



Sharon Smith
Forest Heath District Council
College Heath Road
Mildenhall
Bury St. Edmunds
IP28 7EY

Our ref: AC/2015/123703/01-L01
Your ref: DC/15/2215/FUL
Date: 07 December 2015

Dear Ms Smith

PLANNING APPLICATION - RESUBMISSION OF DC/14/2384/FUL - CHANGE OF USE OF LAND TO A RESIDENTIAL CARAVAN PARK FOR 4 NO. RELATED GYPSY FAMILIES, INCLUDING 4 NO. MOBILE HOMES, 6 NO. CARAVANS AND 4 NO. DAY ROOMS. RESIDENTIAL CARAVAN PARK ELMS ROAD RED LODGE SUFFOLK

Thank you for referring the above application which was received on 19 November 2015.

We have reviewed the following documents:

1. Phase 1 Contaminated Land Desk Study, agb Environmental Ltd Ref: P2361.1, dated 19 March 2015. (submitted as part of the previous planning application)
2. 'Landfill Gas Survey' (no reference, undated) containing historic results of gas monitoring
3. Ground Investigation Factual Report, agb Environmental Ltd Ref: P2455.1.0 FINAL, dated 30 September 2015.

Please note that the 'Contamination' comments below are essentially the same as our previous response, dated 9 April 2015 our ref: AC/2014/122272/02 but amended with additional comments on the site investigation undertaken since the previous application

Site Specific Information

The site is underlain by superficial River Terrace Deposits Secondary A Aquifer which in turn overlies the solid geology of the Holywell Nodular Chalk Formation and New Pit Chalk Formation (Undifferentiated) designated as a Principal Aquifer (part of the Cam and Ely Ouse Chalk groundwater body, an EU Water Framework Directive Drinking Water Protected Area). Principal aquifers are geological strata that exhibit high permeability and provide a high level of water storage. They support water supply and river base flow on a strategic scale. Secondary A aquifers are permeable geological

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strata capable of supporting water supplies at a local rather than strategic scale, and form an important source of base flow to rivers, wetlands and lakes and private water supplies in rural areas. The regional use of groundwater in this area makes the site highly vulnerable to pollution.

The site overlies the Middleton Aggregates Ltd - Red Lodge Warren historic landfill site. The site is considered to be of high sensitivity and could present potential pollutant/contaminant linkages to controlled waters.

Environment Agency Position

We consider that planning permission could be granted to the proposed development as submitted if the following planning conditions are included as set out below. Without these conditions, the proposed development on this site poses an unacceptable risk to the environment and we would wish to object to the application.

CONDITION (1)

No development approved by this planning permission shall take place until a remediation strategy that includes the following components to deal with the risks associated with contamination of the site shall each be submitted to and approved, in writing, by the Local Planning Authority:

1. A Preliminary Risk Assessment (PRA) including a Conceptual Site Model (CSM) of the site indicating potential sources, pathways and receptors, including those off site.
2. The results of a site investigation based on (1) and a detailed risk assessment, including a revised CSM.
3. Based on the risk assessment in (2) an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken. The strategy shall include a plan providing details of how the remediation works shall be judged to be complete and arrangements for contingency actions. The plan shall also detail a long term monitoring and maintenance plan as necessary.
4. No occupation of any part of the permitted development shall take place until a verification report demonstrating completion of works set out in the remediation strategy in (3). The long term monitoring and maintenance plan in (3) shall be updated and be implemented as approved.

Reason (1)

To protect and prevent the pollution of controlled waters from potential pollutants associated with current and previous land uses in line with National Planning Policy Framework (NPPF), paragraphs 109, 120, 121 and Environment Agency Groundwater Protection: Principles and Practice (GP3).

Advice to LPA (1)

We are satisfied that the risks to controlled waters posed by contamination at this site can be addressed through appropriate measures. However, further details will be required in order to ensure that risks are appropriately addressed prior to the development commencing and being occupied. It is important that remediation works, if required, are verified as completed to agreed standards to ensure that controlled waters are suitably protected.

CONDITION (2)

If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until the developer has submitted a remediation

strategy detailing how this unsuspected contamination shall be dealt with and obtained written approval from the Local Planning Authority. The remediation strategy shall be implemented as approved.

Reason (2)

See Reason 1.

Advice to LPA (2)

Contamination can still be missed by an investigation and this condition gives the Local Planning Authority the ability to require a new, or amendments to an existing, remediation strategy to address any previously unexpected contamination.

