



Cole Easdon

TECHNICAL NOTE – 9585/01 NON MAINS FOUL DRAINAGE REPORT

Proposed Commercial Refurbishment & Extension, Oxleaze
Business Park, Greenhill, Royal Wootton Bassett, SN4 8EH
on Behalf of Skyline Aero Ltd

DOCUMENT ISSUE RECORD

Client: **Skyline Aero Ltd**

Project: **Proposed Commercial Refurbishment & Extension, Oxleaze Business Park, Greenhill, Royal Wootton Bassett, SN4 8EH**

Job Number: **9585**

Document Title: **Technical Note – 9585/01 Non Mains Foul Drainage Report**

Issue No.	1	2		
Date	January 2026	April 2026		
Description / Status	Draft for Client Comment	Formal Issue		
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Document Check	C. Spanner BA (Hons)	C. Hall BSc (Hons) AMCIHT		

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1.0 INTRODUCTION

- 1.1 This Technical Note (TN) has been prepared by Cole Easdon Consultants Limited (CE) on behalf of Skyline Aero Ltd in relation to a planning application for a proposed commercial development at Oxleaze Business Park, Greenhill, Royal Wootton Bassett, SN4 8EH. Refer to CE Drawing 9585/500/Figure 1 [Site Location Plan] in Enclosures.
- 1.2 This TN has been prepared in response to an Environment Agency (EA) objection dated 28.11.25, enclosed with this Report. It provides the information required to address EA Objection 2 concerning the non mains foul drainage strategy proposed for the development.

Development Proposals

- 1.3 The proposals comprise the construction of three new industrial buildings, the refurbishment and extension of an existing industrial building, and two new car parking areas.
- 1.4 This TN is based on enclosed Drawing No. 2315_040B [Prop Site Plan] (by Offgrid Architecture)
- 1.5 The proposed non mains foul drainage strategy comprises a package treatment plant with discharge of treated effluent into a ditch at the site's northern boundary.
- 1.6 EA Objection 2 is reproduced below:-

Objection 2 – Non mains drainage

We object to the proposed development as submitted because it involves the use of a non-mains foul drainage system but an inadequate assessment of the risks of pollution to the water environment has been provided by the applicant. We recommend that unless and until the applicant provides adequate information to demonstrate that the risks of pollution posed can be safely managed then planning permission should be refused.

Reason

The application form indicates that foul drainage is to be discharged to a non-mains drainage system. In these circumstances the PPG for Water Supply, Wastewater and Water Quality ref ID: 34-020-20140306 advises that applications for developments relying on anything other than connection to a public sewage treatment plant should be supported by sufficient information to understand the potential implications for the water environment. In this instance inadequate information has been submitted. The application does not, therefore, provide a sufficient basis for an assessment to be made of the risks of pollution to the water environment arising from the proposed development.

In particular, the submitted application fails to;

- address the following issues as set out Paragraph H1 of Schedule 1, Building

Regulations 2010 in order to demonstrate that the proposed foul drainage system will be designed and sited such that.

(a) it will not contaminate any watercourse, underground water or water supply. It is not clear where the discharge would be and if the watercourse referred to flows at all times.

(b) any septic tank, holding tank or cesspool is of adequate capacity and is appropriately designed. No details have been provided.

It is not clear that the General Binding Rules can be met.

Overcoming Objection 2

To overcome our objection the applicant should provide full details of the foul drainage arrangements to show the discharge location and an assessment to show how the General Binding Rules can be met in terms of the receiving watercourse.

2.0 COLE EASDON RESPONSE

- 2.1 The proposed treatment plant (Vortex 15 Package Treatment Plant manufactured by WTE Ltd) is BS12566 compliant and has been sized to accommodate the proposed population of 25 users. Effluent will therefore be treated to the required standard before discharge and would not pose a risk of contamination. Refer to the enclosed plant specification.
- 2.2 Treated effluent will be discharged into a ditch which commences at the site's northern boundary. The proposed discharge location is shown on enclosed CE Drawing 9585/501(A) – [*Proposed Drainage Strategy*] and is highlighted in Figure 2.1 below. The co ordinates of the outfall are X: 407549, Y:186208.
- 2.3 The site is currently served by a septic tank which discharges into the existing ditch mentioned above. Although there would be a small increase in discharge (from 18 users to 25 users) under the proposals, the proposed treatment plant will provide a higher standard of treatment than a septic tank and would therefore reduce the potential for contamination.

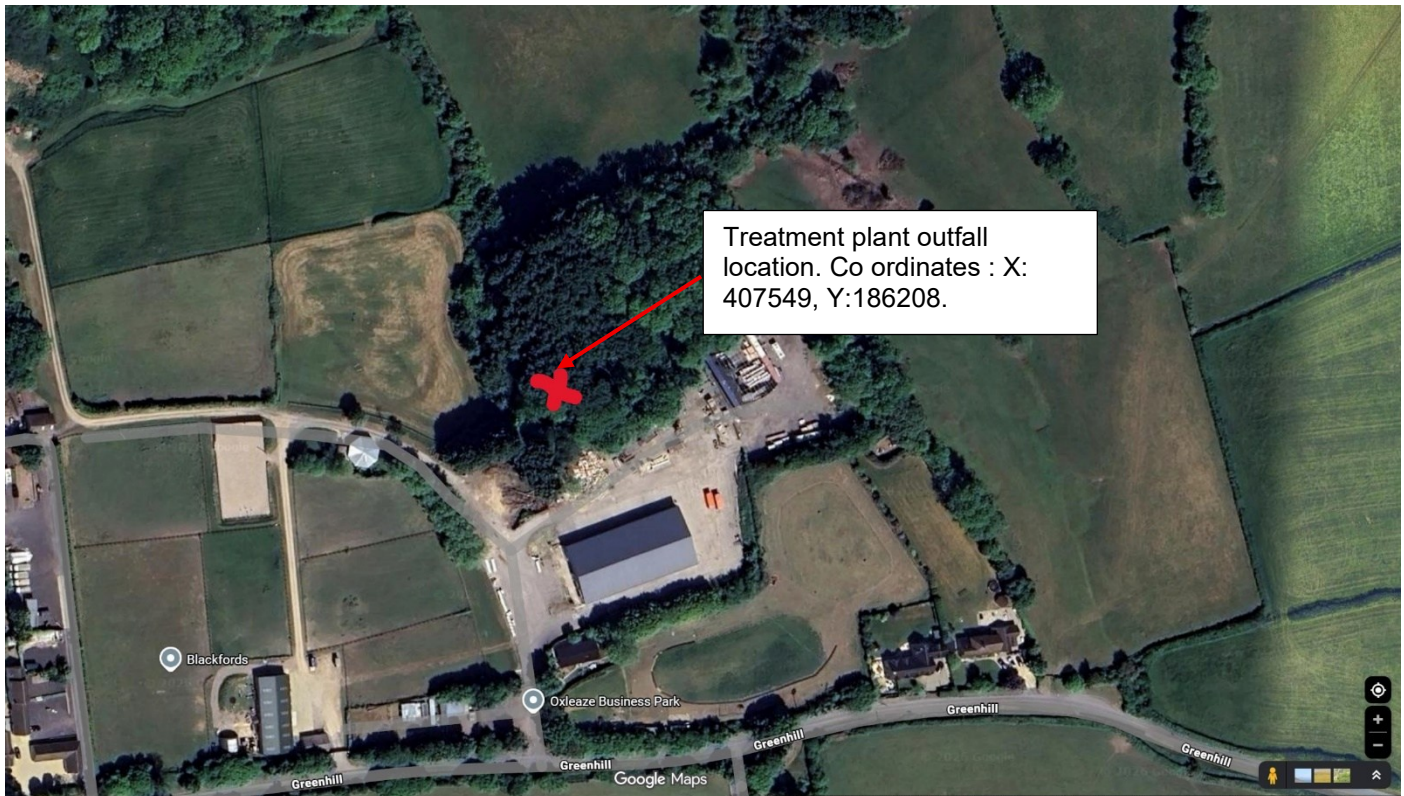


Figure 2.1: Treatment Plant Outfall Location

Source: Google Maps

- 2.4 The ditch does not contain year round flow. As such, there would be no tertiary treatment of discharge via dilution. It is noted however that due to the steep gradient of the ditch (1 in 7) the potential for discharge to accumulate in the ditch bed is minimal.
- 2.5 As there is no other available disposal point for treated effluent, it is proposed that a partial soakaway is installed in order to address this part of the EA objection. The partial soakaway would comprise a 10 linear metre length of perforated outfall pipe connected to the ditch. The treatment plant would be connected to the partial soakaway via conventional pipework. This would allow disposal of treated effluent by infiltration to ground through the perforations in the outfall pipe when flow is not present within the ditch. At other times, discharge would be diluted by water flowing through the ditch. Refer to CE Drawing 9585/501(A) –*[Proposed Drainage Strategy]* enclosed with this *TN*.
- 2.6 The site is a former landfill according to the EA's historic landfill mapping. The 10m partial soakaway pipe would be located outside the land fill area, based on the extent of the former landfill area shown in Figure 2.2, therefore flows from the partial soakaway would not mobilise any contaminants which may remain beneath the site.



Figure 2.2: Historic Landfill Map

(Source: <https://environment.data.gov.uk/dataset/7a955570-d465-11e4-a37c-f0def148f590>)

2.7 DEFRA's General Binding Rules applicable to non mains foul drainage systems with discharge to surface water are listed below, with our comments advising how the drainage strategy achieves compliance.

2.8 *Rule 2: The discharge must be 5 cubic metres or less per day in volume.*

In accordance with Flows and Loads guidance a population of 25P would generate a daily sewage volume of 25 x 90 litres (for an employee at an industrial site) = 2070litres or 2.07m³/day. The General Binding Rules advise that Environmental Permitting is applicable for daily discharge volumes greater than 5m³/day, hence a permit is not required.

2.9 *Rule 3: The discharge must only be domestic*

Although the site is used for commercial/industrial purposes, only domestic sewage from staff facilities will enter the treatment plant.

2.10 *Rule 4: The discharge must not cause pollution of surface water or groundwater.*

The proposed treatment plant (Vortex 15 Package Treatment Plant manufactured by WTE Ltd) is BS12566 compliant and has been sized to accommodate the proposed population of 25 users. Effluent will therefore be treated to the required standard before discharge and would not pose a risk of contamination.

The site is a former landfill according to the EA's historic landfill mapping. A 10m partial soakaway pipe will be installed outside the land fill area, based on the extent of the former landfill area shown in Figure 2.2 in this Report. Therefore flows from the partial soakaway and outfall will not mobilise any contaminants which may be located beneath the site.

2.11 *Rule 6: The sewage must receive treatment from a sewage treatment plant*

The proposed treatment plant (Vortex 15 Package Treatment Plant manufactured by WTE Ltd) is BS12566 compliant and has been sized to accommodate the proposed population of 25 users. Effluent will therefore be treated to the required standard before discharge and would not pose a risk of contamination. All foul sewage will pass through it prior to discharge.

2.12 *Rule 8: For discharges in tidal waters, the discharge outlet must be below the mean spring low water mark.*

The site is not located within a tidal area

2.13 *Rule 9: All works and equipment used for the treatment of sewage effluent and its discharge must comply with the relevant design and manufacturing standards, meaning the British Standard that was in force at the time of the installation, and guidance issued by the appropriate authority on the capacity and installation of the equipment.*

The proposed treatment plant is designed and sized in accordance with BS EN12566 and will therefore provide treatment to the required standard prior to discharge.

2.14 *Rule 10: The system must be installed and operated in accordance with the manufacturer's specification.*

The manufacturer's instructions will be strictly adhered to during installation and throughout the plant's operation.

2.15 *Rule 11: Maintenance must be undertaken by someone who is competent.*

The plant will be regularly maintained by a specialist contractor in accordance with the manufacturer's guidance.

