Our ref: SV/2013/106961/01-L01
Your ref: 130616/F

Date: 16 May 2013

Herefordshire Council
PO Box 230
Hereford
Herefordshire
HR1 2ZB

F.A.O: Mr. A Banks

Dear Sir

HYBRID APPLICATION FOR THE PART DEMOLITION OF EXISTING BUILDINGS. PROPOSED MIXED USE DEVELOPMENT TO PROVIDE RETAIL STORE, PETROL FILLING STATION, RESIDENTIAL AND ASSOCIATED WORKS AT LAND AT MILL STREET, LEOMINSTER, HEREFORDSHIRE

Thank you for referring the above application which was received on the 16 April 2013. We ***object*** to the proposed development, as submitted, and request additional information as detailed below.

Flood Risk: This site is located in Flood Zone 3, which is the high risk zone and is defined for mapping purposes by the Agency's Flood Zone Map. Flood Zone 3 refers to land where the indicative annual probability of flooding is 1 in 100 years or less from river sources (*i.e. it has a 1% or greater chance of flooding in any given year*).

Our historic records indicate that a large part of the site has flooded in the past. The site may also be at risk flooding from other sources, e.g. ponded surface water, floodwaters backing up through the drainage system, etc.

We acknowledge that the site lies within an area defended by the Leominster Flood Alleviation Scheme (FAS). Our recently completed (*March 2013*) flood model for the River Lugg has shown the defences along the northern boundary of the site to be below our standard level of protection (1 in 100 year plus 20% (*allowance for climate change*). At the present time this section of the FAS only defends against flood events up to and including the 1 in 50 year, thus putting the site at risk of flooding.

Sequential Test: Paragraph 101 of the National Planning Policy Framework (NPPF) requires decision-makers to steer new development to areas at the lowest probability of flooding by applying a ‘Sequential Test’. It states that ‘Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding’.

Further detail is provided in the Technical Guidance to the NPPF. This states that 'Only where there are no reasonably available sites in Flood Zones 1 or 2 should the suitability of sites in Flood Zone 3 be considered, taking into account the flood risk vulnerability of land uses and applying the Exception Test if required (see Paragraph 102 of the NPPF).

The submitted FRA does make reference to both the Sequential and Exception Tests but does not appear to identify and assess alternative locations at a lower level of flood risk. For a development of this scale and nature we would expect a full Sequential Test, referencing your emerging Core Strategy and current Strategic Flood Risk Assessment (SFRA). You need to be satisfied that there are no alternative potential housing sites reasonably available with a lower risk of flooding.

We would also advise that you consult with your Planning Policy Team with regards to the site allocations within your emerging Core Strategy and associated evidence base.

Notwithstanding the above we would offer the following comments on the submitted FRA.

Flood Risk Assessment (FRA): We have reviewed the FRA (*Report Ref: CC1189/FRA/REP03, Feb 2013*) prepared by Cambria Consulting and make the following comments.

The flood data used in the submitted FRA has been superseded by the new 2013 flood model for the Lugg and Kenwater. The FRA does acknowledge that the detail contain within may be superseded in time but, as up to date model data is now available, the FRA should be revised and should utilise the new flood and defence level data. Initial feedback from our flood modellers is that the existing flood defences along the northern boundary of the site will require upgrading to meet current standards. The flood and defence level data is now available from pso.midswest@environment-agency.gov.uk

In order to develop the site safely, the existing flood defence around the northern part of the site will require upgrading to meet current standards. We would welcome discussions with the applicant to discuss the development proposals and potential contributions to the upgrading of the flood defences on the site. The improvements to the defences will not only enable the re-development of the site, but will improve flood risk over a wider area.

Please note that finished floor levels (FFL) of residential dwellings should be set at least 600mm above the un-defended 1 in 100 year plus 20% flood level. The same is advised for commercial buildings. However, if impracticable to set floor levels at this height, then we advise a FFL of 300mm above the un-defended 1 in 100 year plus 20% flood level, with additional flood proofing measures to give the full 600mm protection.

In accordance with the Defra Flood Hazard Ratings, it must be demonstrated that a safe access is available from all development on the site and should be based on the defended scenario.

The FRA should include information that demonstrates there will be no adverse impact or increase in flood risk to existing properties as a result of this development. In accordance with NPPF, the development should aspire to improve flood risk locally. Any floodplain mitigation (*i.e. compensatory storage*) required should be based on the defended 1 in 100 year defended plus 20% level.

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Surface Water: We note the proposed surface water drainage calculations and proposals included in the FRA. However, as the Lead Local Flood Authority (LLFA), Herefordshire Council are responsible for checking proposed surface water attenuation schemes for new developments, to ensure that surface water is adequately attenuated and does not increase flood risk.

Therefore, we would recommend that the surface water drainage strategy be discussed and approved by Martin Jackson, the Drainage Engineer for Herefordshire Council/Amey.

