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Environment Agency

Mr Andrew Lewis
Cherwell District Council
Planning & Development Services
Bodicote House
White Post Road
Bodicote
Banbury
OX15 4AA

Our ref: WA/2018/125238/01-L01
Your ref: 18/00825/HYBRID

Date: 03 August 2018

Dear Mr Lewis

Demolition of buildings and structures as listed in schedule 1; outline planning permission for up to 1,175 new dwellings (class C3); 60 close care dwellings (class C2/C3); 929 m2 of retail (class A1); 670 m2 comprising a new medical centre (class D1); 35,175 m2 of new employment buildings, (comprising up to 6,330 m2 class B1a, 13,635 m2 B1b/c, 9,250 m2 class B2, and 5,960 m2 B8); 2.4 ha site for a new school (class D1); 925 m2 of community use buildings (class D2); and 515 m2 of indoor sports, if provided on-site (class D2); 30m in height observation tower with zip-wire with ancillary visitor facilities of up of 100 m2 (class D1/A1/A3); 1,000 m2 energy facility/infrastructure with a stack height of up to 24m (sui generis); 2,520 m2 additional education facilities (buildings and associated external infrastructure) at buildings 73, 74 and 583 for education use (class D1); creation of areas of open space, sports facilities, public park and other green infrastructure; change of use of the following buildings and areas: buildings 357 and 370 for office use (class B1a); buildings 3036, 3037, 3038, 3039, 3040, 3041, and 3042 for employment use (class B1b/c, B2, B8); buildings 217, 3102, 3136, 3052, 3053, 3054, and 3055 for employment use (class B8); buildings 2010, 3008, and 3009 for filming and heritage activities (sui generis/class D1); buildings 2004, 2005 and 2006 for education use (class D1); buildings 366, 391, 1368, 1443, 2007, 2008 and 2009 (class D1/D2 with ancillary A1-A5 use); building 340 (class D1, D2, A3); 20.3ha of hardstanding for car processing (sui generis); and 76.6ha for filming activities (sui generis); the continuation of use of areas, buildings and structures already benefiting from previous planning permissions, as specified in schedule 2; associated infrastructure works including surface water attenuation provision and upgrading Chilgrove Drive and the junction with Camp Road

Heyford Park (Cherwell Innovation Centre) Camp Road, Upper Heyford, Oxfordshire, OX25 5HD.

Thank you for consulting the Environment Agency on the above application.

We have reviewed the following documents:

- Hydrock Ground Conditions Desk Study for Heyford Masterplan, Heyford Park, Oxfordshire dated March 2018
- Chapters 10 Hydrology and Flood Risk and 11 Ground Conditions and Geology from the Environmental Statement
- Hydrock Flood Risk Assessment and Drainage Strategy for Heyford Park, Upper Heyford dated September 2017
- Cherwell Water Cycle Study June 2017

Having reviewed the documents submitted we have **no objection** to the proposed development subject to the conditions listed within this letter being attached to any planning permission granted. 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 commence until a remediation strategy to deal with the risks associated with contamination of the site has been submitted to, and approved in writing by, the Local Planning Authority. This strategy will include the following components:

1. A preliminary risk assessment which has identified:
   - all previous uses;
   - potential contaminants associated with those uses;
   - a conceptual model of the site indicating sources, pathways and receptors; and
   - potentially unacceptable risks arising from contamination at the site.
2. A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.
3. The results of the site investigation and the detailed risk assessment referred to in (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.
4. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

Any changes to these components require the written consent of the local planning authority. The scheme shall be implemented as approved.

Note: The Environment Agency has reviewed the Hydrock Ground Conditions Desk Study for Heyford Masterplan, Heyford Park, Oxfordshire dated March 2018; Chapters 10 Hydrology and Flood Risk and 11 Ground Conditions and Geology from the Environmental Statement and the Hydrock Flood Risk Assessment and Drainage Strategy for Heyford Park, Upper Heyford dated September 2017 and is satisfied that part 1 of this condition has been fulfilled.

Reason
This former RAF base is located over the White Limestone (Great Oolite) that is classified as a Principal Aquifer. Due to the potential for disturbance of historic contamination to impact on groundwater quality, we need to protect this Principal Aquifer during development of this site.

We have reviewed the above documents and have the following comment to make:- Both item 11.4.54 of the Environmental Statement.Chapter 11 Ground Conditions and Geology and Item 2.15.1 of the Hydrock Ground Conditions Desk Study dated March 2018 state that *'Site specific remedial targets were calculated and a strategy of betterment by removal of tanks and pipework and hydrocarbon impacted soils was recommended for the Flying Field and the central area of the site.'* This statement is incorrect.

We note that no site investigation was carried out on the flying field as no demolition or construction took place during the recent development of parts of this RAF Air Base and therefore no general contamination conditions were applied to the flying field. The site investigation was restricted to within the New Settlement Area. The only remedial work carried out on the airfield was on the Petrol Oil Lubricants system (POL), where grossly contaminated water within the tanks was removed and treated. Whilst the tanks were de-commissioned they were not removed, but the pipework that connected the tanks was broken out to remove any potential pathways. There was no investigation of the soils around these tanks to assess any fuel contamination around or under the tanks.

