwater catchment from groundwater contours and use this for comparisons with Ewell surface flow [see point i) of subtask 1.5 i above].

Sub-task 2.6: Review observation wells to see if any require adding to the numerical model.

Sub-task 2.7: The North Downs unconfined Chalk is simulated as Layer 3, the transmissive layer, which has VKD, and L4 (non-transmissive) which represents matrix storage.

The base of Layer 3 is 50m below minimum groundwater level.

It is not clear where the top/base of Layers 3 and 4 are. Layer 4 seems only to be defined in a limited area (Darent/Cray interfluvium and Medway areas) and has a variable overlap with Layer 3 to suit gwl and flow responses (see Figs 3.2, 3.3, 3.4 of ESI ref.: 60121 R2, 2013). Clarify the basis of the existing layering.

Sub-task 2.8: Update layer 3 & 4 connections and geometry in light of Modflow 6 conversion, if necessary.

Sub-task 2.9: The Specific yield range of Layer 4 Chalk matrix is 0.1 to 0.25, which seems very high and needs review (see Figure 3.10 of ESI ref.: 60121 R2, 2013) Layer 3 specific yield of up to 0.04 is also notably high for Chalk. If there is high Sy in palaeogene deposits in the Cray Valley, maybe this could be represented by Layer 2. E.g. Ireson et al. (2006) suggests that the Chalk is virtually entirely saturated right up to surface. Review the storage coefficients.

Sub-task 2.10: There are 16 VKD zones with varying ranges. Apart from matching transmissivity zones for average conditions, there does not seem to be adequate explanation for such a large number of zones (see Table 3.7 and Figure 3.13 of ESI ref.: 60121 R2, 2013).

Sub-task 2.11: Alter model aquifer properties, if necessary.

Sub-task 2.12: The addition of a matrix layer (Layer 4) has not improved the groundwater level calibration along the Darent. However, it has improved the flow calibration (see page 53 of ESI ref.: 60121 R2, 2013). This inconsistency should be investigated.

Sub-task 2.13: Investigate calibration of Chalk groundwater levels east of the Lee valley (see page 8 of ESI ref.: 62781TN1, 2014).

Sub-task 2.14: Verify changes made in three previous updates.

Sub-task 2.15: Ensure the model can approximately simulate periods of groundwater (gw) flooding, considering the 2014 event is within the update period, in terms of spot gaugings or ephemeral spring points, if data allows.

Sub-task 2.16: Update the flux time series along the northwest boundary, from 2011, using the Herts Chalk model output. During this update, care has to be taken to ensure that influxes via karst conduits are correctly accounted for.

Sub-task 2.17: Conversion of the model from Modflow 96 to DIS-type Modflow 6

Modflow96 has become obsolete and is no longer supported by the USGS. Modflow 6 is the new standard when considering EA model updates, as supported by the modelling community within the EA. The Modflow 6 code will be the USGS executable with no alterations.

An important consideration when converting to Modflow 6 is the type of grid to use; whether to employ an unstructured grid or keep the current uniform grid. According to recent learnings from model conversions of the Test-Itchen and Cam-Bedford-Ouse model, the default should be to continue using the row-column formulation using the MODFLOW 6 DIS package, with IDOMAIN, if pinch-outs are required. The same 200m x 200m square-celled grid as in the existing model will be used.

Work will be required to reformulate vertical permeabilities as the VCONT array is no longer usable in Modflow 6. Similarly, input for stream cells will have to be further parameterised, for example with stream conductances split into their component parts. Overlapping layers will no longer be possible in Modflow 6, so a workaround will be required for the Layers 3 & 4 overlap, if it is still required.

The VKD package can be used as it is now incorporated into Modflow 6.

The ESI report states that 'minor corrections to the Modflow code were required due to early problems with the simulation of faults in the London Basin using Modflow HFBs. The final version of the code is MF32hfbND.exe' (see page 24 of ESI ref.: 60121 R2, 2013). Although these corrections have not been documented, it is anticipated that no such corrections will be required when converting to the Modflow 6 code, as the existing code will become redundant.