2.16 *Rule 12: Waste sludge from the system must be safely disposed of by an authorised person.*

Sludge will be removed from the plant as necessary by a specialist contractor. Access for desludging is readily available.

- 2.17 *Rule 13: If a property is sold, the operator must give the new operator a written notice stating that a small sewage discharge is being carried out, and giving a description of the waste water system and its maintenance requirements.*

Noted. This information will be included within the title deeds of the property.

- 2.18 *Rule 14: The operator must ensure the system is appropriately decommissioned where it ceases to be in operation so that there is no risk of pollutants or polluting matter entering groundwater, inland fresh waters or coastal waters.*

Noted. This requirement will be included within the title deeds of the property.

- 2.19 *Rule 15: Discharges must not be within 30 metres of a public foul sewer.*

There are no foul sewers in the locality. Refer to the enclosed public Sewer Records.

- 2.20 *Rule 16: For discharges, the operator must ensure that the necessary planning and building control approvals for the treatment system are in place.*

These approvals will be sought in due course at the post planning permission stage

- 2.21 *Rule 17: Discharges must not be in or within: 500 metres of a Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar site, biological Site of Special Scientific Interest (SSSI), freshwater pearl mussel population, designated bathing water, or protected shellfish water; 200 metres of an aquatic local nature reserve; 50 metres of a chalk river or aquatic local wildlife site.*

Multi-Agency Geographic Information for the Countryside (MAGIC) MAP and Wiltshire Wildlife Trust mapping demonstrate compliance with these requirements, with the exception of the adjacent Biological SSSI (Restrop Farm and Brockhurst Wood). Refer to the enclosed mapping excerpts.

Restrop Farm and Brockhurst Wood Biological SSSI is within 500m of the site. This SSSI exhibits a number of different habitats including unimproved hay meadows, permanent pasture, mature hedgerows, scrub and ancient woodland with a diverse range of species. Although the SSSI is highly valuable ecologically, the habitats within it are not aquatic and therefore not directly linked with the existing ditch or the treated effluent which would be discharged into the ditch. The proximity of the SSSI is therefore not a concern in this instance.

It is also noted that an existing septic tank currently discharges into the existing ditch. The proposed treatment plant will improve the quality of effluent and hence reduce any environmental impact upon the SSSI.

The mapping does not record freshwater pearl mussel populations, however it is known that in the UK this species is restricted to Cumbria, and other areas in northern England, Wales and Scotland.

2.22 *Rule 19: Discharges must be made to a watercourse that normally has flow throughout the year.*

The watercourse does not contain year round flows. A partial soakaway is therefore proposed, as discussed above. This would allow disposal of treated effluent by infiltration to ground through the perforations in the outfall pipe when flow is not present within the ditch. At other times, discharge would be diluted by water flowing through the ditch. Refer to enclosed CE Drawing 9585/501(A) [*Proposed Drainage Strategy*].

2.23 *Rule 20: For discharges, any partial drainage field must be installed within 10 metres of the bank side of the watercourse.*

The proposed partial soakaway complies with this requirement. Refer to enclosed CE Drawing 9585/501(A) [*Proposed Drainage Strategy*]

2.24 *Rule 21: Discharges must not be made to an enclosed lake or pond.*

Discharge to watercourse/ditch is proposed

2.25 *Rule 22: A new discharge shall not use the same outlet as any other discharge if the combined volume of those discharges would exceed the volumetric general binding rules thresholds for groundwater or surface water.*

The outlet is for the proposed treatment plant only.

2.26 *Rule 23: A new discharge shall not be made to a discharge point within 50 metres of any other exempt groundwater activity or water discharge activity.*

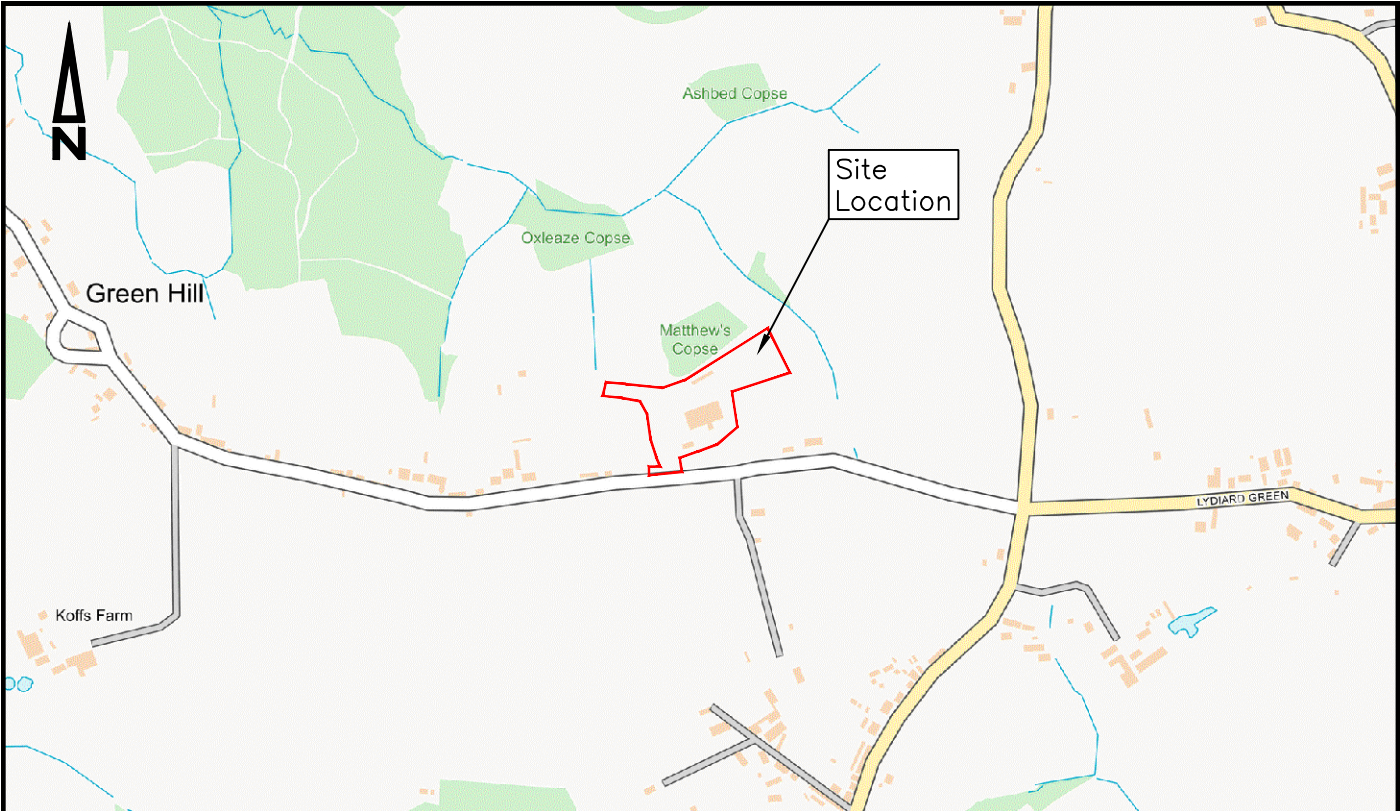
There is no record of any such activity within 50m of the proposed discharge.

Cole Easdon Consultants Limited
April 2026

Enclosures

CE Drawing 9585/500/Figure 1 Site Location Plan
Proposed layout drawing
Environment Agency objection correspondence
Proposed treatment plant specification
Sewer Records
Mapping excerpts (DEFRA & Wiltshire Wildlife Trust)
CE Drawing 9585/501 (A) Proposed Drainage Strategy

Enclosures



Scale: 1:10,000



Scale: 1:50,000

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Job Title:

Proposed Development
Oxleaze Business Park
Greenhill, Royal Wootton Bassett
SN4 8EH

Drawing Title:

Site Location Plan

Client:

Skyline Aero Ltd

Drawn By

BT

Checked By

JP

Date Drawn

June 2024

Drawing No.

9585/500 Figure 1

Drawing Status:

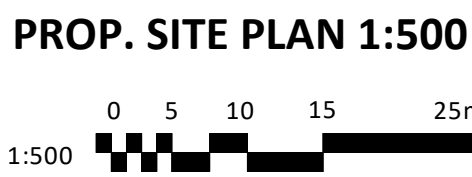
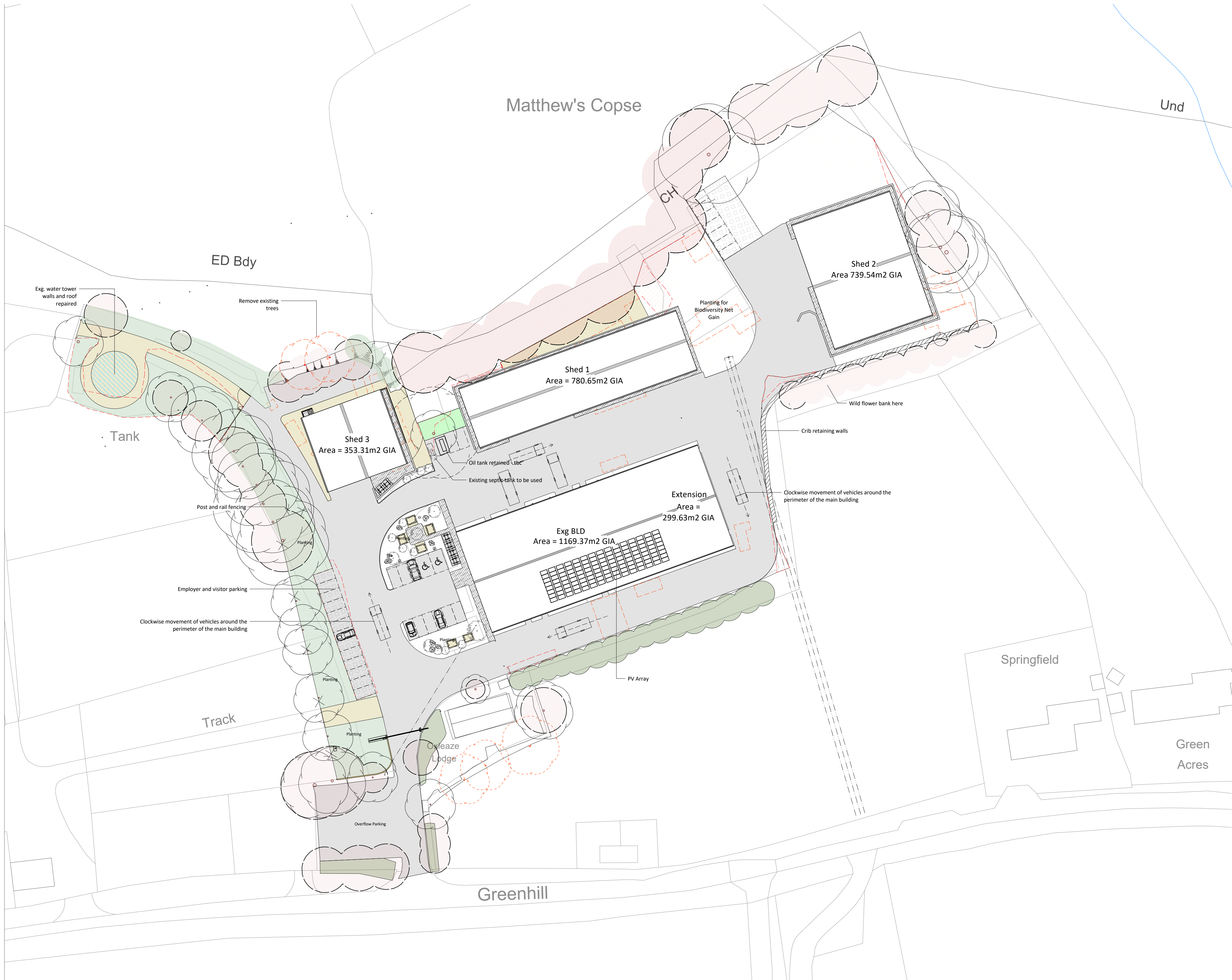
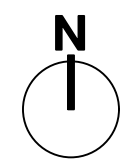
CONSTRUCTION AT CLIENT AND/OR CONTRACTOR RISK	FOR COMMENT	
	FOR PLANNING	
	FOR TENDER	
	FOR APPROVAL	
	FOR CONSTRUCTION AS BUILT	

Scale

As Shown (A4)

Revision

-



Hard Landscaping Key:

- = Hex Paving
- = Tarmac
- = Bound Gravel
- = Crib Walls
- = Cotswold Gravel
- = Sandstone Paving
- = Post & Rail Fencing
- = Low profile kerbs
- = 2 rows of granite setts
- = Soft landscaping; varies
- = Root protection zones

Hard Landscaping Materials:



DRAFT

B	19/11/2024	General Update
A	14/06/2024	General Update
No.	Date	Revision Notes

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Status

CONCEPT

Project Title

EXTENSIONS & ALTERATIONS

Project Address

Oxleaze Business Park, Greenhill, Royal Wootton Bassett, SN4 8EH

Sheet Title

PROP SITE PLAN

Scale	Date	Drawn By	Project ID
1:500 @ A1	21/03/2024	SJT	2315 040B

Jonathan James
Wiltshire Council
Development Control- North
Monkton Park Offices Monkton Park
Chippenham
Wiltshire
SN15 1ER

Our ref: WX/2025/139455/01-L01
Your ref: PL/2025/07551

Date: 28 November 2025

Dear Jonathan

**DEVELOPMENT OF EMPLOYMENT LAND AND BUILDINGS (CLASS B8 AND
OFFICE FACILITIES)**

OXLEAZE BUSINESS PARK, GREENHILL, ROYAL WOOTTON BASSETT

Thank you for consulting the Environmental Agency on the above application.

