<table>
<thead>
<tr>
<th><strong>AW Reference:</strong></th>
<th>00020573</th>
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<tr>
<td><strong>Local Planning Authority:</strong></td>
<td>Broadland District</td>
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<tr>
<td><strong>Site:</strong></td>
<td>Land South of Broadland Gate, Adjacent to Postwick Interchange, Postwick, Postwick with Witton</td>
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<tr>
<td><strong>Proposal:</strong></td>
<td>Full planning application for the proposed development of 1 no. petrol filling station, 2 no. drive through restaurants &amp; 24 space HGV parking, together with various infrastructure and landscaping works</td>
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<td><strong>Planning Application:</strong></td>
<td>20170095</td>
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</tbody>
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**Prepared by:** Sandra Olim

**Date:** 07 April 2017

If you would like to discuss any of the points in this document please contact me on 0345 0265 458 or email planningliaison@anglianwater.co.uk
ASSETS

Section 1 – Assets Affected

1.1 Our records show that there are no assets owned by Anglian Water or those subject to an adoption agreement within the development site boundary.

WASTEWATER SERVICES

Section 2 – Wastewater Treatment

2.1 The foul drainage from this development is in the catchment of Whitlingham Trowse Water Recycling Centre that will have available capacity for these flows.

Section 3 – Foul Sewerage Network

3.1 Development may lead to an unacceptable risk of flooding downstream. A drainage strategy will need to be prepared in consultation with Anglian Water to determine mitigation measures.

We will request a condition requiring the drainage strategy covering the issue(s) to be agreed.

Section 4 – Surface Water Disposal

4.1 From the details submitted to support the planning application the proposed method of surface water management does not relate to Anglian Water operated assets. As such, we are unable to provide comments on the suitability of the surface water management. The Local Planning Authority should seek the advice of the Lead Local Flood Authority or the Internal Drainage Board. The Environment Agency should be consulted if the drainage system directly or indirectly involves the discharge of water into a watercourse.

Should the proposed method of surface water management change to include interaction with Anglian Water operated assets, we would wish to be re-consulted to ensure that an effective surface water drainage strategy is prepared and implemented.
Section 5 – Trade Effluent

5.1 The planning application includes employment/commercial use. To discharge trade effluent from trade premises to a public sewer vested in Anglian Water requires our consent. It is an offence under section 118 of the Water Industry Act 1991 to discharge trade effluent to sewer without consent. Anglian Water would ask that the following text be included within your Notice should permission be granted.

"An application to discharge trade effluent must be made to Anglian Water and must have been obtained before any discharge of trade effluent can be made to the public sewer.

Anglian Water recommends that petrol / oil interceptors be fitted in all car parking/washing/repair facilities. Failure to enforce the effective use of such facilities could result in pollution of the local watercourse and may constitute an offence.

Anglian Water also recommends the installation of a properly maintained fat traps on all catering establishments. Failure to do so may result in this and other properties suffering blocked drains, sewage flooding and consequential environmental and amenity impact and may also constitute an offence under section 111 of the Water Industry Act 1991."

Section 6 – Suggested Planning Conditions

Anglian Water would therefore recommend the following planning condition if the Local Planning Authority is mindful to grant planning approval.

Foul Sewerage Network (Section 3)

CONDITION
No development shall commence until a foul water strategy has been submitted to and approved in writing by the Local Planning Authority. No dwellings shall be occupied until the works have been carried out in accordance with the foul water strategy so approved unless otherwise approved in writing by the Local Planning Authority.

REASON
To prevent environmental and amenity problems arising from flooding.
Dear Mr Rickman,

Thank you for e-mail dated 31st May relating to development of a petrol station and associated uses at Broadland Gate, Postwick (planning application reference 20170095).

Although Anglian Water is not identified in schedule 4 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 as a statutory consultee, we do seek to comment on development proposals to protect the quality of our existing and future customers’ water supply. Our comments should be afforded the necessary weight associated with the material planning consideration to which they refer.

