Environment Agency

Farzana Tabasum
Kirklees Metropolitan Borough Council
Development Management

By email: dc.admin@kirklees.gov.uk

Our ref: RA/2023/146162/01-L01
Your ref: 2023/91949

Date: 25 August 2023

Dear Farzana

EXTENSION TO EXISTING QUARRY – PEACE WOOD QUARRY, HUDDERSFIELD ROAD, SHELLEY, HUDDERSFIELD, HD8 8LH

Thank you for consulting us on this application which we received on 8 August 2023.

Groundwater Protection
Environment Agency position
The proposed mineral extraction presents a risk to groundwater which is particularly sensitive in this location because the proposed development site is located upon secondary aquifer A.

We have reviewed the following documents submitted in support of this planning application. These documents provide us with confidence that it will be possible to suitably manage the risks posed to groundwater resources by this development.

- Supporting Statement prepared by the Mineral Planning Group Ltd, reference 320/1 version 1.1 dated 31 May 2023
- Drainage Strategy prepared by Waterco, referenced 14760-Drainage Strategy-02, dated 21 December 2022

Regarding surface water as a pollution source – in the Supporting Statement we note in paragraph 4.3.13 states:

"In addition to the above, as the nature of proposed materials for infilling is inert, the risk of pollution of groundwater and / or surface water is very low."

In 5.4.6 it says:

"Within the quarry void, drainage ditches and an attenuation lagoon, followed by a settlement lagoon, would be used to collect excess surface water that enters the site (via precipitation). Water would then be pumped to existing drainage infrastructure for the existing quarry (which would be retained post-restoration of both site areas) and ultimately discharge into Baildon Dike."

Page 7 on the Drainage Report states:

"A sediment pond will be placed downstream of the attenuation pond to reduce the sediment load of the water discharged from the site to Baildon Dike. An estimated sediment pond area of 100m^2 is required for Phase 1 and 220m^2 is required for Phase 2. The sediment pond depth should be a minimum of 1m."

The above addresses pollution caused by sediment and the geology and states that no new drainage systems will be created for the surface water. However, there is no mention of mitigation against oil, pollution or foul coming from other sources (ie vehicles, plant, etc) causing pollution in surface water or to the groundwater through attenuation. As such further detailed information will be required before any development is undertaken.

Regarding potential pollution to groundwater as a pathway, we note from the Supporting Statement, section 4.3.12, it states:

> *"Whilst these boreholes do appear to report perched groundwater, evidence in the adjacent quarry faces suggest that these are isolated pockets of saturated sandstone, as no groundwater is present or seeping from any section of the quarry faces. Therefore, it is not considered that any significant groundwater bodies would be affected, and that, should small volumes of perched groundwater be removed during excavations, no interconnectivity with the water table, or other perched groundwater exists, and the effects would therefore be negligible."*

Then in 5.4.5 and 5.4.6 it says:

> *"Extraction would not take place below the water table, and therefore the risk from groundwater flooding is considered to be negligible."*

And in 5.4.8:

> *"During periods of no working, The Site would also be inspected during periods of precipitation, in order to pump excess surface water if required."*

The statements above state that excavation will not be below the water table and, aside from perched groundwater, no water below the water table will be impacted. The text also states that de-watering will not be taking place and the only pumping will be to surface water during flash floods into existing infrastructure.

Considering the above, the proposed development will only be acceptable if a planning condition is included requiring submission and subsequent agreement of further details as set out below. Without this condition we object to the proposal in line with paragraph 174 of the National Planning Policy Framework because it cannot be guaranteed that the development will not present unacceptable risks to groundwater resources. We acknowledge that the documents submitted do address some of the elements set out in this condition.

Condition

The development hereby permitted may not commence until such time as a scheme for mitigation of the following matters has been submitted to, and approved in writing by, the local planning authority:

- the storage of materials;
- the storage of chemicals;
- the storage of oil;
- the storage of hazardous materials;
- the proposed method of working;
- the proposed phasing of development;
- the proposed maintenance and after-care of the site;
- future landscaping;
- the provision of road and wheel cleaning facilities;
- proposed scheme for monitoring
- fuel and oil entering surface water drainage system and groundwater seepage

The scheme shall, where necessary, be supported by detailed calculations and include a programme for future maintenance. The scheme shall be fully implemented and subsequently maintained, in accordance with the timing/phasing arrangements embodied within the scheme, or any details as may subsequently be agreed, in writing, by the local planning authority.

