

HAVANT BOROUGH COUNCIL

Town & Country Planning Act 1990

Consultation on Planning Application

MEMORANDUM

From:	Environmental Health	To:	Development Control
Our Ref:	CONS/19/00732	Your Ref:	APP/19/00394
EH Case Officer Extn:	44 6677	Date:	03 October 2019
DC Case Officer:	Daphney Haywood		
DC Case Officer Extn:	44 6513		
Application Number:	APP/19/00394		
Site Address:	157 Milton Road, Cowplain, Waterlooville, PO8 8RE		
Proposed Development:	Erection of 9 No. 2 bed flats in two blocks with associated parking, cycle and refuse storage		

Observations / Comments:

Summary

I have assessed the results of the soil samples taken from boreholes WS1 – WS4 referred to in report GWPR3208 and based on these specific results, and would agree that the soils results are not consistent with a risk model where made soils in the vicinity of the former tank farm represent a significant source of contamination.

On balance, I am satisfied that this latest report has addressed the concerns raised in my previous consultation response dated 16 May 2019, such that a determination of the application may be supported without the need for additional investigative works.

This notwithstanding; a Condition formalising the developers responsibility under the NPPF as a 'duty to report-', and 'duty to manage-' contamination, is recommended.

An informative is also recommended to address the issue of protection of the potable water supply to the development from residual hydrocarbons, framing this as a matter for building control.

Report Results, Assessment and Rationale – General

The results presented in the report do not identify soils with levels of fuel-range hydrocarbons (aliphatic/aromatic) above the laboratory limit of detection. BTEX compounds (volatile hydrocarbons with low odour threshold) were identified at quantifiable levels in WS2 and WS3, but not in excess of guideline levels for residential landuse.

In this way, the analytical results of the latest phase of investigation are entirely favourable. However, it is also noted that trail hole logs show hydrocarbon odours to be fairly ubiquitous in the area of the former storage tanks, being present in all locations at variable depths within both Made Soils and Head Deposits. This is inconsistent with the soils results from these units, and on a former petrol station site is regarded as a 'red flag' which suggests a nearby source not associated with the sampled soils.

Resolving this inconsistency is difficult as the scope of the investigations to date have not included tVOC screening (e.g. using PID or FID) to quantify the vapour risk associated with these anecdotal observations, and so serve as a benchmark against which the visual & olfactory evidence may be judged.

The latest phase of work also did not schedule a groundwater sample from the perched groundwater encountered in all holes during the latest investigation (August '19, not encountered during previous phases of work Spring 2016 / Summer 2018), despite completing GWPR3208 WS4 with a monitoring standpipe.

In this way, the report does not offer new insight into the mobility of hydrocarbons under representative conditions from soils to either a liquid-, colloidal- or dissolved- phase (mobile phases that could move with local groundwater); nor into the appropriate level of concern with respect to liberation to vapour from groundwater.

The absence of such a result means that there remains an unresolved mis-match between the olfactory notes and the reported chemical results, so that there remains uncertainty as to the appropriate conceptual model to apply to the site.

Report Results, Assessment and Rationale (Storage Tank Area) – Odour/Vapour

The latest soils results are consistent with those previous reports (consistently low) - appearing to confirm that the general character of the made soils in the region of the former tank farm is not theoretically capable of representing either a significant vapour risk, or a soil-source of large-enough scale to be regarded as an unacceptable risk to controlled waters.

As noted above, the olfactory notes (odour reported-) on trial hole logs does not have a quantitative benchmark. It is however noted that (somewhat unusually for a former petrol station site), the residual hydrocarbon groups 'best represented' in the soil samples are the lighter fractions, with a slight bias toward the more volatile aliphatic compounds. BTEX compounds are also represented, which are often absent due to their inherent volatility & consequent rapid loss from soils.

All these compounds have an odour threshold typically well below the threshold of harm, and given that the soils results are so inconsistent with the olfactory notes, it is probably reasonable for the Council to accept that the inconsistency between qualitative indicators of contaminants and the measured concentrations may be explained in this way.

Report Results, Assessment and Rationale (Storage Tank Area) – Mobilisation to & from Groundwater; Controlled Waters & Vapour Risk.

It is slightly more difficult to explain the GWPR2540 B1 surface-water sample result, which remains inconsistent with the soils results as described previously (in email correspondence to Ground & Water, dated 21 June 2019). Having reconsidered those results against the latest report, I would consider that the balance of evidence now suggests that the GWPR2540 B1 surface-water sample is more likely to represent 'a recent local spill' than it is to represent 'the readily leachable fraction from a residual source of hydrocarbons in the soil'.

It is considered plausible that liquid residue from the recently removed fuel tanks or associated distribution pipework could be the source of such a small-scale & recent spill at this location, whether directly, or as 'rainfall-liberated' contaminants* directed to the topographic low point (represented by the backfilled excavation) by means of pluvial flow [*- e.g. hydrocarbon residues from the removed below-ground infrastructure which was openly stored at the site on temporary basis immediately preceding the GWPR2540 fieldwork]. The 'recent, limited local release' scenarios (above) are considered to 'fit' the available contextual data better than an alternative 'bulk soil contamination source' scenario for explaining the otherwise anomalously elevated B1 result.