Environment Agency position

We **object** to the planning application, as submitted due to the following reasons;

1. Risks to groundwater.
2. Non-mains foul drainage system

We recommend that until the applicant provides adequate information to demonstrate that the risks of pollution to the water environment and the risk to groundwater can be safely/satisfactorily managed then planning permission should be refused.

Objection 1- Risk to Groundwater

We **object** to the planning application, as submitted, because the risks to groundwater from the development are unacceptable. The applicant has not supplied adequate information to demonstrate that the risks posed to groundwater can be satisfactorily managed. We recommend that planning permission should be refused on this basis in line with paragraph 187 of the NPPF.

Reason

Our approach to groundwater protection is set out in [The Environment Agency's approach to groundwater protection](#). In implementing the position statements in this guidance we will oppose development proposals that may pollute groundwater especially where the risks of pollution are high and the groundwater asset is of high value. In this case position statement A2 and A5 applies.

Groundwater is particularly sensitive in this location because the proposed development site is within source protection zone 2c and is located upon secondary aquifer A and very shallow.

We consider that the proposed development poses an unacceptable risk of causing a detrimental impact to groundwater quality because it presents a risk of pollution to groundwater supplies and it is of the risk of cross-contamination due to construction.

To ensure development is sustainable, applicants must provide adequate information to demonstrate that the risks posed by development to groundwater can be satisfactorily managed. In this instance the applicant has failed to provide this information, and we consider that the proposed development may pose an unacceptable risk of causing a detrimental impact to groundwater quality because:

- The groundwater is vulnerable and very shallow as per flood risk assessment and drainage strategy report, Due to the site's history as landfill and brownfield land, there is a potential for contaminants to be mobilised and for pathways to be created during the construction of the proposed development.

Overcoming Objection 1

In accordance with [The Environment Agency's approach to groundwater protection](#) we will maintain our objection until we receive a satisfactory risk assessment that demonstrates that the risks to groundwater posed by this development can be satisfactorily managed.

To overcome our objection the applicant should submit a **Preliminary Risk Assessment (PRA)** which includes but is not limited to a desk study, site walkover, conceptual model, initial risk evaluation, details of any uncertainties, data gaps and limitations, conclusions and justification for assumptions.

This information must demonstrate to the satisfaction of the LPA that the risks to groundwater have been fully understood and can be addressed through appropriate measures.

This is supported by our position statements outlined in [The Environment Agency's approach to groundwater protection](#) A2 - Precautionary principle and A5 - Supply of adequate information.

Objection 2 – Non mains drainage

We **object** to the proposed development as submitted because it involves the use of a non-mains foul drainage system but an inadequate assessment of the risks of pollution to the water environment has been provided by the applicant. We recommend that unless and until the applicant provides adequate information to demonstrate that the risks of pollution posed can be safely managed then planning permission should be refused.

Reason

The application form indicates that foul drainage is to be discharged to a non-mains drainage system. In these circumstances the PPG for Water Supply, Wastewater and Water Quality ref ID: 34-020-20140306 advises that applications for developments relying on anything other than connection to a public sewage treatment plant should be supported by sufficient information to understand the potential implications for the water environment. In this instance inadequate information has been submitted.

The application does not, therefore, provide a sufficient basis for an assessment to be made of the risks of pollution to the water environment arising from the proposed development.

In particular, the submitted application fails to;

- address the following issues as set out Paragraph H1 of Schedule 1, Building Regulations 2010 in order to demonstrate that the proposed foul drainage system

will be designed and sited such that.

(a) it will not contaminate any watercourse, underground water or water supply. It is not clear where the discharge would be and if the watercourse referred to flows at all times.

(b) any septic tank, holding tank or cesspool is of adequate capacity and is appropriately designed. No details have been provided.

It is not clear that the General Binding Rules can be met.

Overcoming Objection 2

To overcome our objection the applicant should provide full details of the foul drainage arrangements to show the discharge location and an assessment to show how the General Binding Rules can be met in terms of the receiving watercourse.

Note to LPA

Please reconsult the Environment Agency on any documents submitted to overcome the above objections.

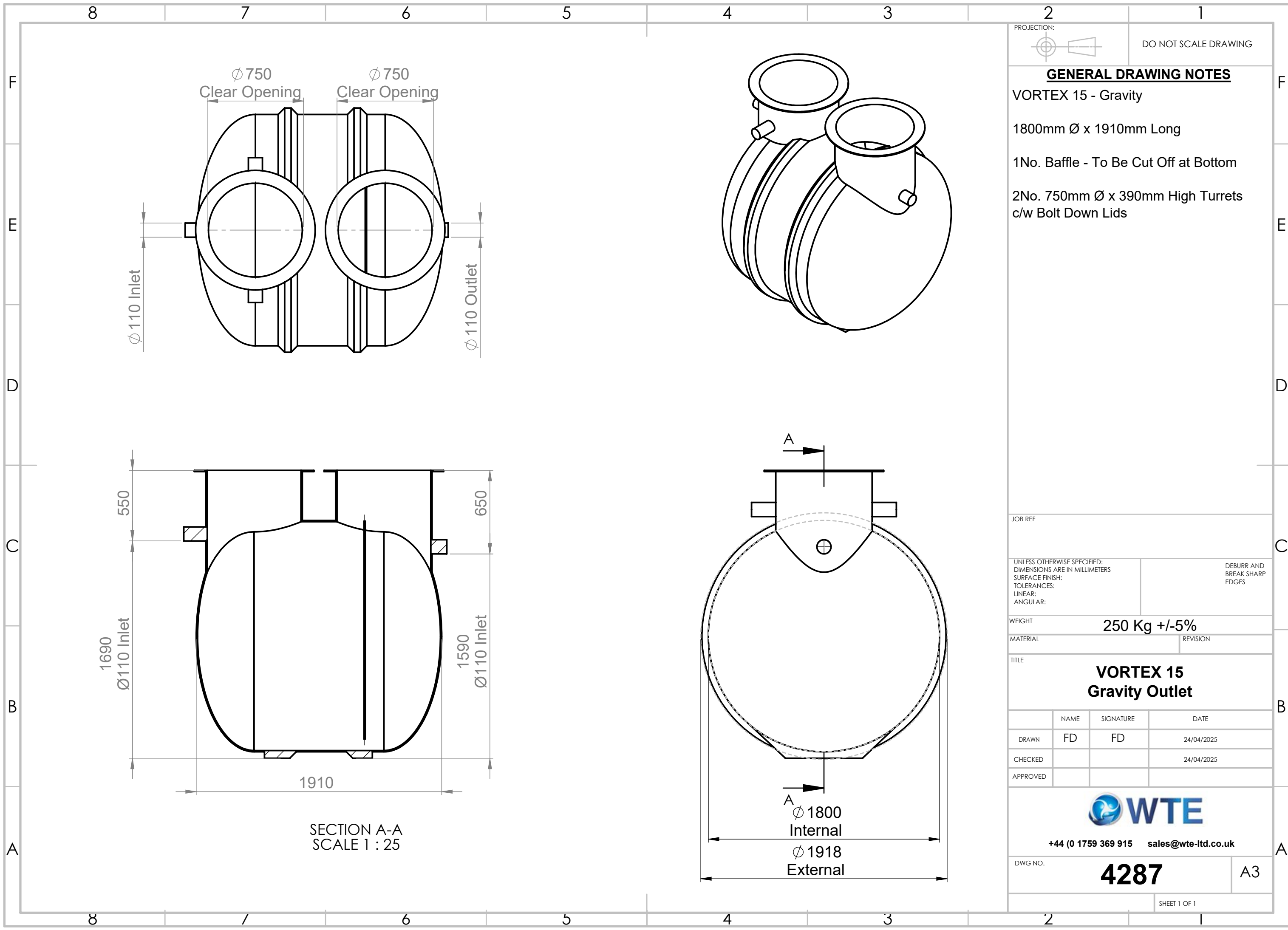
If you are minded to approve the application contrary to our objection, we request you contact us prior to a decision being made to allow us to make further representations.

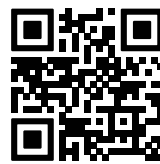
If you have any queries regarding our response, please get in touch

Yours sincerely

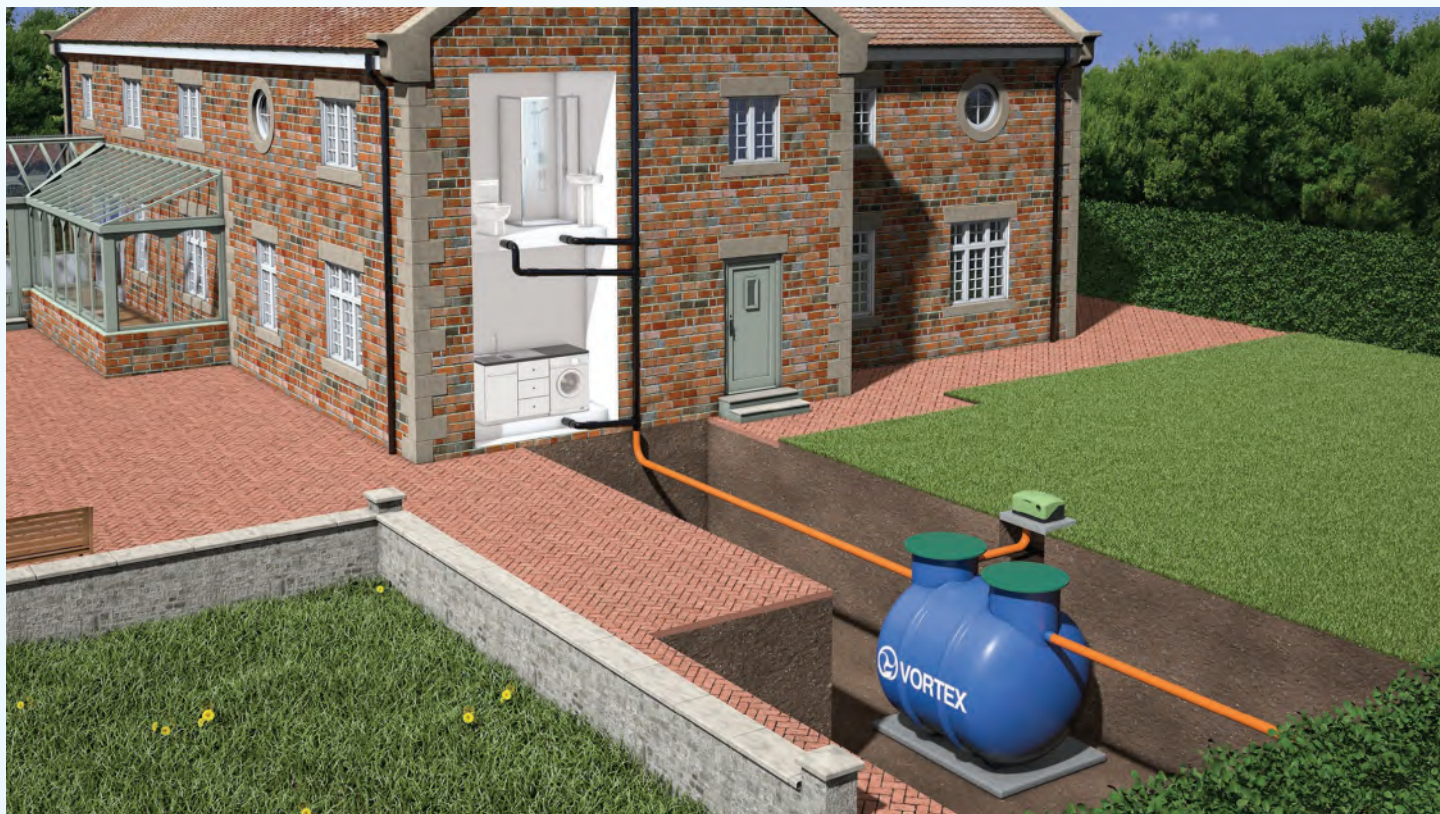
Lindsay Fello
Sustainable Places - Planning Advisor

