

HAVANT BOROUGH COUNCIL

Town & Country Planning Act 1990

Consultation on Planning Application

MEMORANDUM

From:	Environmental Health	To:	Development Control
Our Ref:	CONS/20/03592	Your Ref:	APP/20/00990
EH Case Officer Extn:	44 6677	Date:	07 April 2021
DC Case Officer:	Lewis Oliver		
DC Case Officer Extn:	44 6263		
Application Number:	APP/20/00990		
Site Address:	Havant Thicket, adjacent to Sir George Staunton Country Park, Middle Park Way, Havant		
Proposed Development:	Hybrid application seeking: 1) Full Planning permission for Development of a reservoir for raw water storage, A pumped storage reservoir (...); Construction of an earth embankment adjacent to Staunton Country Park; Construction of an overflow discharge/spillway at the south-western side of the reservoir and associated works; (...) new junction on the B2149 Manor Lodge Road and (...) on Swanmore Road. Provision of viewing areas (...) 2) Outline application for (matters to be considered outlined in Table 2.2 in the submitted Development Specification) control house (...); together with provision of other earth embankments. (...) visitor centre / cafe; (...) picnic area(s) and children's play area(s). Access routes from both junctions to the visitor car park; visitor car park (...) overflow spaces plus spaces for staff, coach/minibus and disabled drivers(...). Creation of a permanent wetland (...); recreational facilities for public amenity. Provision of perimeter tracks and a network of bridleways, cycle paths and footpaths; Construction of a slipway on the western bank of the reservoir for operational use only and a small section of the proposed pipeline (210m).		

Observations / Comments:

Documents submitted against this application generally concern both the Reservoir (APP/20/00990 1) & 2)) and the Water Transfer Pipeline (APP/20/00991). I have reviewed these applications concurrently, but will provide comments under separate cover in respect of the Water Transfer Pipeline. Some duplication in comments may arise as a result. Comments here relate to the Hybrid application for the Reservoir (items outlined in 1) & 2) above)

Ground Conditions (Land Contamination);

Section 10.26 of the environmental statement describes the significance of contamination issues as being derived by the 'change in risk level to the various receptors', and not by determining the 'magnitude of impact'. This approach is consistent with the regulatory framework, where the magnitude of contamination is generally only considered where there is an active pathway from the 'source' to a contamination sensitive 'receptor'.

It should be noted that the water storage reservoir represents a receptor which is arguably more sensitive to contamination than the existing landuse.

Desk Study;

In terms of sources, the desk-based study is consistent with extant knowledge about the history of the site, confirming that no known or likely sources of contamination are associated with the application red-line area, other than small-scale potential deposits of made soils. Adjacent, the closest feature comprises an 'earth spoils' landfill adjacent to the red-line boundary (within the EHDC district), and sources located at a distance of between 50 & 100m of the red-line boundary which represent a relatively low risk of contaminant migration over significant distances (in significant concentrations) given the local geological setting (mineral workings / made ground, combustion activities and ~1960 petrol filling station / garage services).

Intrusive Investigations, Soil Results;

4 no. ground investigations have been undertaken within the reservoir planning red-line area, principally for the purpose of establishing geotechnical parameters and to inform the conceptual ground model. A site walkover identified some localised deposits of made ground at the site, comprising worked-soils thought likely to be associated with installation of a land drainage network and other drainage features / surface waters.

No visual / olfactory evidence of contamination has been identified during any of the intrusive work. Soils results identified both Iron (Fe) & Manganese (Mn) concentrations elevated above estimated local background concentrations, but within Fe is within the normal range for the S/SE region. Trace polyaromatic hydrocarbons have also been recorded alongside fuel-range hydrocarbons at detectable concentrations.

No human-health protective screening criteria has been exceeded at maximum recorded concentrations, and as a result, there was no need to consider a statistical estimate of mean exposure levels.

Intrusive Investigations, Groundwater Results;

Twelve groundwater samples were also collected across three sampling rounds for chemical analysis, with the report identifying several concentrations as 'exceedances' of generic screening criteria (GAC) which are relevant to 'water' receptors. Relevant substances are represented by Ammoniacal Nitrogen [NH₃-N], Iron [Fe], Aluminium [Al], Lead [Pb], and Hydrocarbons (Both Aliphatic & Aromatic).

