



Westcountry Rivers Trust

Creating the pond demonstration site as part of the

WATER NET GAIN PROJECT

Invitation to Tender for the Provision of:

Design and Construction of the Pond Demonstration site

West Coombeshead Farm, Duchy College

[November, 2025]

To be supplied to Westcountry Rivers Trust



Date of Document: 10/11/2025

Prepared by: Lucia Grimm

Authorised by: Dr. Bruce Stockley, Sarah Howe

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1. Project Officer

For all enquiries and submissions concerning this Invitation to Tender, please contact:

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All enquiries for further information will be answered to all parties.

2. Introduction & Overview

Client: Westcountry Rivers Trust

Principal Designer: TBC

Principal Contractor: TBC

A. Company Background

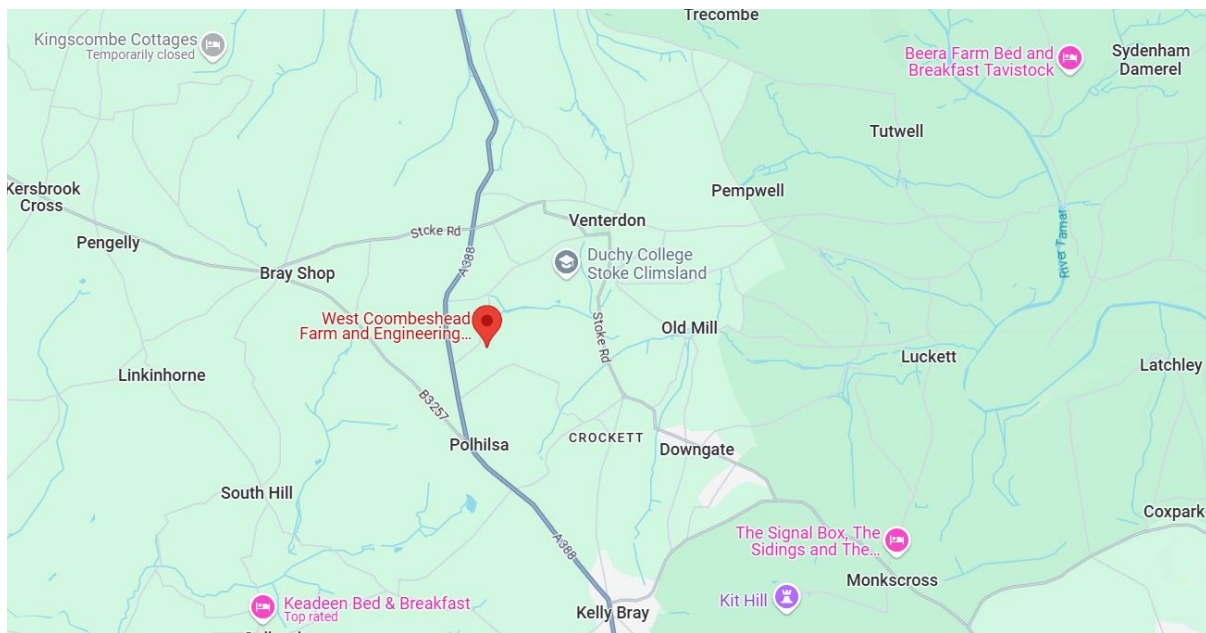
Westcountry Rivers Trust (WRT) is an environmental charity (Charity No. 1135007, Company No. 06545646) established in 1994 to secure the preservation, protection, development and improvement of the rivers, streams, watercourses, and water impoundments in the West Country, and to advance the education of the public in the management of water and associated habitats.

B. Project Background

The Water Net Gain (WNG) project is researching new ways in which we can support farmers and water companies to improve water resilience, and ease associated river health pressures. We are developing a catchment-scale scheme where farmers are paid to store water on their land, which can then be used during low water availability. A further primary goal of the project is to identify smart monitoring and release features which can show pond water availability across a catchment. For the project, we are creating a demonstration site, which will demonstrate the main goals of Water Net Gain – water storage, water use, water quality and biodiversity, as well as monitoring.

3. Scope of the Service

A) Site Location



The site is located at West Coombeshead Farm which is part of Duchy College, approximately 4km north of Callington, Cornwall. The site is the old dirty water store located at the northeastern corner of the farm.

You are welcome to visit the site by arrangement. Please let the Project Officer know if you intend to visit the site to prepare your tender response. A member of WRT staff will organise permission and may accompany you to the site.