Email wx.sp@environment-agency.gov.uk
Phone 020 3025 1229





VORTEX is an advanced Activated Sludge Process (ASP) sewage treatment plant.



VORTEX is designed to receive wastewater (sewage) and process it so that only a clear effluent is discharged into the environment.

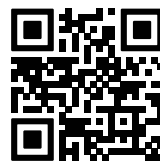
VORTEX is our best "all rounder" for domestic properties offering excellent performance in a low cost tank.

It has been fully tested and certified to EN 12566-3.

ADVANTAGES

- Excellent performance
- No odour
- Low noise
- Discreet installation
- Low purchase price
- Low installation cost
- Compact tank
- Low electricity demand
- Adjustable treatment process
- CE marked
- EN 12566-3 certified





PERFORMANCE

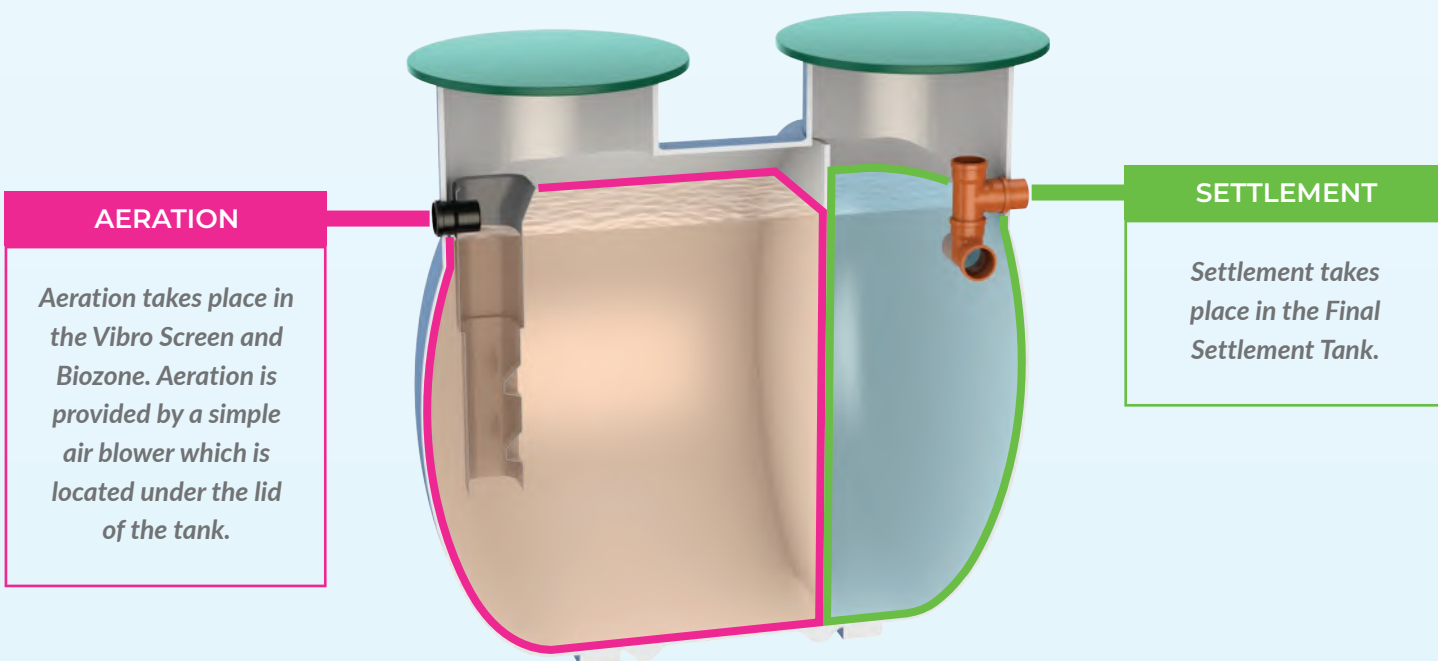
The VORTEX has been designed to meet the UK Royal Commission standard for effluent.

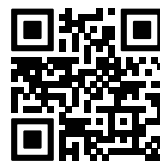
Pollutant	Design Effluent Quality (95%ile basis)	Average Effluent Quality during EN 12566-3 Testing - 100% Loading	Average Effluent Quality during EN 12566-3 Testing - 10% Loading
COD	N/A	55.0 mg/L	N/A
BOD ₅	20 mg/L	9.0 mg/L	4.0 mg/L
Suspended Solids	30 mg/L	17.0 mg/L	14.4 mg/L
Ammonia (NH ₄ -N)	20 mg/L	1.8 mg/L	0.3 mg/L

TREATMENT PROCESS OVERVIEW

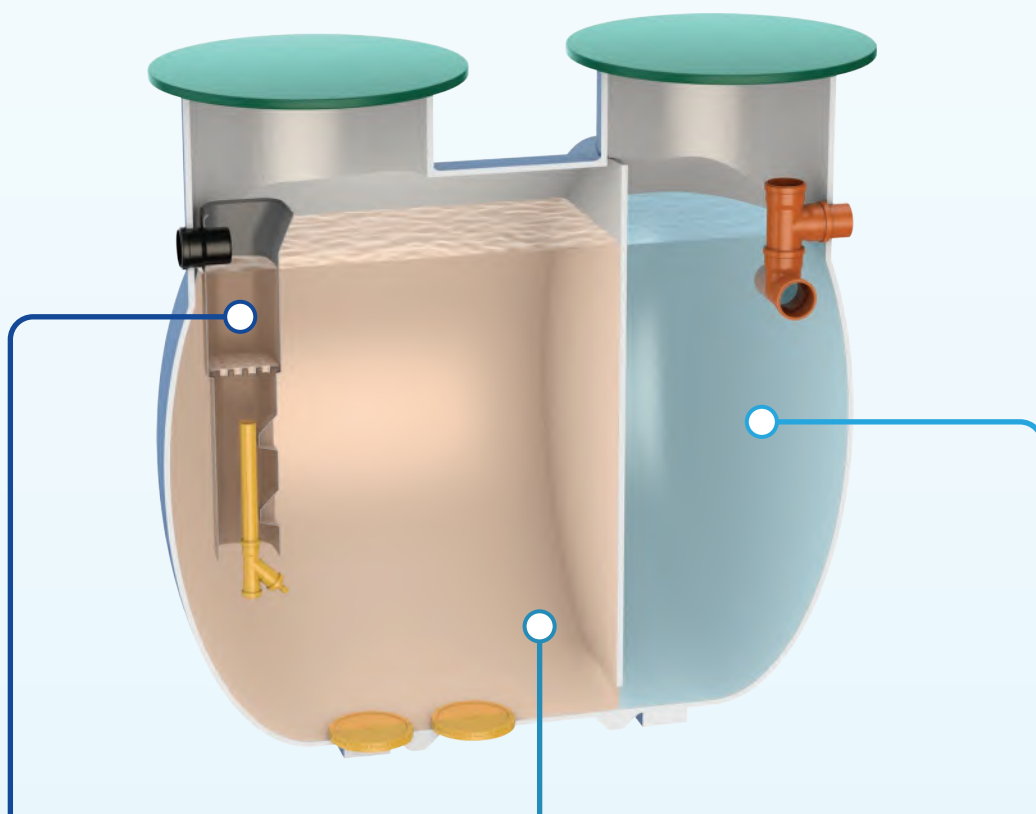
The VORTEX treatment process has been refined over several years to create a simple and reliable system that has no internal moving parts.

There are two principal stages to the treatment process:

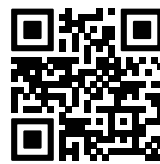




TREATMENT PROCESS DETAIL



STAGE 1	STAGE 2	STAGE 3
Wastewater from the building enters to Vibro Screen. Coarse air bubbles are used to physically break down solid matter and form "soup" or mixed liquor with the water. The Vibro Screen also provides a buffer for any non degradable material that may enter the system and prevents it from entering the Biozone.	The mixed liquor flows into the Biozone. The Biozone is where the majority of the treatment process occurs. A bacterial culture is present in the Biozone which digests the pollutants in the wastewater. Fine bubble diffusers in the base of the Biozone provide a constant oxygen supply for the bacteria and create turbulence ensuring constant circulation and treatment of the mixed liquor.	The mixed liquor then flows into the Final Settlement Tank. Here the mixed liquor separates into clear, treated effluent and sludge. The clear effluent is able to flow past the scum baffle and out of the tank.



VIBRO SCREEN

The Vibro Screen prevents any fibrous material in the wastewater from entering the main part of the system. This greatly reduces the risk of damage to the internal pipework. No other activated sludge or extended aeration sewage treatment plant provides this protection.

COARSE AND FINE AIR BUBBLES

VORTEX uses a combination of bubble sizes to optimise performance and reduce power consumption. Aeration in an ASP sewage treatment plants must achieve two things:

ONE

Break up solids to
create a mixed liquor

TWO

Supply oxygen to
the bacteria

VORTEX uses specific air bubbles to achieve these aims:



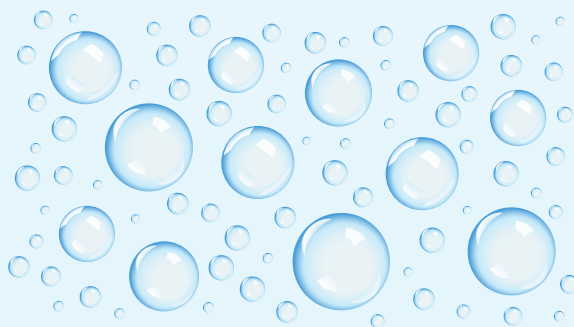
*A large and powerful coarse bubble to
physically smash up the solids*

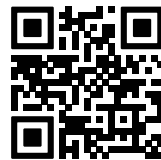


A very small fine bubble to oxygenate the water

Fine air bubbles are much more efficient at oxygenating water as the distance the oxygen molecule has to travel to escape from the bubble is reduced. If the efficiency of oxygen transfer can be increased, a smaller air blower is required and this reduces the power demand of the system.

Conventionally, ASP systems rely on a single bubble size to do both functions. This is inefficient at both tasks and increases the size of the air blower required as a result.