- *Ammoniacal Nitrogen [NH₃-N];* the maximum concentration of Ammoniacal Nitrogen recorded was 0.6 mg/l ('as N'), against a drinking water standard (DWS) of 0.39 mg/l which applies at the point of delivery to the customer. I am aware that no freshwater Environmental Quality Standard (EQS) has been defined (the substance is listed without a standard), and that the Drinking Water Abstraction Limit (DWAL) is 1.5 mg/l (applicable to water 'representative of' the abstracted water, *not* as a 'maximum allowable' concentration, where chemical treatment of raw water is expected). The 1.5 mg/l standard is not exceeded at the maximum recorded concentration, and I am mindful that the 8.7 million cubic metre dilution volume represented by the reservoir is unlikely to be significantly affected by the average groundwater concentrations recorded. In the context of the current site use and known history, I would broadly agree that the concentrations probably arise from natural sources.
- *Metals; Iron [Fe].* The GAC exceedance is noted in respect of DWS only. The Fe EQS is 1 mg/l (average within waterbody), which is not exceeded at the max. recorded groundwater concentration (0.84 mg/l). The DWAL is 0.3-2mg/l (the former where physical treatment only, latter where chemical treatment expected), applicable as for

NH₃-N, above. Levels of Fe recorded in soils make a natural source for concentrations recorded in groundwater plausible.

- *Metals. Aluminium [Al].* The GAC exceedance is noted in respect of DWS only. Al does not have a listed freshwater EQS, being of low ecological concern. Similarly, no abstraction limits have been defined for drinking water resources. The UK Soil Observatory (UKSO) estimated background concentrations are sufficiently high as to make plausible a natural source for concentrations recorded in groundwater.
- *Metals. Lead [Pb].* Recorded at 0.02 mg/l, with a GAC exceedance noted freshwater EQS & DWS. The lowest of the applicable EQS is for the protection of Freshwater Salmonids; exceeded at water hardness levels <150 mg/l CaCO₃ (groundwater not tested for hardness). There are no exceedances of any EQS for Freshwater Cyprinids at the maximum recorded concentrations. The EQS's referred to represent annual average values, not concentration limits (exceedances allowable at the critical receptor). The DWAL for Pb is 0.05 mg/l, and Dutch Intervention value 0.075 mg/l; neither value is exceeded at the maximum recorded concentration. The UK Soil Observatory (UKSO) estimated background concentrations are sufficiently high as to make plausible a natural source for concentrations recorded in groundwater, recorded Pb ranges notwithstanding.
- *Hydrocarbons, Aliphatic.* C16+ concentrations are noted to exceed theoretical solubilities for compounds derived from fuel sources. The results suggest that the carbon bands present principally* represent a carbon range of C35-C44 (* ~95%), beyond the range of typical fuel composition. Given the lack of identified anthropogenic sources and the inconsistency of recorded concentrations with fuel-range solubilities, the represented substances are considered likely to result from natural sources of waxes and other natural organic compounds. It is possible that the water samples were unfiltered, which could lead to an over-representation of dissolved phase concentrations (in results)
- *Hydrocarbons, Aromatic.* C16-C35 concentrations are noted to be elevated above the 'total hydrocarbons' DWS, a range consistent with Diesel/Gasoil fuels. Theoretical solubility is exceeded for carbon bands >C21 only. Section 9.4.2.3 notes that concentrations were not consistent across sampling rounds, and that no impact was noted at monitoring position ATK-CP-06, closest to the closest known potential source of fuel contamination. The source of these concentrations is unclear. Natural sources (e.g. humic substances) is not unlikely, though local spills from the refuelling of grounds maintenance equipment (for example) would be possible. If the concentrations derive from local spills, there is unlikely to be a source of 'gross' contamination. The DWAL is 0.05-0.2mg/l (same basis as Fe, above), the lower limit being marginally exceeded at the maximum recorded concentration of 0.08 mg/l.

Arguably the most appropriate quality standard to apply (as a GAC) to the proposed development would be the Drinking Water Abstraction Limits.

Portsmouth Water currently do not chemically treat the water supply derived from the Chalk aquifer, which might suggest that the most stringent DWAL might apply, however it does not necessarily follow that the same minimal level of treatment that is applied to the high-quality aquifer resource would also be appropriate to water derived from an open raw-water storage resource (where a variety of natural water supply contaminants, e.g. algae, faecal contaminants from waterfowl etc., may be present).

The application of the numerical DWAL's should also be noted (95% sample compliance, max/rejected results <150% applicable standard, samples representative of abstracted water). Given the applicable conceptual model and the dilution factor which would apply within the proposed reservoir, I would concur with the conclusions of the report, that exceedance of drinking water standards is not likely to be significant to the development.

Given the lack of identified potential anthropogenic sources of contamination either within, or adjacent to the planning red-line area; I would similarly agree that it is not necessary to formally

monitor ground conditions during construction for unexpected sources of contamination. As such, no conditions are proposed.

Ground Conditions, Unexploded Ordnance (UXO/UXB):

There is some disagreement between the Zetica & Landmark risk screening for the site, with the latter being more conservative and concluding the risk of presence is 'likely' and the overall risk from UXO/UXB as 'moderate'.