B) Site Information

- The site is currently an old, redundant dirty water store. Some roof and surface water still enters it.
- The dirty water store is approximately 24.5m long, 16m wide and 3m deep.
- Four sediment tanks are preceding the main dirty water store.
- The site is located partially on made ground of infilled material with a mixture of soil, stone and pieces of concrete. A level of water can be found at approximately 1.2m depth. Further information on ground conditions can be found in Appendix A: Site Investigation Report.
- The rubber liner is detached from the base and floating in some places and not functioning well.
- There is nutrient-rich sediment at the bottom of the store.
- The site is surrounded by the student car park to the west, the watercourse to the north, and agricultural field to the east, and the farm to the south.

C) Services Required

- i. Some Services & Utilities Checks have been performed for preliminary investigations and have been supplied by WRT as part of this ITT (see Appendix B: Underground Utilities), however, WRT expects the awarded contractor to perform their own searches to confirm design feasibility. Telecoms (underground) and a foul drainage system are likely to be site factors.
- ii. Detailed Designs suitable for a pond at the site, making use of the existing earthworks and adapting as necessary, including landscape design of the surrounding area such as pond buffer zone. Working with Westcountry Rivers Trust and partners, to ensure the design aligns with the Water Net Gain requirements. These include, but are not limited to, increasing water quality, improving its potential for biodiversity, as well as integration of smart monitoring and release (the design of the smart monitoring and release aspect will be led by the Westcountry Rivers Trust and partners).
- iii. Appropriate risk assessments will be required for all elements of the services. Under CDM 2015 this includes a Designers Risk Assessment (DRA), and Principal Contractor Risk Assessment including how you will manage unanticipated circumstances during delivery.
- iv. Site preparation, including removing and disposing of the existing fence, removing water and sediment for use on the farm, and removing and disposing of the liner.
- v. Construction of the pond and surrounding area, according to final design.

- vi. Optioneering for the above outcomes is welcomed against your experience. WRT have provided a concept, based on technical input (see Appendix C: Concept Plan), however, WRT are not qualified engineers, and while operating as Client under CDM regulations WRT expect the appointed designer to provide comment on feasibility, structural resilience, hydraulic performance, health and safety, and budget practicality of options based on your technical experience.
- vii. A draft NEC4 Engineering and Construction Short Contract representative of the final version has been supplied. A final version will be provided at appointment, with opportunity to review before acceptance.

D) Timescale

The tender process is anticipated to follow the timeline presented in the table below:

Date	Action
11/11/2025	Invitation To Tender released.
18/11/2025	All queries to be submitted.
25/11/2025	All queries to be addressed and returned to all applicants.
02/12/2025	ITT Deadline for quotes.
09/12/2025	Notification of intent to award tender
12/12/2025	Signed NEC4 contract awarded & delivered.
11/02/2026	Delivery of detailed design.
31/03/2026	Construction completion.

E) Special site considerations

Health and Safety

- The farm is used as a teaching facility - Public safety measures such as fencing and signage will be required.
- Site access through the student car park. The student car park will need to be fenced off fully or partially, to prevent student access to site of works.
- Site on a working farm as well as teaching facility – Construction activities would need to be discussed and coordinated with other on-site activities.
- There is likely an underground telecoms cable and a confirmed foul drainage pipe located within the site boundary.

Environmental

- Ordinary watercourse north of the site (see Figure 1) – Measures such as sediment fencing will be required.

