



# GRANGE FARM

*Shaped by the Land, Cultivated by the Community*

ABINGTON, SOUTH CAMBRIDGESHIRE

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TECHNICAL APPENDIX

MANAGING WATER, CARBON  
AND FINITE RESOURCES BY:



A Submission to  
Greater Cambridge  
Shared Planning Service

*June 2026*

# Managing Water, Carbon and Finite Resources Technical Appendix

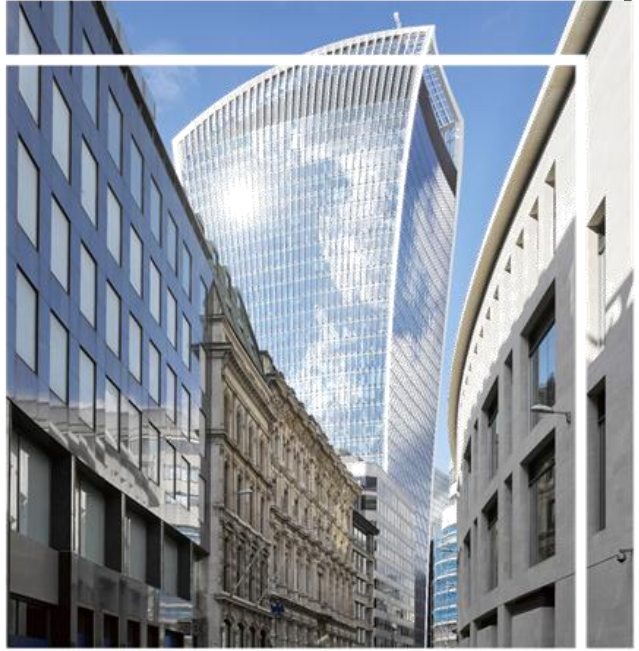
Grange Farm

12 June 2026

XX-HML-XX-XX-RP-U-9901

Issue P03





**Project Name:** Grange Farm

**Report Name:** Managing Water, Carbon and Finite Resources  
Technical Appendix

**Issue Status:** Final

**Reference:** XX-HML-XX-XX-RP-U-9901

**Date of Issue:** 12 June 2026

**Issue:** P03

**Suitability Code:** S2 Suitable for information

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## Document History:

Issue	Date	Details
P01	15/4/2026	TECHNICAL APPENDIX
P02	17/4/2026	FINAL REPORT
P03	12/6/2026	FINAL REPORT INCLUDING MEETING MINUTES WITH THE EA

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*We have sought to ensure that this document is accessible for all users. Should you have any comments on how we can improve accessibility of our documents please do let us know. We are happy to provide this report in a HTML format should this be required.*

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## **Executive Summary**

This document presents solutions, and occasionally options, for developing up to 6,000 new homes at Grange Farm whilst ensuring that the use of finite resources including water and carbon are fully considered - not just in support of emerging local policies (CC/IW, CC/WE) but also in support of a climate and ecological emergency.

These solutions are presented with evidence that key consultees (the incumbent utility undertakers and the Environment Agency - EA) are agreed that the solutions tabled will support a new settlement of up to 6,000 new homes; that these solutions conform to their needs; and are supportive of the solutions presented and will continue to engage with the development team as the development progresses.

These key topics are presented at a high-level within Appendix A of the Vision Document and include integrated water management, sustainable drainage, energy, carbon and sustainable waste management strategies and solutions.

This Technical Appendix supersedes revision P02 dated 17 April 2026.

In addition to minutes of meetings with the EA relating to the conveyance and treatment of foul and surface water, and related groundwater protection, this document captures evidence from the incumbent utility undertakers defining short-term and long-term water supply and energy supply (electricity supply) solutions for Grange Farm.

This evidence ably demonstrates that power can be provided to Grange Farm to support an electrically led heating and hot water strategy (including battery electric vehicle charging). This includes early phased delivery of power, and a permanent strategy.

Similarly, evidence is provided to demonstrate short-term and longer-term water supply solutions as fully agreed with Cambridge Water.

Evidence from Anglian Water demonstrates their preferred solution, with two subsequent meetings with the EA undertaken to define that all parties are aligned.

## **Integrated Water Resource Management (IWRM)**

The Grange Farm IWRM strategy is genuinely holistic – it practises a whole-systems thinking approach – this will allow future residents to benefit from relatively normal water-use behaviours, whilst protecting local groundwater and local surface water resources.

Halting the depletion of groundwater resources should help protect chalk streams, whilst maximising water re-use (treated wastewater) and simultaneously ensuring that environment buffers are included between treated water and natural ground and surface water resources.



*Figure 1: Grange Farm IWRM pillars.*

The key pillars of IWRM are represented in Figure 1 and are described below in terms of the proposed solution for Grange Farm:

### **Water Supply**

- Reduce groundwater depletion by the curtailment of an existing groundwater abstraction borehole (i.e. reduce current abstraction from the aquifer). Agreement has been reached to curtail an existing water abstraction license.
- Reduce potable water consumption within the new development by implementing water efficiency measures in line with GCSP policy.
- Consultation with Cambridge Water has confirmed a potable water supply can be achieved for the site for up to 6,000 homes. Solutions for a fully secure water supply for up to 6,000 homes has been tabled by Cambridge Water.
- Consultation with Cambridge Water indicates that the existing local network can supply up to 360 new homes without network reinforcement which is suitable for an early phased connection of the emerging masterplan.

### **Sustainable Drainage Systems**

- Sustainable urban drainage systems (SuDS), including infiltration basins, have been incorporated into the emerging masterplan framework, with spatial allowances designed to safely manage all rainfall events up to the 1 in 100-year storm plus a 40% climate change allowance. This method is in line with the latest national SuDS standards and Cambridgeshire County Council LLFA guidance.

### **Groundwater Discharge / Recharge**

- In addition to the curtailment of an existing borehole, groundwater in the aquifer can be supplemented through a groundwater discharge permit.

- This will be achieved by infiltrating suitably treated surface water and stormwater flows directly to the ground. Natural geo-purification processes (filtration) will help replenish groundwater resources.
- This groundwater discharge will also be considered with regard to other forms of treated wastewater: Consultation with the Environment Agency (EA) has been initiated in March 2026 to explore this further and minutes of one meeting with the EA are appended to this document and capture their provisional agreement to this strategy subject to hydrogeological modelling and a risk assessment.

## Water Recycling

- The GCSP Integrated Water Management study indicates that there is a potential to convey foul water to the existing Anglian Water Recycling Centre, at Sawston, following the required upgrades, or via a new onsite Water Recycling Centre (WRC). Any onsite WRC will be adopted and operated under licence by a regulated sewerage undertaker.
- Engagement with the EA has been initiated (and minuted) to confirm the most sustainable solution and whether an onsite WRC will support the wider groundwater discharge / recharge strategy.
- Consultation with Anglian Water (AW) indicates that local sewerage network capacity will immediately support 600 new homes at Linton WRC, ahead of further investment at Sawston WRC (or adoption of an onsite WRC solution).
- The emerging masterplan framework safeguards land for an onsite WRC should this be required, while maintaining flexibility to convey foul flows to Sawston WRC.
- The landowner is committed to ensuring that any water discharged to ground or surface water - whether treated surface water, stormwater, or flows from a future onsite WRC - will only be released once it meets stringent, regulator-approved quality standards, thereby safeguarding the River Granta and its sensitive chalk stream ecology. This commitment applies to all on-site treatment and permitted discharge processes, ensuring that they protect the chalk aquifer and maintain the natural flow and water-quality conditions essential to the preservation of the River Granta chalk stream.

## Energy and Utilities

### Sustainable Energy Solutions

The energy strategy for Grange Farm will naturally be a fabric first approach. The Future Buildings Standard consultation proposed significantly improved levels of fabric insulation and airtightness for non-domestic buildings. Building Regulations are placing a lot more emphasis on fabric performance, particularly for residential buildings.

A target fabric energy efficiency (TFEE) will be met and exceeded, with increased attention to thermal bridging and quality of construction. A building with a lower heat demand is also

more suited for lower temperature heating systems, such as heat pumps, therefore supporting the transition to a fossil-free (heating) future.

In the UK, an important area of decarbonisation (and improved local air quality) has been the replacement of natural gas heating with a low carbon heat pump: these can be deployed at a micro (individual dwelling) and macro scale (central plant or energy centre). In addition to improving air quality outcomes an electrically led solution will be supported by the wider decarbonisation of our electricity grid.

A feasibility study will be prepared for scalable and phased low and zero carbon technologies and opportunities for renewable heat and power generation at Grange Farm. This will include consultation with Energy Services Companies about renewable heat and renewable power management structures, and a low whole lifecycle carbon strategy for buildings and infrastructure across the masterplan. Importantly, networked heat solutions from block level ground-loop arrays, through neighbourhood and district heating networks must be subject to feasibility, techno-economic viability and business case tests, with stewardship and governance considered alongside customer billing and consumer protection, in addition to commercial and economic returns for the whole supply chain.

## Utilities

Evidence from the incumbent network operators (UK Power Networks, Cambridge Water and Anglian Water) confirm that there are water, foul sewerage and electricity supply solutions for Grange Farm. There are solutions for the supply of water and power, and the conveyance of foul sewage, for early phases of development, and in all cases there are longer term permanent solutions for up to 6,000 new homes.

Meeting and follow-up correspondence with UK Power Networks (UKPN) ably demonstrates that power can be provided to Grange Farm to support up to 6,000 homes based on electrically led heating and hot water, with standard EV charging infrastructure for all dwellings. This will include a new 33kV network and onsite 33 to 11kV primary substation (there is also an alternative 132kV network solution should capacity become unavailable on the 33kV network). Further this evidence from UK Power Networks confirms that there is also capacity available on the very local 11kV network from the overhead lines crossing the site and from Cambridge Road south of the site to supply circa 550 new homes ahead of the off-site 33kV network extension from Sawston (refer to section 2).

Similarly, evidence is provided to demonstrate potable water supply solutions from Cambridge Water (South Staffs Water). Up to 6,000-homes can be connected via points of connection to the South Staffs network on an 18" trunk main upstream of Babraham Pumping Station, or alternatively 2 no. 24" trunk mains on the same Cambridge City zone. Following a relatively modest off-site extension from Balsham Road Booster Station it is also likely that early residential phases could be served in advance of the 18" or 24" connections. Further evidence has been provided by Cambridge Water stating that a reasonably local 250 mm main which runs along Balsham Road between Charterhouse junction and Dotterell Cottages has

the capacity to supply approximately 300 – 360 properties at Grange Farm prior to the extension being required from the full site connection option.

Fibre to the Home (FTTH) and Fibre to the Premises (FTTP) infrastructure platforms will be achievable and will be provided by Openreach and/or other fibre network operators under application. Openreach is the regulated open-access network provider for Cambridgeshire and will extend its network onto the site providing 'ultra-fast' data connections through one of the very many Communication Providers (CPs or Internet Service Providers - ISPs) that are able to retail services through Openreach infrastructure under their Network Code.

# 1. Integrated Water Resource Management

## 1.1. Water Supply

### 1.1.1. Permitted Groundwater Discharge and Protection

Restoring natural chalk habitats is at the core of the integrated water resource management (IWRM) strategy. Most of the world's chalk streams are located in England and are dependent on the quantity and quality of water in chalk aquifers beneath the ground, including the groundwater beneath Grange Farm.

The infiltration of rainwater into the ground will be optimised through the design of sustainable drainage (SuDS) systems which are fully considerate of local geology, hydrogeology and local groundwater source protection zones.

This will potentially be supplemented through the permitted discharge of treated wastewater subject to the use of environmental buffers, hydrogeological modelling and risk assessment, as discussed and agreed with the EA.

An immediate action will also include the curtailment of an existing groundwater abstraction borehole local to Grange Farm, currently licenced to extract 30,000m<sup>3</sup> per year, with a maximum extraction rate of 1,000m<sup>3</sup> per day.

Finally, in support of both the Integrated Water Resource Management Policy, and in support of Water Efficiency Policy, the consumption of potable water consumption across the site will be significantly reduced through water efficiency measures including low-flow devices, water-efficient fittings and smart meters.

### 1.1.2. Cambridge Water Pre-development Enquiry

A pre-development enquiry with Cambridge Water was carried out between February and April 2026, which informed the water supply strategy for the site.

#### **Water Availability for up to 6,000-homes**

To provide water connectivity to the full development proposal, Cambridge Water has stated that the Point of Connection for a new 6,000-home settlement can be achieved from their existing 18" water main at Babraham Booster station. A new 3.5km off-site water network extension will be required to convey water to the new settlement at Grange Farm. The red circle to the left (POC1) within the Figure 2 shows this point of connection relative to the site.