I am therefore reasonably comfortable to accept the qualitative groundwater-vapour risk assessment given in the GWPR2540 report, which relies upon the soils results to show that there is 'no significant contaminated saturated aquifer present beneath the site'. This would now appear likely to be a reasonable working assumption, based upon chemical results from soils associated with olfactory indications of hydrocarbon impact.

Report Results, Assessment and Recommendations – Other Areas

Investigative works undertaken to date have focussed upon the former tank farm & forecourt area. Other potentially contaminating features exist within the footprint of former buildings, and towards the north of the site (e.g. Internal Oil Store and Oil interceptor chambers).

A number of trial holes were located away from the tank farm area during prior investigative works, but most were refused on buried concrete / obstructions at reasonably shallow depths, resulting in a relative 'deficit' of available data for these areas. GWPR1606 WS3 noted some visual / olfactory indications of contamination impacted soils were noted at the base of the hole, and this could indicate that contamination-impacted soils may be present beneath the obstruction (assumed concrete slab).

This means that it cannot be concluded from the available results that the entirety of the site presents no possible risk to human health.

It is however clear from the available reports that the contaminants of concern are those which are readily apparent by visual / olfactory means – metals are generally not elevated, and visible staining and odour are present where soil concentrations are low.

In this way, and as the principal potential source of contaminants has now been reasonably well documented; it is considered reasonable to manage the residual uncertainty by formalising by means of a planning condition a 'duty to report' and a 'duty to manage' any contamination-impacted soils uncovered during groundworks.

I would suggest the following wording:

Condition 1 (Watching Brief for Unexpected Contamination, where no other CL provisions applied)

"In the event that suspected contamination (obviously contaminated soil / groundwater, or any buried waste materials) is encountered during groundwork; works in affected areas of the site shall cease until the Local Planning Authority has been notified of the discovery, and a scheme to deal with the risks associated with the suspected contamination has been submitted to- and approved in writing by- the Local Planning Authority.

The scheme may take a proportionate approach to the degree of formality adopted and may comprise separate results / reports / statements as appropriate, but unless specifically excluded by agreement shall include;

- 1) Investigation in the vicinity of suspected contamination, sufficient to characterise it's nature, likely extent & mobility,*
- 2) An appropriate assessment of the risks to all receptors that may be affected, based upon 1), and;*
- 3) Where potentially unacceptable risks are identified by 2), a Remediation or Risk Mitigation strategy that includes appropriately considered remedial objectives and clearly defined proposals for achieving these, having due regard to sustainability*

All investigation, assessments & other actions required by 1)-3) above (and B, below) shall be undertaken by competent persons, and the findings presented as written report. The scheme shall be implemented as approved.

Prior to the occupation of any relevant part of the permitted development, EITHER of the following shall be submitted to the Local Planning Authority;

- A. A statement confirming that no suspected contamination was identified during development, OR;
- B. Documentation in accordance with 1)-3) above; together with a Verification Report (where appropriate) demonstrating that remediation objectives have been met.

Reason: *Having due regard to policy DM10 of the Havant Borough Local Plan (Core Strategy) 2011, DM17 of the Havant Borough Local Plan (Allocations) [2014] and the National Planning Policy Framework, there is a potential for contamination to exist within areas of the site not investigated to date which could pose a risk to future occupants of the development"*

Potable Water Supply

Appendix E of GWPR3208 presents some guidance for selection of water pipes to be used at Brownfield Sites, and a proforma risk assessment which concludes 'no specific pipe requirements [are] necessary'. The 'discussion' section of Appendix E is however more cautious – strongly recommending site specific approval from the water company of the proposed pipe material.

I cannot dispute the outcome of the risk assessment based upon soil concentrations identified to date, but would reiterate the vapour-phase and groundwater-mobile phase uncertainties, and highlight that groundwater has now been shown to be periodically present at depths broadly coincident with the target installation depth. For these reasons, I would agree that the presence of short-chain Aliphatics & BTEX compounds are non-negligible risk factors.

Were a general contamination condition recommended, 'potable supply pipe material' selection would typically fall within the package of remedial & risk mitigation measures. Options available to the planning authority in the absence of the general condition is to either;

- i) impose a specific condition to secure appropriate pipe selection by written approval of specification in consultation with Portsmouth Water, or
- ii) to rely upon the developers responsibility under paragraph 179 of the NPPF ('where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner') and the Building Control regime, making the Council's expectation that this will be pursued by the applicant / developer explicit by means of a planning informative.

If the informative approach is preferred, I would suggest the following be included on any positive determination of this application:

Informative 1 (Potable water supply pipe material selection)

"It is the responsibility of the developer to ensure that upon completion, the development is safe & suitable for its intended future use. The contamination assessment reports hereby approved recognise that there remains uncertainty as to the risk that 'groundwater-mobile' and 'vapour-phase' hydrocarbons may pose to conventional MDPE potable supply pipework. Report Ref: GWPR3208 contains a strong recommendation that "site-specific approval of materials for underground pipes to be used for water supply be obtained from the water company that will be supplying this site and/or adopting the pipework". The purpose of this informative is to draw the attention of the developer to this recommendation, to their implicit responsibility for the safety of the development, and to the expectation of the Local Planning Authority that appropriate consideration will be given to the specification of materials used for potable supply connections so as to ensure adequate resistance to contaminants, pursuant to section 2.23 of Building Regulations 2010 Approved Document C"

Mr. Jonathan Driver
Environmental Control Officer