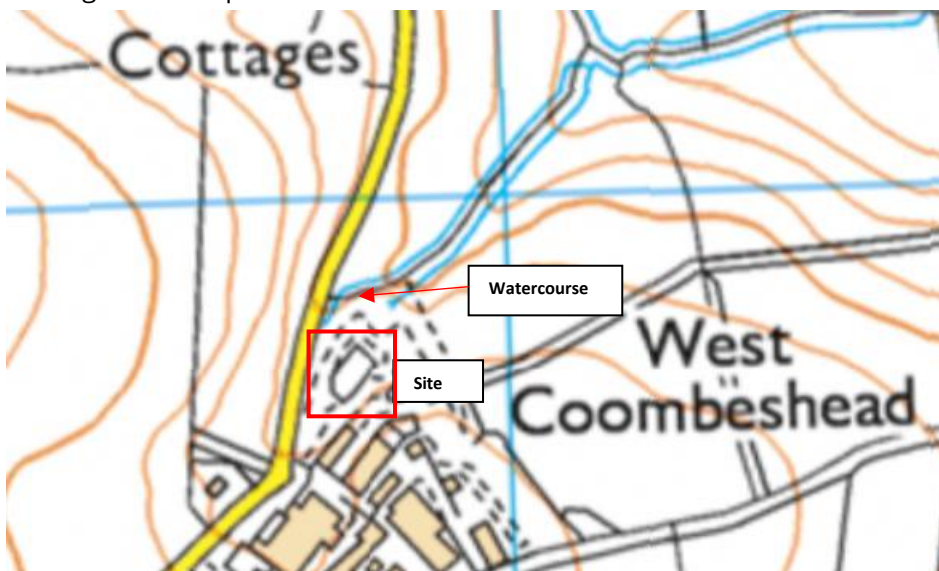


Figure 1: Location of watercourse to the north of the site

- Potential for contaminated land at the site. The ground is made up of soil, stone and occasional pieces of concrete. A land contamination test from the trial dig showed high Ammoniacal N, high iron and potentially high Total Petroleum Hydrocarbons (see Appendix D: Analytical Test Report). The proposed works should limit significant earthworks and make use of the existing layout where possible. During construction, unusual smells and visual signs of contamination will need to be considered. Excavated soil from this site should be kept apart from other soils, and re-used on site.
- Groundwater ingress has been recorded (see Appendix A), which appears to originate from a perched layer of groundwater within the excavated fill, rather than coming up from the virgin ground. The design will need to consider a drainage layer below or surrounding the pond, to prevent the groundwater from lifting up any proposed lining.

4. ITT Responses

A) Respondent Guidelines

You are required to submit a written proposal, either hard copy or electronically to the **Project Officer** by the deadline.

- i. All proposals should include the following:
 - Details of company experience in pond/ wetland/ SuDS design and construction
 - Costings; including breakdown of delivery items
 - An estimation of timescale and outline programme

- Details of staff to be delivering the work including relevant experience (e.g. CV)
 - Completed draft NEC4 Contract supplied
 - Current insurance certificates for Employer Liability, Professional Indemnity and Public Liability.
 - Health & Safety information
- ii. The draft NEC4 template provided requires you to fill out: The Contractor's insurance details, the Contractor's Contract Data, the Contractor's Offer, the Price List, and to sign the contract as a formal offer.
- iii. A detailed breakdown in the Price List of the NEC4 Engineering and Construction Short Contract allows for partial project invoices, against the specified item costs, if required.
- iv. You are expected to supply all required information, or clearly state the reason for being unable to do so. Any return supplied must make it clear if any part of the Contractor's offer does not comply with the Contract Data or the Works Information provided.
- v. In submitting a quotation, you are stating you are suitably qualified and experienced in work of this nature. If your tender is successful and the contract awarded, you are required to provide:
- Risk Assessments for any site visits planned and work undertaken.
 - Details of proposed sub-contractors and their current insurances and credentials (if applicable)
- vi. Any assumptions used in preparing responses should be clearly stated. Any appropriate supporting documents e.g. programmes, plans, company brochures, organisation charts should be included with the tender submission.

B) Tender Assessments: Evaluation and Process

- i. A set of evaluation criteria has been prepared by WRT for the evaluation of every submission. Within each stage an initial evaluation will consider whether or not every requirement contained within the ITT has been fulfilled. The evaluation criteria will be based on price (40%) and quality (60%) with quality being assessed on ability to meet the requirements (25%), delivery/timescales (25%) and staffing arrangement (10%).
- ii. All operations must strictly comply with all relevant Health and Safety, legal requirements and British & European codes of Best Practice.
- iii. If you have any queries, please do not hesitate to contact the WRT project officer.

C) Confidentiality

- i. All information supplied by WRT in this tender to date, and any further information supplied during the tender process, is confidential and must not be shared with any other organisations unless WRT agree permission in writing. The confidentiality extends to all recipients of this information.

- ii. This competitive invitation to tender process has been performed anonymously. Prospective contractor / invitee details will not be shared with other contractors by WRT. Any sensitive information shared with WRT as part of your response shall remain so between WRT and the prospective contractor. All enquiries for further information will be summarised anonymously and answered to all parties.

D) Finance

- i. This project is financed under the Ofwat Innovation Fund, via South West Water.
- ii. Invoicing terms are detailed in the NEC4 contract.
- iii. When invoicing, the invoice must clearly state the awarded NEC4 contract.

E) ITT Acceptance

- iv. To simplify exchange of information regarding this Invitation to Tender (ITT) please nominate one point of contact with relevant telephone number/s and email address.
- v. Please direct any questions regarding this ITT content or process to the Westcountry Rivers Trust Project Officer. All questions should be submitted to the Project Officer named above.
- vi. Please make sure any questions are submitted in good time for answers to be collated and distributed. A deadline may be in place for any queries to facilitate the fair tendering process for all respondents but should be no later than 1 week prior to submission deadline.
- vii. Where there is a valid reason, WRT reserve the right not to accept your submission, or any other quotations received. WRT are not liable for any cost you may incur in the preparation of your quotation.
- viii. If you have any queries, please do not hesitate to contact WRT and we look forward to receiving your response.