In addition to the new off-site water main, a booster station will be provided to ensure that new and existing customers receive water at a suitable pressure.

If, for resilience reasons, Cambridge Water proposed a second point of connection to serve Grange Farm then a further connection would be made onto an existing 24" water main nearer to Fulbourn, to the north of the site (POC2, also in Figure 2).

This is also on the same Cambridge city network as the Babraham Booster, where both connections would benefit from future water supply from the Grafham Reservoir Bulk Transfer, and future Fens Reservoir.

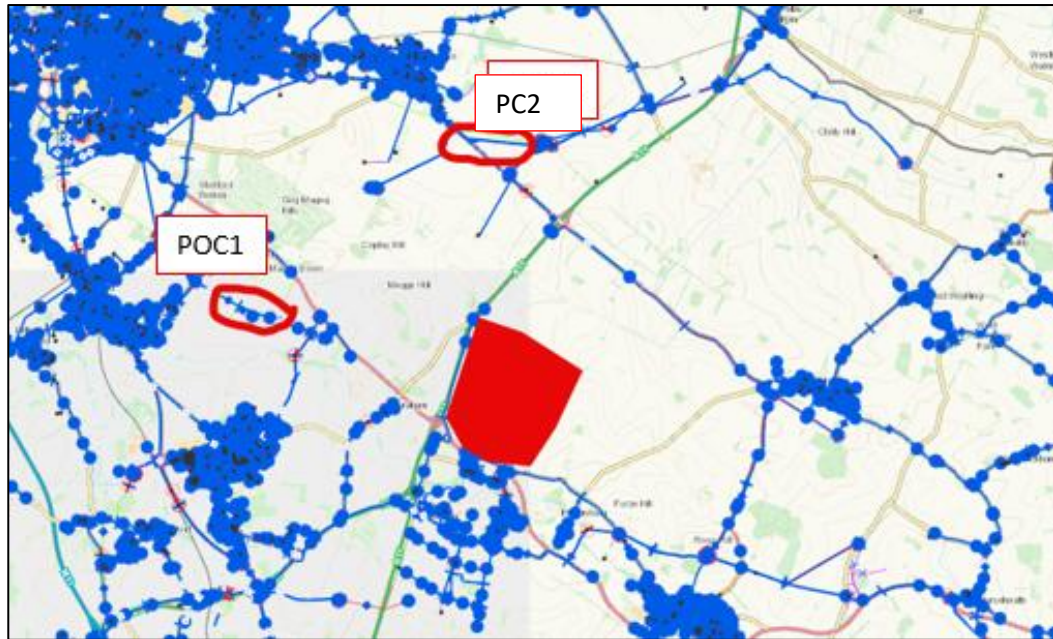


Figure 2: Cambridge Water Asset Map – Point of Connection (POC) information.

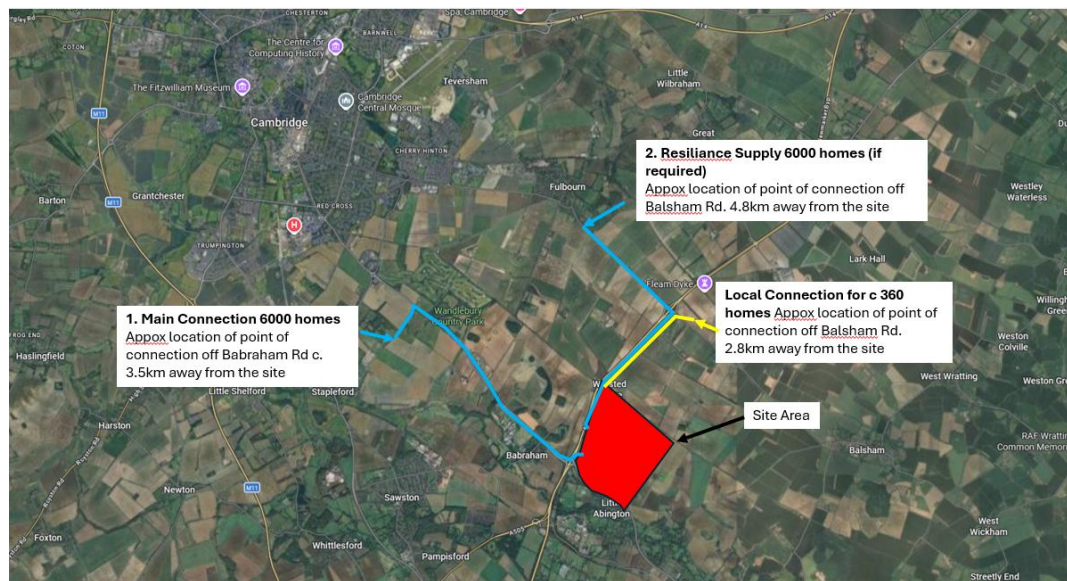


Figure 3: Indicative electric cable routes from the POC to the site area.

### Immediate local availability of water for early phases of development

There is a 250mm water main located in Balsham Road, between Charterhouse junction and Dotterell Cottages, from Cambridge Water Waterworks Booster Station. Consultation with Cambridge Water confirmed that this point of

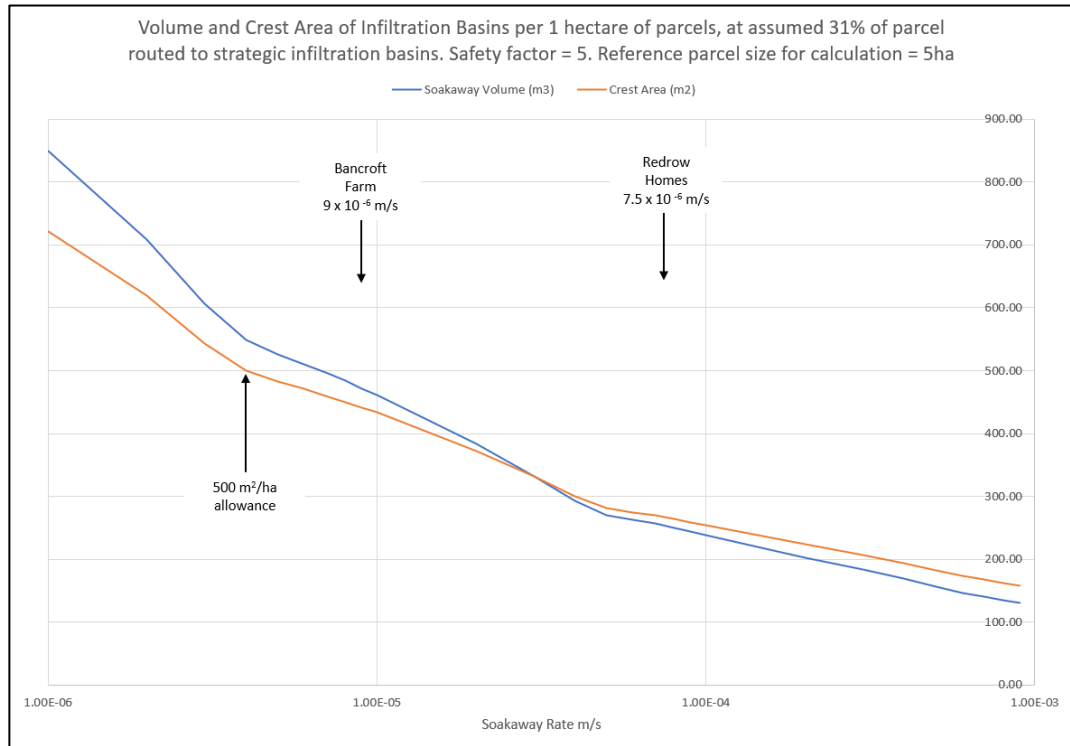
connection can supply up to 360 homes without network reinforcement and that is suitable for an early phase connection of the emerging masterplan.

## 1.2. SuDS: Infiltration Basins

Rainwater and stormwater will be allowed to infiltrate to ground where possible as close to the source of the rainfall as possible, to follow the natural hydraulic cycle.

Whilst infiltration as close to source as possible will be provided, the emerging masterplan framework makes a spatial allowance for strategic basins that will provide a final point of infiltration drainage for roads and other uses that cannot infiltrate at source because water needs to be treated via a suitable SuDS train. The volumes and sizes of these basins will be confirmed at detailed design stage and will vary depending on multiple factors.

To provide sufficient safeguarding for this purpose, a spatial allowance of 500m<sup>2</sup> per hectare of development parcel has been provided. The 500m<sup>2</sup> per hectare was calculated based on 2 m deep basins of gentle sloping form, and on the lower end of range of expected infiltration rates based on data from nearby sites, which is conservative. This calculation ensured that all storms up to the 1 in 100 year return period plus a 40% allowance for climate change are stored and infiltrated in those basins. Furthermore, the calculation builds in additional contingency even beyond this requirement at lower infiltration rates, when the 30 year storm does not half empty within 24 hours, and a 1 in 10 storm is run 24 hours after the 1 in 100 year storm. This method is in line with National SuDS Standards and Cambridgeshire County Council LLFA guidance.



*Figure 4: Spatial allowance determination of infiltration basins, showing estimated volumes and crest areas varying depending on infiltration rate.*

### 1.3. Water Recycling

In February to June 2026, the project team engaged with Anglian Water (AW) and the Environment Agency (EA) for strategic-level advice to support the development of a robust wastewater strategy for the site. These strategic consultations are completed but more detailed pre-application discussions will continue.

This early engagement confirms that the water and integrated water management strategies, including the re-use of wastewater where appropriate are suitable and deliverable, and confirm a commitment to working collaboratively with all stakeholders to identify the most appropriate and sustainable solutions.

The project is progressing with two potential foul water treatment solutions, both considered viable following discussion with Anglian Water and the EA:

1. Off-site discharge to Anglian Water’s (AW’s) network, including conveyance to an existing AW Water Recycling Centre (WRC) at Sawston.

The “Greater Cambridge Integrated Water Management Study” was published in October 2025 as part of the draft Local Plan – Regulation 18 consultation. This report uses the latest Anglian Water data and provides a commentary on the current and future headroom conditions of the existing water recycling centres (WRC), assessed against potential site allocations.

As part of this report, AW assumes that Grange Farm will discharge to Sawston WRC for the purpose of their analysis. It also mentions the option of a new onsite WRC subject to delivery models and identification of a suitable discharge point.

AW has been consulted directly regarding the proposed development in March 2026. Even though there are planned upgrades to the existing WRC at Sawston, AW did not confirm when the required upgrades will take place. During the consultation, AW also has confirmed that sufficient capacity exists to accommodate an initial phase of up to 600 homes, via Linton Sewage Treatment Works (STW). This provides a clear and positive pathway for early phases, while longer-term solutions including the potential adoption of a new treatment facility are currently under consideration.

Consultation with the EA to confirms their understanding and preference to this approach in line with guidance requiring treated foul water discharges exceeding 2m<sup>3</sup>/day to connect to a public foul sewer where feasible.

## 2. On-site Water Recycling Centre (WRC)

The emerging masterplan framework land budget makes an allowance for an on-site Water Recycling Centre (WRC) should this be required, providing flexibility and resilience to accommodate an onsite facility as the strategy is refined. In effect, this WRC will treat foul water from the development with the treated effluent discharge conveyed ideally to the ground as part of a permitted groundwater discharge application, and therefore recharging the aquifer, or alternatively to a local watercourse or Main River. Appropriate environmental buffers will be included between any treated wastewater and any permitted discharge to ground or surface water.

The EA's initial views in relation to the water quality impacts associated with the discharge of treated effluent into groundwater, in support of a groundwater recharge strategy are captured. This strategy is provisionally agreed but would be further considered subject to a hydrogeological risk assessment, with hydrogeological modelling undertaken ahead of a future application (EA meeting minutes appended).

While the preferred solution remains off-site discharge via Anglian Water to an existing WRC, the on-site WRC option remains fully available and safeguarded within the emerging masterplan framework and EA discussion.

The landowner is committed to ensuring that any water discharged to ground or surface water - whether treated surface water, stormwater, or flows from a future onsite WRC - will only be released once it meets stringent, regulator-approved quality standards, thereby safeguarding the River Granta and its sensitive chalk stream ecology. This commitment applies to all on-site treatment and permitted

discharge processes, ensuring that they protect the chalk aquifer and maintain the natural flow and water-quality conditions essential to the preservation of the River Granta chalk stream.

In conclusion, the project team is confident that an appropriate, policy-compliant and environmentally responsible wastewater solution will be delivered, working closely with both the EA and AW to select the option that best meets regulatory, environmental and operational objectives.