Sub-task 2.18: Explore Modflow 6 capabilities

There is the opportunity to make use of new Modflow 6 capabilities, such as multi-aquifer well (MAW) package and the Newton Raphson solver if the need arises.

Consider which extra Modflow 6 capabilities should be used and implement them.

Sub-task 2.19: Recalibrate the numerical model

Following the update to Modflow 6, all the above changes and the new recharge sequence using updated PET and rainfall datasets, the model will require global recalibration against flow and head data. The quality of the calibration should be as good as or better than the existing model and the final decision on the adequacy of the calibration will rest with the EA.

1.6 Four Further Scenarios & NGMS Configuration

Sub-task 3.1: It is anticipated that certain output and visualisation will be required for characterisation of Chalk ephemeral streams for the National EA project.

Sub-task 3.2: Four standard scenarios: fully licenced (FL), naturalised (NAT), recent actual (RA) and future predicted (FP) will be produced.

Subtask 3.3: Preparation of an NGMS configuration by the consultant is included in the costing here. It is anticipated that the procedure will have been simplified by this time.

1.7 Review of SPZs of the North Downs Area

Only source protection zones (SPZs) for abstractions south of the Thames [i.e. SPZs in the Kent, South London and East Sussex (KSLES) Area] will be updated in this project. Hertfordshire & North London (HNL) SPZs, i.e. those north of the Thames, will be updated on a separate occasion in the future.

SPZ work for KSLES will involve firstly creating a steady state model and following this, Modpath particle tracking will be used to update the SPZs for abstractions within the model for the whole KSLES area and in particular the area of the North Downs.

Between 50 and 100 abstractions are expected to be present in the area. [*Note: of particular concern are 15 locations in the area around Banstead where there is currently a proliferation of zone overlaps and gaps because of changes of abstraction (start-up, cessation or alteration of abstraction rates)*].

Zones 1 & 2 have to be updated in all cases, but only a single scenario each Zone 3 in each case is defined as the groundwater sub-catchment.

Any additional conceptualisation specific to a source, for instance suspected rapid pathways via karst features, also have to be taken into account in this work.

1.8 Final Reporting

The work that has been completed, with a factual summary of data and information but also discussions and conclusions are to be presented in a final report.

1.9 Obtaining Data and Information

The Environment Agency and partners will provide relevant and useful data we hold as per the information provided in point a) of sub-tasks 1.1, 1.2, 1.5, 1.6 of work-scope chapters 3.1 and 3.2.

However, please note that whilst data records such as groundwater levels and as abstraction returns will be made available from us per request, other information such as location & adit plans, logs, and (d) borehole geophysical logs etc. will have to be searched for within our offices (see sub-task 1.4 of work-scope chapter 3).

Data will also be required to be obtained from third parties. Such data could include the following:

- The most recent geological mapping, mineral assessment reports and memoirs for the model area (BGS), (see also sub-task 1.3 of work-scope chapter 3.1).

The successful bidder should carry out basic quality assurance of this data to ensure it meets the requirement of numerical model and to put it in an appropriate format for inclusion in the numerical model. The successful bidder completing this work is also reminded that any data obtained as part of this project shall remain the exclusive property of the employer.

1.10 Deliverables

The following represents lists of items that are expected to be delivered at various stages of the project being completed.

1.10.1 Conceptual Model Update

- GIS files (shapefiles, GRID files etc.) with an .mxd file,
- Supporting spreadsheets with QC of data,
- Spreadsheets with infrastructure project data,
- Supporting analysis spreadsheets,
- Recharge model files, executable and source code, run log,
- Utilities executables and source code,
- Station data folder set,
- Reference material, copyright permitting,
- Full geological model and any additional geological data,
- A conceptual model technical note with presentation to and discussion with the Environment Agency.

1.10.2 Numerical Model Update

- GIS files (shapefiles, GRID files etc.) with an .mxd file,
- Supporting analysis, pre-processing and post-processing spreadsheets including calibration spreadsheets showing head calibration graphs, flow calibration graphs, flow duration curves, accretion profiles and comparisons with existing model output,
- Numerical model files, executable, run log (MODFLOW6 executable from USGS to be used with no alterations),
- Utilities executables and source code,
- Herts Chalk model zone-budget files and any additional data related to extraction of specified inflows at the northern boundary,
- Technical note to include full documentation of Modflow 6 implementation.