5. Photographs for Reference



Figure 2: View towards east. Showing bank south of the site.



Figure 3: View towards north.



Figure 4: View towards north. Inside the fenced off dirty water store.



Figure 5: View towards east.

Appendix A: Site Investigation Report



Site Investigation Report

Site Address: West Coombeshead Farm,
Duchy College,
Callington,
PL17 8PY

Investigations completed by Marcus Evans

Report composed by Marcus Evans and Ethan Shears

Report Dated: Friday 19th September 2025



Description of Proposed Works:	To provide a detailed design for a demonstration water storage pond, as well as construction of the pond and surrounding area
Reason for Report:	As the liner has detached from the base of the existing pond, it is essential to determine the underlying cause of this failure and to establish whether groundwater is present, in order to ensure that the design appropriately accounts for the pool's existing conditions.
Findings:	<p>The trial pit was excavated using a 13tonne excavator and grading bucket.</p> <p>Utility plans were reviewed prior to commencement of works.</p> <p>Location of a drainage pipe is viewed in the photo showing the excavation running between the trial pit and the boundary of the existing pond.</p> <p>Makeup of the ground is mainly excavated material/fill with a mixture of soil, stone and occasional pieces of concrete. This indicates that the ground was originally in the area of the site that was developed previously.</p> <p>At approximately 1.2 metres depth water appeared in the excavation, this then maintained a level for ten minutes and did not move.</p> <p>Excavation continued for a further 500mm until hard virgin ground was identified. This being heavy compacted shillet/rock.</p> <p>Note: It appears that the water is running through the original topsoil that was buried when the excavated fill was placed upon it. During the course of the time that the excavation was open the wet seam of topsoil continued to run.</p> <p>Both soil and water samples were taken for analysis by Westcountry Rivers Trust.</p> <p>As regards overall engineering design of the pond we would advise that a contingency is employed for drainage works if there is a risk of groundwater collecting beneath the liners. The scale of the drainage system would have to be assessed at the time of excavation and prior to installation of liners.</p> <p>Please review the appendix for images of the site investigation works carried out.</p>

Appendix:



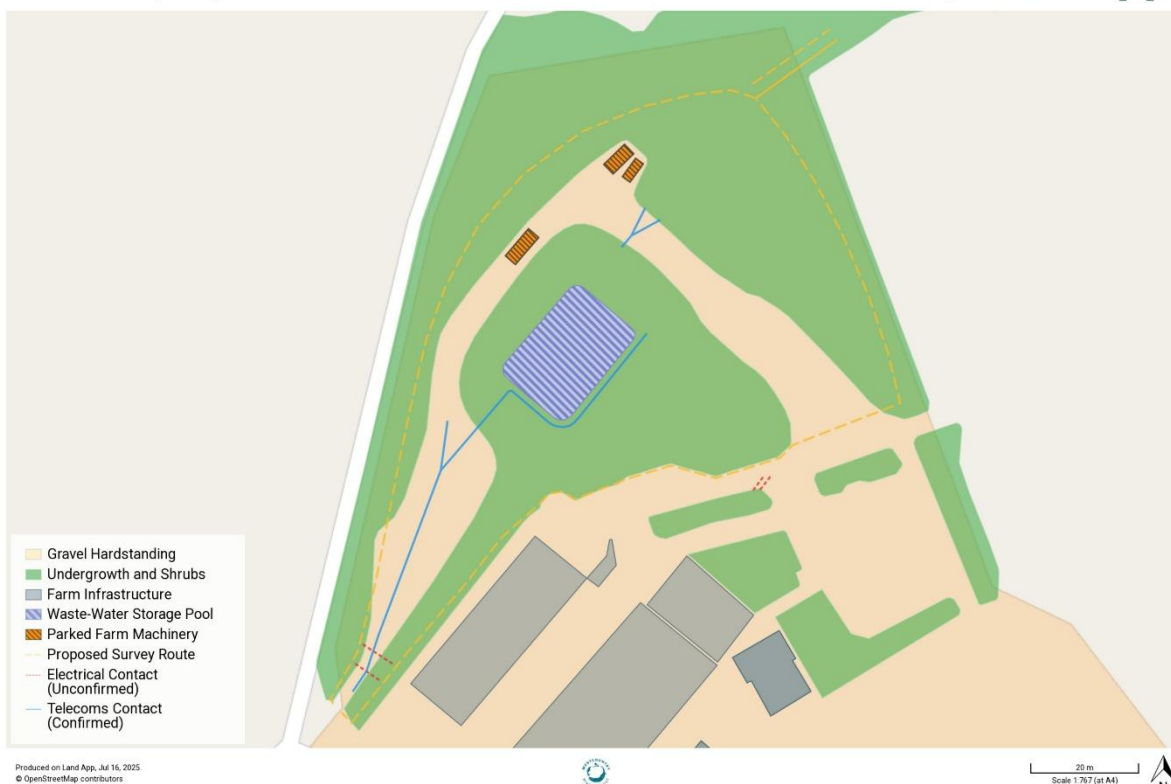
Ground water present within the trial pit demonstrating ground make up also.

