Helen Wass
Cambridgeshire County Council
Transport
Shire Hall
Cambridge
Cambridgeshire
CB3 0AP

Our ref: AC/2023/131802/01-L01
Your ref: CCC/23/110/FUL

Date: 21 November 2023

Dear Helen

FARM-BASED ANAEROBIC DIGESTION RENEWABLE ENERGY FACILITY, CONSTRUCTION OF VEHICULAR ACCESS/ROAD TO A1307, ASSOCIATED INFRASTRUCTURE AND LANDSCAPING
LAND AT STREETLY HALL FARM WEBBS ROAD WEST WICKHAM CAMBRIDGE CAMBRIDGESHIRE CB21 4RP

Thank you for referring the above application which was received on 27th October 2023.

We **object** to the application as submitted on the below grounds.

The proposed anaerobic digestion facility will require an environmental permit under the Environmental Permitting Regulations (England and Wales) 2016. We do not have enough information to know if the proposed development can meet our requirements to prevent, minimise and/or control pollution. We therefore object to the submitted proposal. This objection is supported by paragraphs 170 and 187 of the National Planning Policy Framework.

Reasons
We have reviewed the following documents for this consultation:

- Groundwater Risk Assessment, Streetly Hall Farm Webbs Road, 25 August 2023
- Flood Risk Assessment and Surface Water Drainage Strategy, 27951/FRA&SWDS/RevA/CES August 2023
- Drainage Design Strategy and Philosophy Statement, 27951/DS/Rev A/OAJ August 2023
- Report on Ground Investigation, AFH/22.348/Rev01 5th September 2023

The proposed development is located within groundwater source protection zones SPZ1 and SPZ2 designated for the protection of public water supply. The intrinsic vulnerability of groundwater resources to pollutants released at the surface in this location is extremely high. Digestate and leachate from the proposed development is highly polluting and has the potential to cause significant pollution. We will therefore need to consider the proposed facility in more detail and assess whether the risks to groundwater can be mitigated satisfactorily to grant a permit. If permitting is possible then further measures may be needed to manage the risks to groundwater.

This objection is supported by paragraph 188 of the National Planning Policy Framework, which recognises that planning and pollution control are separate, but

complementary, regimes. Planners should consider the acceptability of the proposed use of land and the impacts of that use, but not the control of processes and emissions that will be covered by a permit.

Overcoming our objection

We recommend that the developer considers parallel tracking the planning and permit applications as this can help identify and resolve any issues at the earliest opportunity. Parallel tracking can also prevent the need for post-permission amendments to the planning application. We would welcome a joint discussion with the applicant and planning authority to discuss this further.

The following matters that require further consideration at the planning stage have been identified:

1. Surface lagoon storage of large volumes (up to 15,260 m^3) of digestate within SPZ1 and SPZ2 is proposed. We regard such storage as posing an intrinsically high risk to groundwater. The applicant should consider whether an alternative storage location or method that would lower the risk to groundwater is possible. For lagoon storage within SPZ1 and SPZ2 the proposed design may need to amended to reduce the risks to groundwater e.g., via provision of an additional engineered clay liner.
2. Tanked underground storage of large volumes (up to 80,000 litres) of leachate is proposed. The location of the proposed tank is not shown on any of the plans supplied. We regard underground storage of leachate as posing an intrinsically high risk to groundwater due to the difficulties associated with observing and remediating leaks in the subsurface. The applicant should consider whether above ground storage is possible. If underground storage is unavoidable then it would only be acceptable if adequate containment and leak detection are provided. The applicant has recognised the need for secondary containment; however, secondary containment by concrete is proposed, and the durability of this solution is questionable as concrete is susceptible to corrosion by leachate. The applicant has recognised the need for leak detection; however peripheral monitoring pipes external to the secondary containment are proposed, and it is unclear how effective these would be at intercepting leachate leaking from beneath the tank.
3. Other underground structures, including drainage sumps, which will contain or transmit leachate are currently proposed. From the information provided it appears these would be constructed from concrete, hence susceptible to corrosion by leachate. In addition, it appears that they would not benefit from leak detection.
4. The applicant has not provided detailed plans of surface water, foul water and process drainage to allow us to review the arrangement for clean and dirty water separation. A drainage plan for the silage clamp has not been provided either.
5. A risk assessment of catastrophic failure should be carried out, with consequential analysis. A catastrophic failure has high cost implications and could result in severe pollution risk.

To reduce the risks to groundwater and obtain a permit the design and layout of the proposed development may need to change, and abatement technologies beyond Best Available Technique may need to be provided.

We will not be able to determine the developer's application for a permit until this information has been supplied. There may be a requirement to address additional matters via the permitting regime.