THE SLUDGE MANAGEMENT SYSTEM

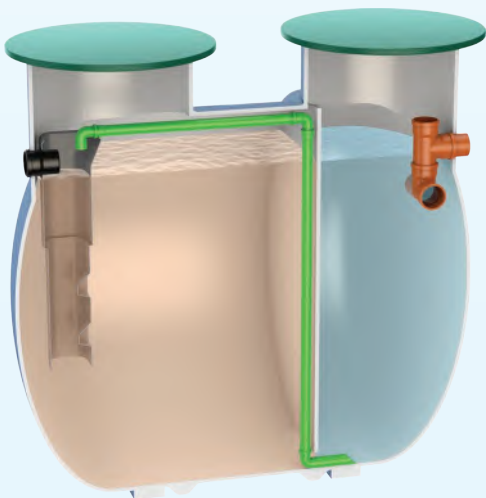
All Activated Sludge Process (ASP) sewage treatment plant produce sludge as part of the treatment process. The sludge is composed of partially digested solid matter.

Two types of sludge are produced: **Settled Sludge** and **Floating Sludge**.

VORTEX's ability to automatically recycle this sludge via its Sludge Management System is one of the elements that make it an **advanced** ASP.

SETTLED SLUDGE RETURN (SSR)

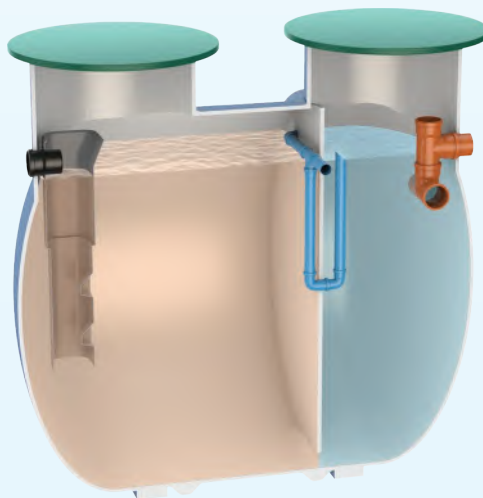
Settled sludge is recycled from the bottom of the Final Settlement Tank back to the Vibro Screen using a simple, non-mechanical, air lift.



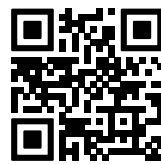
The return of settled sludge back to the Vibro Screen gives the bacteria a food supply even when there is little or no wastewater coming from the building. This makes the VORTEX better able to handle low occupation stress than other ASP sewage treatment plants.

FLOATING SLUDGE RETURN (FSR)

On other ASP systems the floating sludge must be manually recycled back to the Biozone or removed from the tank.



VORTEX's automatic FSR enables it to recycle and manage the floating sludge without the use of electrical or mechanical components inside the tank. No other ASP sewage treatment plant has this ability to manage its own floating sludge.



ADJUSTABLE TREATMENT PROCESS

One of the major advantages of the VORTEX design is that the aeration inside the tank can be manipulated post installation. This enables the tank to function differently depending on the amount of use it is getting.

As a rough rule, sewage treatment plants require at least 50% of their design load in order to function. It is common however for many sewage treatment plants to be underloaded and fail to produce satisfactory effluent as a result.

VORTEX is adjustable so the treatment process can be altered to optimise performance for populations less than 50% of the design load.

10%

Upon completion of EN 12566-3 testing, VORTEX was emptied and restarted and received only 10% of the design load.

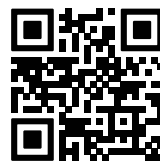
EXAMPLE

A four bedroom house requires a 6PE (6 person) sewage treatment plant.

A 6PE sewage treatment plant should have at least three residents using it.

The house is only occupied by two residents and the sewage treatment plant doesn't function correctly as a result.

THE SYSTEM FUNCTIONED EXCEPTIONALLY WELL WITH NO MAINTENANCE ISSUES.



KEY FEATURES

ODOURLESS OPERATION

Unlike many sewage treatment plants, VORTEX does not have a Primary Tank (similar to a septic tank) where solids in the incoming wastewater accumulate.

Primary Tanks are anaerobic and as the solids break down it creates odour. This is why septic tanks smell. Any sewage treatment plant that stage) will produce odour from time to time.

VORTEX is 100% aerobic. As soon as wastewater enters the tank it is oxygenated and this prevents the formation of foul odour.

TOTAL WASTEWATER TREATMENT

Many sewage treatment plants only treat the liquid component of wastewater and not the solids. The solids are stored in a Primary Tank (septic tank) prior to the treatment stage and simply accumulate prior to periodic removal by a suction tanker.

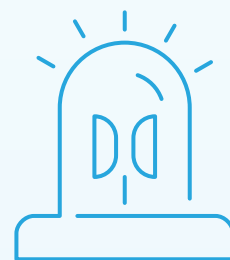
VORTEX treats both the liquid and solid constituents in wastewater.

Because solids are actively treated and digested by the bacteria in the VORTEX's Biozone, the overall size of the tank is significantly reduced.

FAILURE ALARM

To comply with EN 12566-3, a sewage treatment plant must have an alarm to alert the user in the event of failure.

All VORTEX tanks come with an alarm as standard.



ROBUST CONSTRUCTION

VORTEX tanks are manufactured in the UK using GRP (Glass Reinforced Plastic). The manufacturing process creates a one piece tank.

VORTEX is not manufactured from sheets or panels.

ULTRA COMPACT DESIGN

VORTEX is the most compact sewage treatment plant on the market and is only one third of the size of some other tanks.

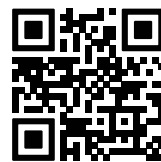
Its compact design significantly reduces the size of the excavation and the quantity of backfill required.

Its small size make handling easy and minimises transportation costs.



PUMPED OUTLET

For sites where the effluent cannot be discharged by gravity, VORTEX can be ordered as a pumped outlet version which has an Internal Pump Station (IPS).

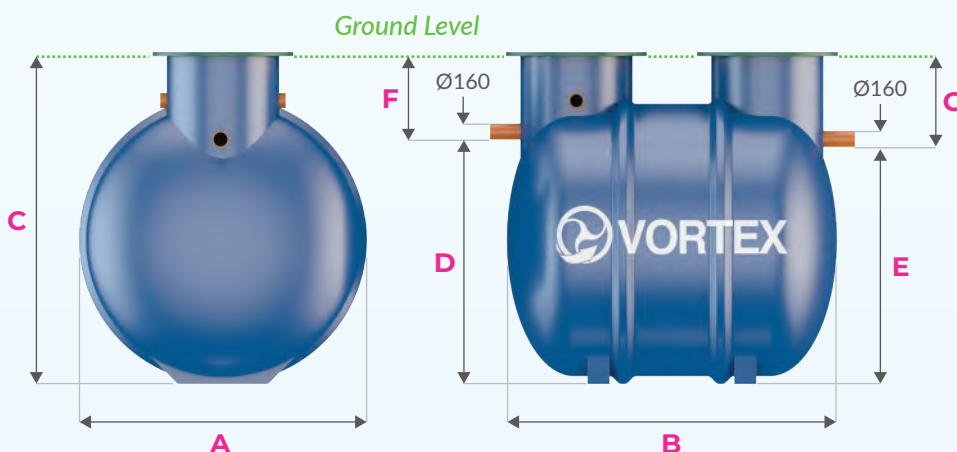


INSTALLATION

VORTEX has been designed to make installation as simple, quick and low cost as possible.

Its compact design and robust construction mean that it is suitable for installation by nearly all contractors. It does not have to be installed by an approved contractor.

VORTEX is an all-in-one sewage treatment plant and no additional equipment is required.



TECHNICAL DETAILS

	VORTEX 15	VORTEX 20	VORTEX 25	VORTEX 30	VORTEX 40	VORTEX 50
PE	15	20	25	30	40	50
DIAMETER (A)	1,920	1,920	1,920	1,920	2,620	2,620
LENGTH (B)	1,800	2,200	2,500	3,050	2,230	2,770
HEIGHT (C)	2,190*	2,190*	2,190*	2,190*	2,785*	2,785*
BASE TO INLET (D)	1,640	1,640	1,640	1,640	2,235	2,235
BASE TO OUTLET (E)	1,590	1,590	1,590	1,590	2,185	2,185
INLET INVERT (F) *	550*	550*	550*	550*	550*	550*
OUTLET INVERT (G) **	600*	600*	600*	600*	600*	600*
HOURLY POWER (W)	86	135	169	173	270	338
FLOW (L)	2,250	3,000	3,750	4,500	6,000	7,500
BOD ₅ (g)	900	1,200	1,500	1,800	2,400	3,000
NH ₄ -N (g)	120	160	200	240	320	400

*Extension Turret available

**Pumped Outlet version available

All units in millimetres unless stated otherwise

Cole Easdon Consultants Limited
Unit 2, York House Dorcan Way, York House

SWINDON
SN3 3RB

Search address supplied Oxleaze Business Park
Greenhill
Greenhill
Royal Wootton Bassett
SN4 8EH

Your reference 9585 Oxleaze Business Park

Our reference ALS/ALS Standard/2024_5012985

Search date 28 June 2024

Notification of Price Changes

From 1st April 2024 Thames Water Property Searches will be increasing the prices of its CON29DW Residential and Commercial searches along with the Asset Location Search. Costs will rise in line with RPI as per previous years, which is sat at 6%.

Customers will be emailed with the new prices by February 28th 2024.

Any orders received with a higher payment prior to the 1st April 2024 will be non-refundable. For further details on the price increase please visit our website at www.thameswater-propertysearches.co.uk.



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0800 009 4540

Search address supplied: Oxleaze Business Park, Greenhill, Greenhill, Royal Wootton Bassett, SN4 8EH

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0800 009 4540, or use the address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Email: searches@thameswater.co.uk

Web: www.thameswater-propertysearches.co.uk

Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and

pressure test to be carried out for a fee.

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Payment for this Search

A charge will be added to your suppliers account.

Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 407639,186153

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map (2020) with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