1.10.3 Four Further Scenarios and NGMS Configuration

- Commented abstraction/discharge spreadsheets for each scenario
- Full model file set for each scenario
- NGMS ('National Groundwater Modelling System') configuration
- Technical note.

1.10.4 Review of Groundwater Source Protection Zones (SPZs) of the North Downs Area

- Steady state model files,
- Modpath particle tracking files and executable,
- Supporting analysis spreadsheets,
- GIS files of final zones with an .mxd file,
- Technical summary note.

1.10.5 Final Reporting

- Final comprehensive reporting factually describing the different steps that have been completed with documentation of all input and output result of the modelling undertaken alongside discussions and interpretations of the findings and results.

SUMMARY OF TASKS AND SUB-TASKS, WITH ANTICIPATED MILESTONES & DELIVERABLES

Task	Description	Subtasks	Anticipated Milestone Date	Deliverables*
Task 1	Updating the conceptual model	1.1 – 1.7	Mid – (~15) March 2021	A conceptual model technical note with presentation to and discussion with the Environment Agency
Task 2	Numerical model update including historical scenario runs	2.1 – 2.18	End (~30) September 2021	Model files of historical runs
Task 3	Four further scenarios and NGMS configuration	3.1 – 3.3	End (~31) December 2021	Model files of scenario runs FL (Fully licenced) RA (Recent actual) & NAT (Naturalized) Future Predicted (FP)
Task 4	Review SPZs for North Downs	-	End (~30) November 2021	SPZs being updated with supporting data
Task 5	Final reporting	-	Mid (~18) February 2022	Final report

*For further details reference is being made to the scope / technical specification.

Key Personnel

The Contractor Key Personnel for this project are as follows;

[Redacted names and details of contractor key personnel]

Appendix 3 – Pricing Schedule and Payment Schedule

The Contract Price is £166,979.91 as outlined in the following schedule:

Resource and Pricing Schedule

Activity	Resource	Grade/Job Title	Hourly Rate (£)	No of hours to complete activity	Total (£)
<i>(please list the activities required to meet this commission and insert new lines for each subtask)</i>	<i>(please add the name of the person carrying out the activity, use a new line for additional people required for the same task)</i>				
Task 0 - Total					
Task 0 - PM and meetings					
Task 1 - Total					
Sub-task 1.1					
Sub-task 1.2					
Sub-task 1.3					

	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Sub-task 2.5	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Sub-task 2.6	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Sub-tasks 2.7, 2.8, 2.9 and 2.12	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Sub-task 2.10	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<i>Optional - Sub-task 2.11</i>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Sub-task 2.13	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Sub-task 2.14	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Sub-task 2.15	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Sub-task 2.16	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Sub-task 2.17	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<i>Optional - Sub-task 2.18</i>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Sub-task 2.19	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

TN2 - Conversion to MF6					
Task 3 - Total					
Sub-task 3.1					
Sub-task 3.2					
Sub-task 3.3					
TN3 - Abstraction scenarios and NGMS					
					9
Task 4 - Total					
Sub-task 4.1					

TN4 - Updated SPZs	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Task 5 - Total				[REDACTED]	[REDACTED]
Sub-task 5.1	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
TOTAL FEE [including optional tasks (sub-tasks 2.11 & 2.18)]				[REDACTED]	[REDACTED]
Fee per ('additional') calibration run					[REDACTED]

The pricing strategy for this project is fixed price. The payment model is fixed price per milestone, which is linked to the tasks completed and as costed in the pricing schedule. The dates of the payment milestones have been established in the table provided overleaf, also considering the programme of works submitted by the winning bidder (see Appendix 4).

The pricing schedule comprises priced hourly inputs from Key Personnel, to deliver each output. Payment will be made after submission and acceptance of the agreed outputs by the Environment Agency Project Manager.

