

23rd October 2020

Dear Madam/Sir

DESCRIPTION: 6/2020/2248/OUTLINE**LOCATION:** Roundhouse Farm Land Off of Bullens Green Lane Colney Heath

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.

Affinity Water Limited ("Affinity Water") is the UK's largest water-only company, supplying a population of more than 3.6 million people with more than 900 million litres of the highest quality water every day of the year. Our supply area covers parts of Bedfordshire, Berkshire, Buckinghamshire, Essex, Hertfordshire, Surrey, the London Boroughs of Harrow and Hillingdon and parts of the London Boroughs of Barnet, Brent, Ealing and Enfield. We also supply water to the Tendring peninsula in Essex and the Folkestone and Dover areas of Kent.

We have a statutory duty to supply water and are under legal obligations to ensure that the water is of a certain quality. As a result of this, any risk of contamination to a borehole will mean that we must stop using it until the risk has been eliminated and we must find an alternative source of supply in the meantime. Any potential contamination to the water supply as a result of development is therefore a significant concern for us.

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

We are writing to object to this Application because we are concerned, for the reasons set out below, that it has the potential to impact adversely the public water supply. If you are minded to approve the application, it is essential that appropriate conditions are imposed to protect the public water supply, which would need to address the following points:

1. Contamination

Due to the proposed development's close location to Roestock Pumping Station (<100m), the potential for construction works to displace the shallow contamination identified in the ground investigation; 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:

- A)** 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 conjunction 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 displace shallow contamination and cause water quality failures due to elevated concentrations of contaminants including turbidity. Increased concentrations of contaminants, particularly turbidity, impacts the ability to treat water for public water supply. This 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.

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.

- B)** If, during development, for any presently identified contamination as well as contamination not previously identified is found to be present at the site, then no further development shall be carried out until a **Remediation Strategy** detailing how this contamination will be dealt with has been submitted to and approved in writing by the Local Planning Authority in conjunction with Affinity Water. 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. Infiltration

Surface water should not be disposed of via direct infiltration into the ground via a soakaway.

- C)** Prior to the commencement of development, details of a Surface Water **Drainage Scheme** that **does not include infiltration** shall be submitted to and approved in writing by the Local Planning Authority in conjunction with Affinity Water.

Reason: To provide confirmation that direct infiltration via soakaways will not be used due to the potential presence of contaminated land and the risk for contaminants to remobilise causing groundwater pollution potentially impacting public water supply.

4. Drainage

The onsite drainage system should incorporate an oil/water interceptor to prevent petrol/oil being discharged into the surface and groundwater network.

- D)** Prior to the commencement of development, details of the **Drainage Scheme** confirming the use of an **oil/water interceptor** shall be submitted to and approved in writing by the Local Planning Authority in conjunction with Affinity Water.

Reason: To provide confirmation that an oil/water interceptor will be used to prevent oil and hydrocarbons from particular areas of the development being discharged into surface water and/or groundwater.

5. Bunding

If any tanks, generators and filling areas are to be installed as part of the development, they will need to have secondary containment which can hold 110% of the volume the tank or generator is designed to contain.

- E)** Prior to the commencement of development, details of all substance containers confirming **bunding** of 110% capacity shall be submitted to and approved in writing by the Local Planning Authority in conjunction with Affinity Water.

Reason: To prevent contaminants being discharged into the surface and groundwater network in the event of a spill.

6. Substance Storage (e.g. Petrol Station or Fuel Pipeline)

The installation of a leak detection system should be considered, and a procedure should be adopted that includes directly notifying Affinity Water along with the Environment Agency immediately if any leak is suspected.

- F)** Prior to the commencement of development, details of all substance containers confirming the presence of a leak detection system and methodology that includes immediate notification to Affinity Water shall be submitted to and approved in writing by the Local Planning Authority in conjunction with Affinity Water.

Reason: To enable Affinity Water and the Environment Agency to immediately assess the impact on public water supply and implement protection measures if necessary.

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.

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. 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. Please note that charges may apply.

Being within a water stressed area, we would encourage the developer to consider the wider water environment by incorporating water efficient features such as rainwater harvesting, rainwater storage tanks, water butts and green roofs (as appropriate) within each dwelling/building.

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

Thank you for your consideration.

Yours sincerely

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