CONDITION (3)

Development shall not begin until a scheme for surface water disposal has been submitted to and approved in writing by the Local Planning Authority. Infiltration systems shall only be used where it can be demonstrated that they will not pose a risk to groundwater quality. The development shall be carried out in accordance with the approval details.

Infiltration systems shall only be used where it can be demonstrated that they will not pose a risk to groundwater quality.

Reason (3)

See Reason 1.

Advice to LPA / Applicant (3)

The water environment is potentially vulnerable and there is an increased potential for pollution from inappropriately located and/or designed infiltration Sustainable Drainage Systems (SuDS).

CONDITION (4)

Piling or any other foundation designs and investigation boreholes using penetrative methods shall not be permitted other than with the express written consent of the Local Planning Authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to groundwater. The development shall be carried out in accordance with the approved details.

Reason (4)

See Reason 1

Advice to LPA / Applicant (4)

Piling or any other foundation designs using penetrative methods can result in risks to controlled waters. It should be demonstrated that any proposed piling will not result in contamination of groundwater.

We ask to be consulted on the details submitted for approval to your Authority to discharge these conditions and on any subsequent amendments/alterations.

CONDITION (5)

The development hereby permitted shall not be commenced until such time as a scheme to dispose of foul water has been submitted to, and approved in writing by, the local planning authority. The scheme shall be implemented as approved.

Reasons (5)

A non-mains sewerage proposal is unacceptable. The site is between 30 and 150m

from an existing foul sewer, depending on where the connection is made. Our guidance states that if the distance to the foul sewer is less than 30m x times the number of houses (in this case 10) the applicant should connect to the foul sewer.

Advice to Applicant (5)

Please contact Anglian Water Services and negotiate connection to their foul sewer.

Please forward a copy of this letter to the applicant.

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

Yours faithfully

Elizabeth Mugova
Sustainable Places Planning Advisor
Cambridgeshire and Bedfordshire Area

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Awarded to Cambridgeshire and Bedfordshire Area

APPENDIX 1 – Groundwater and Contaminated Land Technical Comments

We have previously reviewed and commented on the Desk Study Report and we provided the following comments:

'A number of potentially active pollutant linkages have been identified within the Desk Study report. An intrusive investigation has been recommended in order to further characterise the potential risk to controlled waters. We would agree with this recommendation. Soil and groundwater samples should be analysed for the potential contaminants identified in the Desk Study report. The location of the proposed infiltration SuDS should also be sampled to ensure that any increased infiltration does not result in the remobilisation of any historical contamination. The detailed proposed surface water drainage plans should be submitted for review and approval.'

The submitted Ground Investigation Factual Report does not meet our requirements as set out above, as it appears to have been undertaken for geotechnical purposes only. Soil samples were not submitted for laboratory analysis for potential contaminants, and, as such, insufficient information has been submitted to evaluate the potential risk to controlled waters further. No assessment of the risk to controlled waters has been undertaken within the report.

The investigation confirmed the presence of a low permeability cap overlying the waste materials, which confirms our concerns regarding the proposed use of a soakaway for surface water disposal and resultant increase in infiltration through historic waste materials.

In addition, please refer to our previous comments regarding foundations and surface water drainage. Further information regarding the above should be provided to enable the risk to controlled waters to be evaluated fully:

1. Foundations and proposed ground works. Development of potentially contaminated land can result in remobilisation of existing contamination and cause pollution of controlled waters. The details of proposed works and preferred foundation technique(s) should be submitted. The selected foundation technique should avoid creating preferential pathways into the waste materials and groundwater.
2. A soakaway is proposed, but no details have been provided including the design or location. We are concerned that increased infiltration of surface water run-off through historic waste materials could result remobilisation of contaminants and/or cause increased generation of landfill gas. Any infiltration structures should be located outside the areas of deposited waste.

Formerly permitted landfill site – potential risks

The Middleton Aggregates Ltd - Red Lodge Warren historic landfill site was permitted to receive inert waste. The environmental permit for the landfill was surrendered on 08 January 2013. There may be a potential for landfill gas to be generated, currently and/or as a result of the proposed development.

