

HAVANT BOROUGH COUNCIL

Town & Country Planning Act 1990

Consultation on Planning Application

MEMORANDUM

From:	Environmental Health	To:	Development Control
Our Ref:	CONS/21/02661	Your Ref:	APP/21/00405
EH Case Officer Extn:	44 6677	Date:	26 August 2021
DC Case Officer:	David Eaves		
DC Case Officer Extn:	44 6549		
Application Number:	APP/21/00405		
Site Address:	Langstone Technology Park, 2B Langstone Road, Havant, PO9 1SA		
Proposed Development:	Variation of Conditions 2, 3, 8, 9, 18, 19, 22 and 25 of Planning Permission APP/19/00703 relating to the erection of the flexible use industrial units in the south-western corner of the site (Phase 1)		

Observations / Comments:

I appreciate that a decision notice was issued today in respect of this application in the absence of any further comments from Environmental Health in relation to the additionally submitted Contaminated land assessment (Clancy), Remediation Method Statement (Clancy), and Contaminated Land Review (Delta Simons). It is noted that as a consequence, the contaminated land conditions (9 & 16) from APP/19/00703 have been transposed to the amended consent.

It is nevertheless helpful to provide further comments, in or to help avoid any undue delay in discharging those conditions, condition 9 being a Grampian style condition.

Clancy Consulting Supplementary Site Investigation Report 10/1425/004 Rev 00, Sept. 2020

This report references (at section 1.1) two prior letter reports which have not been submitted in support of this application, nor provided informally to HBC. These reports were also omitted from the information made available to Delta Simons to inform their review of prior reports in relation to the wider site. These comprise:

- Clancy Consulting Ltd Report No. 10/1425/002 (letter report) dated September 2019
- Clancy Consulting Ltd Report No. 10/1425/003 (letter report) dated June 2020

Some information from these reports is included within the /004, but equally some critical contextual information is omitted. In some cases, these omissions are material to the APP/19/00703 & APP/21/00405 (condition 9 & 16) red-line area; in particular logs & soils / water test results taken from position WS4.

The focus of discussion within the report is on the delineation of hydrocarbon & volatile organics contamination identified within a prior phase of work, principally at positions WS2 & WS5. The report also confirms a broader significant impact within these areas (WS2 & WS5 results not isolated / small scale). Significant mobility is also indicated, with impacts identified within matrix of the natural soils of both the river terrace deposits and the weathered nodular chalk, as well as within the separate groundwater bodies represented by the secondary A aquifer (river terrace) and the groundwater of the principal aquifer (chalk).

The report does not discuss in detail results in relation to other contaminants with elevated concentrations, nor does the conceptual site model focus upon pathways to controlled waters (local surface waters, main rivers). The following are relevant observations from the results presented;

- Environmental Quality Standards (EQS) are exceeded within groundwater samples from both the principal and secondary aquifers in respect of Copper, Nickel, Vanadium and Zinc.
- EQS's for PAH(4), Benzo(b)Fluoranthene, Benzo(k)Fluoranthene, and Benzo(ghi)Perylene are exceeded within the secondary aquifer.
- TPH is elevated within the C8-C35 range within both aquifers.
- VOC concentrations appear to generally greater within the Chalk (cf. River Terrace). Compounds are less dense than water, and this may indicate a degree of continuity between the groundwater bodies (encountered as a perched water within the river terrace deposits, and a distinct surface, possibly under a degree of artesian pressure, within the chalk).
- Hydrocarbon concentrations appear consistently greatest within the river terrace deposits, indicating a degree of attenuation within these deposits, and limited (but active) vertical migration.

It is also noted that historic maps indicate a network of former watercourses ('aqueducts') across the site, flowing in different directions, and to different watercourses (Mill Stream, now Lavant; South Moor, and Budds Farm Watercourses). These features may represent preferential migration pathways, and could be very relevant to the site conceptual model (CSM).

The CSM presented considers only the potentially potable resource represented by the principal aquifer, noting that the Source Protection Zone (SPZ) inner protection zone 1 is 170m from the site, and the nearest abstraction is at 460m. The CSM does not note that the site is hydraulically down gradient of the potable abstractions, nor that (excepting the aquifer water body on site) the local surface waters may represent the closest controlled waters receptors (~350m-120m from identified contamination, with potential for active preferential migration pathways). The report does not reference EQS's as generic assessment criteria (GAC), which as is noted above, are exceeded within groundwater for several determinands. Some exceedances are of 'maximum allowable' EQS, others of 'annual average' EQS.