## 2. Energy and Utilities

Part L 2026 (the Future Homes Standard) mandates that the combustion of natural gas is outlawed in new homes, and all heating and hot water will be provided via individual or networked heat pumps or networked waste heat (direct electrical heating is also largely outlawed under the Primary Energy Metric of Part L of the Building Regulations). Roof-mounted solar photovoltaics arrays are also now mandated in most scenarios.

Part S of the Building Regulations also mandates that EV charging infrastructure is provided to all dwellings with an 'associated' parking space.

However, the energy strategy for Grange Farm will naturally be a fabric first approach. The Future Buildings Standard consultation proposed significantly improved levels of fabric insulation and airtightness for non-domestic buildings. Building Regulations are placing a lot more emphasis on fabric performance, particularly for residential buildings. A target fabric energy efficiency (TFEE) must be met and exceeded, with increased attention to thermal bridging and quality of construction. A building with a lower heat demand is also more suited for lower temperature heating systems, such as heat pumps, therefore supporting the transition to a fossil-free (heating) future.

Energy infrastructure options will be considered where they can viably improve carbon emissions and consumer billing and protection outcomes. Individual air, ground and water-sourced heat pumps certainly have their place (particularly water and ground sourced heat where year-around performance improves customer billing and carbon outcomes), but networked solutions from block level systems and ground-loop arrays, through to neighbourhood and district networks must be subject to feasibility, techno-economic viability and business case tests, with stewardship and governance outcomes considered as well as commercial and economic return outcomes. A feasibility study will be prepared for scalable and phased low and zero carbon technologies and opportunities for renewable heat and power generation at Grange Farm. This will include Consultation with Energy Services Companies about renewable heat and renewable power management structures, and a low whole lifecycle carbon strategy for buildings and infrastructure.

### **Electricity Network Infrastructure and Power Availability**

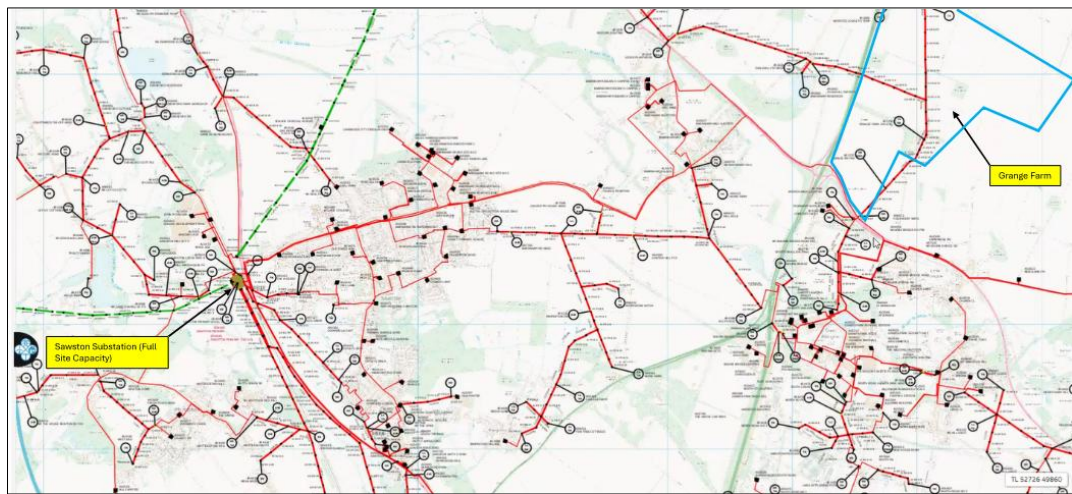
A pre-development enquiry with UK Power Network (UKPN) was carried out in February 2026 with a preliminary budget estimate and a follow up Teams meeting.

Consultations with UK Power Networks (UKPN) have proven that power is available with a robust and resilient solution for up to 6,000 homes at Grange Farm which can be achieved via point of connection on the 33kV network on the 33kV side of

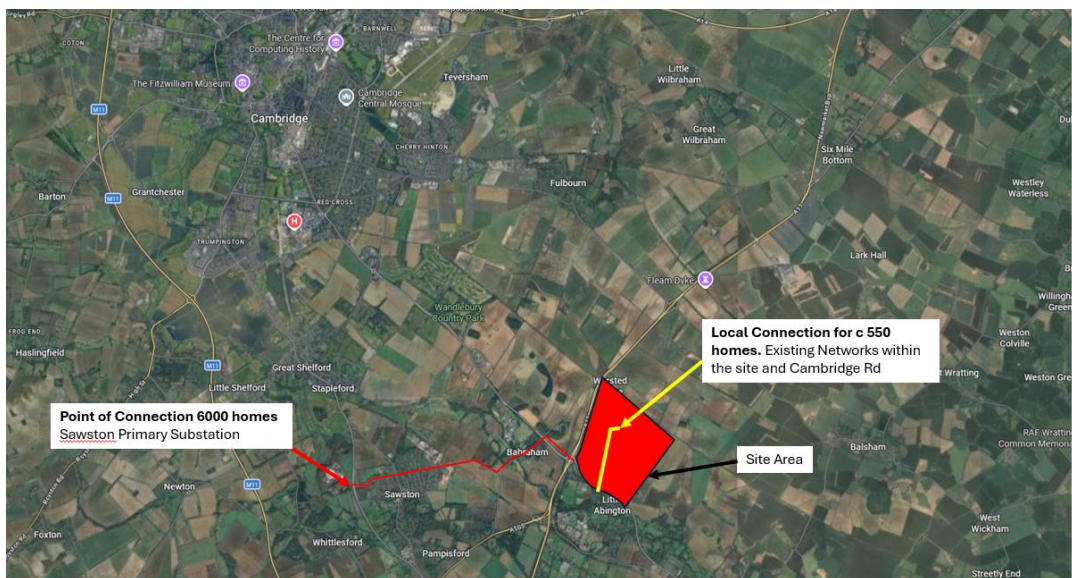
the Sawston Primary Substation (and if this solution were to become unavailable due to other large local demands coming onstream, then a 33kV connection at Fulbourn Primary Substation would also be available).

This solution will require the provision of a standard 33kV to 11kV primary substation within Grange Farm. This primary substation would have a footprint of circa 30x40m and would be adopted by UKPN or an IDNO.

The new cable route required to Grange Farm to form this solution includes for a 6.5 km ducted 33kV 500mm<sup>2</sup> aluminium cable route to the site from Sawston. The illustration below shows the location of Sawston Primary Substation in relation to the proposed Grange Farm development boundary (Figure 6).



**Figure 5:UKPN asset map - Sawston substation to Grange Farm.**



**Figure 6: UKPN Indicative Cable Route - Sawston substation to Grange Farm.**

### Local Early-Phase Capacity

Up to 2MVA of power is available very locally to serve early phases of development ahead of the 33kV network extension from Sawston (or Fulbourn). This could provide approximately 600 new homes ahead of the 33kV network extension being delivered.

- **11kV network downstream of Fulbourn 33/11kV Primary Substation:** There is a local 11kV network that derives from Fulbourn. The Fulbourn fed 11kV network is routed within the site on overhead lines so forms a very local connection and could provide 1MVA to Grange Farm.
- **11kV network downstream Linton 33/11kV Primary Substation:** There is enough capacity to accommodate a new load of circa 1MVA. This can be provided from the passing underground HV Mains in Cambridge Road.

## Consultee Responses

## A - Cambridge Water

## Ricky Thompson

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**From:** Mike Sloan <MikeSloan@south-staffs-water.co.uk>  
**Sent:** 12 February 2026 13:10  
**To:** Ricky Thompson  
**Cc:** Cam Network Development  
**Subject:** RE: [EXTERNAL]Pre Development Enquiry - Grange Farm, Cambridge (Cambridge Water)

**Categories:** Filed by Newforma

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Hi Ricky

Thank you for your recent pre-development enquiry for the above site.

Unfortunately, due to the site location there are no mains with sufficient spare capacity adjacent to serve the site so significant off site mainlaying (3.5km) will be required. See below for the nearest suitable locations. In addition to the mainlaying a booster station will be required to ensure that the site receives water at adequate pressure. For a site of this size, we would consider that there should be two points of connection in order to satisfy capacity requirements and to provide a suitably robust supply arrangement. At this stage it is difficult to provide an accurate estimate for the required off site works, but it will be significant - likely to be millions rather than thousands.

On-site mainlaying will be required. If you ask us to design and install this the costs will be those stated in our 2025/26 charging arrangements document [developer-services-charging-arrangements.pdf](#). When the project receives planning consent, please submit a full application together with the soils survey report together with water usage/water efficiency proposals, and we will prepare a full quotation for the required service and fire main connections. Please note that if barrier pipe needs to be used it will cost approximately 15% more.

As you will be aware these days a developer has the option to install the water supply infrastructure on a self-lay basis. For this option an organisation with WIRS accreditation should be used, details of these can be found at [Find a WIRS accredited self-lay organisation or WIRSAE provider \(Irqa.com\)](#), however whichever option is chosen, infrastructure charges and meter costs will still be payable.

As you may be aware, water companies publish a Water Resources Management Plan every five years, which includes an assessment of current and future demands, and compares this with the current and future availability of supplies. Companies in this region are coming under increasing

pressure to reduce abstraction, at the same time as supplying increasing numbers of customers. Our Water Resources Management Plan is based on growth figures in the GCSP Local Plan. There is no guarantee that we will be able to supply developments which are not included in the Local Plan. I also need to make you aware that our Water Resources Management Plan has a demand restriction for NHH connections of 20m<sup>3</sup>/day so please bear this in mind when preparing the designs. What this means going forward that we reserve the right to refuse any NHH connection where the stated demand is greater than the 20m<sup>3</sup>/day.

I trust the above is self-explanatory, but if you have any further queries, please telephone me.

Kind regards

Mike

## Mike Sloan

Network Development Manager

90 Fulbourn Road, Cambridge, CB1 9JN

[www.cambridge-water.co.uk](http://www.cambridge-water.co.uk)

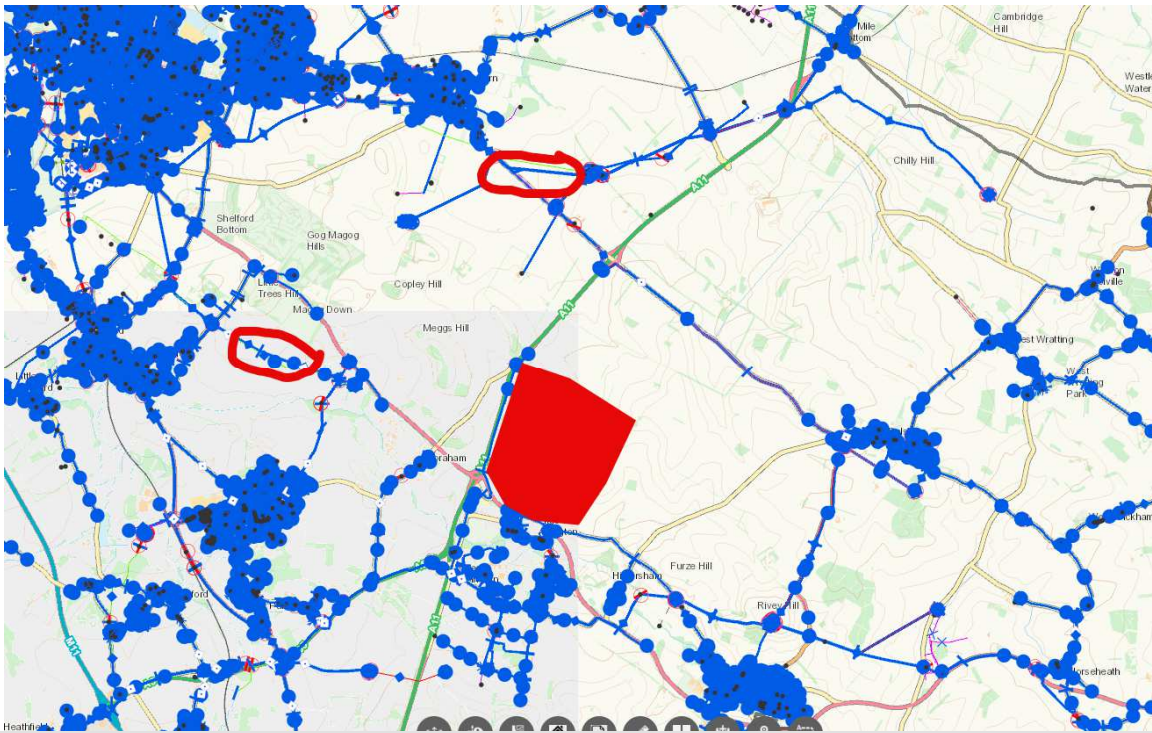
01223 403053 | 07765 234754



See our useful guides below:

