

From: EIR
Sent: 08 July 2025 13:32
To: 
Subject:

Dear Requester

Thank you for your request for information about a proposed battery energy storage system at Rushall, which we received on 26 June 2025. Your request has been considered under the Environmental Information Regulations 2004 (EIR).

Your original request

An Environmental Impact Assessment screening request (2025/1332) is with South Norfolk Council on which you are not listed consultees but need urgently to comment .. deadline 20th May. The developers Elmya are trying to avoid an EIA on siting a huge 900MW Lithium ion phosphate Battery Energy Storage System on a protected source zone for a principal aquifer in Rushall. The site has boreholes and there is potential for pathway contamination. Whatever, only an EIA would give AW the opportunity to evaluate the risks of this massive development. PLEASE, PLEASE, comment and demand that an EIA be required in this case.

Was understood to mean that you were asking Anglian Water to comment on a proposed development.

In your subsequent email you requested:

1. Information regarding boreholes and water supplies at the proposed Rushall BESS

Which we understand has been formally put on hold and we received your email from our customer services team this afternoon. The information had already been prepared, so I have decided to provide it, in case it becomes necessary again.

EIR Response: Provision of Requested Information

Item 1 is held by Anglian Water and has been provided below.

The Environment Agency is the primary consultee as regards environmental protection and specifically risks of contamination to controlled waters (groundwater) from proposed developments, and they are best placed to advise and support the Local Planning Authority (LPA) in the first instance, in relation to environmental risks from a proposed development, and the environmental assessments which may be required. However, if Anglian Water believes, following assessment, that a development poses a potential risk to a groundwater or surface water abstraction point used for the provision of public water supplies, it reserves the right to respond to the LPA via the appropriate channels. The Company may object outright to a development, or propose conditions to the LPA with clear justification.

In the case of the proposed BESS system near Rushall: the development lies outside the primary source protection zone (SPZ 1) for Anglian Water's Rushall groundwater source. A small proportion of the site lies just inside the secondary source protection zone (SPZ 2) boundary, with most of the site located within the tertiary source protection zone (SPZ 3). For information: the SPZ 1 boundary demarcates the zone within which all groundwater **once it has reached the water table** is assumed - based on modelling - to arrive at the protected abstraction point within **50 days**. This is indicated in red in Figure 1, below. The SPZ 2

boundary is the same, but for ‘**up to 400 days**’ travel time (indicated in green in Figure 1). The SPZ 3, also known as the ‘total catchment’ (indicated in blue in Figure 1) is the area within which all water reaching the water table is expected to eventually arrive at the protected abstraction point. The groundwater travel time within SPZ 3 is **from 400 days, up to centuries**. Please note that these travel times are for water which has already reached the water table. Depending upon the geology and other hydrogeological factors, it may take considerably longer for water at the ground surface to reach the water table, if it arrives at all.