Developers may be required to carry out a comprehensive risk assessment due to the risks the former landfill site poses. The local authority's Environmental Health and Building Control departments would wish to ensure that any threats from landfill gas have been adequately addressed in the proposed development. This may include building construction techniques that minimise the possibility of landfill gas entering any enclosed structures on the site to be incorporated into the development. The following

publications provide further advice on the risks from landfill gas and ways of managing these:

- i. Waste Management Paper No 27
- ii. Environment Agency LFTGN03 'Guidance on the Management of Landfill Gas'
- iii. Building Research Establishment guidance – BR 414 'Protective Measures for Housing on Gas-contaminated Land' 2001
- iv. Building Research Establishment guidance – BR 212 'Construction of new buildings on gas-contaminated land' 1991
- v. CIRIA Guidance – C665 'Assessing risks posed by hazardous ground gases to buildings' 2007
- vi. CIEH guidance – 'The Local Authority Guide to Ground Gas' 2008

APPENDIX 2 – Advice to Applicant

1. Preliminary Risk Assessment

The PRA should include historical plans of the site, an understanding of the sites environmental setting (including geology, hydrogeology, location and status of relevant surface water and groundwater receptors, identification of potential contaminants of concern and source areas), an outline conceptual site model (CSM) describing possible pollutant linkages for controlled waters and identification of potentially unacceptable risks. Pictorial representations, preferably scaled plans and cross sections, will support the understanding of the site as represented in the CSM.

2. Site Investigation

Land contamination investigations should be carried out in accordance with BS 5930:1999-2010 'Code of Practice for site investigations' and BS 10175:2011 'Investigation of potentially contaminated sites - Code of Practice' as updated/amended. Site investigation works should be undertaken by a suitably qualified and experienced professional. Soil and water analysis should be fully MCERTS accredited.

Any further site investigation, demolition, remediation or construction works on site must not create new pollutant pathways or pollutant linkages in to the underlying principal aquifer to avoid generating new contaminated land liabilities for the developer. Clean drilling techniques may be required where boreholes, piles etc penetrate through contaminated ground.

3. SuDS

We consider any infiltration Sustainable Drainage System (SuDS) greater than 2.0 m below ground level to be a deep system and are generally not acceptable. All infiltration SuDS require a minimum of 1.2 m clearance between the base of infiltration SuDS and peak seasonal groundwater levels.

Soakaways must not be constructed in contaminated ground where they could re-mobilise any pre-existing contamination and result in pollution of groundwater. Soakaways and other infiltration SuDS need to meet the criteria in our Groundwater Protection: Principles and Practice (GP3) position statements G1 and G9 to G13.

We recommend that developers should:

- 1) Refer to our “Groundwater Protection: Principles and Practice (GP3)” document: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297347/LIT_7660_9a3742.pdf
- 2) Follow the risk management framework provided in CLR11, “Model Procedures for the Management of Land Contamination”, when dealing with land affected by contamination: <https://www.gov.uk/government/publications/managing-land-contamination>
- 3) Refer to our “Guiding Principles for Land Contamination” for the type of information that we require in order to assess risks to controlled waters from the site. (The Local Authority can advise on risk to other receptors, for example human health): <https://www.gov.uk/government/publications/managing-and-reducing-land-contamination>
- 4) Refer to our “Verification of Remediation of Land Contamination” report: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297674/scho0210brxf-e-e.pdf
- 5) Refer to the CL:AIRE “Definition of Waste: Development Industry Code of Practice” (version 2) and our related ‘Position Statement on the Definition of Waste: Development Industry Code of Practice’:

http://www.claire.co.uk/index.php?option=com_content&view=article&id=210&Itemid=82 and <https://www.gov.uk/turn-your-waste-into-a-new-non-waste-product-or-material>

- 6) Refer to British Standards BS 5930:1999-2010 and BS10175 and our “Technical Aspects of Site Investigations” Technical Report P5-065/TR
<https://www.gov.uk/government/publications/technical-aspects-of-site-investigation-in-relation-to-land-contamination>
- 7) Refer to our “Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination” National Groundwater & Contaminated Land Centre Project NC/99/73 and “Piling in layered ground: risks to groundwater and archaeology” (the latter is available at <https://www.gov.uk/government/publications/piling-in-layered-ground-risks-to-groundwater-and-archaeology>);
- 8) Refer to our “Good Practice for Decommissioning Boreholes and Wells” (<http://stuartgroup.ltd.uk/downloads/wellservices/groundwater/boreholedecommissioning/EAGuidelines.pdf>);
- 9) Refer to our website <https://www.gov.uk/government/organisations/environment-agency> for more information.