[Services connections user guide](#)

[Developer services charging arrangements 2025/26](#)



**From:** Ricky Thompson <rthompson@hilsonmoran.com>  
**Sent:** 03 February 2026 09:33  
**To:** Cam Network Development <CamNetDev@south-staffs-water.co.uk>  
**Subject:** [EXTERNAL]Pre Development Enquiry - Grange Farm, Cambridge (Cambridge Water)

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Dear Cambridge Water

Hilson Moran are assisting a client with a proposed scheme named Grange Farm in Cambridge, as detailed below:

**Location of Works:** land off A11, Cambridge (Nearest Postcode CB22 3AX)

**What 3 Words:** ///alarmed.beaten.rivers

**Description of Works :** Mixed Use Development - Uses: Approximately 6,000 homes, 12 G&T pitches, 20,000sqm of B2, 15,000 sqm of offices, retail, commercial and community facilities. Educational facilities – including primary and secondary schools, Healthcare facilities

## MINUTES

MEETING NAME: **Cambridge Water, Pre Development Enquiry – Grange Farm**

PROJECT: Grange Farm

LOCATION: MS Teams

DATE & TIME: 12<sup>th</sup> March 2026 @ 9:30am

PRESENT: Mike Sloan, John Brock (Cambridge Water) Jason Horner, Ricky Thompson (Hilson Moran)

APOLOGIES: Nil

DISTRIBUTION: As Above

PREPARED BY: Ricky Thompson

ITEM	NOTES	ACTION
	<b>Introduction</b>	
1.1	This meeting was held with Cambridge Water’s network planners to discuss network capacity for providing potable water supply at Grange Farm.	Note
1.2	The meeting followed Cambridge Water’s response received on the 12 <sup>th</sup> February 2026, to the Hilson Moran Pre Development Enquiry application.	Note
	<b>Nearest Network Capacity</b>	
2.1	The nearest point of connection for a 6,000-home settlement is at the existing 18” Water Main upstream of Babraham Pumping station (pumping form borehole) – on Cambridge Zone, where pressure governed by top water level at Cherry Hinton Reservoir (50m AOD) so will need pumping.	Note
2.2	The other point of connection is 2 no. 24” mains – also from Cambridge so booster required their also.	Note
2.3	Booster Station at both POCs require upgrades at developer contribution as they are downstream of the POCs.	Note
2.4	Locally is the Linton Zone on Linton Reservoir (114m AOD top water level) – however this is highly stressed and subject to EA (‘Hands-Odd Flows – HOF) notices to stop taking water from aquifer, where network is fed from Cambridge. So taking any water locally would prove challenging.	Note

ITEM	NOTES	ACTION
2.5	There is a 3" Existing main located outside the site, but this will have no capacity any significant number of homes.	Note
2.	There is a 250mm water main located in Balsham Road to the north of the site which may be able to connect 20 homes, but certainly for 50+ a new water main in parallel from their Waterworks Cottages Booster Station off Balsham Road.	Note
2.7	The only way to do Phase 1 would be from the North – Hayden Zone where a new water main from Royston, would connect in to the 250" mm main – but this would need reinforcement on other side of A11.  Hayden Zone also feeds Granta Park.	Note



# Cambridge Water

90 Fulbourn Road, Cambridge, CB1 9JN

[www.cambridge-water.co.uk](http://www.cambridge-water.co.uk)

Tel: 01223 403115

By E-mail

17<sup>th</sup> April 2026

Dear Jason

Re Land at Grange Farm, Balsham

As promised following is our reply to your question about whether our existing network local to the site could supply approximately 300 – 360 properties at Grange Farm (representing 3 initial parcels of 100 – 120 properties each). We have looked at the options, and the only main which is reasonably local, and which is big enough to supply this number of properties is our 250 mm main which runs along Balsham Road between Charterhouse junction and Dotterell Cottages. The supply-demand balance in this part of our network has very little spare capacity, but as things currently stand, we would be able to supply around 300 – 360 properties without network reinforcement. The pressure in our main is typically in the range 4 to 5 bar, based on a ground level of 70 mAOD. The pressure which would be achieved on site would depend on the ground level of the individual properties, and on the amount of pressure loss through the mains which would be laid to serve them.

I must stress that our assessment of spare capacity is based on things as they currently stand, including our current understanding of abstraction licence reductions and the overall supply demand balance in our published WRMP24, which uses the published local plans to determine growth in demand due to new development. If other developments go ahead before Grange Farm, clearly the amount of spare capacity will be reduced.

Yours sincerely

Mike Sloan

A member of South Staffordshire Plc. 

## B - Anglian Water



**Tier 1 Pre-Planning Assessment Report**  
**Domestic Foul Water Drainage Feasibility Study**

<b>Anglian Water Reference Number:</b>	<b>PPE-0239391</b>
<b>Report Engineer:</b>	<b>Maks Zdunek</b>
<b>Publication Date:</b>	<b>18/03/2026</b>
<b>Expiration Date:</b>	<b>18/03/2027</b>
<b>Site Name:</b>	<b>Grange Farm</b>
<b>Development Details:</b>	<b>600 Dwellings</b>
<b>Site National Grid Reference:</b>	<b>TL5333150726</b>
<b>Development Type:</b>	<b>Greenfield</b>
<b>Planning Application Status:</b>	<b>Unknown</b>

This report has been produced for AKT II Limited and is to be submitted as part of a developed drainage strategy should planning permission be sought.

Anglian Water will use this report as the basis for any forthcoming planning application response relevant to this application.

Anglian Water cannot reserve capacity and therefore you are recommended to formally apply for a connection at your earliest convenience. Please note that available capacity in both the receiving network and Water Recycling Centre (WRC) can be reduced at any time due to increased requirements from existing businesses and houses as well as from new housing and new commercial developments.



## Summary

Please note that our assessment process was updated on the 1st April 2025. We recommend reviewing this report in its entirety. You can also read our [FAQ's](#)

### **Easements**

We have assessed above and below ground operational assets in relation to your proposed development site

### **Water Recycling Centre (WRC)**

We have assessed the receiving water recycling centre to determine whether it can process the increased flows and effluent quality arising from your development and continue to meet its permitted discharge consents.

Our reference data tables are updated in April each year (following submission to regulators). Previously identified headroom may no longer be available.

### **Foul Drainage Network - Sustainable Point of Connection (SPOC)**

We have assessed the receiving foul water drainage system to identify a sustainable point of connection for your site to connect to the public sewerage network without causing a detriment to the operation of the system.

## Section 1 - Anglian Water Assets and Easements

The comments contained within this report relate to the public water mains and sewers indicated on our records. Your attention is drawn to the disclaimer in the useful information section of this report.

**Pipes** - We have not identified pipework infrastructure within the boundaries of your site

**Operational Assets** – We do not have operational assets within 20m of your site

**Source Protection Zone (SPZ)** – Your site does not sit within an identified SPZ

**Water Recycling Centre (WRC)** – Your site is not within the encroachment zone of Linton WRC

The proposed development site boundary is highlighted on Anglian Water’s asset record in figure 1. Additionally, it is highly recommended that you carry out a thorough investigation of your proposed working area to establish whether any unmapped public or private sewers and lateral drains are in existence.

Any potential instances of asset encroachment are to be identified and addressed at planning. Anglian Water are unable to permit development either over or within the easement strip without prior consent. The extent of asset easements are available in Table 1 for used water and Table 2 for potable water. Please be aware that the existing water mains/public sewers should be located in highway or open space and not in private gardens. This is to ensure available access for any future maintenance and repair and this should be taken into consideration when planning your site layout.

Used Water Easements – Measured either side of the centre line (m)						
Sewer Diameter(mm)	Depth to Invert (m)					
	< 3	3 - 4	4 - 5	5 - 6	6 - 7.5	> 7.5
< 150	3.0	3.0	4.0	5.0	6.0	4.0
150 - 299	3.0	3.0	4.0	5.0	6.0	4.0
300 - 449	3.0	3.0	4.0	5.0	6.0	4.0
450 - 600	3.5	4.0	5.0	6.0	6.0	4.0
601 - 749	3.5	4.0	5.0	6.0	6.0	4.0
750 - 924	4.0	5.0	5.0	6.5	6.5	5.0
925 - 1000	5.0	5.0	6.0	6.5	6.5	5.0

**Table 1:** Anglian Water used water asset easements

Potable Water Easements - Measured either side of the centre line (m)	
Potable Mains Pipe Diameter (mm)	Distance either side of the centre line (m)
< 150	2.25
150 - 449	3.0
450 - 749	4.5
750 >	6

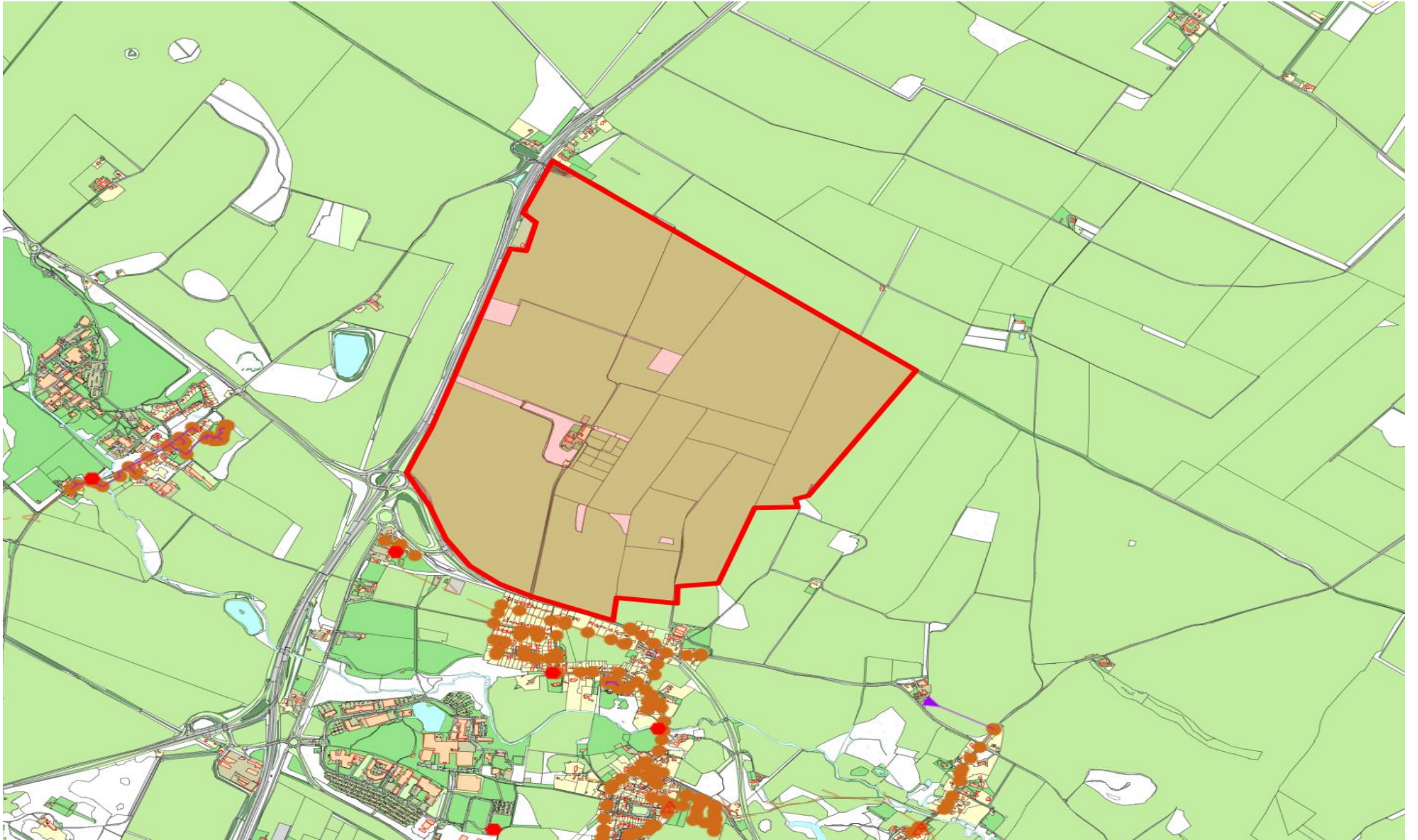
**Table 2:** Anglian Water potable water asset easements

If it is not possible to avoid our assets then these may need to be diverted in accordance with Section 185 of the Water Industry Act (1991). You will need to make a formal application if you would like a diversion to be considered; please note that in some instances assets cannot be diverted; it is therefore vital to engage with our Drainage team prior to finalising site layout. The Drainage team can be contacted by calling 03456 066 087.