Nevertheless, we are pleased to see that the proposed remediation strategy is for *'removal of slabs, tanks, existing drainage system and pipework; excavation of hotspots around tanks etc. and ex situ remediation of hydrocarbon impacted soils.'* The Hydrock Remediation Method Statement (April 2017) has not been submitted with this application, but is summarised in both ES chapter 11 and Hydrock Ground Conditions Desk Study. We would like to see a copy of this report. Generally (apart from hot spots) groundwater in the layered aquifer under the site is of good quality and our concern is that, unless precaution is taken, disturbance of contamination during development could result in deterioration of groundwater quality. There are parcels of land within this development that coincide with POL stations and therefore these areas should undergo site investigation to assess the extent of contamination within soils and groundwater. Within the boundary of Parcel 10 is the Fuel Entry Compound (historically connected to the National Fuel Pipeline) and this area housed POL2, POL21 a, POL21b, and POL21c. There is a history of fuel leaks within Parcel 10 and indeed the potential for contamination in this location has been identified in the reports. However, omitted from the report, are parcels of land where soils and groundwater could also potentially be contaminated. For example Parcel 22 is considered to house six former RAF aircraft shelters and several former RAF buildings, however our records suggest that this parcel of land housed POL5; POL20; POL25a and POL25b and there are waste disposal pits (landfill) within this area. Parcel 23 housed POL8. Consideration should also be given to the fact that parcels 16, 18, 32 and 34 might house the disconnected end of the National Fuel Pipeline.

Condition 2

Prior to any part of the permitted development being brought into use a verification report demonstrating the completion of works set out in the approved remediation strategy and the effectiveness of the remediation shall be submitted to, and approved in writing, by the local planning authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.

Reasons
This site is located over a Principal Aquifer (Great Oolite White Limestone) and there is the potential for contamination to be present in the soils from previous use of this site as an RAF Air Base. Demolition and construction might result in disturbance of petroleum hydrocarbons that could impact on the groundwater quality of the Principal Aquifer

Condition 3
No infiltration of surface water drainage into the ground at Heyford Park, Camp Road, Upper Heyford OX25 5HD (in areas that coincide with Petrol Oil Lubricants stations or historic landfill) is permitted other than with the written consent of the Local Planning Authority. The development shall be carried out in accordance with the approved details.

Reason
We have reviewed the Hydrock Flood Risk Assessment and Drainage Strategy for Heyford Park, Upper Heyford dated September 2017. This report states that due to the underlying Limestone geology that surface water discharge via infiltration may be a possibility. We would have no issue with this proposal, however infiltration drainage should be avoided in areas where contamination has been identified or in areas of historic use where there is the potential for contamination to be present in soils.

Condition 4
The development hereby permitted may not commence until a foul water drainage scheme has been submitted to and approved in writing by the local planning authority. The scheme shall be implemented as approved and completed prior to the development being brought into use.

Reasons
This development site over the former RAF base at Upper Heyford is directly over the White Limestone (Great Oolite) which is a Principal Aquifer. The proposal is to discharge foul effluent to the existing sewage works '*that is to be refurbished to address issues of capacity, reliability and monitoring following re-development of the site'*. This is acceptable for the protection of groundwater quality. However, the sewage works was designed to serve the former RAF base and as far as we are aware this works is still the original size. For your information the works was to be upgraded for a development of 1075 dwellings given planning permission under 08/00716/OUT (Appeal decision 2080594). Our records suggest that the Environmental Permit for this sewage works has not been altered and that no upgrade has been carried out to date. The upgrade for this development should be of sufficient capacity to serve both developments (1075 & 1175 dwellings plus closed care facilities).

It is important that the provision for foul sewage discharging to the Gallos Brook is clarified. Should for example another method of treatment (such as package sewage treatment plant) is proposed at a later date, we would object to the discharge of foul effluent to ground.

Condition 5
The development hereby permitted shall not be commenced until a foul drainage strategy has been submitted to, and approved in writing by, the local planning authority. The scheme shall be implemented as approved.

The foul drainage strategy should include a sewer infiltration reduction plan, proposed phasing of required network and STW upgrades in line with the phasing of the developments proposing to drain to the on-site STW, further information on the proposal to offer the network and STW for adoption by either the incumbent sewerage undertaker or a sewerage undertaker appointed by Ofwat under a New Appointment or Variation (NAV).

Reason
If required upgrades in the network and STW are not in place prior to the occupation of the dwellings this poses a risk to the receiving water environment and Water Framework Directive (WFD) status. The cumulative impact from this site and its neighbours is likely to exceed the permitted flow limit at the on-site STW. Due to infiltration into the sewer in addition to the cumulative impact of growth within the STW catchment, there are concerns with the ability of the current drainage to cope. This could lead to sewage spills or reduced treatment efficiency at the STW during times of high infiltration.

