Andrew Rutter
Suffolk County Council
Waste & Minerals Planning
Endeavour House Russell Road
Ipswich
Suffolk
IP1 2BX

Our ref: AE/2023/128847/01-L01
Your ref: SCC/0045/23SE

Date: 13 November 2023

Dear Andrew

CONSTRUCTION AND OPERATION OF AN ANAEROBIC DIGESTION FACILITY, ASSOCIATED INFRASTRUCTURE AND NEW ACCESS ROAD, CONNECTING PIPELINE AND COVERED DIGESTATE LAGOONS.

LAND TO THE NORTH OF SPRING GROVE FARM, WITHERSFIELD, SUFFOLK, CB9 7SW

Thank you for your consultation dated 03 October 2023 for the above application. We have reviewed the documents as submitted and are objecting unless the points highlighted in our flood risk and land and water detailed below are addressed. We have provided additional information on how to overcome our objection below. We have also provided additional information on waste permitting below.

Flood Risk

Our maps show the site is located in Flood Zone 1 with two areas, including the proposed access road, in fluvial Flood Zone 3, the high probability zone. However, we have not undertaken any detailed modelling for the nearby Unnamed river, so this source of flood risk has not been assessed for the purpose of the flood map. The works have been considered by the councils Planning officer to be Less Vulnerable.

The submitted flood risk assessment (FRA), referenced 404.11923.00004.0005 and dated August 2023, does not comply with the requirements set out in the Planning Practice Guidance, Flood Risk and Coastal Change, Reference ID: 7-030-20140306. This FRA does not, therefore, provide a suitable basis for assessment to be made of the flood risks arising from the proposed development and we are raising an objection. In particular, the submitted FRA fails to:

- Identify the impacts of fluvial flood risk from the unnamed river designated ordinary watercourse.

- Assess the impact of climate change using appropriate climate change allowances. In this instance, according to 'Flood risk assessments: climate change allowances', the allowance that should be assessed is the Central allowance of 19%. This is a precautionary, higher climate change allowance considering the vulnerability and the singular point of access for the proposed development.

Overcoming our Objection

The applicant can overcome our objection by submitting an FRA that covers the deficiencies highlighted above and demonstrates that the development will not increase risk elsewhere and where possible reduces flood risk overall. If this cannot be achieved we are likely to maintain our objection to the application. Production of an FRA will not in itself result in the removal of an objection.

Modelling Guidance

The Flood Zone maps in this area are formed of national generalised modelling, which was used in 2004 to create fluvial floodplain maps on a national scale. This modelling was improved more recently, using a more detailed terrain model for the area. This modelling is not a detailed local assessment, it is used to give an indication of areas at risk from flooding.

JFLOW outputs are not suitable for detailed decision making. Normally, in these circumstances, an FRA will need to undertake a modelling exercise in order to derive flood levels and extents, both with and without allowances for climate change, for the watercourse, in order to inform the design for the site. Without this information, the risk to the development from fluvial flooding associated with the ordinary watercourse is unknown.

In order to have fully considered all forms of flooding and their influence on the site, it will be necessary to identify the fluvial flood risk. Fluvial flood levels will be required for the main river to the south of the site, unnamed river. It may be appropriate to undertake some flow analysis such at FEH and 1D modelling to establish the level. Any revised FRA will need to consider this source of flooding and demonstrate appropriate mitigation against fluvial flood risk.

We advise that modelling should be undertaken to accurately establish the risk to the proposed development in terms of potential depths and locations of flooding. The watercourse should be modelled in a range of return period events, including the 1 in 20, 1 in 100 and 1 in 1000 year events, both with and without the addition of climate change. The flood levels on the development site should be determined and compared to a topographic site survey to determine the flood depths and extents across the site.

Please refer to the river modelling technical standards and guidance documents that can be found at: https://www.gov.uk/government/publications/river-modelling-technical-standards-and-assessment.

We would recommend that FRAs at all levels should be undertaken under the supervision of an experienced flood risk management specialist (who would normally be expected to have achieved chartered status with a relevant professional body such as the Institution of Civil Engineers (ICE) or the Chartered Institution of Water and Environmental Management (CIWEM)).

