

Welwyn Hatfield Borough Council,  
The Campus,  
Welwyn Garden City,  
Herts.  
AL8 6AE

Reference Number: 6/2023/1221/OUTLINE

30 October 2023

Dear Madam/Sir

**DESCRIPTION:** Outline permission for the erection of 14 dwellings, with all matters reserved except for access

**LOCATION:** Brookmans Park Golf Club Golf Club Road Brookmans Park Hertfordshire AL9 7AT

Thank you for notification of the above planning application. Planning applications are referred to us where our input on issues relating to water quality or quantity may be required.

You should be aware that the proposed development site is located within an Environment Agency defined groundwater Source Protection Zone 1 (SPZ1) corresponding to our Pumping Station (NORM). This is a public water supply, comprising a number of Chalk abstraction boreholes, operated by Affinity Water Ltd.

The karst geology in this area is highly complex with the presence of a large number of swallow holes and stream sinks which results in run off from all areas of the catchment having a significant impact on water quality at local water supply abstraction locations. To further complicate matters, the Mimms Hall Brook, the main river of this catchment area, drains into the large swallow hole network at Water End - adversely affecting water quality at another abstraction. During periods of heavy rain, the swallow holes at Water End overflow into the source of the River Colne at Colney Heath. These, in turn, can influence water quality at a number of abstractions points, in the Upper Colne catchment. As such, we consider any development within the catchment of the Mimms Hall Brook as high risk, particularly during the construction phase, regardless of geographic proximity.

Provided that the below conditions are implemented and it has been demonstrated that public water supply will not be impacted, we would have no objections to the development.

## 1. Contamination through **Ground Works**

Any works involving excavations that penetrate into the chalk aquifer below the groundwater table (for example, piling or the installation of a geothermal open/closed loop system) should be avoided. If these are necessary, then the following condition needs to be implemented:

## Condition

- A)** Prior to the commencement of the development, no works involving excavations (e.g. piling or the implementation of a geothermal open/closed loop system) shall be carried until the following has been submitted to and approved in writing by the Local Planning Authority in consultation with Affinity Water:
- i)** An **Intrusive Ground Investigation** to identify the current state of the site and appropriate techniques to avoid displacing any shallow contamination to a greater depth.
  - ii)** A **Risk Assessment** identifying both the aquifer and the abstraction point(s) as potential receptor(s) of contamination including turbidity.
  - iii)** A **Method Statement** detailing the **depth** and **type** of excavations (e.g. piling) to be undertaken including **mitigation measures** (e.g. turbidity monitoring, appropriate piling design, off site monitoring boreholes etc.) to prevent and/or minimise any potential migration of pollutants including turbidity or existing contaminants such as hydrocarbons to public water supply. Any excavations must be undertaken in accordance with the terms of the approved method statement.

The applicant or developer shall notify Affinity Water of excavation works 15 days before commencement in order to implement enhanced monitoring at the public water supply abstraction and to plan for potential interruption of service with regards to water supply.

**Reason:** Excavation works such as piling have the potential to cause water quality failures due to elevated concentrations of contaminants through displacement to a greater depths and turbidity generation. Increased concentrations of contaminants, particularly turbidity, impacts the ability to treat water for public water supply.

## 2. Contamination **during construction**

Construction works may exacerbate any known or previously unidentified contamination. If any pollution is found at the site, then works should cease immediately and appropriate monitoring and remediation will need to be undertaken to avoid any impact on water quality in the chalk aquifer.

## Condition

- B)** If, during development, contamination not previously identified is found to be present at the site, then no further development shall be carried out until until the following has been submitted to and approved in writing by the Local Planning Authority in consultation with Affinity Water:

- iv) A **Remediation Strategy/Report** detailing how contamination was/will be dealt with. The remediation strategy shall be implemented as approved with a robust pre and post monitoring plan to determine its effectiveness.

**Reason:** To ensure that the development does not contribute to unacceptable concentrations of pollution posing a risk to public water supply from previously unidentified contamination sources at the development site and to prevent deterioration of groundwater and/or surface water.

### 3. Contamination through **Surface Water Drainage**

Surface water drainage should use appropriate Sustainable Urban Drainage Systems that prevent the mobilisation of any contaminants where a direct pathway to the aquifer is present. This should use appropriate techniques that prevent **direct pathways** into the aquifer and that ensure sufficient **capacity** is provided for all surface water to be dealt with on site, preventing consequential flooding elsewhere.

Condition

- c) Prior to the commencement of development, no works shall be carried out until the following has been submitted to and approved in writing by the Local Planning Authority in consultation with Affinity Water:

- v) A **Surface Water Drainage Scheme** demonstrating appropriate use of sustainable urban drainage systems that prevent the mobilisation of any contaminants ensuring protection of surface and groundwater.

**Reason:** Surface water drainage can mobilise contaminants into the aquifer through infiltration in areas impacted by ground contamination. Surface water also has the potential to become contaminated and can enter the aquifer through open pathways, either created for drainage or moved towards existing open pathways where existing drainage has reached capacity. All have the potential to impact public water supply.

Issues arising from any of the above can cause critical abstractions to switch off resulting in the immediate need for water to be sourced from another location, which incurs significant costs and risks of loss of supply during periods of high demand.

The construction works and operation of the proposed development site should be done in accordance with the relevant British Standards and Best Management Practices, thereby significantly reducing the groundwater pollution risk.

For further information we refer you to CIRIA Publication C532 "Control of water pollution from construction - guidance for consultants and contractors".

### **Water efficiency**

Being within a water stressed area, we expect that the development includes water efficient fixtures and fittings. Measures such as rainwater harvesting and grey water recycling help the environment by reducing pressure for abstractions in chalk stream

catchments. They also minimise potable water use by reducing the amount of potable water used for washing, cleaning and watering gardens. This in turn reduces the carbon emissions associated with treating this water to a standard suitable for drinking, and will help in our efforts to get emissions down in the borough.

### **Infrastructure connections and diversions**

There are potentially water mains running through or near to part of proposed development site. If the development goes ahead as proposed, the developer will need to get in contact with our Developer Services Team to discuss asset protection or diversionary measures. This can be done through the My Developments Portal (<https://affinitywater.custhelp.com/>) or [aw\\_developerservices@custhelp.com](mailto:aw_developerservices@custhelp.com).

In this location Affinity Water will supply drinking water to the development. To apply for a new or upgraded connection, please contact our Developer Services Team by going through their My Developments Portal (<https://affinitywater.custhelp.com/>) or [aw\\_developerservices@custhelp.com](mailto:aw_developerservices@custhelp.com). The Team also handle C3 and C4 requests to cost potential water mains diversions. If a water mains plan is required, this can also be obtained by emailing [maps@affinitywater.co.uk](mailto:maps@affinitywater.co.uk). Please note that charges may apply.

Thank you for your consideration.

Yours sincerely

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