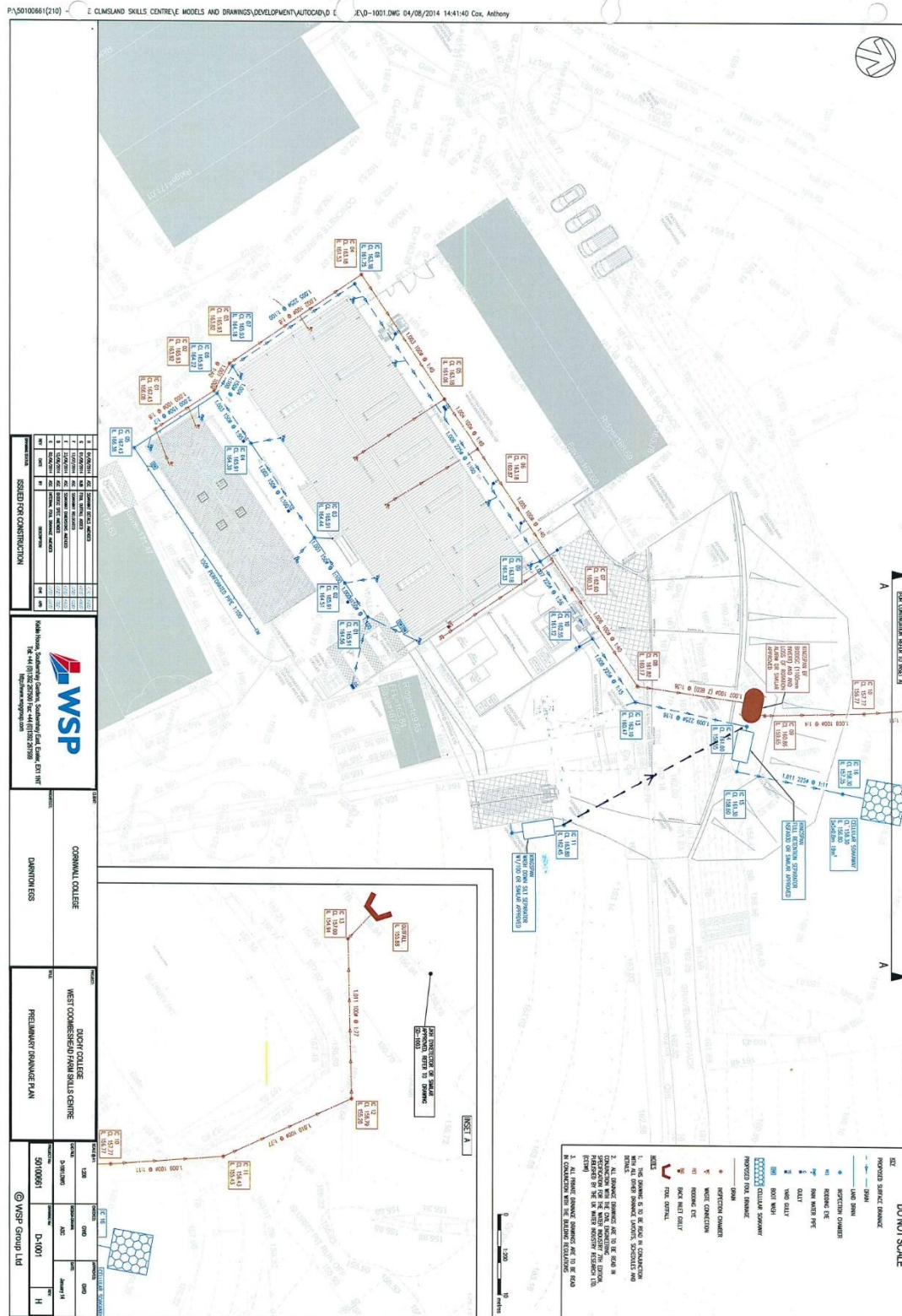


Appendix B: Underground Utilities

West Combeshead Farm, Duchy College,
Stoke Climsland, Callington PL17 8PB

Preliminary Utilities CAT Scan Findings

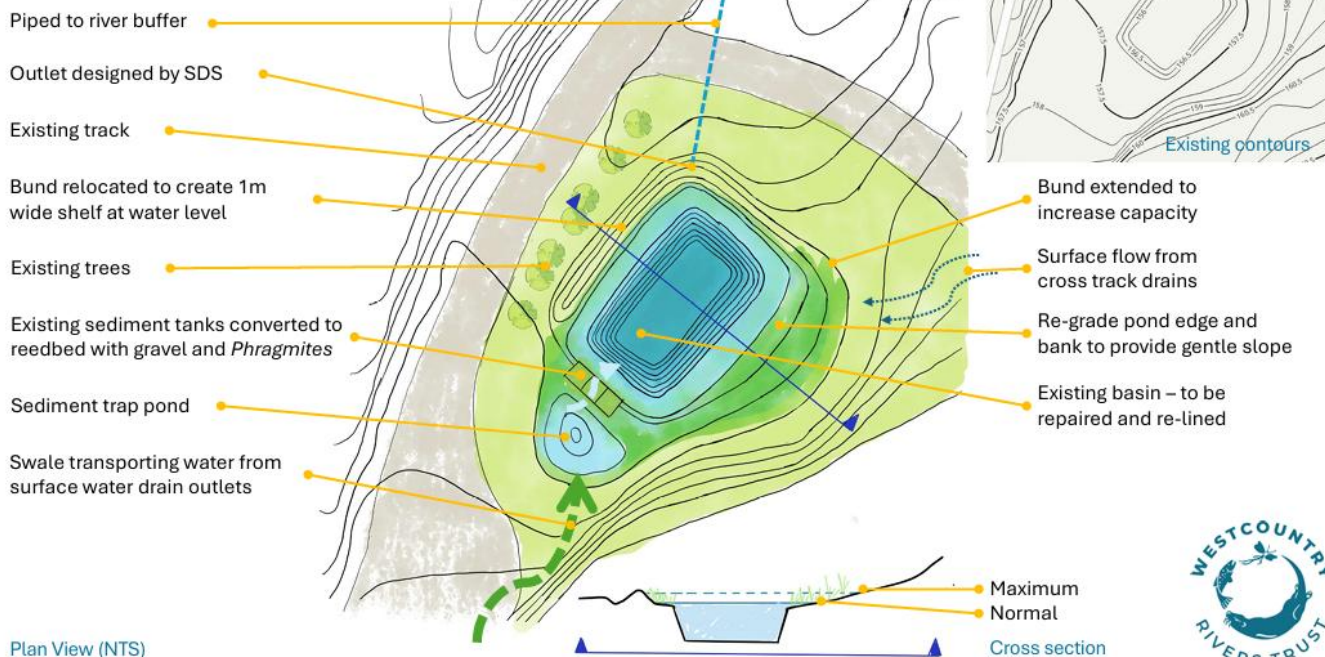




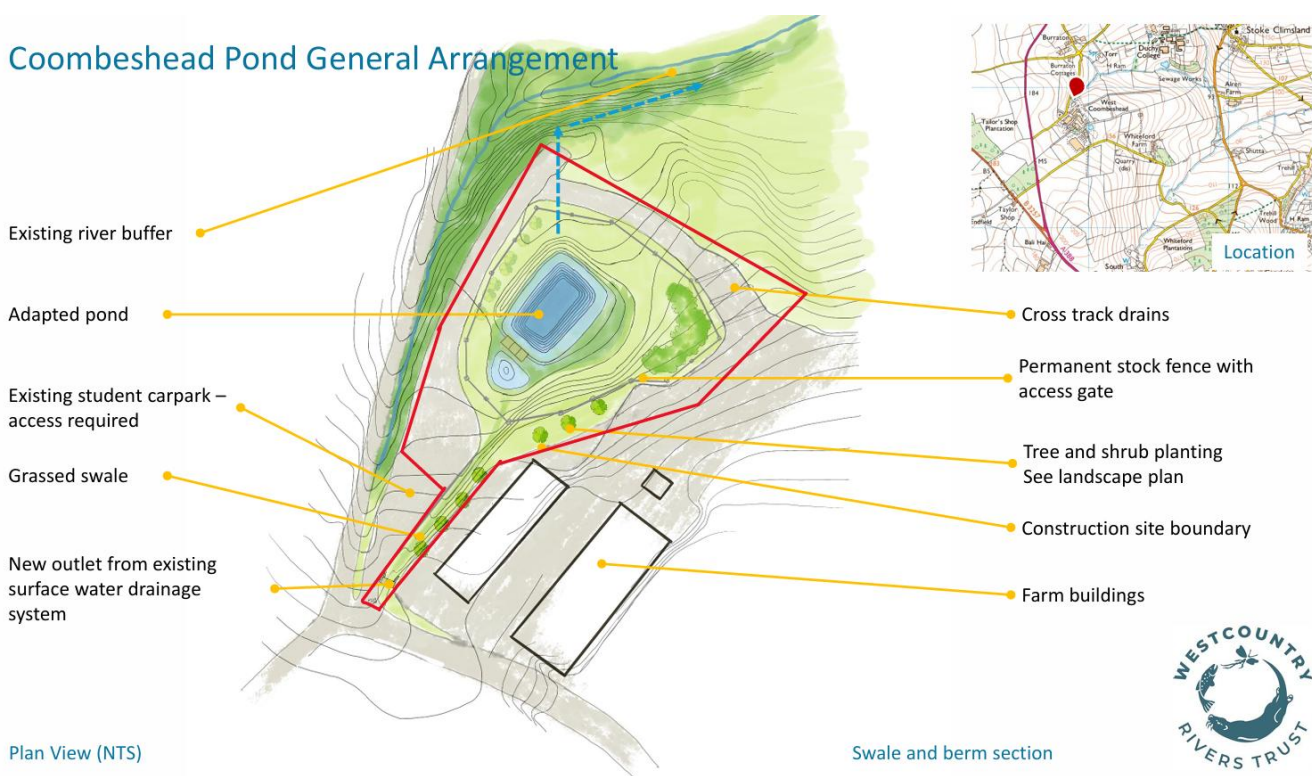
Appendix C: Concept Plan

All drawings for illustration of WRT conceptualisation only and not prescriptive. Size of elements are not to scale.

Coombeshead Pond Concept



Coombeshead Pond General Arrangement





Appendix D: Analytical Test Report of soil from trial dig

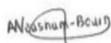


ANALYTICAL TEST REPORT

Report Number 25-09598, issue number 1
Contract name: Water Net Gain
Client reference: Not Supplied
Clients name: Westcountry Rivers Trust
Clients address: Westcountry Rivers Trust
Rain-Charm House
Kyl Cober Parc
Callington
Cornwall PL17 8PH
Samples received: 01/10/2025
Analysis started: 01/10/2025
Analysis completed: 10/10/2025
Report issued: 10/10/2025

Key

U	UKAS accredited test
M	MCERTS & UKAS accredited test
(B)	Analysis performed at Southampton Site