Reason
To ensure that the proposed development, including mineral extraction, does not harm the water environment in line with paragraph 174 of the National Planning Policy Framework and Position Statement N11 - Protection of resources and the environment from changes to aquifer conditions of the 'The Environment Agency's approach to groundwater protection'

Condition
There shall be no:

- de-watering of the site
- interruptions to ground or surface water flows

without the written consent of the local planning authority.

Reason
To ensure that the proposal does not harm groundwater resources in line with paragraph 174 of the National Planning Policy Framework Position Statement N11 - Protection of resources and the environment from changes to aquifer conditions of the 'The Environment Agency's approach to groundwater protection'

Advice to applicant – Dewatering
Dewatering is the removal/abstraction of water (predominantly, but not confined to, groundwater) to locally lower water levels near the excavation. This can allow operations to take place, such as mining, quarrying, building, engineering works or other operations, whether underground or on the surface. Dewatering activities on-site could have an impact upon local wells, water supplies and/or nearby watercourses and environmental interests.

The reports you have supplied have stated no dewatering will take place and the only pumping will be excess surface water into established drainage systems. However, should dewatering be required, it is worth noting that it was previously exempt from requiring an abstraction licence. Since 1 January 2018, most cases of new planned dewatering operations above 20 cubic metres a day will require a water abstraction licence from us prior to the commencement of dewatering activities at the site. More information is available on gov.uk: https://www.gov.uk/guidance/water-management-apply-for-a-water-abstraction-or-impoundment-licence#apply-for-a-licence-for-a-previously-exempt-abstraction.

Historic Landfill
Advice to applicant/ LPA
The proposed development is located on or within 250m of a landfill site that is potentially producing landfill gas.

Landfill gas consists of methane and carbon dioxide. It is produced as the waste in the landfill site degrades. Methane can present a risk of fire and explosion. Carbon dioxide can present a risk of asphyxiation or suffocation. The trace constituents of landfill gas can be toxic and can give rise to long and short term health risks as well as odour nuisance.

Cont/d..

The risks associated with landfill gas will depend on the controls in place to prevent uncontrolled release of landfill gas from the landfill site. Older landfill sites may have poorer controls in place and the level of risk may be higher or uncertain due to a lack of historical records of waste inputs or control measures.

Under the conditions of the environmental permit for the landfill, the operator is required to monitor for sub-surface migration of landfill gas from the site. An examination of our records of this monitoring show that there is previous evidence of landfill gas migration from the site that could affect the proposed development. Environmental monitoring data from the site is available on our public register.

You should consider the potential risk to the development from landfill gas, ensuring that appropriate assessments have been carried out to identify potential risks. Where risks are identified you should ensure that measures to address these concerns are included as part of any planning permission. We would advise seeking the views of the LPA's Environmental Health and Building Control departments to ensure that any threats from landfill gas have been adequately addressed in the proposed development. Where this includes building, construction techniques that minimise the possibility of landfill gas entering any enclosed structures on the site, you should consider the removal of permitted development rights to ensure that these prevention measures are not compromised by future alterations/extensions.

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

- Waste Management Paper No 27
- Environment Agency LFTGN03 'Guidance on the Management of Landfill Gas'
- Building Research Establishment guidance – BR 414 'Protective Measures for Housing on Gas-contaminated Land' 2001
- Building Research Establishment guidance – BR 212 'Construction of new buildings on gas-contaminated land' 1991
- CIRIA Guidance – C665 'Assessing risks posed by hazardous ground gases to buildings' 2007

Yours sincerely

Bev Lambert
Sustainable Places - Planning Advisor

Telephone 020 3025 7982
Mobile 07833 234623
Direct e-mail bev.lambert@environment-agency.gov.uk
Team e-mail sp-yorkshire@environment-agency.gov.uk

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