

Head of Planning and Development
Havant Borough Council
Development Control
Civic Offices Civic Centre Road
Havant
Hampshire
PO9 2AX

Our ref: HA/2017/119223/01-L01
Your ref: APP/15/01425
Date: 31 March 2017

Dear Sir/Madam

DISCHARGE OF CONDITION 9 (CONTAMINATION) - PROPOSED RESIDENTIAL DEVELOPMENT COMPRISING 39 ONE AND TWO BED APARTMENTS WITH ASSOCIATED CAR PARKING, CYCLE AND REFUSE STORAGE, FOLLOWING DEMOLITION OF EXISTING BUILDINGS.

FORMER WESSEX SITE, 8 NEW LANE, HAVANT

Thank you for consulting the Environment Agency on the above planning application which we received on 13 March 2014.

Environment Agency Position

The site lies on the Bognor Sand Member which is within the London Clay Formation. The Bognor Sand is designated a Secondary A aquifer and the London Clay is an Unproductive aquifer. The site lies within the Source Protection Zone 1c for the Bedhampton and Havant Springs abstraction.

This application is for the discharge of condition 9 for contamination; parts 1 (preliminary risk assessment), 2 (site investigation scheme) & 3 (results of the site investigation). We have reviewed the Phase II-III Geo-Environmental Site Assessment prepared by Omnia Environmental Consulting (ref: A10708/1.1, dated Nov 2016) in support of this application.

Based on the information provided we are able to discharge part 1 (preliminary risk assessment) of this condition.

Advice to Local Planning Authority (LPA) / Applicant:

We previously provided comments on the Soils Ltd report to OMNIA Environmental Consulting in June 2016. Within our response we detailed the limited sampling strategy undertaken and noted the elevated levels of metals, PAH and hydrocarbon contamination across the site within soil samples taken. In addition to this, groundwater samples identified cyanide and hydrocarbon contamination. However it was difficult to fully assess as no borehole site plan was provided to cross reference any of the contamination.

We also commented on the development site to the south of the railway line. This site was impacted from the gasworks site and remediation has been undertaken to address human health and groundwater risks. We would advise that the reports produced for this site are taken in to consideration. It should be noted that a geological barrier had to be developed to prevent future groundwater contamination from escaping on to the southern site from the gasworks.

The revised conceptual model has identified a number of potential sources of contamination including the gasworks, vehicle repair and above ground oil tanks. However the report does not provide any further comment on the vehicle repair or above ground oil tanks and whether the investigations targeted these areas or whether any of the contamination identified is potentially associated with these activities.

The soil sampling strategy is considered to be limited based on the previous and current uses on site. It would have been beneficial to include the Soils Ltd data in the overall Tier 1 assessment. It is quite clear that soils have been mainly impacted from the historic gasworks (BH102, WS106 & TP101) though a significant level of arsenic was identified in the northern section of the site at location WS109A. No comment has been made on what might have created this hotspot.

It is noted that Omnia have dismissed the groundwater sampling results undertaken by Soils Ltd due to their method being inappropriate as it is likely to contain suspended solids that would skew the results. Whilst we agree with this, the water quality does show an impact from previous uses and activities at the depth sampled. Therefore this cannot be completely dismissed out of context.

The report has identified 2 distinct groundwater horizons within the Made Ground and within the sand lenses below certain clay layers of variable thickness. The deeper boreholes that have been screened within the deeper more permeable horizons clearly identify this lower groundwater table.

The borehole logs show that contamination has been identified within the clay layer and therefore show an element of downward migration. As the geological horizons are complex, it would be beneficial to have a cross section of all the boreholes and window sample boreholes showing the depths of Made Ground, strata and groundwater strikes. This would provide additional visual conceptual model understanding of the key pathways and off site risks. Both groundwater horizons have been impacted by contamination. PAH's have been identified in the shallow groundwater (WS01) and heavy metals and cyanide has been identified in the deeper groundwater horizon (BH102a & BH103). However only one set of groundwater quality results have been obtained. Ideally based on the historic activities at this site and with the complex geological and hydrogeological setting, additional samples would have been beneficial.

Section 7.2.3 of the report has stated that the identified exceedences are not considered to be coupled to the historic processes undertaken on site and are attributed to off-site sources. In addition to this, it goes on to state that this is also evident with the absence of contamination within BH103 which is considered to be down gradient of the gasworks activities and limited mobility of contaminants. We do not necessarily agree with this conclusions. No evidence has been presented on the source originating from the adjacent infilled pit, no groundwater level data has been provided to confirm groundwater flow direction and BH103 is not directly down gradient of the gasworks holder, more cross gradient. Ideally a borehole should have been installed on the southern boundary of the site to provide further evidence of groundwater quality. No comment has been provided on the depth of any historic or existing structures or piles

on site. There is the potential that the semi-confining clay layer could have piles that provide pathways to the lower groundwater table. We have reviewed the comments provided by Environmental Health on the report. We agree and support many of the assessments and conclusions made. In particular, no comment or assessment has been made on any piling or ground improvement methods for the proposed development. Using penetrative methods can result in risks to potable supplies from, for example, pollution / turbidity, risk of mobilising contamination, drilling through different aquifers and creating preferential pathways. Groundwater is particularly sensitive in this location because contamination has been identified in the Made Ground beneath the proposed development site and it lies within a Source Protection Zone 1c and on a Secondary Aquifer. We therefore recommend that the piling risk assessment is submitted and reviewed prior to any further consideration of discharging Parts 2 to 4 of Condition 9.

Conclusion

We do not consider that sufficient information has been presented to discharge Condition 9 parts 2 to 4.

Sufficient evidence has not been presented to dismiss groundwater pollution originating from historic and current site activities on site. Further evidence and data is required to conclude that the site does not present a significant future risk to offsite receptors.

A piling risk assessment is required to address any potential contamination risks that this activity might pose.

Further soil and groundwater monitoring post demolition works should be considered. Results should be used to update the conceptual model and risk assessment.

Yours faithfully

Mr Jon Maskell
Planning Advisor, Environment Agency

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