Due to the private sewer transfer in October 2011 many newly adopted public used water assets and their history are not indicated on our records. You also need to be aware that your development site may contain private water mains, drains or other assets not shown on our records. These are private assets and not the responsibility of Anglian Water but that of the landowner.

For your information, please be aware:

- Anglian Water does not permit existing assets to be located within the curtilage of the proposed development buildings and we do not permit permeable paving or suds features over our assets. These assets should be located in areas of public open space and/or adoptable highways to ensure on-going maintenance and access is possible.
- Development is not permissible either over or within the established easement strip of any public asset without Anglian Water's granted prior consent.
- A new developments site layout must adhere to the required easements. You may also discuss potential diversions with us.
- Please be aware that existing water mains/public sewers should be located in highway or open space and not in private gardens or curtilages.
- Rising mains may not be located under play equipment or SUDS features. This is to ensure available access for any future maintenance and repair and this should be taken into consideration when planning your site layout.
- No significant planting can be located in the designated easement strip, to ensure that root intrusion does not pose a risk to our assets. Where necessary and to maintain the aesthetics of the proposed landscaping, ornamental/low lying hedges or similar are considered acceptable, but should be limited.
- In any case where site levels are to be altered within an easement strip, Anglian Water will request a CCTV survey is undertaken to understand the existing condition of the affected sewer and potential impact of this proposal. The footage and accompanying report should be provided to Anglian Water alongside any observations or recommendations (should these be identified) by your designer. In addition, the manholes in this area would also need to be raised to finished level. Anglian Water would expect photographs confirming the existing construction of these chambers and a design drawing which illustrates how this outcome will be achieved whilst maintaining compliance with Design and Construction Guidance ( DCG) standards.
- Anglian Water will expect confirmation of the established measures that will allow 24 hour unencumbered access for assets within the vicinity of the development. It is beneficial to understand how awareness of Anglian Water's need for access to provide this in perpetuity will be established going forward. It can be assumed that plot transfers (if appropriate) will contain covenants/rights relating to these assets; we would appreciate clarification on this point.
- It is the developer's responsibility to ensure the correct sight surveys are completed i.e. trial holes, to ascertain the exact location of Anglian Water assets. You should then present your findings to Anglian Water – we may need to complete formal risk assessments (at the developers cost) for certain asset types.



**Figure 1: The site boundary for the proposed development as shown on Anglian Water asset records.**

## **Section 2 – Used Water Assessment**

In examining the used water system we assess the ability for your site to connect to the public sewerage network without causing a detriment to the operation of the system. We also assess the receiving Water Recycling Centre and determine the headroom available to manage the increased effluent flows and effluent quality from your development.

### **Water Recycling Centre**

When assessing the receiving Water Recycling Centre's (WRC) dry weather flow (DWF) headroom, we use the latest Q90 DWF figures, as verified by the Environment Agency. We then add to this the flows from sites with existing planning consent. Our DWF data is reviewed and updated annually in consultation with the Environment Agency. This data is used to determine whether the WRC continues to comply with its environmental permit and whether it has sufficient capacity to accommodate flows from the new development without causing an unacceptable risk of breaching environmental legislation. It is also used to ensure there is no pollution or deterioration in the receiving watercourse.

Based on the above assessment, Linton WRC is within the acceptance parameters and can accommodate the flows from the proposed growth.

### **TAL**

Linton water recycling centre is included in our nutrient removal programme and will be designed to technically achievable limits (TAL). For the majority of WRCs in this programme this will be for phosphorous removal where TAL is 0.25mg/l. When both TAL and DWF capacity constraints are forecast at a WRC, either due to housing/non-domestic growth or infiltration into the network then alternative options will need to be considered. Some WRCs will be either too remote or not near another WRC with capacity. The impact of environmental pressures, including sites at technical achievable limits, and the approach required to enable future sustainable growth is something we will continue to discuss with the Environment Agency and key stakeholders, including local planning authorities.

Where TAL impacts on the DWF headroom and our ability to accommodate future growth we may start objecting, if we are not doing so already, to planning applications in the impacted catchments.

The available capacity at all Water Recycling Centres in the Anglian Water region is updated annually in April. This update ensures the most current data is used in evaluating developments. Consequently the available headroom will change for Linton WRC which could potentially change the recommendation of our pre-planning capacity assessment and our planning response, both of which will be in line with the most recent flow figures for Linton Water Recycling Centre.

### **Used Water Network**

Our assessment has been based on development flows connecting to the nearest foul water sewer of the same size or greater pipe diameter to that required to drain the site. The infrastructure to convey foul water flows to the receiving sewerage network is the responsibility of the developer. Conveyance to the connection point is considered as Onsite Work and includes all work carried out upstream from of the point of connection, including making the connection to our existing network.

This connection point has been determined in reference to the calculated discharge flow and on this basis, a 225mm internal diameter pipe is required to drain the development site. We have assessed the sustainable point of connection, which is to the 225mm foul sewer in Icknield Way, to MH8001, located at national grid reference (NGR) TL 55807 47023. Anglian Water has assessed the local foul sewerage network up to the water recycling centre and determined that the additional foul flow from the proposed development would not create an unacceptable risk of flooding to our existing customers and the environment.

In line with the Sewage Sector Guidance - Appendix C - Design and Construction Guidance (DCG), found at <https://www.water.org.uk/sewage-sector-guidance-approved-documents>, the pumped discharge will need to connect via an intermediate manhole and at least 5 metres of an appropriately sized gravity sewer. The pump rate and configuration of the connection will be determined with your detailed design. You should submit this detail with your Section 106 new connection application. Anglian Water cannot reserve capacity and therefore you are recommended to formally apply for a connection at your earliest convenience. Please note that available capacity in our network can be reduced at any time due to increased requirements from existing businesses and houses as well as from new housing and new commercial developments.

Please note that Anglian Water will request a suitably worded condition at planning application stage to ensure this strategy is implemented to mitigate the risk of flooding.

### **Trade Effluent**

It is noted that there are no specified trade effluent requirements for the proposed development site. Should this be required in the future, please submit a Tier 2 PPE assessment.

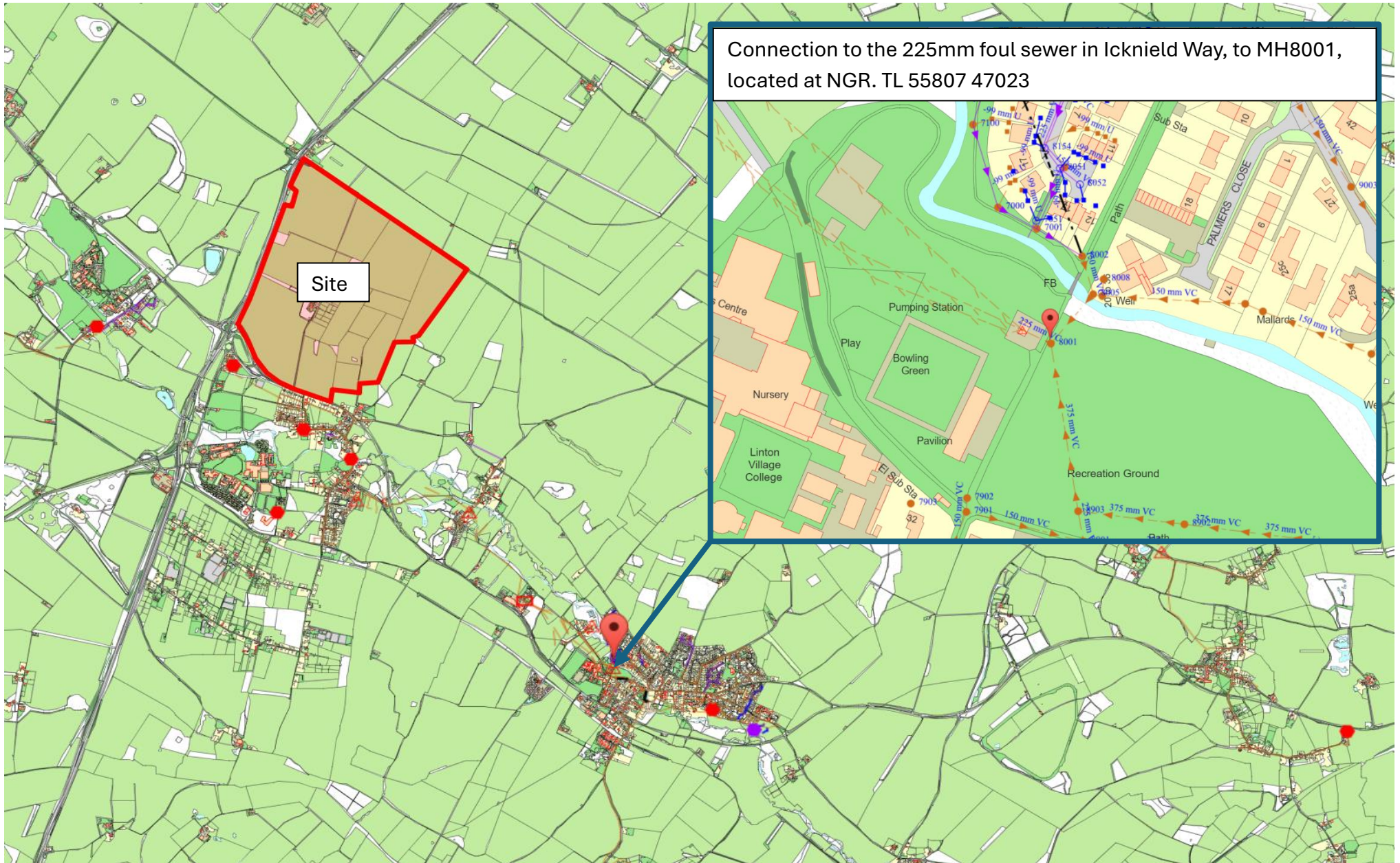
### **Used Water Budget Costs**

For a development site that benefits from full planning permission, infrastructure charges are raised on a standard basis of one charge per new connection, one each for water supply and drainage connections.

Infrastructure charges are applied to each new property connecting to the public water and sewerage network. The infrastructure charge type is set out in Section 146(2) of the Water Industry Act 1991.

The charge should be paid by any party that wishes to build or develop a property and is payable upon request of connection.

Please note that you should also budget for infrastructure charges on non-household premises where applicable and these will be calculated according to the number and type of water fittings in the premises. This is called the “relevant multiplier” method of calculating the charge. The relevant multiplier will be applied to the figures set out in our 2025-26 Developer Charging Arrangements to arrive at the amount payable. Details of the relevant multiplier for each fitting can be found on our website.



**Figure 2: Showing your connection point for foul drainage**  
Anglian Water Foul Water Drainage Feasibility Study

Reference: PPE-0239391

## Section 3 – Useful Information

### Water Industry Act – Key used water sections

#### Section 98:

This provides you with the right to requisition a new public sewer. The new public sewer can be constructed by Anglian Water on your behalf. Alternatively, you can construct the sewer yourself under section 30 of the Anglian Water Authority Act 1977.

#### Section 102:

This provides you with the right to have an existing sewerage asset vested by us. It is your responsibility to bring the infrastructure to an adoptable condition ahead of the asset being vested.

#### Section 104:

This provides you with the right to have a design technically vetted and an agreement reached that will see us adopt your assets following their satisfactory construction and connection to the public sewer.

#### Section 106:

This provides you with the right to have your constructed sewer connected to the public sewer.

#### Section 185:

This provides you with the right to have a public sewerage asset diverted. Details on how to make a formal application for a new sewer, new connection or diversion are available on our website or via our Development Services team on 0345 60 66 087.

### Surface Water Drainage

All surface water must be managed in line with Building Regs / Sewer Sector Guidance (SSG). Our guidance document and Surface Water policy (insert website link) detail our requirements and expectations. You must explore all on-site options per the SUDS hierarchy before speaking to us about a possible connection to our SW drainage network. We recommend that you contact the Local Authority and Lead Local Flood Authority (LLFA) for your site to discuss your application.

### Sustainable drainage systems

Some existing urban drainage systems have additional risks of flooding, pollution or damage to the environment and are not resilient to climate change in the long term. Our preferred method of surface water disposal is through the use of Sustainable Drainage Systems or SuDS. SuDS are a range of techniques that aim to mimic the way surface water drains in natural systems within urban areas. For more information on SuDS, please visit our [website](#).

### Private sewer transfers

Sewers and lateral drains connected to the public sewer on the 1 July 2011 transferred into Water Company ownership on the 1 October 2011. This follows the implementation of the Floods and Water Management Act (FWMA). This included sewers and lateral drains that were subject to an existing Section 104 Adoption Agreement and those that were not. There were exemptions and the main non-transferable assets were as follows:

Surface water sewers and lateral drains that do not discharge to the public sewer, e.g. those that discharged to a watercourse.