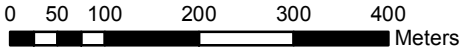
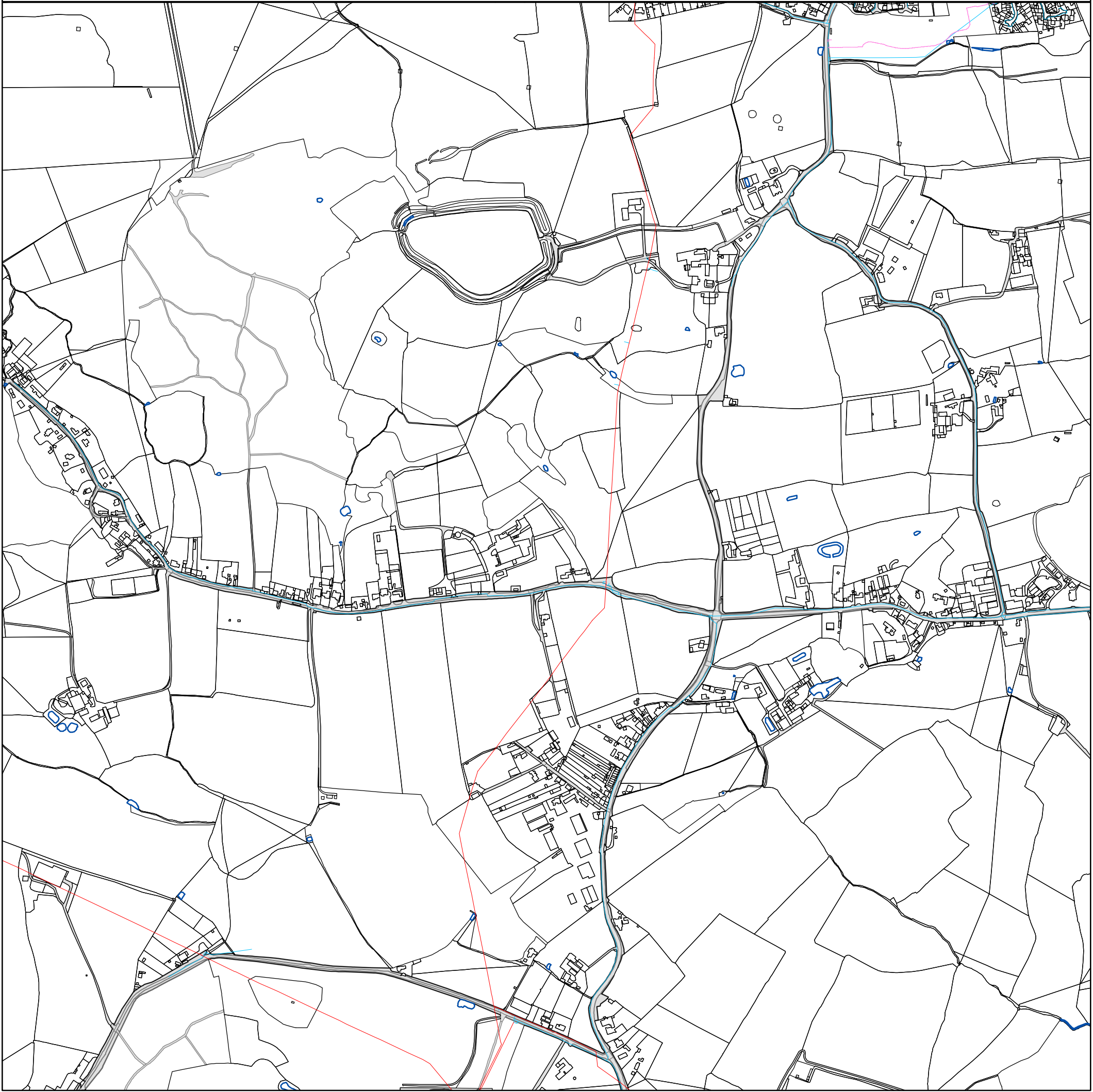
Manhole Reference	Manhole Cover Level	Manhole Invert Level
n/a	n/a	n/a
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.		

ALS/ALS Standard/2024_5012985

NB: Level quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates no Survey information is available.

REFERENCE	COVER LEVEL	INVERT LEVEL
0202	136.72	134.72
1202	135.79	134.03
6206	127.59	126.38
6207	126.24	124.88
2101	133.26	132.31
2202	133.65	132.21
2206	134.27	131.7
7202	125.37	122.82
6211		
6203	125.51	123.46
6205		
7205	125.59	123.32
221A		
6210	125.97	124.74
921A		
621B		

REFERENCE	COVER LEVEL	INVERT LEVEL
1201	135.77	133.49
1204	135.73	134.35
6208	126.18	124.53
1205		
2201	133.61	132.09
2207		
6209	126.03	124.42
6212		
6202	125.34	124.4
6204	125.45	124.16
7206	125.57	123.7
121B		
1101	133.42	132.66
121A		
621A		



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Scale: 1:7993
Width: 2233m
Printed By: Krishna1
Print Date: 28/06/2024
Map Centre: 407639,186152
Grid Reference: SU0786SE

Comments:



Asset Location Search - Sewer Key

Public Sewer Types (Operated and maintained by Thames Water)

	Foul Sewer: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
	Surface Water Sewer: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
	Combined Sewer: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
	Storm Sewer
	Sludge Sewer
	Foul Trunk Sewer
	Surface Trunk Sewer
	Combined Trunk Sewer
	Foul Rising Main
	Surface Water Rising Main
	Combined Rising Main
	Vacuum
	Thames Water Proposed
	Vent Pipe
	Gallery

Other Sewer Types (Not operated and maintained by Thames Water)

	Sewer		Culverted Watercourse
	Proposed		Decommissioned Sewer
	Content of this drainage network is currently unknown		Ownership of this drainage network is currently unknown

Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plan are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate the direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

	Air Valve		Meter
	Dam Chase		Vent
	Fitting		

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

	Ancillary		Drop Pipe
	Control Valve		Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol. Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

	Inlet		Outfall
	Undefined End		

Other Symbols

Symbols used on maps which do not fall under other general categories.

	Change of Characteristic Indicator		Public / Private Pumping Station
	Invert Level		Summit

Areas

Lines denoting areas of underground surveys, etc.

	Agreement
	Chamber
	Operational Site

Ducts or Crossings

	Casement	Ducts may contain high voltage cables. Please check with Thames Water.
	Conduit Bridge	
	Subway	
	Tunnel	

5) 'na' or '0' on a manhole indicates that data is unavailable.

6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimeters. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology, please contact Property Searches on 0800 009 4540.



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 407639, 186153.
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map (2020) with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.



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Scale: 1:7993
Width: 2233m
Printed By: Krishna1
Print Date: 28/06/2024
Map Centre: 407639,186152
Grid Reference: SU0786SE

Comments:



Asset Location Search - Water Key

Water Pipes (Operated & Maintained by Thames Water)

- Distribution Main:** The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
- Trunk Main:** A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
- Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.
- Fire Main:** Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
- Metered Pipe:** A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
- Transmission Tunnel:** A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
- Proposed Main:** A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Valves

- General Purpose Valve
- Air Valve
- Pressure Control Valve
- Customer Valve

Hydrants

- Single Hydrant

Meters

- Meter

End Items

Symbol indicating what happens at the end of a water main.

- Blank Flange
- Capped End
- Emptying Pit
- Undefined End
- Manifold
- Customer Supply
- Fire Supply

Operational Sites

- Booster Station
- Other
- Other (Proposed)
- Pumping Station
- Service Reservoir
- Shaft Inspection
- Treatment Works
- Unknown
- Water Tower

Other Symbols

- Data Logger
- Casement:** Ducts may contain high voltage cables. Please check with Thames Water.

Other Water Pipes (Not Operated or Maintained by Thames Water)

- Other Water Company Main:** Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
- Private Main:** Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

Payment Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment within 14 days of the date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service or will be held to be invalid.
4. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
5. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
6. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 980 8800.

If you are unhappy with our service, you can speak to your original goods or customer service provider. If you are still not satisfied with the outcome provided, we will refer the matter to a Senior Manager for resolution who will provide you with a response.

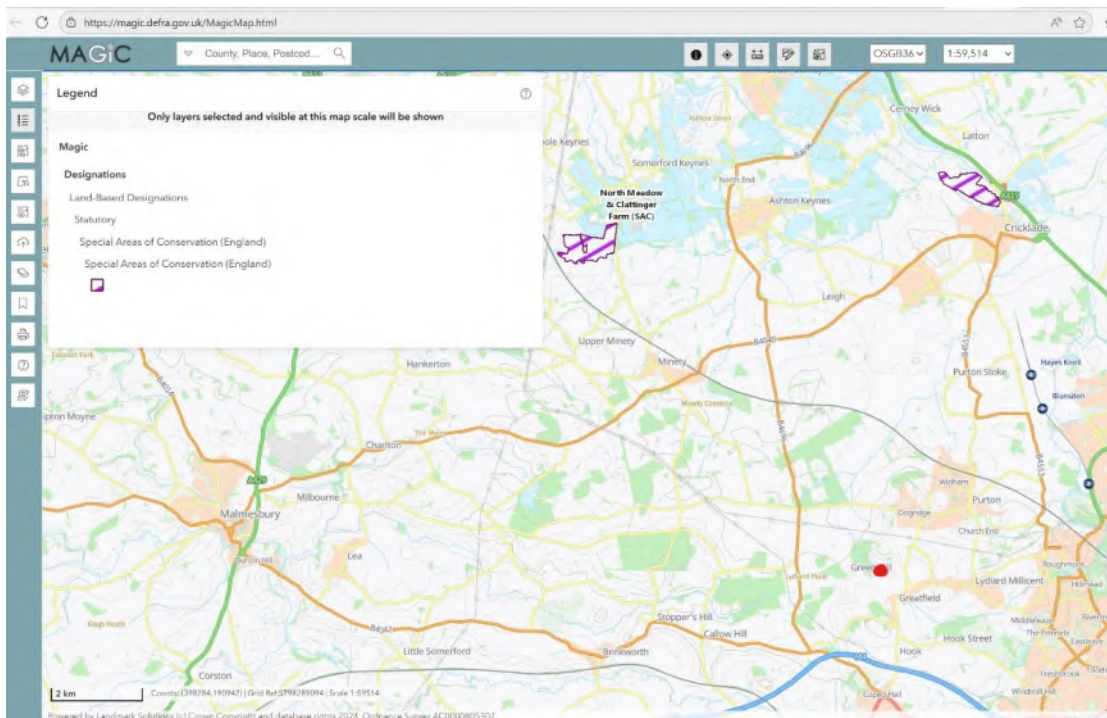
If you are still dissatisfied with our final response, and in certain circumstances such as you are buying a residential property or commercial property within certain parameters, The Property Ombudsman will investigate your case and give an independent view. The Ombudsman can award compensation of up to £25,000 to you if he finds that you have suffered actual financial loss and/or aggravation, distress, or inconvenience because of your search not keeping to the Code. Further information can be obtained by visiting www.tpos.co.uk or by sending an email to admin@tpos.co.uk.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0300 034 2222 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

Ways to pay your bill

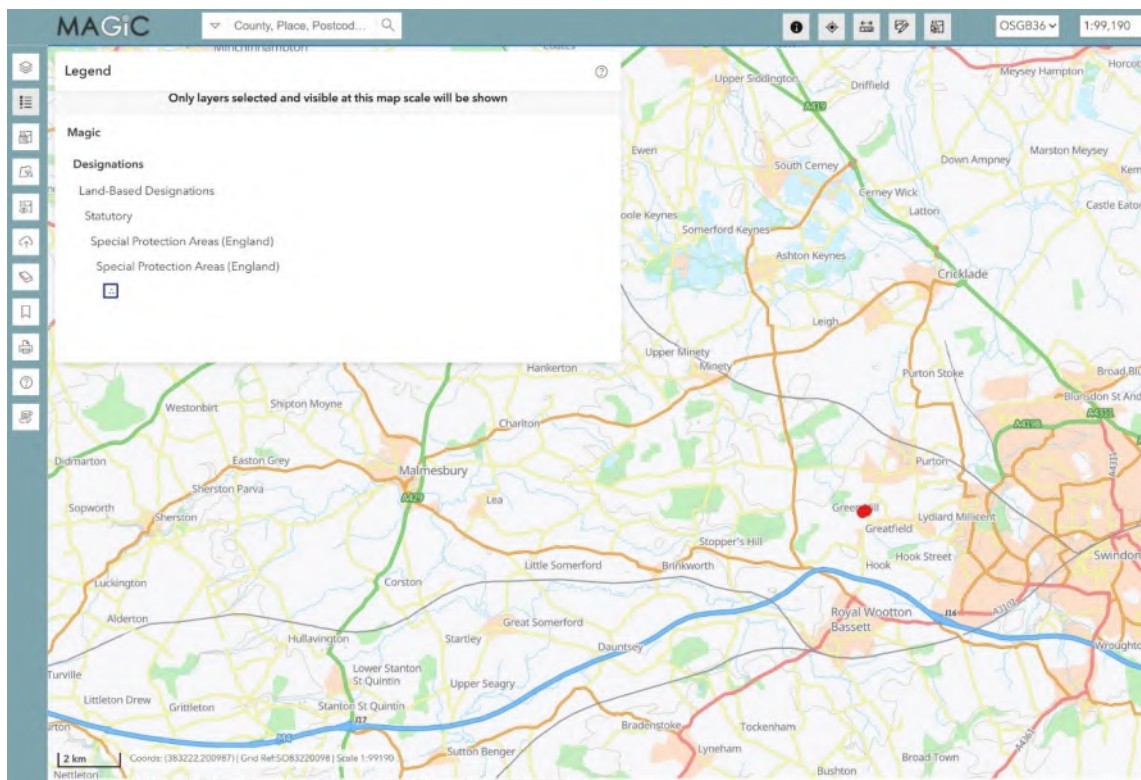
Credit Card	BACS Payment	Telephone Banking
Please Call 0800 009 4540 quoting your invoice number starting CBA or ADS	Account number 90478703 Sort code 60-00-01 A remittance advice must be sent to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW. or email ps.billing@thameswater.co.uk	By calling your bank and quoting: Account number 90478703 Sort code 60-00-01 and your invoice number

Thames Water Utilities Ltd Registered in England & Wales No. 2366661 Registered Office Clearwater Court, Vastern Rd, Reading, Berks, RG1 8DB.