Given records relating to land to the East & West of the application site, a moderate risk is considered to be appropriate. The site is essentially undeveloped, increasing opportunity for undetected strikes. The site similarly has some landforms associated with surface waters, below ground drainage, and potential geological features (pingo's) which could hamper identification of impact sites from remote-sensed data (aerial photography / LIDAR). The risk is principally a construction risk, and is unlikely to affect the public during the operational phase of development.

I note that more detailed assessment is proposed, and where elevated risks are identified, a monitoring protocol is likely to be required. Being mindful of the limited scope of the risk, and the principles of NPPF para. 183, it is considered appropriate to rely upon the management of construction site health & safety to manage these physical / acute risks to construction personnel. As such, no planning conditions are proposed.

Air Quality (Development Transport Demand, Operational Phase):

I note that the Highway's Authority (HA) considers the overall transport demand estimates presented in Chapter 13 of the Environmental Statement to be robust and realistic, but that the traffic distribution model is disputed.

Operational trip demand is expected to be +491/day as AADT in total, which the applicant expects to be distributed approx. 65/35% between North / South accesses. NAQS/IAQM guidance 'planning for air quality' uses a screening value of +500 AAT to determine whether an air quality assessment is likely to be required (implicitly indicating that an impact upon local air quality is unlikely where the development transport impact on any specific road link is <+500 AADT). Experience of other air quality impact assessments is consistent with this screening level, with effects of significant magnitude proving unlikely unless the screening level is substantially exceeded.

Even where 100% of develop traffic were to access the site via the South route, a significant air quality impact at a relevant human receptor within the HBC's district is unlikely, notwithstanding that this traffic might materially alter the character of Swanmore Rd.

It is expected that other consultees will raise any issues associated with highways safety or the character of the area.

I would however acknowledge the concerns of the HA about the creation of a through-route joining Swanmore Rd. with the B2149, being a potentially shorter / quicker route for some drivers than using the public road network. Given that the HA considers the South access to be likely to attract a more significant proportion of the development traffic, an air quality impact of significant *magnitude* could arise in the event that the through-route proves a popular option. The risk of an air quality objective or limit value being breached as a result would (however) be negligible, given local context / baseline concentrations.

It is expected that the HA will address the issues raised to avoid creation of an attractive 'rat run', and to re-balance the 'attractiveness' of access routes so as to broadly serve the transport demand anticipated by the visitor origin / destination model. Given this expectation, I have no additional requirements.

Air Quality (Development Transport Demand, Development Phase);

The reservoir construction plan spans approximately eight years, and is expected to have a peak HDV traffic demand of >+100 daily for a period of ~9 months during this period. It should be noted that +100 daily for 9 months represents a < +100 trips as AADT. Nevertheless, the Air Quality assessment corresponds to the peak construction case (+230 HDV, +270 LDV utilising the north access), resulting in a conservative assessment.

87% HDV Construction traffic (90% all traffic) is expected to use the North access (EHDC Area), and access SRN via J2 (A3(M)). The routing model suggests that it is intended to restrict construction traffic routing through means of a strict construction traffic management plan. Peak transport demand at the South access is expected to be +30HDV, and +20 LDV, below screening thresholds for air quality assessment. As a result, no human receptors within HBC's district have been assessed.

The only receptor falling within the Havant district is ECO10 (Havant Thicket SINC / Forest of Bere Ancient Woodland). The predicted environmental concentration of NO_x falls below the threshold for protection of vegetation, and will be subject to a temporary annual change of +3.3% of threshold for the period of construction only. I would agree that this level of impact should not be considered to be unacceptable.

The Nitrogen deposition rate at this receptor is more than double the critical load in all scenario's (baseline, do minimum, do something) – being reduced under both future scenarios relative to baseline. A temporary adverse annual change of +1.6% of critical load is anticipated for the period of construction only (do something, relative to do minimum).

Paragraph 7.52 notes that the judgement of significance should properly be undertaken by an ecologist – chapter 9 of the Environmental Statement (Biodiversity) considers the air quality impacts outlined in chapter 7, concluding that '*...the localised effects of the Scheme would be temporary during the construction phase and therefore no significant indirect impacts on SINC's from air quality changes are anticipated*'. I am minded to agree that this conclusion is reasonable.

Tree Loss (Air Quality)

The loss of just over 19.5 Ha of woodland represents a probable net loss of 'pollutant interception and absorption' services (provided by these habitats, as demonstrated by the nitrogen deposition rates outlined in the ecological air quality assessment – deposition also being applicable to particulates).

It is recognised that delivery of the scheme will result in a range of other regional environmental benefits, that the air quality is generally good in this area, and that the trees are not providing a material 'treatment' at an intermediate position between a significant air pollution source & proximal 'air pollution sensitive' (human) receptors. Rather, the woodland is likely to have a small influence on ambient concentrations within the local region (e.g. sq.km assessment cell). Given this context, it is considered that the benefits of the scheme are likely to substantially outweigh the resultant negative impact to local ambient air quality.