The River Lugg is designated as a Main River. Please note that under the terms of the Water Resources Act 1991 and the Land Drainage Byelaws, the prior written consent of the Agency is required for any proposed works or structures, (e.g. surface water outfalls) in, under, over or within 7 metres of the top of the bank of the River Lugg. Under the same legislation, the prior written consent of the Agency is also required for any proposed works or structures either affecting or within 7 metres of any flood defence maintained by the Agency.

The applicant/consultant is advised to contact Luci Watkins (Development & Flood Risk Officer) in relation to the above and the requirements for an updated FRA. As stated above we would welcome a meeting to discuss the flooding issues on the site and the need to improve the standard of defences afforded to the site. Luci can be contacted on: luci.watkins@environment-agency.gov.uk and / or 07766 424334.

Contaminated Land: The proposed site is located within a Groundwater Source Protection Zone 2 (SPZ 2) which belongs to a Welsh Water Plc public drinking water supply well at Midsummer Meadow (*19/55/12/0431*) and is also directly adjacent to the River Lugg which is designated SSSI. The risk to controlled waters receptors, on that basis, is high from this site and we would expect to see this level of risk reflected in any land quality risk assessment for this site.

Please refer to our previous correspondence dated 5 March 2013 (*SV/2013/106771/01, copy attached*) which should be read in conjunction with the information contain in this current letter. Our comments in the 5 March letter were post the date of the supporting Geotechnical & Geo-Environmental Report reviewed here and the comments are still very much applicable to the ongoing assessment of this redevelopment site.

Further to the submission of the above report from a contaminated land assessment perspective we would comment as follows.

Any contamination from the current land-use, steel fabrication works of FH Dale site (*and any previous historic land-uses including railway line, sidings*) which have the potential to contaminate the underlying Secondary aquifers should be assessed appropriately in-line with CLR11 guidelines including the assessment of all controlled waters pollutant linkages. Any groundwater underneath this site in the highly transmissive alluvium (*sand and gravels aquifer as indicated on the Terra Firma conceptual model and in the geological logs provided*) will be in direct hydraulic continuity with the River Lugg providing baseflows from groundwater to the river and also being in an SPZ 2 for a public water supply abstraction increases the risk to controlled waters. Mapping has indicated the site to be in an area called ‘The Marsh’ suggesting that the land could be marshy and the high groundwater table in your onsite boreholes supports that this is likely to be the case.

Because of the sensitive controlled waters issues surrounding this site, the assessment

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presented in the submitted report is not currently sufficient for a site specific controlled waters risk assessment and does not follow CLR11 guidelines. In this case, the assessment of leachate from soil samples (*for only speciated PAHs and no other parameters*) is not considered to be a detailed or robust enough assessment of the risks to groundwater in this sensitive controlled waters setting. We would query why groundwater sampling has not been undertaken, particularly as the groundwater table was found in all onsite boreholes and in trial pits at the clay/gravel interface. Your conceptual model shows a linkage to groundwater from the site yet no onsite groundwater testing has been carried out. Similarly there appears to be no supporting controlled waters risk assessment to support the *low risk* conclusion in the current report. Cambria Consulting in the desk-study identified the linkage of made ground to leaching into soils and controlled waters as *high risk* and without any detailed assessment of controlled waters the risk has been downgraded to low.

We would expect to see, in-line with CLR11, onsite groundwater quality sampling and appropriate risk assessment carried out for controlled waters particularly being in an SPZ 2 for drinking water supply and adjacent to the River Lugg SSSI.

Table 6.2 on page 25 is a *qualitative* assessment of the aquatic environment and not *quantitative* as described. These conclusions are based on little information. We cannot understand the conclusions for the linkages identified as the leachate samples for soils have only considered PAHs and no other determinants. We would question whether this is a robust assessment for the aquatic environment as groundwater has not been sampled. We disagree that the risks to controlled waters are low in the absence of a robust assessment of controlled waters as described above and in our previous correspondence (*dated 5 March 2013, SV/2013/106771/01*).

We would query if all pollutant linkages have been adequately assessed effectively where risks to controlled waters are concerned. The chemical sampling suites presented in the report have also not included (*but not limited to*) other organic species such as BTEX nor SVOCs, including Chlorinated solvents for example which we would expect to see tested on a site with this previous land-use. PCBs may also need to be tested and assessed. CLR8 guidance from the Environment Agency sets out those priority contaminants on Brownfield sites which should be tested for and your sample suite should include those determinants of relevance to this site.

We would query if the site investigation undertaken to date for mainly soil and leachate analysis was targeted to those known process areas which could have lead to contamination of the land. Does the FH Dale site have any obvious sources of contamination such as underground or above ground bulk fuel/ chemical storage tanks onsite as these have not be detailed in any report to date. We would require confirmation that the onsite drainage is not a pathway for contaminant migration from any potential areas for contamination. This information is usually provided by the company and plans are annotated with such features to decide on targeted areas for investigation.

