

29 June 2015



Mr. Crowther,
Planning & Built Environment,
East Hampshire District Council,
Penns Place,
Petersfield,
GU31 4EX

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Please ask for **Mr. J. Bucknall**
Our Ref
Your Ref

Dear Mr. Crowther,

**Land East of Fontwell Avenue
Planning Application Reference: WA/22/15/OUT – Proposal for 400 homes & 5000m3 of
non-residential (including B1 & B2 industrial use)**

Portsmouth Water has reviewed the development proposal, Phase 1 Contaminated Land report, (deltasimons project no. 14-0055.02) on behalf of Dandara Ltd, and the Flood Risk Assessment completed by Wormald Burrows Partnership Limited (E3332/FRA APR 2015 Rev0).

Portsmouth Water has no objection in principle to the development of this site, however, we are concerned to ensure that a precautionary approach is taken to prevent pollution of the aquifer in this sensitive area. The site is located within Source Protection Zone 1 and 1c, with the boundary of the site only 134m from the Eastergate Water Treatment Works (WTW). Given the sites close proximity to such an important public water supply source, Portsmouth Water request that the following planning conditions be attached to any planning permission granted.

1. The discharge of surface water drainage via deep borehole infiltration in to the chalk must be prohibited. The developer should be required to submit a surface water drainage strategy to the LPA for approval, in consultation from the Environment Agency and Portsmouth Water, before development commences. The strategy must be based on a comprehensive assessment of the hydrological and hydro geological context of the development. The scheme should include details of:
 - Pollution prevention measures to be incorporated
 - Inspection, maintenance and monitoring procedures and arrangements.
 - Risk assessment to demonstrate that the proposed strategy will not pose a risk to groundwater quality or drinking water supplies (including turbidity)

The strategy shall also include details of how the scheme shall be maintained and managed after completion. The scheme shall be implemented as approved.

Reason: The site is located within an area designated as Source Protection Zone 1c of the Eastergate WTW, used for public water supply. Deep borehole infiltration systems provide a pathway for contaminants through the confining clay strata (Lambeth Group Formation) and into the underlying chalk aquifer. Surface water from roads can be contaminated with sediment (turbidity), polycyclic aromatic hydrocarbons (PAHs), heavy metals and other hydrocarbons. The exact nature of the ground conditions below the site is not known, but boreholes in the local area show that the geology can be highly variable. No site investigation report has been provided by the applicant but the logs from boreholes on adjacent sites demonstrate that the depth of clay can vary up to a maximum of 10m, but may include significant sandy porous horizons within the clay above the chalk. The extent of karstic features is unknown. Hydrogeological modelling of the aquifer indicates that the 100% of the water contained within the Chalk under the proposed site will be abstracted at the Eastergate public supply borehole, under all hydrogeological conditions. The travel time for the flow of water from below the site to the drinking water supply borehole is expected to be very rapid.

2. Soakaway/infiltration drainage must be prohibited in the areas of the development that have been designated for industrial use (B1/B2). All areas of the employment land that could be used to store potentially polluting material, must be underlain by an impermeable surface which prevents drips or spills infiltrating into the ground. The surface must be designed to ensure that all run off from such areas drains efficiently via appropriately sized interceptors before entering the site surface water collection system. The scheme shall include details of how the interceptors will be maintained and managed after completion. Chemicals and hydrocarbons with the potential to cause pollution must be stored within a bunded area capable of containing 110% of the capacity stored. The scheme shall be approved by the local planning authority in consultation with the Environment Agency (EA) and Portsmouth Water before works commence on each phase. The works shall be implemented fully in accordance with the approved details before the development of that phase is occupied.

Reason: The site lies within the groundwater Source Protection Zone 1 and 1c for the Eastergate public water supply. The allocation of the site for a B2 general industrial use increases the pollution risk the site poses to the aquifer and public water supply. A precautionary approach is required.

The FRA indicated that the current intention for the B1/B2 land use is that it is to be used by GTR, who manufacture composite components, mouldings and assemblies; chemicals will likely be used in the manufacturing process. Although the localised geology (Lambeth Group Formation) will limit vertical migration of surface water to the Chalk, the stratigraphy of the Lambeth Group is highly variable over very short distances (permeable sands and impermeable clays). The highly variable nature of the Lambeth Group means that its protective capabilities cannot be relied upon in isolation.