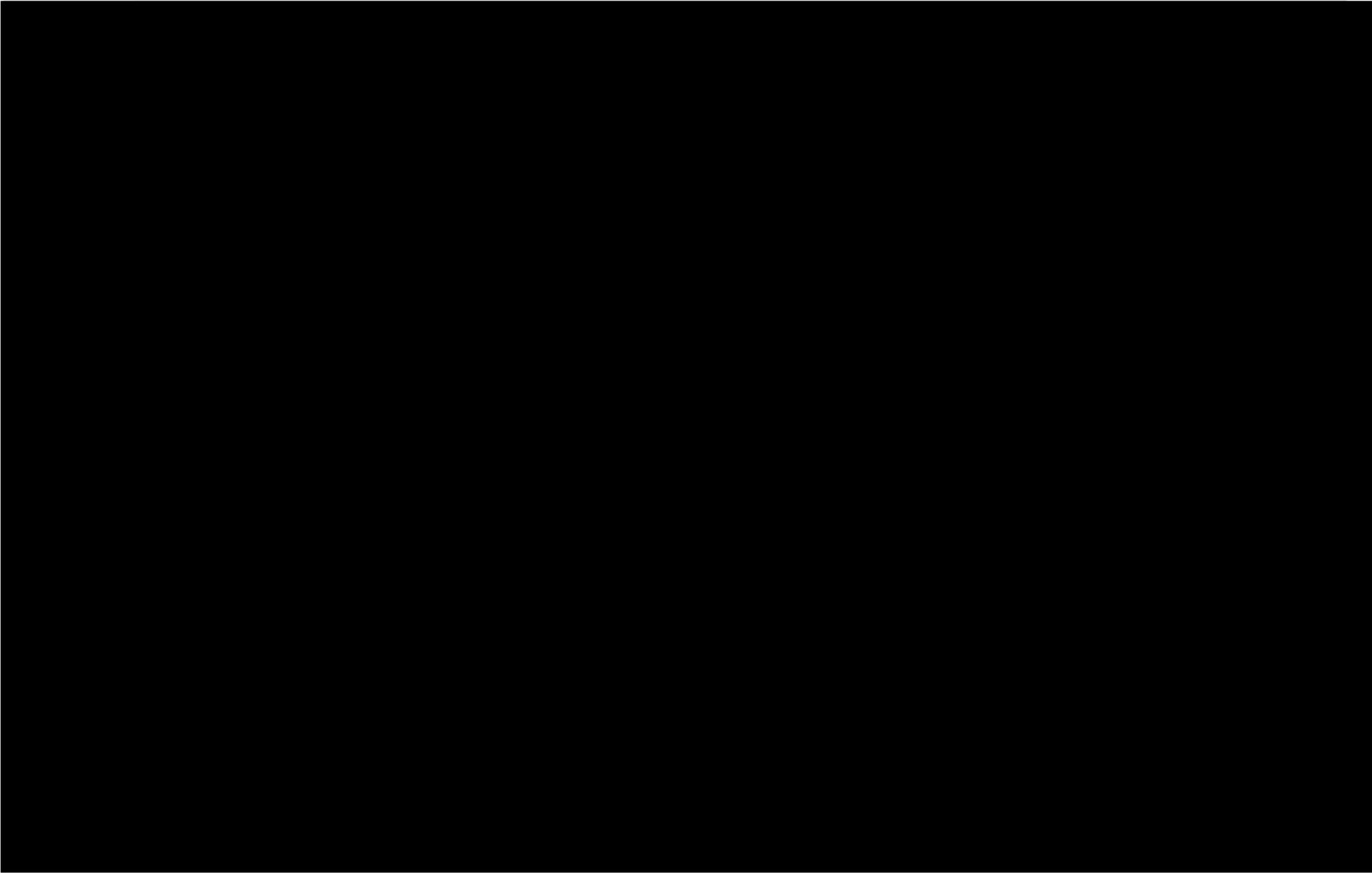
Payment will be made to the successful bidder on completion, delivery and acceptance of the tasks as detailed in the following table.