Foul sewers and lateral drains that discharged to a privately owned sewage treatment/collection facility. Pumping stations and rising mains will transfer between 1 October 2011 and 1 October 2016.

The implementation of Section 42 of the FWMA will ensure that future private sewers will not be created. It is anticipated that all new sewer applications will need to have an approved section 104 application ahead of a section 106 connection.

It is anticipated that all new sewer applications will need to have an approved Section 104 application ahead of a Section 106 connection.

### Encroachment

Anglian Water operates a risk based approach to development encroachment on our above and below ground infrastructure and assets.

### Locating our assets

Maps detailing the location of our water and used water infrastructure including both underground assets and above ground assets such as pumping stations and recycling centres are available from digdat.

All requests from members of the public or non-statutory bodies for maps showing the location of our assets will be subject to an appropriate administrative charge.

We have more information on our website

### **Charging arrangements**

Our charging arrangements and summary for this year's water and used water connection and infrastructure charges can be found on our website [Charges](#)

### **Environmental Incentives**

Following regulatory guidance and changes to the charging rules the Infrastructure Charge for connections to our water network will no longer attract an income offset discount after 31<sup>st</sup> March 2025. This will be replaced with a new Environmental Incentive Scheme (EIS) aimed at promoting water efficiency and sustainability.

Anglian Water's EIS has been developed in accordance with the Environmental Incentive Common Framework (EICF), which was released by Ofwat in December 2024. For this charging year, 2025-26, and in accordance with Ofwat guidance, only household properties will be eligible for our EIS. We will continue to reassess this for future charging years.

### **There are two elements to our EIS;**

#### **Water Environmental Incentive**

The applicant must demonstrate the newly connected property is designed to achieve consumption of 90 litres per person per day (pppd) or less.

Post property connection, we will conduct compliance audits on the first connected property and 10% of the remaining properties on a random basis.

#### **Sewerage Environmental Incentive**

Post property connection for redeveloped brownfield sites we will complete a site inspection to confirm the removal of surface water flows.

#### **Environmental Component**

This charge is used solely to fund the Environmental Incentive and is uniformly applied upon connection of each developed property; this includes connections which do not qualify for the Environmental Incentive.

<b>Environmental Incentives</b>	<b>Charge per property</b>
<b>Water Environmental Incentive</b>	-500
<b>Environmental Incentive Component Charge Water</b>	100
<b>Additional Water EIS Audit (per premises)</b>	84
<b>Sewerage Environmental Incentive (50% of Sewerage Infra)</b>	-202
<b>Environmental Incentive Component Charge Sewerage</b>	0

Our EIS will be available between 1st April 2025 and 31st March 2030 and during this period, we reserve the right to make any amendments to the EIS as we may see fit, including amendments to the value of both Environmental Incentives and the Component Charges. The EIS may close on 31st March 2030, therefore, to qualify for the Environmental Incentives, your plot must be connected to our network and validated by us. Please refer to our Developer Charging [Arrangements](#) for full details. To learn more or apply for our environmental incentive scheme please visit our website [Water Environmental Incentive Scheme](#)

#### **Section 4 - Disclaimer**

The information provided in this report is based on data currently held by Anglian Water Services Limited ('Anglian Water') or provided by a third party. Accordingly, the information in this report is provided with no guarantee of accuracy, timeliness, completeness and is without indemnity or warranty of any kind (express or implied).

This report should not be considered in isolation and does not nullify the need for the enquirer to make additional appropriate searches, inspections and enquiries. Anglian Water supports the plan led approach to sustainable development that is set out in the National Planning Policy Framework ('NPPF') and any infrastructure needs identified in this report must be considered in the context of current, adopted and/or emerging local plans. Where local plans are absent, silent or have expired these needs should be considered against the definition of sustainability holistically as set out in the NPPF.

Whilst the information in this report is based on the presumption that proposed development obtains planning permission, nothing in this report confirms that planning permission will be granted or that Anglian Water will be bound to carry out the works/proposals contained within this report.

No liability whatsoever, including liability for negligence is accepted by Anglian Water or its partners, employees or agents, for any error or omission, or for the results obtained from the use of this report and/or its content.

Furthermore, in no event will any of those parties be liable to the applicant or any third party for any decision made or action taken as a result of reliance on this report.

This report is valid from the date issued and the enquirer is advised to resubmit their request for an up to date report should there be a delay in submitting any subsequent application for water supply/sewer connection(s). Our pre-planning reports are valid for 12 months. Please note Anglian Water cannot reserve capacity and available capacity in our network can be reduced at any time due to increased requirements from existing businesses and houses as well as from new housing and new commercial developments.

## C - UK Power Networks

Mr. Ricky Thompson  
Hilson Moran  
Shackleton House  
4, Hilson Moran Partnership Ltd,  
Battle Bridge Lane  
London  
SE1 2HP

Date: 13 February 2026

Our Ref: 8600035336 / QID 3000057750

Dear Mr. Thompson

## Site Address: Grange Land Off A11, Cambridge CB22 3AX

### Budget estimate

I am writing to you on behalf of Eastern Power Networks plc the licensed distributor of electricity for the above address trading as and referred to in this Estimate as "UK Power Networks". Thank you for your recent enquiry regarding the above premises.

I am pleased to be able to provide you with a budget estimate for the Works.

It is important to note that this budget estimate is intended as a guide only. It may have been prepared without carrying out a site visit or system studies. No enquiry has been made as to the availability of consents or the existence of any ground conditions that may affect the ground works and only a cursory assessment of any Reinforcement costs that may be applicable has been undertaken. A detailed evaluation of any potential Reinforcement costs, including the applicability of the High-Cost Project Threshold and associated Cost Apportionment Factor will be undertaken upon receipt of a formal application for a Connection Offer. This Budget Estimate is not an offer to provide the connection and nor does it reserve any capacity on UK Power Networks' electricity distribution system.

### **Description of work included:**

The budget estimate has been prepared based on your request for a 16.9 MVA import capacity to supply the mixed-use development at Grange Farm, Cambridge, CB22 3AX.

The Budget estimate has been undertaken for the full load requested. If you would like a solution for phased capacity UKPN can undertake a feasibility study or a further budget estimate for the smaller capacity.

The Point of Connection (POC) is via two 33/11kV transformers located at your customer's site fed from 2 circuit breakers at Sawston Primary Substation. The connection includes a 6.5 km ducted 33kV 500 mm<sup>2</sup> aluminium cable route, with allowance for horizontal directional drilling beneath the railway. This will feed 2no. 33/11kV transformers and an 11kV board with metering circuit breakers located within the customer boundary.

An additional sum may be chargeable if further diversionary or reinforcement works in the network become necessary.

### Further Information

This connection is subject to the completion of ongoing works at the Sawston Primary site, where a new 33kV indoor board is being installed.

The budget estimate does not include any allowance for 11kV or LV onsite cabling. Should you wish to proceed, this scope can be incorporated into the pricing as part of a formal application once further details of the site are understood.

### Assumptions

This budget estimate is based on the following assumptions:

- The most appropriate Point of Connection (POC) is as described above.
- A viable cable or overhead line route exists along the route we have assumed between the Point of Connection (POC) and your site
- In cases where the Point of Connection (POC) is to be at High Voltage, that a substation can be located on your premises at or close to the position we have assumed.
- You will carry out, at no charge to UK Power Networks, all the civil works within the site boundary, including substation bases, substation buildings where applicable and the excavation/reinstatement of cable trenches.
- Unless stated in your application, all loads are assumed to be of a resistive nature. Should you intend to install equipment that may cause disturbances on UK Power Networks' electricity distribution system (e.g. motors; welders; etc.) this may affect the estimate considerably?
- Where the connection is dependent on new infrastructure completed as part of separate works additional costs may arise in accordance with the Electricity (Connection Charges) Regulations. Further information on ECCR can be found [here](#).

Please note that if any of the assumptions prove to be incorrect, this may have a significant impact on the price in any subsequent Quote. You should note also that UK Power Networks' formal Quote may vary considerably from the budget estimate. If you place reliance upon the budget estimate for budgeting or other planning purposes, you do so at your own risk.

### If you would like to proceed

If you would like to proceed to a formal offer of connection, then you must apply for a Quote. Please refer to our website [click here](#) to complete application process.

To help us progress any future enquiry as quickly as possible please quote the UK Power Networks Reference Number from this letter on all correspondence.

## Any Questions?

If you have any questions about your budget estimate or need more information, please do not hesitate to contact me. The best time to call is between the hours of 9am and 4pm, Monday to Friday. If the person you need to speak to is unavailable or engaged on another call when you ring, you may like to leave a message or call back later.

Yours sincerely

**Chris Congdon**

Project Manager | Major Connections

M: +44 (0) 786 148 0614

[christopher.congdon@ukpowernetworks.co.uk](mailto:christopher.congdon@ukpowernetworks.co.uk)

Newington House, 237 Southwark Bridge Road, SE1 6NP



To download your free safety leaflets and resources visit  
[UK Power Networks - Safety Page](#)

## MINUTES

MEETING NAME: **UKPN Ask the Expert -Grange Farm**  
 PROJECT: Grange Farm  
 LOCATION: MS Teams  
 DATE & TIME: 27<sup>th</sup> February 2026 @ 10am  
 PRESENT: Mark Edwards, Archie Wallace (UKPN) Jason Horner, Ricky Thompson (Hilson Moran)  
 APOLOGIES: Conor Yexley (UKPN)  
 DISTRIBUTION: As Above  
 PREPARED BY: Ricky Thompson

ITEM	NOTES	ACTION
	<b>Introduction</b>	
1.1	This meeting was held as a 'connections surgery' with UKPN network planners to discuss network capacity for providing electricity supply at Grange Farm.	Note
1.2	The meeting followed UKPN's response received on the 13 <sup>th</sup> February 2026, to the Hilson Moran Pre Development Enquiry application.	Note
	<b>Nearest Network Capacity</b>	
2.1	Currently we can get 16.9MVA from a point of connection at the 2 circuit breakers at the Sawston 132/33kV Primary Substation.	Note
2.2	The connection will require a 6.5 km ducted 33kV aluminium cable route, with allowance for horizontal directional drilling beneath the railway adjacent Sawston Substation.	Note
2.3	The 6.5km ducted route will have to feed 2no. new 33/11kV transformers and an 11kV board with metering circuit breakers within the Grange Farm site boundary.	Note
2.4	Sawston Primary is fed from Fulbourn Grid Substation which is a 132/33kV Substation.	Note
2.5	Sawston Priamry has a busbar for a 33kV connection hence why we have been provided a 33kV Connection.	Note
	<b>Other Applications</b>	
3.1	If a 3rd party project, applied and to UKPN and secured the capacity before Grange Farm potentially their power will come from Sawston instead, which might mean the headroom at Sawston would become full. In this instance Grange Farm will have to get its capacity from Fulbourn which is further away from the site (c.8.5km away from Grange Farm).	Note

