

I N T E R	MEMO	<b>North Lincolnshire Council</b>
O F F I C E		

To: Ed Senior, Development Management

From: Environmental Protection Team

Your Ref: PA/2023/1124

Our Ref: PLU 007735

Subject: Planning permission for the development of 599 No. dwellings and lake, along with associated infrastructure, including landscaping, public open space and play area, pedestrian and cycle links, pumping station and sub-station

Location: Lincolnshire Lakes, Land east of M181 and north of Burringham Road, Scunthorpe

Date: 25 August 2023

Thank you for your consultation on the above application. I can confirm that this department has the following comments to make.

The proposals comprise an application for full planning permission for the development of 599 dwellings and lake, along with associated infrastructure, including landscaping, public open space and play area, pedestrian and cycle links, pumping station and substation.

**Contaminated Land**

I can confirm this department has received and reviewed the following reports:

- Alan Wood & Partners, - Phase I Geo-Environmental Assessment, Linc Lakes, Scunthorpe, Dated: 7<sup>th</sup> February 2023, Ref: 46069
- Alan Wood & Partners, - Summary of Previous Investigation, Proposed Residential Development, Lincs Lakes, Scunthorpe, Dated: 31<sup>st</sup> May 2023, Ref: JS/SLR/AC/46069-TN002

**Phase I Geo-Environmental Assessment**

The site currently comprises of 2 agricultural fields which are separated by an east-west drainage ditch and has been seeded. The wider site is bounded by drainage ditches to the north and west with a 2m high embankment to the M181 motorway. The east of the site is bounded by a hedgerow separating the site from a north-south road with a care home and residential buildings, and to the south by Burringham Road.

The site is approximately 30.58ha in size and is generally flat lying, photographic evidence was taken during the site walkover. It was noted towards the southwest corner of the site there was an area where the topsoil has been removed. No evidence of fly tipping was observed on site.

The historical maps dating back to 1886, show that the site has been used as agricultural land and has not been subjected to any former industrial land use, however, arable farming activities may have given rise to some potential contamination onsite.

The site is underlain by superficial soils consisting of 'WARP' (clay, silt, sand and gravel), with an area of Blown Sand present in the south-eastern corner of the site from the Sutton Sand Formation. The solid geology underlying the site area is recorded as mudstone of the Mercia Mudstone Group.

The site is underlain by a Secondary A aquifer with the Superficial deposits and a Secondary B with the Bedrock. There are no source protection zones within 500m of the site.

The site lies in a low risk radon area and therefore no radon protection measures are required.

The preliminary conceptual site model has identified several potential contaminants associated with different farming activities over the years which may give rise to contamination of the soils and also from ground gas. As the proposed end use (residential) is of a sensitive nature, the report recommends an intrusive investigation is required.

### Summary of Previous Ground Investigations

Alan Wood and Partners have also submitted a review of previous site investigation reports which have been undertaken at the above site, which include:-

- Alan Wood and Partners, Phase I Geo-Environmental Appraisal, Land Northwest of Junction 3 of the M180, Linc Lakes, Scunthorpe, report ref. JS/SLR/AC/46069-Rp-002, dated 7th February 2023;
- Alan Wood and Partners, Phase II Geo-Environmental Assessment Report, Land Northwest of Junction 3 of the M180, Scunthorpe, report ref. JS/AC/46069-Rp-001, dated 11th November 2021
- FWS Geological and Geo-Environmental Consultants, Geo-Environmental Site Investigation on Land at Lincolnshire Lakes Area V2 and Lake 1, report ref. 19250R08, dated 25th November 2015.

The findings of the review have confirmed that none of the soils tested during the Phase II Geo-Environmental Assessment, exceeded the GACs for residential with plant up take, however, the ground gas monitoring undertaken by FWS was not complete. As the conceptual site model has identified a potential risk from ground gas, the report concludes and recommends the following:-

- *“5 boreholes to be drilled to approximately 15mbgl using a Cable Percussive Drilling Rig. This will allow for collection of samples for geotechnical laboratory testing and allow for installation of ground gas and groundwater monitoring equipment.*
- *2 days with a CPT rig to complete a grid of probes to collect geotechnical information across the site (groundwater depths, coefficient of compressibility, undrained shear strength etc.) to inform settlement calculations. As part of this work, an interpretative report shall be produced by the CPT subcontractor.*
- *6 ground gas and groundwater monitoring visits on a fortnightly basis given the potential for hazardous ground gases associated with organic material within the superficial deposits. • Geo-environmental and geotechnical testing.*
- *Production of a Phase II report detailing works undertaken and interpretation of results.*
- *Production of a Hazardous Ground Gas Risk Assessment following completion of the required monitoring visits.*
- *Production of detailed settlement calculations to assess placement of fill to facilitate the development, and the loading of reinforced strip foundations within the fill”.*

Therefore, based on the information provided, this department would recommend the inclusion of the following condition should planning permission be approved.

