

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

Reference Number: 6/2022/1853/MAJ

15 September 2022

Dear Madam/Sir

DESCRIPTION: Construction of a 4,012sqm extension to the existing warehouse space (Use Class E) with associated plant and works including the relocation of a bicycle shelter, re-routed internal access road and landscaping.

LOCATION: Eisai Europe Limited, European Knowledge Centre, Mosquito Way, Hatfield, AL10 9SN

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 (SPZ) corresponding to our Pumping Station (HATF). This is a public water supply, comprising a number of Chalk abstraction boreholes, operated by Affinity Water Ltd. You should also be aware that the proposed development site is located within an area of land that is registered contaminated, alongside being upon an aquifer that is impacted by **Bromate** contamination.

We currently **object** to the application due the potential for deep excavation works to require penetration through the Lowestoft formation creating a pathway between to two aquifers, **which must be avoided**. The **Bromate** plume is present in the upper aquifer and connections between the two risk the migration of bromate plume into the Chalk/lower aquifer towards other abstractions.

We require the submission of further information for our review, in order for us to reconsider our position:

- A drainage strategy. We note the flood risk assessment makes reference to a drainage strategy but we cannot locate the document.
- A piling risk assessment.

- An intrusive ground investigation that will need to assess ground conditions of the site in relation to the chalk aquifer and our nearby public water abstraction as receptors of potential pollution, and should also include sampling for **Bromate**. It should inform the best construction methods to ensure contaminants (including turbidity) are not mobilised towards our abstraction for public water supply.

At this time it is our view that the development as proposed represents a significant risk to groundwater, however once our concerns, set out above, have been addressed we may ask that appropriate conditions are imposed to protect the public water supply, which would need to address the following points:

1. **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) 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, including turbidity, impacts the ability to treat water for public water supply.

The following may be of use to address this point:

- i) Further Intrusive Ground Investigations.
 - ii) A Risk Assessment identifying both the aquifer and the abstraction point(s) as potential receptor(s) of contamination.
 - iii) A Method Statement detailing the depth and type of excavations (e.g. piling).
 - iv) Notification of excavation works 15 days before commencement (for enhanced monitoring and service interruption plans).
2. **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.
 3. **Surface Water Drainage:** Surface water drainage should use appropriate Sustainable Urban Drainage Systems that prevents 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 ensures that sufficient **capacity** for all surface water to be dealt with on site is provided and prevents consequential flooding elsewhere.

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.

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.

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.

Thank you for your consideration.

Yours sincerely

Laurence Chalk
Catchment Officer
Catchment Management
planning@affinitywater.co.uk
laurence.chalk@affinitywater.co.uk