Payment Schedule	Tasks	Measure	Sum
Milestone 1 Date: 15 th March 2021	Task 1: conceptual model update. For further details refer to sub-tasks set out in work-scope chapter 3.1.0	[REDACTED]	[REDACTED]
Milestone 2 Date: 30 September 2021	Task 2: update of numerical model with the completion of historical scenario runs, For further details refer to sub-tasks set out in work-scope chapter 3.2.	Payment due after quality checks have been made against the original objectives and sign off agreed with the EA.	[REDACTED]
Milestone 3 Date: 31 December 2021	Task 3: completion of four further scenarios runs and NGMS configuration	Payment due after quality checks have been made against the original objectives and sign off agreed with the EA.	[REDACTED]
Milestone 4 Date: 31 December 2021	Task 4: review of source protection zones (SPZs) in the North Downs area	Payment due after quality checks have been made against the original objectives and sign off agreed with the EA.	[REDACTED]
Milestone 5 Date: 18 February 2022	Task 5: Final reporting + Task 0 PM and Meetings	Payment due after quality checks have been made against the original objectives and sign off agreed with the EA.	[REDACTED]

* 'Task 0 - PM and meetings' costs (£[REDACTED]) have been apportioned according to cost for the completion of individual tasks.

Appendix 4 Programme

The following programme outlines the key tasks and deliverables which will be delivered by the Contractor to the Agency.



Appendix 5 – Change Control

Contract Change Note (“CCN”)

CCN Number	01
Contract Reference Number & Title	
Variation Title	
Number of Pages	

WHEREAS the Contractor and the Authority entered into a contract for the (title of contract) dated (date) (the "Original Contract") and now wish to amend the Original Contract

IT IS AGREED as follows

1. The Original Contract shall be amended as set out in this Change Control Notice:

Change Requestor / Originator									
Summary of Change									
Reason for Change									
Revised Contract Price	<table border="1" style="width: 100%;"> <tr> <td>Original Contract Value</td> <td></td> </tr> <tr> <td>Previous Contract Changes</td> <td></td> </tr> <tr> <td>Contract Change Note</td> <td></td> </tr> <tr> <td>New Contract Value</td> <td></td> </tr> </table>	Original Contract Value		Previous Contract Changes		Contract Change Note		New Contract Value	
Original Contract Value									
Previous Contract Changes									
Contract Change Note									
New Contract Value									
Revised Payment Schedule	No change to costing schedule.								
Revised Specification	The specification will change from that drafted in the original contract to the text drafted in the summary section above.								
Revised Contract Period									
Change in Contract Manager(s)	N/A no change to contract manager								
Other Changes	N/A no other changes								

2. Save as amended all other terms of the Original Contract shall remain effective.
3. This CCN takes effect from the date on which both Parties communicate acceptance of its terms via Bravo.

Authorised Authority Representative

Name:

Date: 2020

Defra Commercial Officer
(FSOD Sign off up to £500k)

Name

Date.....

Authorised Contractor Representative.....

Name.....

Date.....

Appendix 6 – Data Protection Schedule

Data Protection Schedule

Definitions – the definitions in this Schedule and the Contract shall apply:

Annex 1: the Schedule of Processing, Personal Data and Data Subjects attached to this Data Protection Schedule.

Party: a Party to this Contract.

Data Protection Impact Assessment: an assessment by the Controller of the impact of the envisaged processing on the protection of Personal Data.

Controller, Processor, Data Subject, Personal Data, Personal Data Breach, Data Protection Officer: takes the meaning given in the GDPR.

Data Loss Event: any event that results, or may result, in unauthorised access to Personal Data held by the Processor under this Contract, and/or actual or potential loss and/or destruction of Personal Data in breach of this Contract, including any Personal Data Breach.

Data Subject Request: a request made by, or on behalf of, a Data Subject in accordance with rights granted pursuant to the Data Protection Legislation to access their Personal Data.

Joint Controllers: where two or more Controllers jointly determine the purposes and means of processing. **Protective Measures:** appropriate technical and organisational measures which may include: the use of pseudonyms and encrypting Personal Data, ensuring confidentiality, integrity, availability and resilience of systems and services, ensuring that availability of and access to Personal Data can be restored in a timely manner after an incident, and regularly assessing and evaluating the effectiveness of the such measures adopted by it including those outlined in Annex 1 (Security).