Unless otherwise agreed by the Local Planning Authority, development other than that required to be carried out as part of an approved scheme of remediation must not commence until parts 1 to 4 below have been complied with. If unexpected contamination is found after development has begun, development must be halted on that part of the site affected by the unexpected contamination to the extent specified by the Local Planning authority in writing until part 4 has been complied with in relation to that contamination.

### **Part 1: Site Characteristics**

A Phase 1 desk study shall be carried out to identify and evaluate all potential sources of contamination and the impacts on land and/or controlled waters, relevant to the site. The desk study shall establish a 'conceptual model' of the site and identify all plausible pollutant linkages. Furthermore, the assessment shall set objectives for intrusive site investigation works/Quantitative Risk Assessment (or state if none required). Two full copies of the desk study and a non-technical summary shall be submitted to the Local Planning Authority for approval prior to proceeding to further site investigation.

An investigation and risk assessment, in addition to any assessment provided with the planning application, must be completed in accordance with a scheme to assess the nature and extent of any contamination on the site, whether or not it originates on the site. The contents of the scheme are subject to the approval in writing of the Local Planning Authority. The investigation and risk assessment must be undertaken by competent persons and a written report of

the findings must be produced. The written report is subject to the approval in writing of the Local Planning Authority. The report of the findings must include:

- (i) a survey of the extent, scale and nature of contamination;
- (ii) an assessment of the potential risks to:  
human health,  
property (existing or proposed) including buildings, crops, livestock, pets, woodland and service lines and pipes,  
adjoining land,  
groundwaters and surface waters,  
ecological systems,  
archaeological sites and ancient monuments;
- (iii) an appraisal of remedial options, and a proposal of the preferred option(s).

This must be conducted in accordance with Environment Agency's Land Contamination Risk Management (LCRM) guidance July 2023.

## **Part 2: Submission of Remediation Scheme**

A detailed remediation scheme to bring the site to a condition suitable for the intended use by removing unacceptable risks to human health, buildings and other property and the natural and historical environment must be prepared, and is subject to the approval in writing of the Local Planning Authority. The scheme must include all works to be undertaken, proposed remediation objectives and remediation criteria, timetable of works and site management procedures. The scheme must ensure that the site will not qualify as contaminated land under Part 2A of the Environmental Protection Act 1990 in relation to the intended use of the land after remediation.

## **Part 3: Implementation of Approved Remediation Scheme**

The approved remediation scheme must be carried out in accordance with its terms prior to the commencement of development other than that required to carry out remediation, unless otherwise agreed in writing by the Local Planning Authority. The Local Planning Authority must be given two weeks written notification of commencement of the remediation scheme works.

Following completion of measures identified in the approved remediation scheme, a verification report (referred to in PPS23 as a validation report) that demonstrates the effectiveness of the remediation carried out must be produced, and is subject to the approval in writing of the Local Planning Authority.

## **Part 4: Reporting of Unexpected Contamination**

In the event that contamination is found at any time when carrying out the approved development that was not previously identified it must be reported in writing immediately to the Local Planning Authority. An investigation and risk assessment must be undertaken in accordance with the requirements of Part 1, and where remediation is necessary a remediation scheme must be prepared in accordance with the requirements of Part 2, which is subject to the approval in writing of the Local Planning Authority. Following completion of measures identified in the approved remediation scheme a verification report must be

prepared, which is subject to the approval in writing of the Local Planning Authority in accordance with Part 3.

Reason for pre-commencement condition: To ensure the site is safe for future users and construction workers.

## Air Quality

This department has received and reviewed the following document:

- Air Quality Assessment. Burringham Road, Scunthorpe. Client: Keepmoat Homes Ltd. Reference: 5386r3. Date: 25th May 2023

The air quality assessment considers the air quality impacts from the following sources:

- Fugitive dust emissions during construction
- Road traffic exhaust emissions associated with vehicles travelling to and from the site during operation
- The suitability of the site in relation to exposure to existing air quality

## Construction Phase

The impacts on air quality during the construction phase have been assessed in accordance with the Institute of Air Quality Management (IAQM) document '*Guidance on the Assessment of Dust from Demolition and Construction.*'

The conclusion of this assessment is that the potential risk of dust soiling is **high** from earthworks, construction and trackout activities. The potential risk of human health impacts is **low** from earthworks, construction and trackout activities.