All EQS apply at the relevant receptor, but where exceeded within groundwater on site indicate that contaminants are being liberated from soils, and are mobile within the groundwater body where it may be contributing to surface water base flows, and so to the pollutant loading of those surface waters.

I also note that the report highlights that a hazardous waste classification may apply to natural soils from both the two identified contamination hot-spot locations, and also to two further locations at the site (WS1 & WS4, being trial holes advanced in a prior phase of works).

Hydrocarbon concentrations at WS1 are substantially elevated relative to those identified at the hot-spot locations. It is assumed that these are omitted from the scope of the recommended works due solely to the position falling outside the red-line area for the APP/19/00703 & APP/21/00405 consent (condition 9 & 16). The result is considered to be significant, and it is expected that a future phase of work will seek to delineate the apparent source, and to infer it's source / likely extent, and potential impact.

Results from WS4 are broadly equivalent to those identified at the WS2 hotspot, and within the range of results around the WS5 hotspot. This position does fall within the relevant red-line area, and the omission of WS4 from further consideration has not been justified with any structured rationale / discussion. Water results from WS14 could be material to this source, where a hydrocarbon impact has been identified in groundwater, and associated (low-level) elevated concentrations also associated with the expected range of groundwater movement – indicating a non-local source.

These locations are associated with a former building at the site (use unknown) falling partially with the relevant red-line area. The source could be local to the site, or could be associated with the substantial concentrations identified at WS1, migrating via the former drainage ditch network. It is considered that the results associated with these positions warrants further consideration – at a minimum, a narrative should be presented in support of the decision not to regard WS4 as a hotspot location, given that natural soils from WS4 are sufficiently contaminated as to attract a classification of ‘excavated soil from contaminated sites’.

The report recommends that remedial actions be undertaken – these are presented within the report, but essentially form the basis for the remediation method statement, submitted as a separate document. The rationale for recommending remedial works in these areas of the site is agreed.

Clancy Consulting Remediation Strategy Report 10/1425/005 Rev 00, Nov. 2020

I will refer to the 10/1424/005 report as a remediation method statement (RMS), for consistency with prior comments.

As is noted above, the justification for omitting consideration of the identified contamination in the vicinity of position WS4 from remedial/risk mitigation actions is unclear.

Otherwise, the areas of the site that are identified as ‘hotspots’ are agreed, and there is considered to be sufficient sample resolution to support the conclusion that these two areas represent distinct locations of more heavily impacted soils that might be capable of acting as a source in it’s own right, irrespective of whether the ‘origin’ of contaminants is off-site, or from within the curtilage of the technology park.

The strategy does not consider in-situ treatments, opting instead for a simple ‘excavation & removal’ strategy. This may be more acceptable to the applicant given the suggestion that piled foundations may be selected for construction at this site (where deep excavations may be less problematic for onward construction). Given the relatively limited areas represented by these hotspots, I don’t necessarily see that an objection to this strategy could be sustained on the basis that it is contrary to the provision within condition 6 ‘*an appraisal of remedial ...options...with due regard to sustainability*’.

Such an objection could be sustained in the event that the area requiring treatment covered a larger portion of the site. Given that the current RMS relates only to the relevant red-line area, and that significant contamination has been identified elsewhere within the wider site (outside of the relevant red-line area); the sustainability credentials of the selected remedial/risk mitigation options could become material factors.

It is also possible that these could *become* factors in respect of the removal of hotspots, given the provisions of the RMS for ‘chasing out’ impacted material based upon generic remedial target levels that are at present poorly defined. This is especially of concern given the general omission of the contribution of the secondary aquifer to the base-flow of local watercourses from the CSM, and that no reference has been made to environmental GAC (EQS) when considering the significance of sample results.

The RMS makes adequate provision for screening, and extension of remedial works; works are to be overseen by a resident engineer (geo-environmental consultant), who will base these decisions on visual & olfactory evidence, in-situ PID screening & laboratory chemical analysis.

There is a distinct lack of clarity as to the standards / values (concentrations) that will be used for the basis of these decisions. Reference is made to the comparison of chemical testing of soils (solid sample matrix) to ‘*relevant solubility limits*’, as well as to the ‘*use of PID to assess suitability of material for retention on site*’. Neither of these general target values are specifically stated, and I am unclear on how the concentration of contaminants within a sample of solids is to be compared

to solubility limits – e.g. if it is intended to undertake leachate tests and to compare results with published aqueous phase solubility limits, or whether Clancy has derived soil concentrations which are considered capable of contributing free contaminants in quantities sufficient to result in groundwater saturation based upon (phase) partition coefficients & published solubility limits.