Informative
Item 5.2 Proposed Surface Water Drainage states that the existing site is served by a traditional gravity surface water network discharging to local watercourses. Our understanding from archive reports is that the flying field had two very large soakaways to collect the surface water run-off from the run-ways. Disturbance of these may impact on the overall site drainage.

It is suggested within the Flood Risk Assessment and Drainage Strategy (September 2017) that an overall strategy plan for the proposed foul drainage is provided in Appendix B. However this doesn't appear to be visible in the list of consultation documents.

It was also raised by the Environment Agency in a previous consultation for the site (ref: 16/02446/F, dated 17 February 2017) for the inclusion of an Infiltration Reduction Plan within the drainage strategy as there were known problems with sewer infiltration in the existing sewer network. There doesn't appear to be any mention on proposals to reduce the level of infiltration into the sewer network.

In addition the Flood Risk Assessment and Drainage Strategy (sept 2017) also suggests that various elements of the sewerage treatment plant are to be refurbished to address issues of capacity, reliability and monitoring following the redevelopment of the site. However there isn't a clear plan on how this will be completed and phased to ensure the required capacity is in place prior to occupation of the dwellings. Therefore there are quite a few unknowns at present about the ability of the existing infrastructure to accommodate the flow from the site. It would be useful to have a phasing plan to show at what stage upgrades will be made in-line with when dwellings are planned to be occupied.

The Cherwell Local Plan 2011 – 2031 (Part1) Partial Review (July 2017) suggests an adopted strategy for 2,361 homes at former RAF Upper Heyford. It is very likely that the current flow permit (850m3/day MAX) will be exceeded. Therefore a variation of permit will need to be applied for via the National Permitting Service with likely revisions to the quality permits to ensure no deterioration in water quality in the effluent receiving waters. These tighter quality permits may require large upgrades the on-site STW.

Further Comments

Discharges from STWs owned and operated by sewerage undertakers are significantly less likely to cause pollution than discharges from private plants treating domestic sewage or trade effluent. This is because discharges from public sewerage systems are much more likely to meet the standards set in their environmental permit as a result of effluent receiving more comprehensive and reliable treatment. Therefore further information needs to be provided on the proposed plans to offer the network and STW for adoption. In cases where the proposed discharge from a site will be in excess of 20m3 per day and from more than one premises developers should explore the option of any proposed sewerage system serving the development being adopted by either the incumbent sewerage undertaker or a sewerage undertaker appointed by Ofwat under a New Appointment or Variation (NAV). It is briefly mentioned in the Flood Risk Assessment and Drainage Strategy (sept 2017) that it may be possible for the new foul network, pumping stations and existing treatment plant to be adopted by an appropriate water authority further down the line via a Section 104 Legal Agreement. However there isn't any more information provided on when this might occur.

For the new pumping station that is being proposed on site, it should be noted that our no deterioration objectives for water quality lead to a presumption against permitting any new storm overflow for new pumping stations, unless part of a wider scheme delivering a net improvement in water quality. If a new discharge from the pumping station is proposed we would not normally permit it, if it is to decrease flooding or to allow existing emergency over flow to operation under storm conditions. Any excess surface water and infiltration should be kept out of the foul sewer.

Section 9 of the Cherwell Water Cycle Study provides some recommendations for the Upper Heyford STW: '*It is recommended that Cherwell District Council consider embedding a development control policy within their Local Plan to require that*

developers provide evidence to them that they have consulted with the private owners of the WwTW regarding wastewater treatment capacity, and the outcome of this consultation, prior to development approval. The Council should consider the response from the private owners when deciding if the expected timeframe for the development site in question is appropriate, and should also be taken into consideration for Local Plan Part 2. Where there is uncertainty from the private owners that the necessary capacity is available, a Grampian condition could be imposed, prohibiting development authorised by the planning permission or other aspects linked to the planning permission (e.g. occupation of dwellings) until the provision of the necessary treatment infrastructure to accept the additional flows is in place.' The above recommendations are sensible in light of the large scale of development proposed from the old RAF site which is planning on draining to a private STW.

Environmental Permit
The foul drainage and contaminated surface water associated with this development may require an Environmental Permit under the Environmental Permitting Regulations 2010, from the Environment Agency, unless an exemption applies. This is a separate consent from planning permission. The applicant is advised to contact the Environment Agency on **08708 506 506** for further advice and to discuss the issues likely to be raised. You should be aware that the permit may not be granted. Additional 'Environmental Permitting Guidance' can be accessed via our main website (https://www.gov.uk/topic/environmental-management/environmental-permits).

Decision Notice Request
The Environment Agency requires decision notice details for this application, in order to report on our effectiveness in influencing the planning process. Please email decision notice details to PlanningTHM@environment-agency.gov.uk.

We trust this response is helpful as you consider this application. Should you have any further queries please do not hesitate to contact us.

Yours sincerely

Mr Matthew Wilcock
Thames Sustainable Places team

Direct e-mail Planning_THM@environment-agency.gov.uk