It may however be that the loss of these 'ecosystem services' could justify strengthening air quality positive elements of the scheme, e.g. robust support to sustainable and active modes of travel in the operational phase.

Parking & Sustainable Travel (Air Quality)

Comments here assume that the levels of parking provided for vehicles & cycles are at least compliant with SPD.

I would support the comment from the HA that comprehensive & effective wayfinding signage is needed on pedestrian / cycle routes to support the assumption of a 30% visitor trip share by active modes of transport (origin within 15 min cordon). It is important for the avoidance of unnecessary trips by private motor car that trips by sustainable and active modes of travel are as easy and convenient as possible. Given the range of accesses available to visitors travelling by active modes, the need for effective wayfinding applies both on-site and off-site, ideally including routes within Leigh Park Gardens / Thicket Lawn.

Paragraph 7.113 includes a comment about parking provision, noting that '*...in line with best practice, it is recommended that consideration is given to including electric vehicle charging points within the car parks*'. I would agree that would represent best practice. Emerging policy IN3 j requires that (in 'other' developments-) '*...applicants should consider and justify the level of EV charging point provision proposed*' and that '*...developments to be future proofed so that they are able to accommodate a future increase in the demand for on-site electric vehicle charging points*'.

I have not identified a specific consideration of a quantum of EV charging facilities within the application documents. Given the timescales for delivery (~8yr construction period), it is expected that EV's will represent a significantly greater proportion of the vehicle fleet than currently. It may be that the visitor travel-distance / visit-duration profile does not justify a significant provision, but in support of both policy IN3 j & policy E23 (seeking offset of emissions by encouraging adoption of technologies & transport choices that avoid or minimise combustion emissions-), it would be desirable for at least a consideration of building in infrastructure redundancy to support future demand. Given the current status of the LP2036 and the current weight that may be given to it's policies, it will be a planning judgement as to whether seeking to secure an EV charging provision is justifiable. I would support doing so, on Air Quality grounds.

Air Quality (Dust, Construction Environmental Management Plan (CEMP));

Without mitigation, the Environmental Statement concludes that the reservoir construction site is 'high risk' with respect to dust emissions & trackout (paragraph 7.88). It should be noted that Ch. 7 only refers to consideration of the north access with respect to trackout – I would argue that the South access is equally relevant. The peak demand of +30/20 (HDV/LDV) is not significant in air quality terms, but could nevertheless lead to a significant road fouling (and dust resuspension by road traffic), unless similar mitigation measures are provided within the CEMP. Reference to the Outline Environmental Management Plan (OEMP, ES Vol 4 A2.1), I note that the provisions are not specifically assigned to either access – for the avoidance of doubt, it is expected that proposed provisions (especially wheel wash & road sweeping provisions) will apply to both access points.

Paragraph 7.109 lists mitigation measures to be incorporated within the CEMP to control dust emissions, and 7.112 & 7.121 proposes a strict construction traffic management plan, also to be included within the CEMP, to be agreed with the LPA. It is appreciated that the application documents include an OEMP, however the application documents refer to content to be included within the CEMP that is anticipated by, but not included within the OEMP.

It follows that simply listing the environmental statement as an approved document would likely be insufficient to secure these proposed measures – para. 7.120 recognises this, anticipating a condition to require agreement of the/a CEMP. I would agree that this would be useful, and would consider that the form should be as a Grampian condition, given that it would seek to control impacts that could arise from commencement of development. Suggested wording below:

[Condition 1] Construction Environmental Management Plan

Prior to the commencement of any specific phase of development approved by this planning permission, a Construction Management Plan (CEMP) shall be submitted to and approved in writing by the local planning authority. Unless agreed in writing with the Local Planning Authority the submitted CEMP shall;

- a) be based upon- and be in broad accordance with- Volume 4 A2.1 of the application Environmental Statement (Outline Environmental Management Plan), and*
- b) include a construction traffic management plan that assigns traffic to the North and South accesses broad accordance with the proportional allocations indicated within - sections 5.60-5.67 of Volume 2 Ch.13 of the application Environmental Statement (Traffic and Transport).*

Reason: *To ensure that the construction process is carried out in a manner which will minimise disturbance, pollution & nuisance to neighbouring properties or within the public realm. To avoid inappropriate parking practices, and turning and manoeuvring of construction vehicles which adversely impact either the use- or safety- of the public highway. This condition is imposed having due regard to policies DM10 & CS15 (Havant Borough Local Plan (Core Strategy) 2011), and the National Planning Policy Framework 2019.*

Mr. Jonathan Driver
Environmental Control Officer