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Odour
Until such time as a permit application has been formally submitted to the Environment Agency, we will not be assessing or reviewing documents such as the Odour Management Plan. The granting of planning permission is independent of a permit issue, and a permit application considers factors such as operator competence and operating techniques which have not been assessed here.

New waste developments in close proximity to residential, business or leisure receptors could result in the community at the proposed development being exposed to amenity impacts such as odour, noise, dust or pests. The severity of these impacts will depend on the size and nature of the facility and prevailing weather conditions. If the operator can demonstrate that they have taken all reasonable precautions to mitigate these impacts, the facility and community will co-exist, and some residual impacts are likely to be experienced.

Flood Risk
We have reviewed the Flood Risk Assessment (FRA) submitted and find the details acceptable. The proposed site sits within Flood Zone 1, therefore we have no comments to make relating to fluvial flood risk for this site.

We have not made an assessment with regards to the risk posed by surface water flooding, however it should be noted that areas of the site are deemed to be at risk of surface water flooding for the 1 in 30 year event, the 1 in 100 year event and 1 in 1000 year event. Therefore we would recommend that you consult the Lead Local Flood Authority.

Contaminated Land
We are satisfied with the Preliminary Risk Assessment for land contamination. We do not regard the proposed development as posing an unacceptable risk to groundwater in respect of historic contamination. However, there has been no chemical testing of soils or groundwater. Such testing is recommended, and may be required under the environmental permit, in order to determine the baseline conditions prior to operation of the site.

Advice to the Applicant
Drainage
The proposed development must fully comply with the terms of The Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) (SSAFO) Regulations 2010 and as amended 2013. You must inform the Environment Agency of a new, reconstructed or enlarged slurry store, silage clamp or fuel stores at least 14 days before starting any construction work, although we recommend that you notify us earlier than this. The notification must include:

- the type of store you're proposing to build or change
- the exact location of the site (8-figure grid reference)
- site plan drawing of the structure
- a design drawing confirming the materials that will be used and their design, specification and layout – you may also be asked to confirm that your design meets British Standard 5502-22:2003 A1:2013
- if you plan to use prefabricated products, a copy of the manufacturer's specifications and guarantee
- if the structure is constructed from earth, analysis about the soil type, depth and permeability and a description of how it will be engineered
- for underground or partially underground silage effluent tanks you'll need a

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certification from the installer – you must provide this certification to the Environment Agency because the tank is required to perform for at least 20 years without maintenance.

The applicant should refer to the design and standards set out in the CIRIA guidance: Livestock manure and silage storage infrastructure for agriculture (C759F). Digestate that has the potential to cause significant pollution must be stored in a secure impermeable lagoon/container with secondary containment. Appropriate measures should be used to prevent and minimise leaks and spills.

Appropriate measures for the storage of digestate in fixed facilities are considered to be those detailed in the Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) (SSAFO) Regulations 2010 and as amended 2013. If the lagoon is to contain any other material such as silage effluent or slurry then the compliance with SSAFO Regulations is a legal requirement.

The SSAFO regulations specify that no part of the lagoon must be within 10 metres of a watercourse or 50 metres from a borehole. There should be no land drains within 10 metres. An earth banked lagoon must have a free board of 0.75 metres which must be maintained at all times. All holdings storing or spreading digestate should prepare an Accident and Emergency Plan detailing the actions to be taken to minimise the effects of accidental spillages or equipment failure.

The application of digestate to agricultural land is regulated under the Nitrate Pollution Prevention Regulations 2015 (NVZ) and the Reduction and Prevention of Agricultural Diffuse Pollution (England) Regulations 2018 (Farming Rules for Water). The application of digestate to land may also require an environmental permit under Environmental Permitting (England and Wales) Regulations 2016

Any facilities, above ground, for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bunded compound should be at least equivalent to the capacity of the tank plus 10%. All filling points, vents, gauges and sight glasses must be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipework should be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets should be detailed to discharge downwards into the bund.

Appropriate procedures, training and equipment should be provided for the site to adequately control and respond to any emergencies including the clean up of spillages, to prevent environmental pollution from the site operations.

We advise that polluting materials and chemicals are stored in an area with sealed drainage.

Additional information and guidance is available in Appendix 1 to this letter.

Foul Drainage

Government guidance contained within the national Planning Practice Guidance (Water supply, wastewater and water quality – considerations for planning applications, paragraph 020) sets out a hierarchy of drainage options that must be considered and discounted in the following order:

1. Connection to the public sewer
2. Package sewage treatment plant (adopted in due course by the sewerage

company or owned and operated under a new appointment or variation)
3. Septic Tank

Foul drainage should be connected to the main sewer. Where this is not possible, under the Environmental Permitting Regulations 2016 any discharge of sewage or trade effluent made to either surface water or groundwater will need to be registered as an exempt discharge activity or hold a permit issued by the Environment Agency, additional to planning permission.