Sub-processor: any third Party appointed to process Personal Data on behalf of the Processor related to this Contract.

1. DATA PROTECTION

- 1.1 The Parties acknowledge that for the purposes of the Data Protection Legislation, the Agency is the Controller and the Contractor is the Processor unless otherwise specified in Annex 1. The only processing that the Processor is authorised to do is listed in Annex 1 by the Controller and may not be determined by the Processor.
- 1.2 The Processor shall notify the Controller immediately, if it considers that any of the Controller's instructions infringe the Data Protection Legislation.

- 1.3 The Processor shall provide all reasonable assistance to the Controller in the preparation of any Data Protection Impact Assessment prior to commencing any processing. Such assistance may, at the discretion of the Controller, include:
- (a) a systematic description of the envisaged processing operations and the purpose of the processing;
 - (b) an assessment of the necessity and proportionality of the processing operations in relation to the Services;
 - (c) an assessment of the risks to the rights and freedoms of Data Subjects; and
 - (d) the measures envisaged to address the risks, including safeguards, security measures and mechanisms to ensure the protection of Personal Data.
- 1.4 The Processor shall, in relation to any Personal Data processed in connection with its obligations under this Contract:
- (a) process that Personal Data only in accordance with Annex 1, unless the Processor is required to do otherwise by Law. If it is so required the Processor shall promptly notify the Controller before processing the Personal Data unless prohibited by Law;
 - (b) ensure that it has in place Protective Measures, which are appropriate to protect against a Data Loss Event, which the Controller may reasonably reject (but failure to reject shall not amount to approval by the Controller of the adequacy of the Protective Measures), having taken account of the:
 - (i) nature of the data to be protected;
 - (ii) harm that might result from a Data Loss Event;
 - (iii) state of technological development; and
 - (iv) cost of implementing any measures;
 - (c) ensure that :
 - (i) the Contractor Personnel do not process Personal Data except in accordance with this Contract (and in particular Annex 1);
 - (ii) it takes all reasonable steps to ensure the reliability and integrity of any Contractor Personnel who have access to the Personal Data and ensure that they:
 - (A) are aware of and comply with the Processor's duties under this clause;
 - (B) are subject to appropriate confidentiality undertakings with the Processor or any Sub-processor;

- (C) are informed of the confidential nature of the Personal Data and do not publish, disclose or divulge any of the Personal Data to any third Party unless directed in writing to do so by the Controller or as otherwise permitted by this Contract; and
 - (D) have undergone adequate training in the use, care, protection and handling of Personal Data; and
- (d) not transfer Personal Data outside of the EU unless the prior written consent of the Controller has been obtained and the following conditions are fulfilled:
- (i) the Controller or the Processor has provided appropriate safeguards in relation to the transfer (whether in accordance with GDPR Article 46 or LED Article 37) as determined by the Controller;
 - (ii) the Data Subject has enforceable rights and effective legal remedies;
 - (iii) the Processor complies with its obligations under the Data Protection Legislation by providing an adequate level of protection to any Personal Data that is transferred (or, if it is not so bound, uses its best endeavours to assist the Controller in meeting its obligations); and
 - (iv) the Processor complies with any reasonable instructions notified to it in advance by the Controller with respect to the processing of the Personal Data;
- (e) at the written direction of the Controller, delete or return Personal Data (and any copies of it) to the Controller on termination of the Contract unless the Processor is required by Law to retain the Personal Data.

1.5 Subject to clause 1.6, the Processor shall notify the Controller immediately if it:

- (a) receives a Data Subject Request (or purported Data Subject Request);
- (b) receives a request to rectify, block or erase any Personal Data;
- (c) receives any other request, complaint or communication relating to either Party's obligations under the Data Protection Legislation;
- (d) receives any communication from the Information Commissioner or any other regulatory authority in connection with Personal Data processed under this Contract;
- (e) receives a request from any third Party for disclosure of Personal Data where compliance with such request is required or purported to be required by Law; or
- (f) becomes aware of a Data Loss Event.