The development is within an Environment Agency Source Protection Zone 1 (SPZ1) for an Anglian Water public water supply source. SPZ1s are designated to inform the planning process as to where constraints and measures would be required to provide the highest level of protection to groundwater quality. It is essential to protect the public water supply sources from contamination from any activities that might cause pollution, both during construction and when operational.

We have reviewed the Fuel Storage Feasibility Assessment submitted for the above application and consider that insufficient information has been provided to demonstrate that this development would not have an adverse effect on the existing borehole for potable water.

Therefore we request that the following information is provided by the applicant:

- a detailed risk assessment which includes specific reference to the Postwick borehole and the high water quality standards required for public supply;
- evidence that the proposed engineered mitigation is a proven solution that has been successfully applied elsewhere over a vulnerable aquifer; and
- details of alternative sites which have been considered as set out in the EA’s guidance given that the petrol filling station is located within close proximity to an abstraction borehole.

The updated 2017 Groundwater Protection Guidelines Position Statements for New Facilities states that the Environment Agency will oppose any new development involving large-scale above or below ground storage of hazardous substances (as may occur at a chemical works or at a petrol filling station) which is located within SPZ1.

However the Environment Agency in their letter dated 8th May has stated that they are prepared to remove their previous objection subject to the imposition of planning conditions by the District Council. We have contacted the Environment Agency to ask that they clarify their reasoning for reaching this conclusion.

We require further information to be provided by the applicant as set above and are currently awaiting confirmation from the Environment Agency relating to their position. Therefore we wish to make a holding objection to this application.
Should you have any queries relating to this response please let us know.

Kind regards,

Pre-Development Team
Developer Services

Anglian Water Services Limited
Thorpe Wood House, Thorpe Wood,
Peterborough, Cambridgeshire, PE3 6WT
Telephone: 0345 0265 458
www.anglianwater.co.uk

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Planning Application Report

AW Reference: 00020573
Local Planning Authority: Broadland District
Site: Land South of Broadland Gate, Adjacent to Postwick Interchange, Postwick, Postwick with Wilton
Proposal: Full planning application for the proposed development of 1 no. petrol filling station, 2 no. drive through restaurants & 24 space HGV parking, together with various infrastructure & landscaping works
Planning reference: 20170095

Date 06 June 2017

Thank you for the opportunity to comment on the above proposed development. Although Anglian Water is not identified in schedule 4 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 as a statutory consultee, we do seek to comment on development proposals to protect the environment and our existing and future customers. Our comments should be afforded the necessary weight associated with the material planning consideration to which they refer.

If you would like to discuss any of the following comments please do not hesitate to contact the Pre-Development Team on 0345 0265 458 or email planningliaison@anglianwater.co.uk
Introduction
The purpose of this response is to outline Anglian Water’s position relating to groundwater matters relating to the above application following a request for further comments from Broadland District Council. This response should be read in conjunction with the response submitted on 7th April 2017 and Anglian Water’s e-mail dated 1st June 2017.

Background
Anglian Water’s principal interest on this site is the potential impact on groundwater quality due to the vulnerable nature of the underlying aquifer and the proximity of the proposed development to the borehole at Postwick Water Treatment Works. The proposed petrol filling station (PFS) development is located 280m north-west of the public water supply borehole and within the corresponding groundwater source protection zone 1 (SPZ1) as defined by the Environment Agency.


Of particular relevance to this proposal is the statement in GP2017 that “the Environment Agency will oppose any new development involving large-scale above or below ground storage of hazardous substances (as may occur at a chemical works or at a petrol filling station) which is located within SPZ1”. The guidance does, however, in position statement D2 go on to state that “the Environment Agency will normally object to new and increased underground storage of hazardous substances in SPZ1”. It is apparent that the Environment Agency has removed the initial objection to this proposal based on the evidence as submitted by the applicant in the Fuel Storage Feasibility Assessment, and subject to the imposition of planning conditions by the District Council as outlined in their letter dated 8th May 2017.