3. A ground investigation should take place to identify the nature of the underlying ground, its permeability, and investigate any potential for historic or more recent contamination, especially in the vicinity of the petrol filling station to the north of the site. The developer should submit a ground investigation strategy for approval to the LPA.

Reason: Although the Phase 1 Contaminated Land Report submitted to date indicated that the site is not likely to be highly contaminated, the potential for contamination has been identified. For example, the presence of a former infilled clay pit on the site and former infilled reservoir, garage and filling station adjacent to the site. The existing petrol filling station garage to the north of the site is a high risk site, which in the past has had 3 minor pollution incidents associated with it (hydrocarbons). Ground investigation is needed to determine whether migration of hydrocarbons to the south towards the site has taken place.

If contamination is found during the site investigation the LPA should be notified immediately, and the developer should be required to submit a remediation strategy for approval by the LPA, in consultation with the EA and Portsmouth Water, before development commences.

The remediation work should be overseen and verified by a competent person experienced in the remediation of contaminated land in a source protection zone 1 area. Before any phase of the development is occupied or used a verification report demonstrating the effectiveness of the remediation works undertaken, with a completion certificate certified by the competent person confirming the approved remediation scheme has been implemented, shall be submitted to the LPA for approval.

If, during development, contamination not previously identified is found to be present at the site then the local planning authority must be notified immediately. No further development (unless otherwise agreed in writing with the local planning authority in consultation with the Environment Agency and Portsmouth Water) shall be undertaken in that phase until the developer has submitted and had approved a site investigation, risk assessment and remediation strategy report, detailing how to mitigate the contamination identified. The remediation strategy approved by the LPA shall be implemented in full before development in that phase recommences.

Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, drinking water supplies, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with paragraphs 121 and 109 of the National Planning Policy Framework (NPPF).

4. Piling foundations must not breach the Lambeth Group Formation and thus penetrate in to the underlying Chalk aquifer. A scheme for foundation design needs to be submitted and approved by the LPA before development commences.

Reason: the site is located within Source Protection Zone 1c of the Eastergate WTW, used for public water supply. Penetration of the Chalk aquifer by piled foundations could provide pathways for historical or new contaminants, and also create turbidity within groundwater, which can affect the disinfection process at the Water Treatment Works and thus lead to a temporary loss of the drinking water supply.

5. No development on any phase shall take place until a Construction Method Statement has been submitted to and approved in writing by the local planning authority in consultation with the Environment Agency and Portsmouth Water. The approved Statement shall be adhered to throughout the construction period. The Statement shall include:

- The pollution prevention measures which will be in place to ensure that there is no contamination of the groundwater aquifer and other water courses during the construction phase.
- The storage of plant and materials used in constructing the development.
- Responding to and the reporting of incidents which may result in pollution.
- Surface water control mechanisms, including measures to control turbidity.

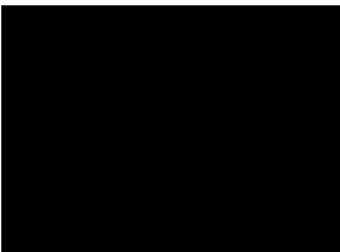
The scheme shall be implemented as approved. Any change to the scheme must be agreed in writing with the local planning authority in consultation with the Environment Agency and Portsmouth Water.

Reason: The site lies within the groundwater Source Protection Zone 1 & 1c of the Eastergate public water supply source. Oil, fuel or chemicals lost to ground because of for example, leaks and spills have the potential to pollute groundwater, including drinking water supplies. The applicant needs to demonstrate that groundwater will be protected in accordance with National Planning Policy Framework paragraph 109.

When schemes to address these conditions are submitted to the LPA by the developer, we request that Portsmouth Water be consulted prior to any condition being discharged.

If you have any questions regarding these comments please do not hesitate to contact James Bucknall.

Yours sincerely



Rod Porteous
Engineering Director