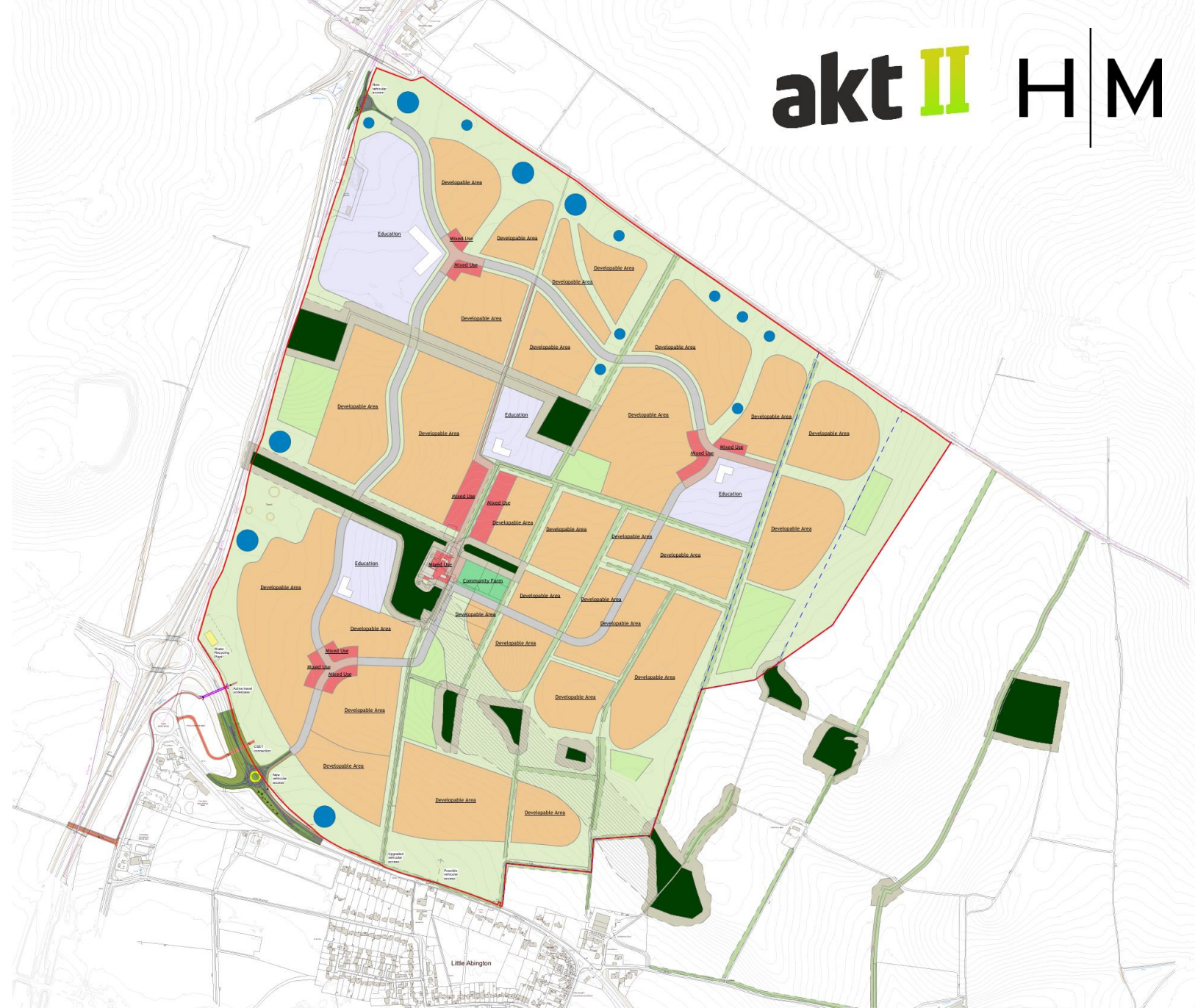
ITEM	NOTES	ACTION
3.2	Whether Sawston 33kV POC, Fulbourn 33kV POC or Cambridge East 33kV POC all 3 have a 33kV busbar which can be extended to accommodate 2 new 33kV circuit breakers for Grange Farm.	Note
	<b>AOB</b>	
4.1	It is highly unlikely that we will need to go to 132kV Point of Connection at Fulbourn or Cambridge East Grid.  (Cambridge East Grid will be commissioned in 2029 so if the route is easier than Fulbourn for a 33kV connection then could go there rather than Fulbourn).	Note
4.2	Local 11kV passing near Grange Farm from;  <ul style="list-style-type: none"> <li>• Sawston 33/11kv Primary – no capacity available at 11kV</li> <li>• Fulbourn 33/11kV Primary – could perhaps get 1MVA from this</li> <li>• Linton 33/11kV primary substation - We could probably squeeze 1MVA of this circuit also.</li> </ul> <p>All to be confirmed by formal application or Pre Development Enquiry</p>	Note

## D – Environment Agency (EA)

# Grange Farm

Meeting with the Environment Agency (EA) to discuss a sustainable new community of up to 6,000 homes (Policy S/GF)

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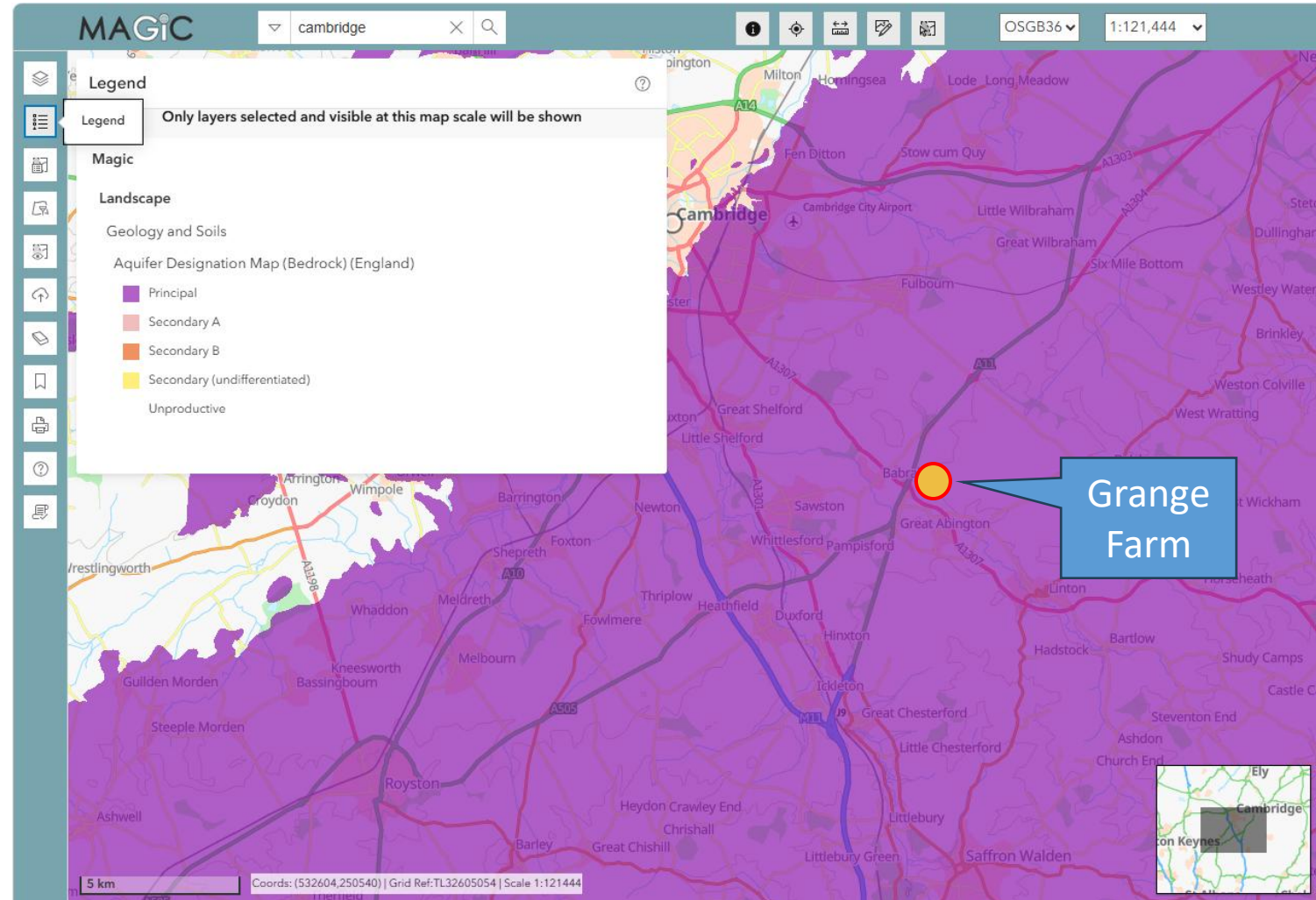


# Grange Farm: Integrated Water Management and Aquifer Impacts. EA meeting 4 June 2026.

- ❑ Minutes of meeting dated 4 June (appended) issued to EA and GCSP. The EA has since confirmed that the minutes are an accurate record and have no further comment.
- ❑ The bullets below provide a very high-level summary of discussion / outcomes. The slides that follow were presented to the EA during the meeting to provide additional context.
- ❑ Groundwater (aquifer) and surface water protection – are key to the strategy being developed. Groundwater specifically impacting on rare chalk streams. Local constraints being Chalk Aquifer, Source Protection Zones and River Granta (proximity described over).
- ❑ Agreed that the integrated water resource management strategy for Grange Farm will refer to permitted groundwater discharge and not managed aquifer recharge, but certainly surface water and any treated wastewater can be discharged to the aquifer subject to hydrogeological risk assessment.
- ❑ The EA are happy to allow discharge of surface, and any treated foul water provided it is subject to a hydrogeological risk assessment, which needs to be undertaken in parallel with the planning application. Therefore, hydrogeological modelling will be required in advance, and the EA will consult further on the methodology as part of their ongoing work – for which an agreement is now in place.
- ❑ Further options for protection of groundwater and surface water receptors were presented and discussed including examples of where else they have been deployed in England.
- ❑ The EA understands there are still two options for the conveyance and treatment of foul water – both options were presented and the EA are happy – again any discharge of treated water will be subject to a hydrogeological assessment.
- ❑ **Agreed next steps are provided at the end of the presentation.**