I/S	Insufficient sample to carry out test
U/S	Sample not suitable for testing
NAD	No Asbestos Detected



Approved by: Abbie Neasham-Bourn
Senior Reporting Administrator

Unit 6 Parkhead, Greencroft Industrial Park, Stanley, County Durham, DH9 7YB

Telephone: (01207) 528578, Email supportsquad@chemtech-env.co.uk

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SAMPLE INFORMATION

MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
% Moisture reported as MCERTS drying at 30°C

Lab ref	Sample ID	Depth (m)	Sample description	Material removed	% Removed	% Moisture
/0143	1	-	Brown Clay with Gravel and Vegetation.	-	-	23.0

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

- a Sampling date not provided
- b Sampling time not provided (waters only)
- c Sample not received in appropriate containers
- d Storage Temperature
- e Headspace present in sample container
- f Sample exceeded sampling to receipt
- g Sample exceeded holding time(s)

Lab ref	Sample ID	Depth (m)	Deviating	Tests (Reason for deviation)
70143	1	-	N	



SOILS

Lab Number					70143
Client Reference					SOIL
Sample ID					1
Sampling Date					18/09/2025
Test	Method	Accred	LoD	Units	
Metals					
Water Soluble Sulphate	CE061	M	10	mg/l	247
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	0.08
Water Soluble Boron	CE063	N	0.5	mg/kg	< 0.50
Antimony	CE264	N	5	mg/kg	959
Arsenic	CE264	U	1.8	mg/kg	129
Cadmium	CE264	M	1.6	mg/kg	1.9
Chromium	CE264	U	2	mg/kg	123
Cobalt	CE264	M	1.8	mg/kg	21.0
Copper	CE264	U	1.6	mg/kg	75.8
Iron	CE264	U	70	mg/kg	43900
Lead	CE264	U	2.3	mg/kg	97.6
Manganese	CE264	U	1.5	mg/kg	1350
Mercury	CE264	U	0.7	mg/kg	< 0.7
Molybdenum	CE264	U	1.6	mg/kg	2.6
Nickel	CE264	M	2.1	mg/kg	83.2
Selenium	CE264	U	3	mg/kg	3.6
Tin	CE264	U	2	mg/kg	15.0
Vanadium	CE264	N	1.8	mg/kg	131
Zinc	CE264	M	4	mg/kg	184
Colourimetric					
Ammoniacal Nitrogen as N	CE262	N	0.11	mg/kg	85.4
Total Cyanide	CE077	N	1	mg/kg	< 1.0
Combustion					
Moisture Content	CE001	N	0.1	%	23.0
Total Organic Carbon	CE197	M	0.1	%	1.64
Organics					
Elemental Sulphur	CE034	M	10	mg/kg	35.4
Polyaromatic hydrocarbons					
Naphthalene	CE087	M	0.016	mg/kg	< 0.016
Acenaphthylene	CE087	M	0.015	mg/kg	< 0.015