- 1.6 The Processor's obligation to notify under clause 1.5 shall include the provision of further information to the Controller in phases, as details become available.
- 1.7 Taking into account the nature of the processing, the Processor shall provide the Controller with full assistance in relation to either Party's obligations under Data Protection Legislation and any complaint, communication or request made under clause 1.5 (and insofar as possible within the timescales reasonably required by the Controller) including by promptly providing:
- (a) the Controller with full details and copies of the complaint, communication or request;
 - (b) such assistance as is reasonably requested by the Controller to enable the Controller to comply with a Data Subject Request within the relevant timescales set out in the Data Protection Legislation;
 - (c) the Controller, at its request, with any Personal Data it holds in relation to a Data Subject;
 - (d) assistance as requested by the Controller following any Data Loss Event;
 - (e) assistance as requested by the Controller with respect to any request from the Information Commissioner's Office, or any consultation by the Controller with the Information Commissioner's Office.
- 1.8 The Processor shall maintain complete and accurate records and information to demonstrate its compliance with this clause. This requirement does not apply where the Processor employs fewer than 250 staff, unless:
- (a) the Controller determines that the processing is not occasional;
 - (b) the Controller determines the processing includes special categories of data as referred to in Article 9(1) of the GDPR or Personal Data relating to criminal convictions and offences referred to in Article 10 of the GDPR; or
 - (c) the Controller determines that the processing is likely to result in a risk to the rights and freedoms of Data Subjects.
- 1.9 The Processor shall allow for audits of its Data Processing activity by the Controller or the Controller's designated auditor.
- 1.10 Each Party shall designate its own data protection officer if required by the Data Protection Legislation.
- 1.11 Before allowing any Sub-processor to process any Personal Data related to this Contract, the Processor must:

- (a) notify the Controller in writing of the intended Sub-processor and processing;
 - (b) obtain the written consent of the Controller;
 - (c) enter into a written agreement with the Sub-processor which gives effect to the terms set out in this Schedule such that they apply to the Sub-processor; and
 - (d) provide the Controller with such information regarding the Sub-processor as the Controller may reasonably require.
- 1.12 The Processor shall remain fully liable for all acts or omissions of any of its Sub-processors.
- 1.13 The Controller may, at any time on not less than 30 Working Days' notice, revise this clause by replacing it with any applicable controller to processor standard clauses or similar terms forming part of an applicable certification scheme (which shall apply when incorporated by attachment to this Contract).
- 1.14 The Parties agree to take account of any guidance issued by the Information Commissioner's Office. The Controller may on not less than 30 Working Days' notice to the Processor amend this Contract to ensure that it complies with any guidance issued by the Information Commissioner's Office.
- 1.15 Where the Parties include two or more Joint Controllers as identified in Annex 1 in accordance with GDPR Article 26, those Parties shall enter into a Joint Controller Agreement based on the terms outlined in Annex 2 in replacement of Clauses 1.1-1.14 for the Personal Data under Joint Control.

Annex 1 - Schedule of Processing, Personal Data and Data Subjects Processing, Personal Data and Data Subjects

This Schedule shall be completed by the Controller, who may take account of the view of the Processor, however the final decision as to the content of this Schedule shall be with the Controller at its absolute discretion.

1. The contact details of the Controller's Data Protection Officer are:

Sam Lumb, Data Protection Officer

[REDACTED]

Horizon House, Deanery Road, Bristol BS1 5AH

2. The contact details of the Processor's Data Protection Officer are: **[Insert Contact details]**

3. The Processor shall comply with any further written instructions with respect to processing by the Controller.

4. Any such further instructions shall be incorporated into this Annex 1.

Description	Details
Identity of the Controller and Processor	The Parties acknowledge that for the purposes of the Data Protection Legislation, the Agency is the Controller and the Contractor is the Processor in accordance with Clause 1.1.
Subject matter of the processing	No Personal Data is to be collected or stored through the activities of this contract.
Duration of the processing	Not Applicable
Nature and purposes of the processing	None collected
Type of Personal Data being Processed	Not Applicable
Categories of Data Subject	Not Applicable
Plan for return and destruction of the data once the processing is complete UNLESS requirement under union or member state law to preserve that type of data	Not Applicable