The current draft of the RMS provides only GAC relevant to human health under a commercial landuse scenario (implicitly serving as *de facto* generic target levels for the source removal works), and does not provide any equivalent standards for environmental, built, or resource receptors. Given that the results of screening and verification sampling will ultimately determine the scope and extent of remedial works, the schedule of standards to be applied should be clarified, and the report should cover how it is intended to apply those standards (e.g. where different standards apply to different receptors, or where standards apply to individual determinands as well as groups of determinands of similar type).

I also note that the verification plan differs slightly between the description given in the supplementary site investigation, and that given within the RMS. If both documents are approved in support of the discharge of c.9, it is assumed that the scope of the verification report should either satisfy both lists of proposals, or that it should provide a rationale to justify omissions.

In terms of remedial works, I note that clean cover is proposed which provides a depth of cover substantially less than the CLEA-relevant soil zone (forming the basis for human health risk assessments), omitting an anti-mix separator. This leaves soils vulnerable to bioturbation over time, and essentially means that the cover would not provide protection over policy-compliant timescales. Given that source removal works are proposed, and that large areas of the site do not require remedial work to be undertaken - if clean cover has been specified as a precautionary measure, consideration should be given to need (as a remedial measure). If cover is not precautionary and is necessary to reduce the risk of unacceptable exposures, either a separator layer should be specified, or remediation should be extended to remove the unacceptably contaminated soils.

Recommendations – Site assessment, remediation/risk mitigation works, and verification plan (discharge of c.9 & 16, 10/1425/004 & 005)

- Clancy Consulting Ltd Report No. 10/1425/002 & 003 should be submitted to the Local Planning Authority to provide context to the omission from the CSM of apparent contamination risks identified by one or both of these reports, and to justify the scope of the RMS which is restricted in consequence of this omission.

Where not covered by the text of the above-referenced reports, the supplementary investigation report &/or RMS should be amended to include;

- a comprehensive rationale for the omission of pollutant linkages to surface water receptors from the CSM, given the historic drainage features present at the site & impacts identified within the groundwater of the secondary aquifer.
- a comprehensive rationale for the exclusion of contamination at WS4 (within the relevant redline area) from the remedial strategy, given that natural soils from this location may attract a hazardous waste classification and total hydrocarbon concentrations appear to be equivalent to those recorded at identified hotspots selected for remediation.
- consideration of the potential for an active linkage between the apparent hotspots at WS1 and WS4 (outside- & within- the relevant redline area, respectively), given the water results from WS14, and the potential for historic drainage features to provide preferential migration pathways broadly between these locations. It may be helpful to consider the credibility of the localised source in the vicinity of WS4, e.g. through assessment of the usage history of the former building present within the current car park area (built prior to 1974, demolished prior to 1989), in the vicinity of- & likely up-hydraulic gradient of- the position of WS4.

In respect of the remediation strategy report (RMS), I would also recommend;

- Generic target levels be specified, to include;
 - PID (tVOC) screening results which justify either further excavation, or the taking of verification sampling to assist decision making; and
 - the relevant solubility limits to which the soil verification sampling is to be compared, and their basis; and
 - where more stringent; any target levels which apply to buildings & services.
- Section 4.0 (site certification; content of verification report) be amended to include;
 - details of the Materials Management Plan where materials are assessed, retained & translocated within the relevant red-line area or the wider technology park site under the Definition of Waste Code of Practice (DoWCOP), and;
 - a narrative of remediation works and verification sampling undertaken, and how this has affected the scope & extent of works.
- Harmonize section 5.3.1 of the 10/1425/004 with section 3.1 of the 10/1425/005 RMS; proving clarity in particular on whether it is intended to undertake *“Collection and laboratory analysis of soil samples from finished formation level across the site to verify that residual contaminant concentrations are below assessment criteria protective of future commercial site users.”*
- Consideration be given within section 3.5;-
 - to when it would be acceptable to utilise a cover system, and when risks to non-human receptors would require remediation by source concentration reduction / removal work
 - to the timescales over which the cover system is required to provide protection, and to justify both the need for cover as a remedial measure for the protection of human health, and where cover is necessary, to either provide a robust justification for the omission of an anti-mix barrier or to upgrade the cover proposals to include features which will ensure it's efficacy over the anticipated design-life of the development.

Mr. Jonathan Driver
Environmental Control Officer