SOILS

Lab Number					70143
Client Reference					SOIL
Sample ID					1
Sampling Date					18/09/2025
Test	Method	Accred	LoD	Units	
Acenaphthene	CE087	M	0.013	mg/kg	< 0.013
Fluorene	CE087	U	0.013	mg/kg	< 0.013
Phenanthrene	CE087	M	0.014	mg/kg	0.015
Anthracene	CE087	U	0.017	mg/kg	< 0.017
Fluoranthene	CE087	M	0.017	mg/kg	0.030
Pyrene	CE087	M	0.016	mg/kg	0.027
Benzo(a)anthracene	CE087	U	0.012	mg/kg	0.033
Chrysene	CE087	M	0.028	mg/kg	< 0.028
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	0.023
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	< 0.025
Benzo(a)pyrene	CE087	U	0.019	mg/kg	< 0.019
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	< 0.019
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	< 0.017
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	< 0.019
Total PAH(16)	CE087	N	0.28	mg/kg	< 0.280
Total Petroleum Hydrocarbons					
>C5-C6 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10
>C6-C8 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10
>C8-C10 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10
>C5-C7 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010
>C7-C8 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010
>C8-C10 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010
>C10-C16 Soil (EH_1D_Total)	CE033	N	10	mg/kg	< 10.0
>C16-C40 Soil (EH_1D_Total)	CE033	N	15	mg/kg	40.3

METHOD DETAILS

METHOD	TESTNAME	METHOD SUMMARY	ANALYSIS BASIS
CE267	VPH in Soil	HS-GCFID	As submitted sample
CE033	EPH in Soil	Acetone:Hexane Extraction and GCFID	As submitted sample
CE061	W. Sol Metals	ICPOES	Air dried sample
CE062	Acid Soluble Sulphate in Soils	HCl Extract and ICPOES	Air dried sample
CE063	Water soluble boron	ICPOES	Air dried sample
CE264	Metals by ICP in Soil	ICPOES	Air dried sample
CE087	PAH in Soil	DCM Extraction and GCMS	As submitted sample
CE034	Elemental Sulphur	HPLC UV	Air dried sample
CE077	Cyanides in Soils	Continuous Flow Analyser	As submitted sample
CE197	Primacs in Soil	Primacs	Air dried sample

REPORT INFORMATION

Report No.:25-09598, issue number 1

Key

U	ISO17025 Accredited Result
M	ISO17025 and MCERTS Accredited Result
N	Do not currently hold accreditation
^	MCERTS accreditation not applicable for sample matrix
*	ISO17025 accreditation not applicable for sample matrix
S	Subcontracted
I/S	Insufficient Sample
U/S	Unsuitable sample
N/T	Not tested
<	Means "less than"
>	Means "greater than"

LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.

This report shall not be reproduced except in full, without prior written approval.

Opinions and interpretations expressed herein are outside the UKAS accreditation scope.

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

The results relate only to the sample received.

Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Moisture Content Calculated on a Wet Weight basis (at 30°C)

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

Sampling was undertaken by Chemtech Environmental Limited and is outside the UKAS accreditation scope.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

BTEX compounds are identified by retention time only and may include interference from co-eluting compounds.

For soils and solids, all results are reported on a dry basis (30°C). Samples dried at no more than 30°C in a drying cabinet.

For soils and solids, analytical results are inclusive of stones, where applicable.

'Client Reference', 'Sample ID', 'Sample Location', 'Sample Type', 'Depth', 'Sample Date' and 'Sample Time' information is provided by the customer

Sample Retention and Disposal

All soil samples will be retained for a period of 4 weeks from the point of receipt

All water samples will be retained for a period of 2 weeks from the point of Reporting

Charges may apply to extended sample storage

TPH Classification - HWOL Acronym System

HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
2D	GC-GC - Double coil gas chromatography
#1	EH_Total but with humics mathematically subtracted
#2	EH_Total but with fatty acids mathematically subtracted
-	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry

Unless specifically identified (noted as "(B)" in analyte name) all internal analysis performed at Durham site

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