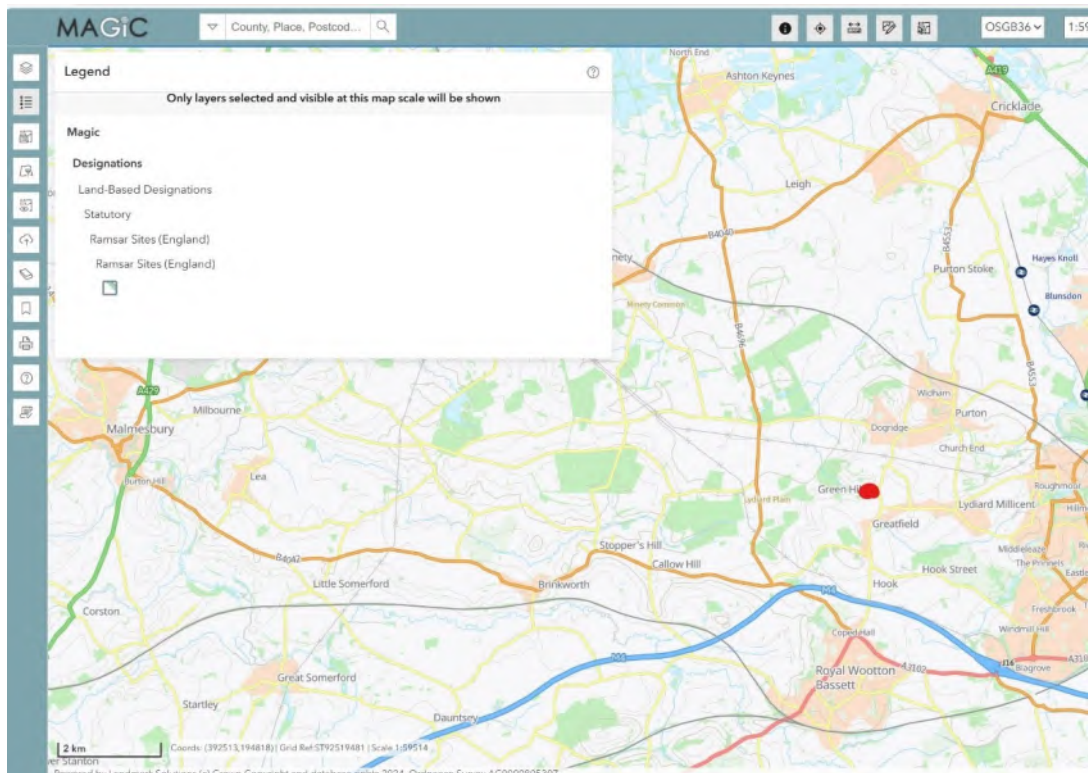
Special Area of Conservation (SACs)

Source: <https://magic.defra.gov.uk/MagicMap.html>



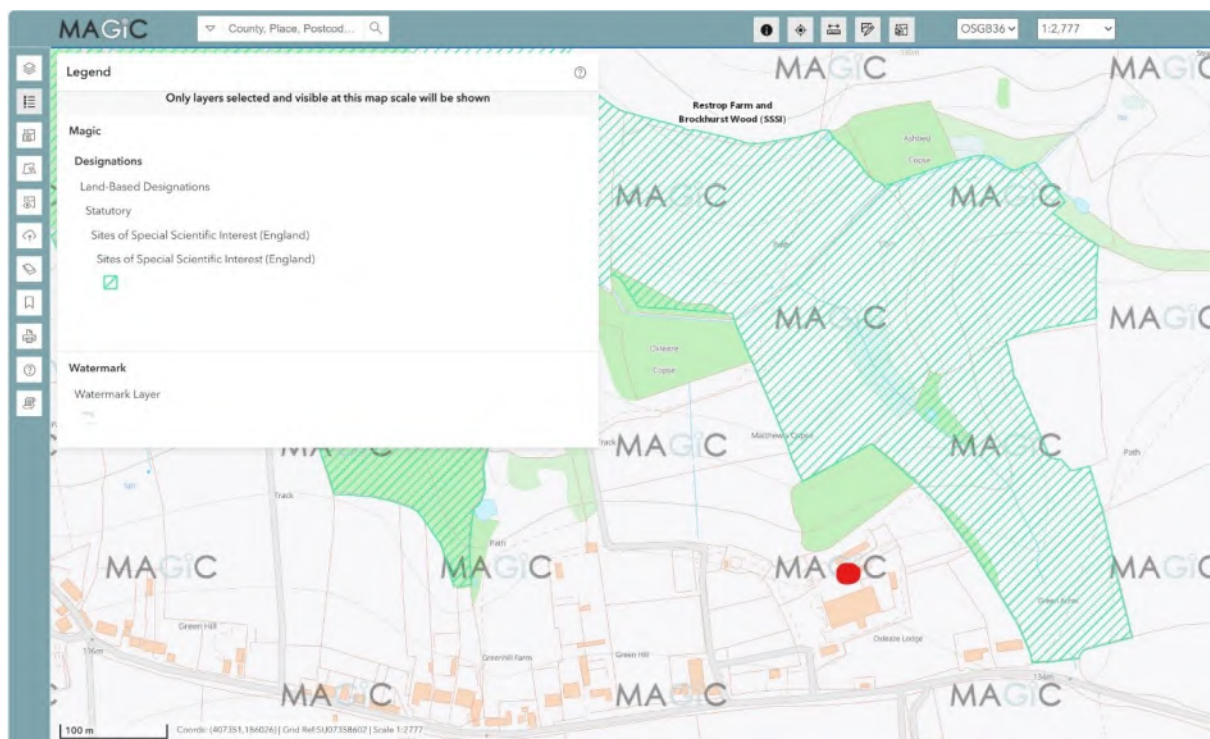
Special Protection Areas (SPA)

Source: <https://magic.defra.gov.uk/MagicMap.html>



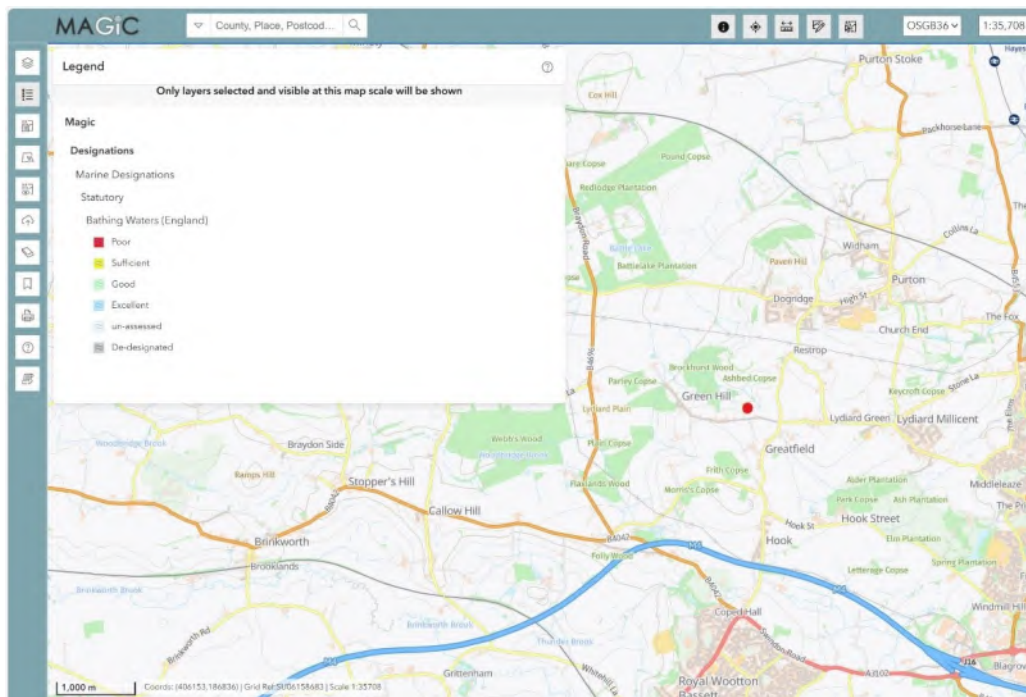
RAMSAR Sites

Source: <https://magic.defra.gov.uk/MagicMap.html>



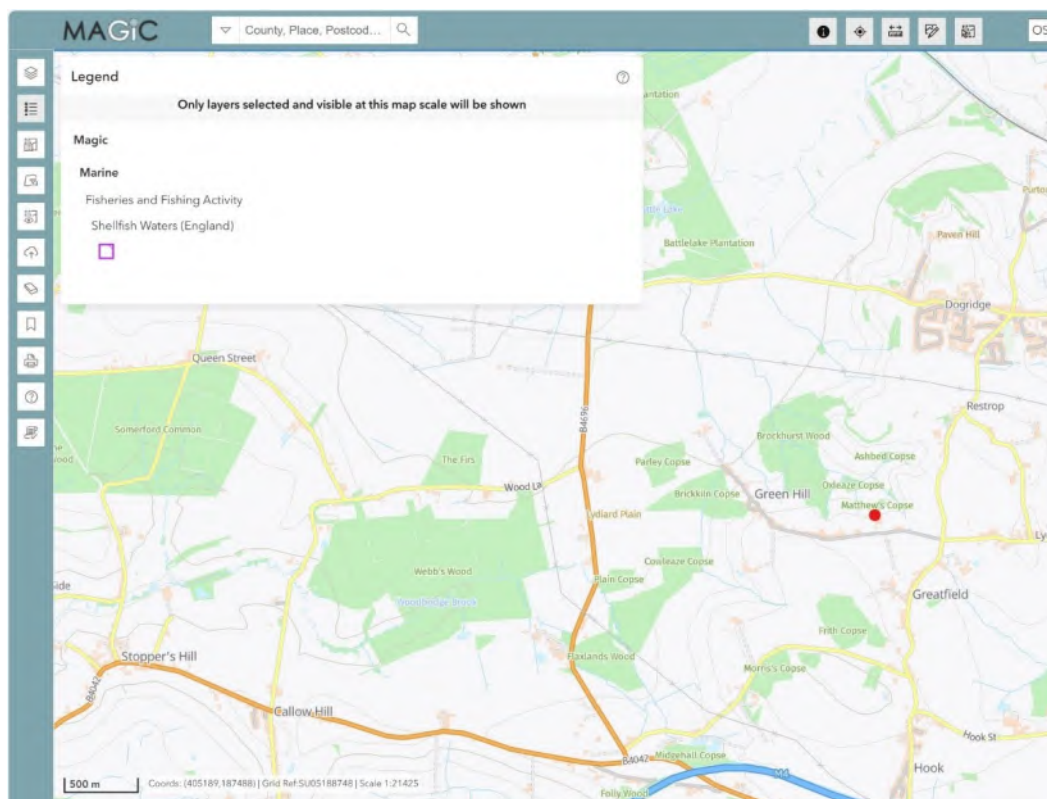
Sites of Special Scientific Interest (SSSI)