The IAQM guidance provides potential mitigation measures to reduce impacts as a result of fugitive dust emissions during the construction phase. These have been adapted for the development site as summarised in Table 21.

With the above in mind, this department recommends the inclusion of the following conditions should planning permission be granted:

### **1) Working Hours**

Construction, demolition and site clearance operations shall be limited to the following days and hours:

- 08:00 to 18:00hrs Monday to Friday.
- 08:00 to 13:00hrs Saturday.
- No construction, demolition or site clearance operations on Sundays or public holidays.
- HGV movements shall not be permitted outside these hours during the construction phase without prior written approval from the Local Planning Authority.

- Installation of equipment on site shall not be permitted outside these hours without prior written approval from the Local Planning Authority.

## 2) Construction Environmental Management Plan (CEMP)

No stage of the development hereby permitted shall commence until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall include the following, and all recommendations made in Table 21 of report reference 5386r3 as a minimum:-

- I) Noise and vibration: The CEMP shall set out the particulars of –
  - a) the works, and the method by which they are to be carried out;
  - b) the noise and vibration attenuation measures to be taken to minimise noise and vibration resulting from the works, including any noise limits; and
  - c) a scheme for monitoring the noise and vibration during the works to ensure compliance with the noise limits and the effectiveness of the attenuation measures
  
- II) Light: The CEMP shall set out the particulars of –
  - a) Specified locations for contractors' compounds and materials storage areas,
  - b) Areas where lighting will be required for health and safety purposes,
  - c) Location of potential temporary floodlights,
  - d) Identification of sensitive receptors likely to be impacted upon by light nuisance,
  - e) Proposed methods of mitigation against potential light nuisance, including potential glare and light spill, on sensitive receptors.
  
- III) Dust: The CEMP shall set out the particulars of –
  - a) Site dust monitoring, recording and complaint investigation procedures
  - b) Identification of receptors and the related risk of dust impact at all phases of the development, including when buildings and properties start to be occupied
  - c) Provision of water to the site
  - d) Dust mitigation techniques at all stages of development
  - e) Prevention of dust trackout
  - f) Communication with residents and other receptors
  - g) A commitment to cease the relevant operation if dust emissions are identified either by regular site monitoring or by the local authority
  - h) A no burning of waste policy

Reason: For the protection of residential amenity in accordance with planning policy DS1.

### Operational Phase

The assessment also includes an assessment of the impacts from the traffic generated by the development on the local area.

The ADMS-Roads dispersion model (version 5.0.1.3).has been used to predict the air quality impacts from changes in traffic on the local road network from the following

pollutants: PM10, PM2.5 and NO2. Traffic data used in the assessment has been provided by the project's transport consultants.

The following matters are raised in relation to this assessment.

## 1. Main Report

- Section 4.2.2 states:

*"The Lyndhurst AQMA is located..."*

This is incorrect, the AQMA is the Scunthorpe Town AQMA.

- Figure 13 includes the input assessment area and the road links that have been modelled. It is noted that this includes a new roundabout that joins the M181. This will provide a new road link from the existing motorway onto Burringham Road (B1450) which does not currently exist. As a result, vehicles travelling north along the M181 will now be able to exit onto the B1450 increasing traffic flows within this area.

It is unclear whether this has been taken into consideration within the report and is fundamental to establishing the impact of the proposed development on local air quality.

## 2. Model Input Parameters

In Appendix 1, the assessment includes the model input parameters and states the following:

- *"NO2 is not monitored within the vicinity of the site. The DEFRA background concentration at the CM2 - East Common Lane continuous analyser was therefore utilised in lieu of alternative data."*

This is incorrect. NO2 monitoring is undertaken using a diffusion tube (DT24) 750m to the east on Burringham Road. This has been in situ since January 2021 and has recorded the following results (2021 - 17.3ug/m3 and 2022 – 15.9ug/m3)

The assessment must take into consideration the above which will provide a more representative background concentration for this location.

- The assessment has included 1 year of meteorological data and does not take account of any inter-year variations. Justification for this must be provided.

## **Noise**

Comments to follow.