Please note that the granting of planning permission does not guarantee the granting of an Environmental Permit. Upon receipt of a correctly filled in application form we will carry out an assessment. It can take up to 4 months before we are in a position to decide whether to grant a permit or not.

Domestic effluent discharged from a treatment plant/septic tank at 2 cubic metres or less to ground or 5 cubic metres or less to surface water in any 24 hour period must comply with General Binding Rules provided that no public foul sewer is available to serve the development and that the site is not within an inner Groundwater Source Protection Zone.

A soakaway used to serve a non-mains drainage system must be sited no less than 10 metres from the nearest watercourse, not less than 10 metres from any other foul soakaway and not less than 50 metres from the nearest potable water supply.

Further advice is available at:
Septic tanks and treatment plants: permits and general binding rules

Waste
We note that a formal design specification for the intake/ processing building abatement system has not yet been prepared. The applicant should refer to the following guidance when considering the design of the facility - this details the appropriate measures we expect for facilities of this nature: Biological waste treatment: appropriate measures for permitted facilities - Guidance - GOV.UK (www.gov.uk)

We hope this information is of assistance. If you have any queries, please do not hesitate to contact us.

Yours sincerely

Alison Craggs
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Appendix 1 - Advice to Applicant

1. Land Contamination Assessments

We expect land contamination assessments to follow the tiered approach laid out in our Land contamination risk management (LCRM) guidance. The preliminary risk assessment (PRA) should include historical plans of the site, an appraisal of the environmental setting (including geology, hydrogeology, groundwater and surface water receptors, potential contaminants of concern and source areas), an initial conceptual site model (CSM) describing possible pollutant linkages for controlled waters, and identification of potentially unacceptable risks. Land contamination investigations should be undertaken by suitably qualified and experienced professionals and in accordance with BS 5930: Code of practice for ground investigations and BS 10175: Investigation of potentially contaminated sites – code of practice. Soil and water analysis should be fully MCERTS accredited. Investigation, demolition, remediation, or construction works must not create new pathways or linkages to controlled waters. Clean drilling techniques may be required for boreholes that penetrate contaminated ground.

2. Sustainable Drainage System (SUDs)

Soakaways and other infiltration SUDS must comply with statements G1 and G9 to G13 of our Groundwater Protection Position Statements and should be constructed in line with good practice and guidance documents including the CIRIA C753 SuDS Manual and the Susdrain website. They must not be constructed in contaminated ground where infiltration could re-mobilise contaminants to pollute groundwater. All infiltration SuDS should be designed to maintain a minimum 1.2m clearance above peak seasonal groundwater levels. We do not consider deep infiltration systems (>2.0m below ground level) to be routinely acceptable Only clean roof water can be directly discharged to infiltration SuDs or watercourses; systems for the discharge of surface water from hard-standing, roads and impermeable vehicle parking areas must incorporate appropriate pollution prevention measures and a suitable number of SUDs treatment components in line with the environmental sensitivity of the receiving waters. An oil separator/interceptor (or equivalent device) may be required to remove oil from water draining off hard surfaces with a risk of oil contamination.

We recommend that developers:

- Refer to our Groundwater Protection webpages, which include our Groundwater Protection Position Statements
- Refer to our Land Contamination Technical Guidance, including our Land contamination risk management (LCRM) guidance, when dealing with land affected by contamination and for the type of information required in order to assess the risks to controlled waters. The Local Authority can advise on management of risks to human health.
- Consider using the National Quality Mark Scheme for Land Contamination Management which involves the use of competent persons to ensure that land contamination risks are appropriately managed.
- Refer to British Standards BS 5930 Code of practice for ground investigations and BS 10175 Investigation of potentially contaminated sites – code of practice
- Refer to our Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination National Groundwater & Contaminated Land Centre Project NC/99/73. The selected method, including environmental mitigation measures, should be presented in a Foundation Works Risk Assessment Report, guidance on the production of which can be found in Table 3 of Piling Into Contaminated Sites
- Refer to Position Statement on the Definition of Waste: Development Industry Code of Practice
- Refer to our Good Practice for Decommissioning Boreholes and Wells

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- Refer to our Dewatering building sites and other excavations: environmental permits guidance when temporary dewatering is proposed.
- Refer to our environmental permitting guidance Check if you need an Environmental Permit
- Refer to The Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) Regulations 2010 (legislation.gov.uk) Storing silage, slurry and agricultural fuel oil (GOV.UK)
- Refer to CIRIA Guidance C759F, Livestock manure and silage storage infrastructure for agriculture Item Detail (ciria.org)
- Refer to Protecting our Water, Soil and Air: A Code of Good Agricultural Practice for farmers, growers and land managers (DEFRA)
- Refer to Rules for farmers and land managers to prevent water pollution - GOV.UK (www.gov.uk)

End