Source: <https://magic.defra.gov.uk/MagicMap.html>



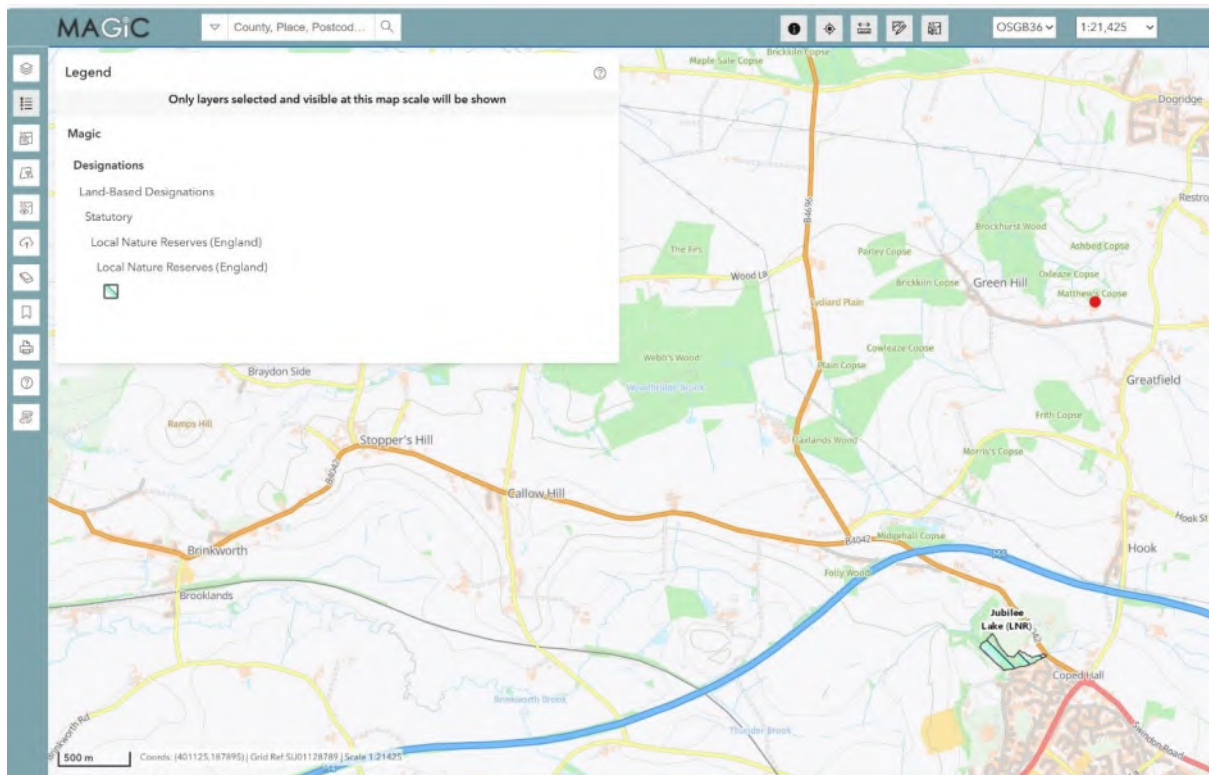
Designated Bathing Waters

Source: <https://magic.defra.gov.uk/MagicMap.html>



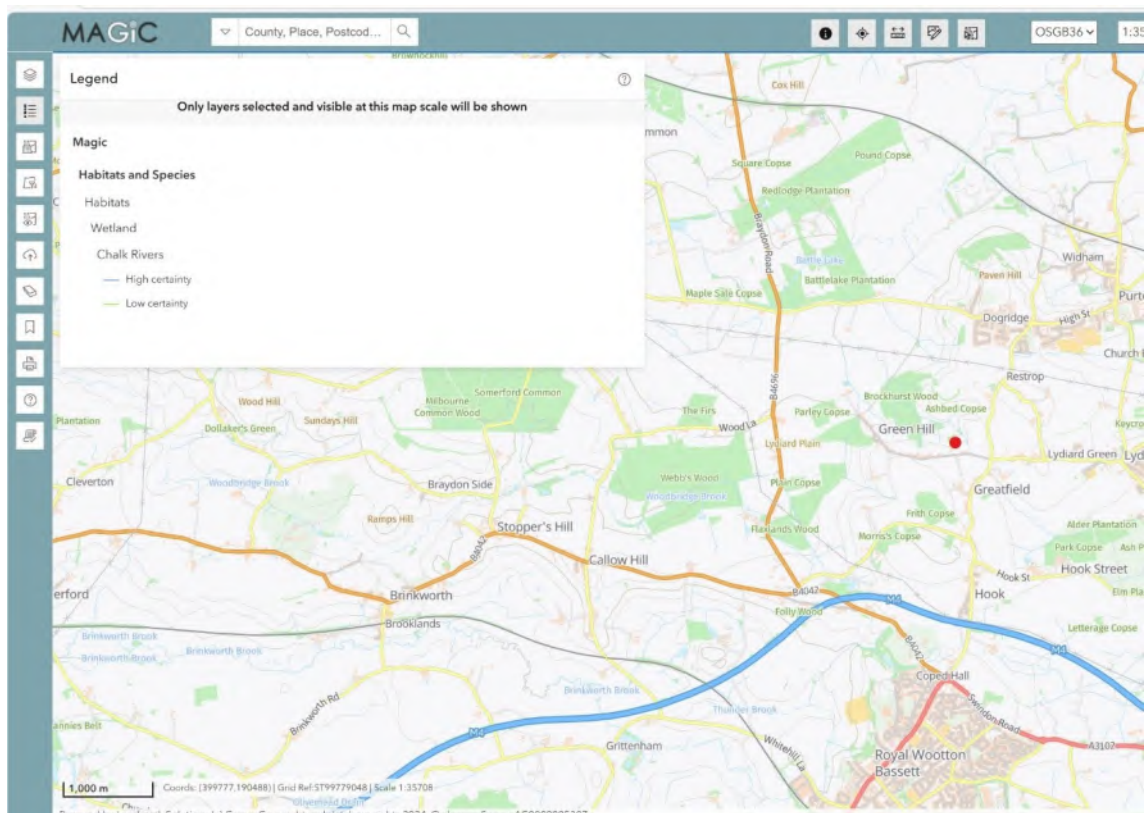
Protected Shellfish Waters

Source: <https://magic.defra.gov.uk/MagicMap.html>



Local Nature Reserves

Source: <https://magic.defra.gov.uk/MagicMap.html>



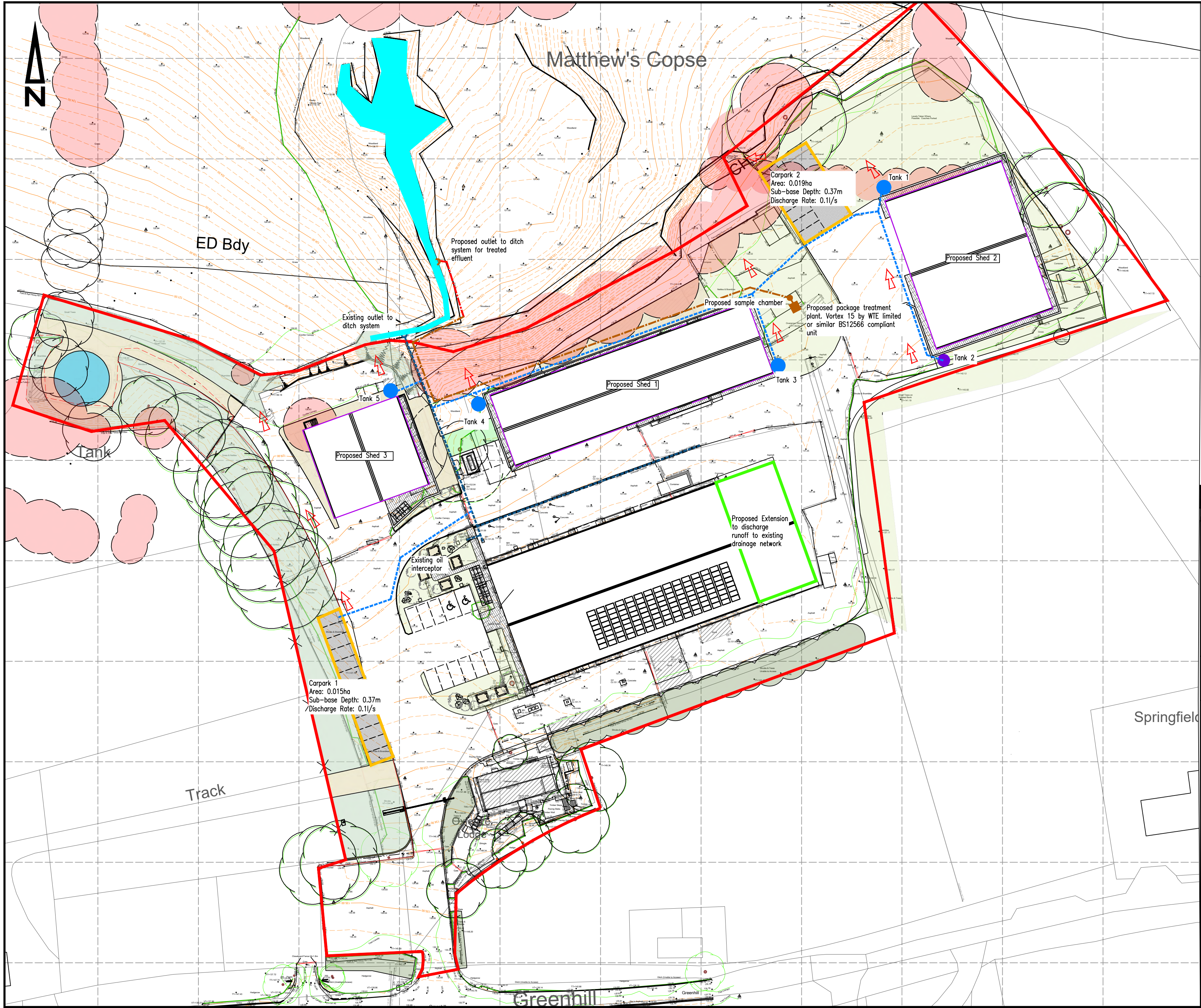
Chalk Rivers

Source: <https://magic.defra.gov.uk/MagicMap.html>



Local Wildlife Sites

Source: <https://www.wiltshirewildlife.org/nature-reserves>



Key

- Red Line Boundary
- Proposed catchment discharging to above ground attenuation tank
- Proposed catchment discharging to existing drainage as unattenuated flow
- Proposed sub-base storage below permeable surfacing
- Proposed above ground attenuation tank (20000l)
- Proposed above ground attenuation tank (15000l)
- Proposed surface water pipework
- Existing surface water pipework
- Proposed package foul treatment works
- Proposed foul pipework
- Proposed partial soakaway (10m perforated pipe)
- Design Exceedance Flow Route
- Existing Ditch

NOTES

- All levels are in metres above Ordnance datum
- Surface water drainage systems designed to accommodate the 1 in 100 year critical storm including a 40% allowance for climate change
- This drainage strategy is indicative only and is subject to detailed design

REFERENCE DRAWINGS:

Drawing No.	Drawing Title	Revision	Date	Company
2315 0408	Proposed Site Plan	—	August 2025	Offgrid Architecture
27793-200-01	Topographical Survey	—	March 2025	Brunel Surveys Ltd

A	SS	24.12.25	Partial soakaway added
No.	By	Date	Revision Details

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Cole Easdon

01793 619 965 | cec@ColeEasdon.com | www.ColeEasdon.com

Client

Skyline Aero Ltd

Job Title

Proposed Development
Oxleaze Business Park
Greenhill, Royal Wootton Bassett
SN4 8EH

Drawing Title

Proposed Drainage Strategy

Drawing Status:

FOR COMMENT	FOR PLANNING	FOR TENDER	FOR APPROVAL	FOR CONSTRUCTION	AS BUILT

CONSTRUCTION AT CLIENT / CONTRACTOR RISK

Designed by: NJ	Drawn by: NJ	Checked by: JP
Date: August 2025	Scale: 1:200 @ A2	

Drg No. 9585-501	Rev. A
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