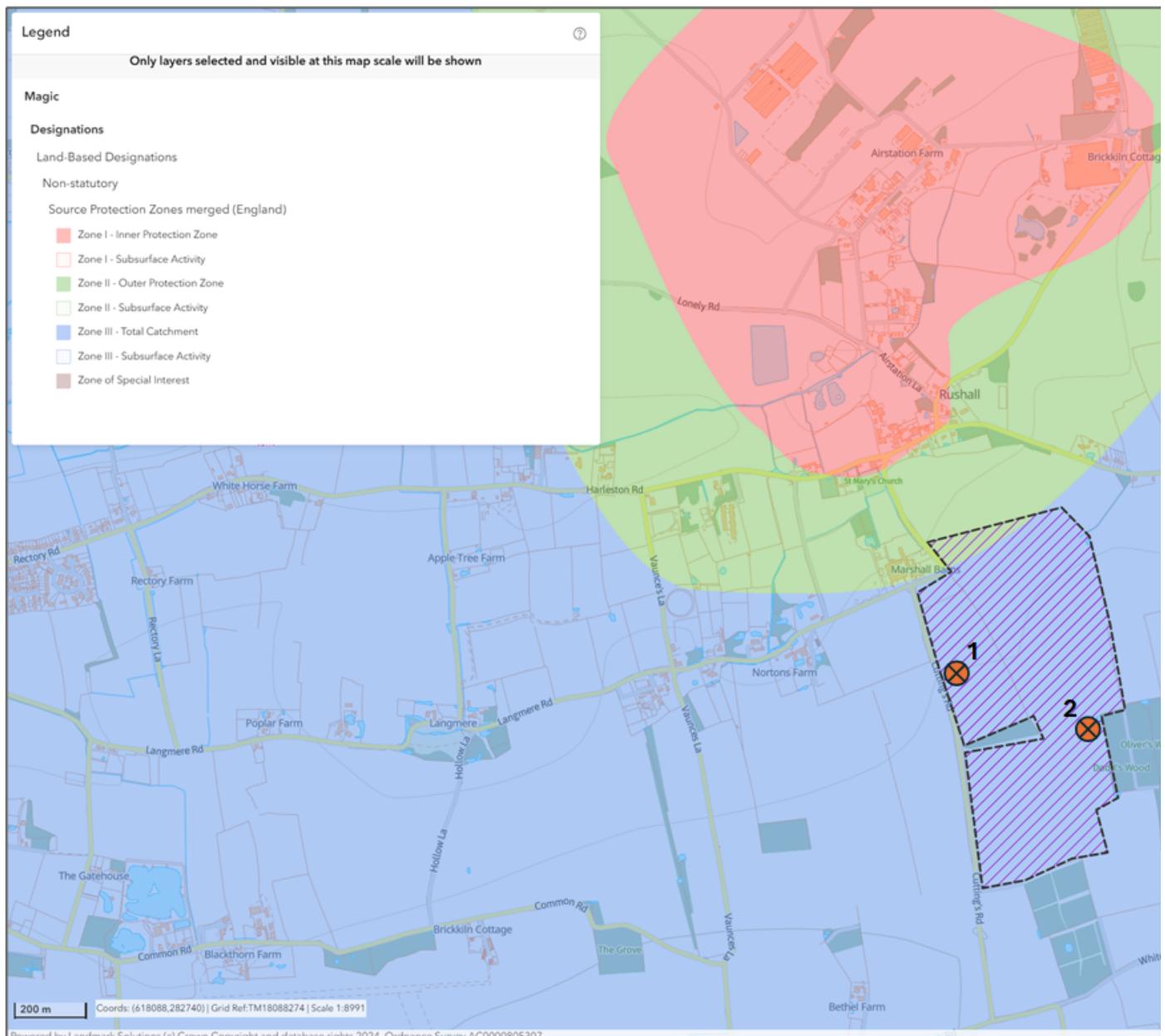


Figure 1 Map showing source protection zones for Anglian Water's Rushall groundwater source. Hatched purple zone marks the approximate area of the proposed BESS site. Circles with orange background and black 'X' show locations of recorded third-party boreholes, as per British Geological Survey 'GeoIndex' database (<https://mapapps2.bgs.ac.uk/geoindex/home.htmlMap>). Map from DEFRA MAGIC (<https://magic.defra.gov.uk/MagicMap.html>), with copyright information shown on far bottom, left, of map.

There are several key factors which influence groundwater travel time through the geological layers above the water table, and the vulnerability of a groundwater abstraction point to contamination from surface, most notably:

- **the composition and characteristics of the overlying strata;**
 - For example: low permeability clay deposits significantly inhibit the downward migration of water from surface into an aquifer.
 - Borehole records publicly available on the British Geological Society 'GeoIndex' database show two third-party borehole drilled in the vicinity of the proposed BESS site: one at co-ordinates TM 1997 8208 (marked '1' in Figure 1, above), and another at TM 2039 8198 (marked '2' in Figure 1, above). These locations are within the proposed area of development and so are likely to provide an accurate reflection of the geology underlying the site. The drilling log recorded for borehole '1' indicates 19.2m of 'boulder clay' to a depth of 19.4m below ground level. Similarly, the drilling log for borehole '2' indicates boulder clay from 0.5m to 13.7m below ground level, sands and gravels from 13.7m to 19.2m below ground level, and boulder clay from 19.2m to at least 25.0m below ground level (base of the borehole). Boulder clay is a very low permeability formation, and given its thickness across the site would substantially impede the downward migration of surface water and any potential future contaminants, to the extent that they are unlikely to reach, and therefore pose any meaningful risk to the principal chalk aquifer, in this location. These overlying deposits are deeper still at Anglian Water's Rushall Source, at approximately 30 metres.
- **the distance between the source of 'potential contamination' and the abstraction point;**
 - Due to the very significant volumes of water present within aquifers and the continuous motion of this water, the further away from an abstraction point contaminants enter an aquifer, the more heavily diluted they will become.
 - In this case, the closest boundary of the proposed BESS site is some 800 metres or more from Anglian Water's Rushall Source. Most of the site is within the 'greater than 400 day' travel time zone (SPZ 3 – total catchment) for Rushall Source, and so significant dilution of any contaminants entering the aquifer is likely. However, as noted previously, the substantial depths of boulder clay likely to overlie the aquifer at the site mean that the vulnerability of the aquifer to contamination from surface is very low.

In conclusion, it is our assessment that the risk posed to the principal chalk aquifer – and to Anglian Water's Rushall Source - from the proposed BESS development to the south of Rushall village is very low.

It is not Anglian Water's place to comment on the specific contaminative potential posed to groundwater by BESS developments, and this assessment does not attempt to define this. The assessment is based on the protective geology overlying the principal chalk aquifer at this location, and the position of the proposed site some 800 metres or more from Rushall Source, predominantly within SPZ 3. These factors afford substantial protection to the chalk aquifer from any would-be contaminant entering the ground in this area.

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If you are unhappy with the service you have received in relation to your request and wish to request an internal review, you should email EIR@anglianwater.co.uk or write to:

Legal Director, Anglian Water Services, Lancaster House, Lancaster Way, Ermine Business Park, Huntingdon PE29 6XU

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire SK9 5AF

If you have any queries about this email, please contact us via EIR@anglianwater.co.uk.

Yours sincerely

EIR Team

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