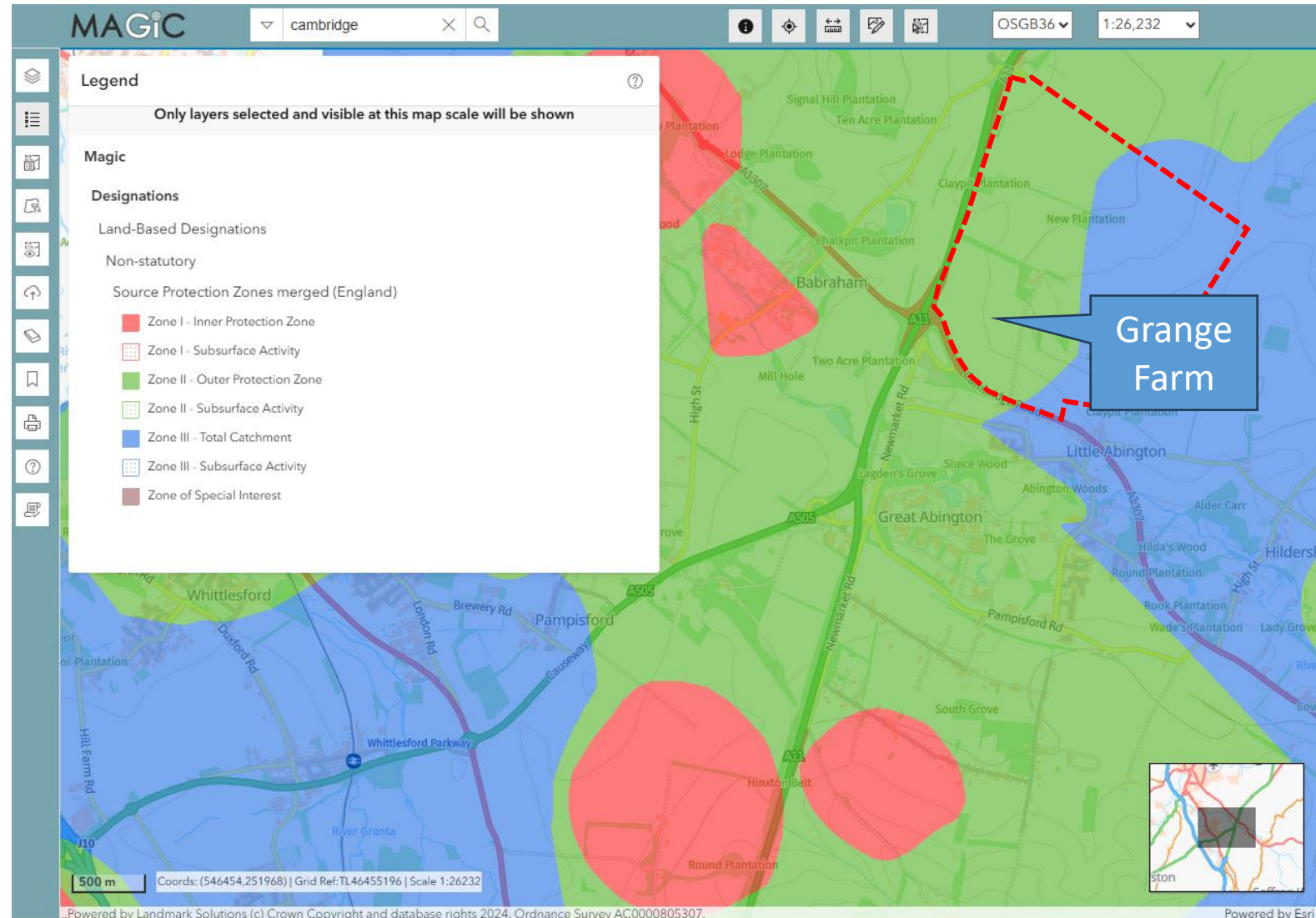
# Environmental Receptors

## Chalk Aquifer



# Environmental Receptors

SPZs



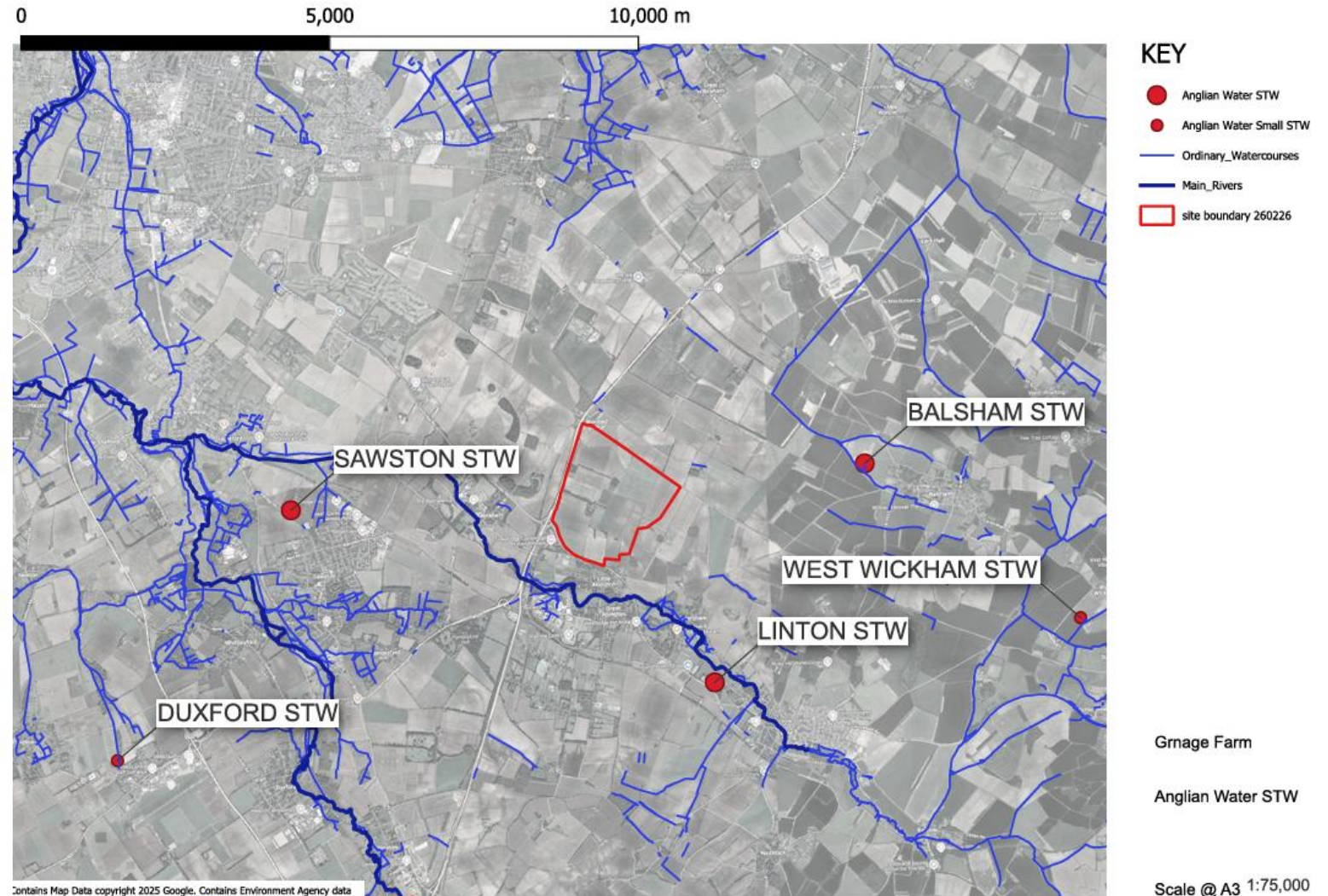
# Environmental Receptors

## River Granta



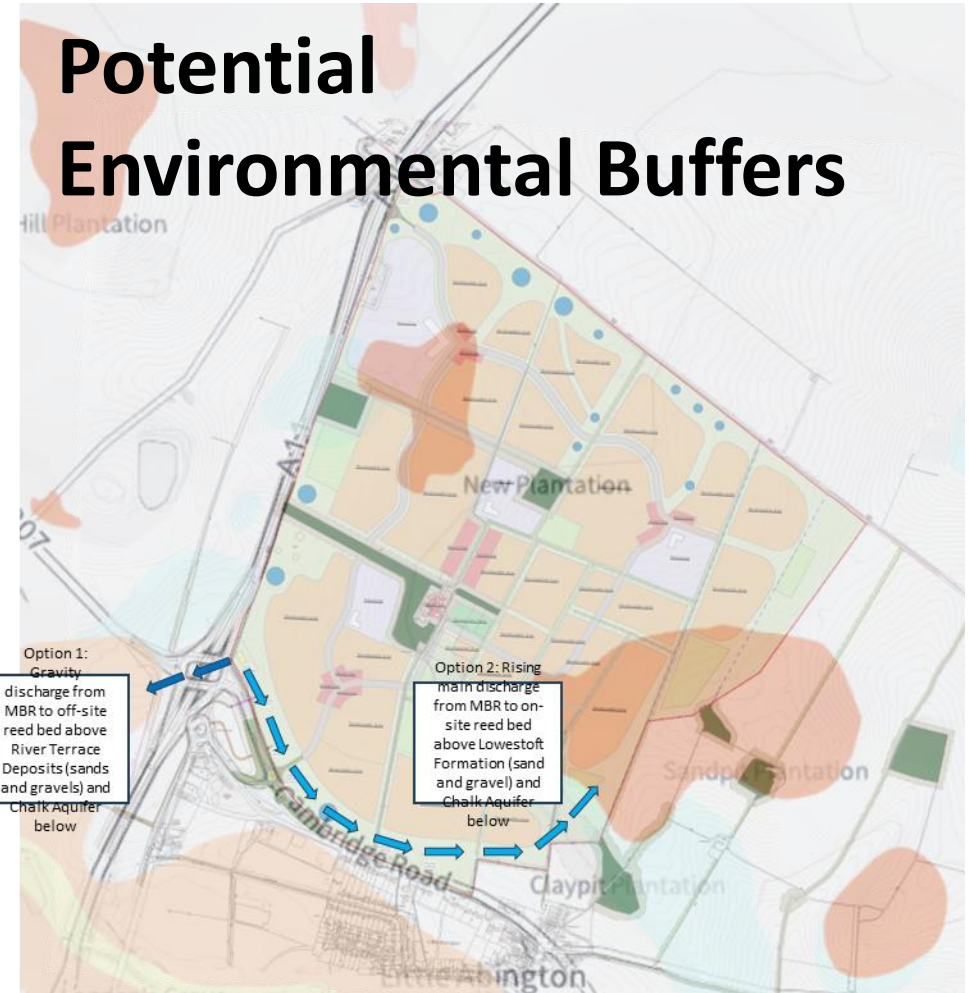
# Sewage Discharge

- ❑ Anglian Water has stated that there is capacity for up to 600 dwellings at Linton STW, although no other local capacity.
- ❑ Long-term aim to increase capacity at Sawston STW (preferred option) – although not within AMP8 cycle, so post-2030 at earliest.
- ❑ Encouraging recent letter from Anglian Water regarding serving schemes >500 dwellings with LPA approval.



# Other Options

- ❑ On-site treatment (e.g. MBR) and discharge to aquifer or River Granta.
- ❑ Discharge to aquifer, if done in the right way could provide significant groundwater recharge benefits



# Next Steps

- ❑ The EA has confirmed that the minutes are accurate with no objection on the items agreed.
- ❑ Ongoing EA engagement now agreed via agreement via their paid advisory services.
- ❑ **The EA will provide:**
  - **Support** during further meetings, including but not limited to wastewater treatment and capacity challenges at the local WRC (Sawston and Linton).
  - **Guidance** on the level of detail required for the Hydrogeological Risk Assessment.
  - **Feedback** on the integrated water resource management strategy as the design moves forward.

## MINUTES

MEETING NAME: **EA -Grange Farm**

PROJECT: Grange Farm

LOCATION: MS Teams

DATE & TIME: 5<sup>th</sup> June 2026 @ 12am

PRESENT: From the Environment Agency:  
Iain Page (IP), Andrew Thornton (AT), Jonathan Thompson (JT), Jack Crompton (JC), Graham Phillips (GP)  
From AKTII & Hilson Moran:  
Howard Lomax (AL), Paul Bond (PB), Jason Horner (JH), Maria Paola Espa(MPE)

APOLOGIES: -

DISTRIBUTION: As Above

PREPARED BY: Maria Paola Espa

Term	Abbreviation
Anglian Water	AW
Greater Cambridge Shared Planning	GCSP
Managed Aquifer Recharge	MAR
Membrane Bioreactor Technology	MBR
Hydrogeological Risk Assessment	HRA
Integrated Water Management	IWM
Wastewater Treatment Plant	WWTP
Water Recycling Centre	WRC

ITEM	NOTES	ACTION
	<b>Introduction</b>	
1.1	This meeting was held to discuss Grange Farm proposed integrated water resource management strategy with focus on water resources/groundwater and contaminated land aspects following correspondence with the EA and the request for engagement in May 2026.	Note
	<b>Site Overview &amp; Environmental Context</b>	
2.1	PB presented the baseline environmental receptors identified, including the underlying chalk aquifer, source protection zones appraisal and the proximity with River Granta.	Note

ITEM	NOTES	ACTION
2.2	PB & JH presented the site context for the new settlement describing the project aspirations and the GCSP emerging water policies (CC/IW, CC/WE).	Note
	<b>Existing Wastewater Infrastructure</b>	
3.1	HL presented the nearby WWTP managed by AW, describing the current capacity issues and providing a summary of the findings from GCSP IWM study. According to the IWM study, Grange Farm would be served by Sawston. HL also said that the consultation with AW indicated that local sewerage network capacity will be able to immediately support 600 new homes at Linton but did not confirm when the required upgrades at Sawston will take place.	Note
3.2	PB also intervened commenting on how the latest letter issued by MP E. Hardy unlocked support for larger schemes(>500 dwellings).	Note
3.3	JT asked what are the masterplan timescales. JH responded that the proposed development will be phased with occupancy expected from approx. late 2029.	
	<b>Onsite Water recycling &amp; treatment approaches</b>	
4.1	PB reiterated, as per email correspondence, that the preferred option for the emerging masterplan remains to discharge offsite via AW's network to Sawston and the EA opinion had been requested to confirm whether the alternative options proposed are feasible.	Note
4.2	HL explained WRC process with case study examples (Stone Henge visitor's centre, Hampshire Water Transfer And Recycling Project)	Note
4.3	PB presented the geology with the potential environmental buffers discharging treated water either to the aquifer or to River Granta. Option 1: Gravity discharge from MBR to off-site reed bed above River Terrace Deposits (sands and gravels) and Chalk Aquifer below River Granta. Option 2: Rising main discharge from MBR to on-site reed bed above Lowestoft Formation (sand and gravel) and Chalk Aquifer below	Note
4.4	JT said that the site should apply for a groundwater discharge permit rather than MAR.	Note
4.5	GP said that provided sufficient water quality treatment this approach would be acceptable provided a hydrogeological risk assessment(HRA) is submitted as part of the permit application.	Note
4.6	GP specified that the permit and planning application needs to be submitted in parallel track.	Note
	<b>Feasibility &amp; Regulatory considerations</b>	
5.1	PB queried if there would be a risk of objection if the response from the permitting process is pending.	Note
5.2	GP indicated that proposal can be accepted in principle provided HRA completed ahead of application to ensure risks mitigated on application.	Note

ITEM	NOTES	ACTION
5.3	JT commented HRA should also verify the discharge volumes and that this solution should be modelled against predicted groundwater levels to confirm the unsaturated buffer is achievable. JC added that the HRA should assess the impact on River Granta. JT also confirmed that this solution is achievable but could be very costly.	Note
5.4	Overall, the EA had a positive response with no objection to this solution provided it is justified with the HRA.	note
5.5	The EA has now provided a scope and fee in support of a detailed pre-App engagement ahead of an outline planning application.	note
<b>Actions Agreed</b>		
6.1	There will be a further meeting with design team and the EA with focus on wastewater treatment and capacity challenges at the local WWTP.	note
6.2	Meeting minutes will be circulated to the participants asap for comments and these minutes will be provided as consultation evidence to GCSP and in the technical appendices for Reg.19 site allocation.	MPE/HL
6.3	The EA agreed to provide a summary of what has been agreed in the meeting and details on the level of detail required for the HRA.	AT/EA
6.4	During the permitting process the EA should be consulted to confirm all receptors are covered in the HRA.	Hilson Moran/ AKTII



**People. Places. Planet.**