Paragraph 163 of the NPPF states:-

“When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

1. within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different locations;

2. the development is appropriately flood resistant and resilient;

3. it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;

4. any residual risk can be safely managed; and

5. safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

Some areas of land within the site are likely to be subject to a higher risk of flooding than other areas within the site and an understanding of the susceptibility/vulnerability of land to flooding should be delivered through flood modelling and risk assessment in order to influence the layout of housing areas to avoid siting housing on areas of land that are susceptible to higher chances of flooding. This will allow a sequential “risk-based” approach to be applied to development within the site as directed by the National Planning Policy Framework.

We ask to be re-consulted with the results of the FRA. We will provide you with bespoke comments within 21 days of receiving formal re-consultation. Our objection will be maintained until an adequate FRA has been submitted.

If you are minded to approve the application contrary to this advice, we request that you contact us to allow further discussion and/or representations from us in line with the Town and Country Planning (Consultation) (England) Direction 2009.

Flood Risk Climate Change Guidance

The Planning Practice Guidance provides advice on what is considered to be the lifetime of the development in the context of flood risk and coastal change. Our guidance 'Flood risk assessments: climate change allowances' provides allowances for future sea level rise, wave height and wind speed to help planners, developers

and their advisors to understand likely impact of climate change on coastal flood risk. It also provides peak river flow and peak rainfall intensity allowances to help planners understand likely impact of climate change on river and surface water flood risk.

Other Sources of Flooding

In addition to the above flood risk, the site may be within an area at risk of flooding from surface water, reservoirs, sewer and/or groundwater. We have not considered these risks in any detail, but you should ensure these risks are all considered fully before determining the application.

Ordinary watercourse consent - informative

The applicant is required to explore whether additional permissions, for any construction proposed near to the ordinary watercourse, are required from the Local Authority relevant to the site. Our information shows, the unnamed river falls within the West Suffolk District Local Authority.

Land and Water

Our comments are mainly regarding the Lagoon storage for the leachate and the silage clamps for storage of the feed stock for the plant.

We require the following information:

1. The applicant specified that an environmental permit will be obtained for the permit. Can the applicant confirm if any parts of the site are not intended to be subject to the environmental permit (this could be the lagoon or clamps)?

2. Can the applicant confirm the lagoon lining depth. The proposed lagoon drawings state the lagoon will be lined with 100mm of excavated clay material. Is this adequate as the area is a SPZ3. CIRIA 759b specifies a depth of 1m (1000mm)

3. Can the applicant confirm if leak detection will be installed around lagoons?

4. Can the applicant confirm how they will monitor the rising main to identify potential leaks or a burst?

5. Surface water drainage in the vicinity of the clamps presents a potential pathway for dirty water to enter the clean water system. How will contamination of the clean water system be prevented?

6. Dirty water drainage from the eastern part of the site passes to a package pumping station. Is there a contingency plan in the event of pumping station failure or mains power failure which would prevent dirty water from being pumped to the bund holding tanks? If this coincide with a rainfall event there would be a large amount of dirty water to manage.

Cont/d..

7. We note there is a pump in the tank bund which pumps to either the clean system or dirty water holding tanks. How will this be managed?

Additional Information

Consideration could be given to installation of a penstock on the outlet of the rainwater lagoon to isolate the site drainage in the event of an incident such as a spillage or run off generated during a fire.

Please see a link to the Storing silage, slurry and Agricultural fuel oil guidance: Storing silage, slurry and agricultural fuel oil - GOV.UK (www.gov.uk)

Waste Permitting

This development will require an Environmental Permit under the Environmental Permitting (England and Wales) Regulations 2016 from the Environment Agency. Further information about permitting is available on our website at https://www.gov.uk/topic/environmental-management/environmental-permits

As the assessment of the risk of the proposed facility will be undertaken during the determination of the permit application, the applicant should refer to the following guidance in the interim, 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 trust this advice is useful

Yours sincerely

[redacted]

Mr Andrew Thornton
Planning Advisor

[redacted]

Team e-mail: Planning.EastAnglia@environment-agency.gov.uk