We acknowledge your further requirement to assess the possibility of the Victorian ash tip/ buried steel and we agree that further site investigation is required when the site is clear of buildings. An infilled stream is referred to in the Cambria Consulting desk-study information. Has this been assessed during the more recent Terra Firma site investigation and subsequent assessment?

Once the site have been cleared of structures and buildings, it is recommended that further site investigation is carried out in those areas which were not accessible during

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previous investigations as contamination may reside in these areas. These areas will require further consideration and risk assessment in-line with CLR11. Cambria Consulting in the desk-study have recommended this approach with a main investigation post demolition. We would welcome your clarification on this.

We agree as discussed in your report that the high water table in onsite boreholes is not conducive to the use of groundwater soak-away's for the infiltration of the proposed site storm waters (SUDS). As stated above, the site is also within Flood Zone 3 and again during events SUDS would not work as anticipated due to the high water table. Please refer to our previous correspondence (*dated 5 March 2013, SV/2013/106771/01*) which discusses the issues of SUDS in more detail.

Petrol Filling Station: We note that a petrol filling station forms part of the proposals and we would offer the following comments in respect of this.

We refer to Policy D3 'Sub-water table storage' (*Groundwater Protection: Policy and Practice (GP3), which is available at: http://www.environment-agency.gov.uk/research/library/publications/144346.aspx*) which states: "We will object to storage of hazardous substances below the water table in principal or secondary aquifers". We would expect proposals for underground storage of pollutants in principal and secondary aquifers to be accompanied by a risk assessment appropriate to the volume and type of pollutants being stored and the hydrogeological situation. More detailed risk assessments and an infrastructure design method statement that meets BAT would be expected for storage within source protection zones or close to other vulnerable receptors.

Related to the above we would raise a concern in relation to Policy D2 regarding underground storage (including fuel storage tanks). It states that objections will be raised to proposals on principal and secondary aquifers (outside of SPZ1) unless "there is evidence of overriding reasons" which indicate a) the activity cannot take place on unproductive strata (elsewhere); and b) the storage must be below ground.

In the first instance, with reference to the above, we would expect the applicant to demonstrate that this site is the most suitable for the proposed use in this sensitive location i.e. it is unclear if there is a recognised need for a petrol station in this location; and if there may be more appropriate, alternative sites. We would require the applicant to justify that underground storage is essential i.e. that an above ground solution would be impossible.

Adequate groundwater protection measures should be put in place to protect controlled waters from the possibility of any future underground fuel tanks (USTs) and associated fuel lines to dispensing pumps leaking. Historically, USTs do leak and contaminate the underlying aquifer, supply wells and boreholes and nearby watercourses. The PFS should be designed to highest of modern protection measures specification in order to protect the precious groundwater resource in the underlying aquifer(s) and the nearby watercourse.

General Environment Agency pollution prevention guidance for PFS can be obtained from http://www.environment-agency.gov.uk/business/topics/pollution/39083.aspx

PPG7 Safe Operation of Refuelling Facilities is a useful pollution prevention guidance document which can be obtained from the above link.

The previous desk-study by Cambria Consulting found in Annex A supported the assessment of groundwater risks by the drilling of onsite boreholes and then sampling for water quality from those boreholes. A proposed site investigation plan is also provided in Part 2 of the report page 126. Is this plan where Terra Firma have drilled in the current investigation or is it the proposed Cambria Consulting plan from the desk-study report? The resolution of this plan is poor and it is hard to read in any detail. Does this location plan fit with the works already undertaken onsite? Are the borehole locations targeted to known contamination source/ process areas as discussed above? We would request an up to date location plan for the Terra Firm site investigation locations.

We would welcome the opportunity to discuss any ongoing contaminated land assessment strategies including site visits with the applicant and their consultants. The applicant is advised to contact Steve Brown in our Groundwater and Contaminated Land team on 01684 864433 to discuss further.

Foul Drainage: We would have no objection to the connection of foul water to the mains foul sewer, as proposed. The LPA must ensure that the existing public mains sewerage system has adequate capacity to accommodate this proposal, in consultation with the relevant Sewerage Utility Company.

Pollution Prevention: Developers should incorporate pollution prevention measures to protect ground and surface water. We have produced a range of guidance notes giving advice on statutory responsibilities and good environmental practice which include Pollution Prevention Guidance Notes (PPG's) targeted at specific activities. Pollution prevention guidance can be viewed at: http://www.environment-agency.gov.uk/business/444251/444731/ppg/

Export & Import of wastes at site: Any waste produced as part of this development must be disposed of in accordance with all relevant waste management legislation. Where possible the production of waste from the development should be minimised and options for the reuse or recycling of any waste produced should be utilised.

Yours faithfully

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cc Barton Willmore

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