Within GP2017, the Environment Agency states that “substantial evidence and justification are required for any retention of underground storage of hazardous substances in SPZ1, detailing how risks to groundwater can be adequately mitigated” and it is assumed that similar rigour would be required for any new development. The Environment Agency also states that proposals would “be accompanied by a risk assessment appropriate to the volume and type of pollutants being stored and the hydrogeological situation … more detailed risk assessments and an infrastructure design method statement would be expected for storage with SPZs”.

Anglian Water does not consider that the information presented in the feasibility assessment provides sufficient evidence to meet this requirement we have
contacted the Environment Agency to ask that they clarify their reasoning for reaching their conclusion.

The Postwick groundwater source was developed in 2010 and an abstraction licence was issued in March 2012. The new multi-million pound water treatment works (WTW) was subsequently opened in 2016 to serve a population of 60,761 (26,591 properties) in the Norwich supply zone. The source is licensed to abstract up 7.5 Ml/d (87 l/s) and was developed as a sustainable alternative source to our abstraction point at Strumpshaw which was deemed to be having an unacceptable impact on the environment and was closed in 2008.

The borehole abstracts groundwater from the upper Chalk aquifer. The lithological log is summarised as a thin layer of Boulder clay overlying 16.5m of Crag deposits comprising sands, gravels and clays. The top of the Upper Chalk is found at 17.5m below ground level. The aquifer at site is classified as unconfined in the vicinity of Postwick, becoming confined to the north where the boulder clay cover thickens and forms a more extensive cover. The Environment Agency has modelled the SPZ for this new source, but has not yet published the map.

The treatment processes at Postwick WTW comprises Pre-Chlorination Chlorination (Gas), Pressure Filtration Nitrate Reduction (Ion Exchange), Dechlorination, Ammoniation and Plumbosolvency Control.

These treatment processes would not mitigate the risk of any hydrocarbon pollution that may impact the groundwater quality within the capture zone of the Postwick borehole. Contamination of this source could result in significant disruptions to supply and public health risk.

**Anglian Water’s Position**
Anglian Water considers that the risk posed by the development of the proposed petrol filling station, with associated underground fuel storage tanks and pipework, within the SPZ1 of the Postwick abstraction is unacceptable. We are of the opinion that the supporting information set out in the applicant’s Fuel Storage Feasibility Statement does not provide the sufficient level of detail to ensure that the proposal can be delivered without causing a detrimental impact on water quality, which could lead to restrictions to the public water supply, implications on public health and the local economy.

**Summary**
Based upon the available submitted information, Anglian Water strongly objects to the proposed development on the grounds of potential implications for public health and the local economy. Should you wish to discuss the above matters further, please do not hesitate to contact us on the details below.

Anglian Water Services Limited  
Pre-Development Services  
Thorpe Wood House, Thorpe Wood  
Peterborough  
PE3 6WT
Christopher Rickman

From: Wilson Hannah <hWilson4@anglianwater.co.uk>
Sent: 16 November 2017 09:57
To: Christopher Rickman
Cc: Walters Nick; 'andy.salmon@environment-agency.gov.uk'
Subject: Postwick - broadband Gate

Follow Up Flag: Follow up
Flag Status: Completed

Dear Christopher Rickman,

Whilst a positive connection has been confirmed to accept both foul and surface water flows from the proposed site, Anglian Water’s objection still stands.

The information currently submitted in relation to the design of the tertiary fuel storage arrangements is not sufficient. We will not be in a position to remove our objection until we have absolute confidence that the proposed control measures are sufficient to mitigate any risk of groundwater contamination.

We have requested more detail regarding the proposed engineering control measures including plans and drawings. There needs to be details regarding the various controls which need to be in place during construction, and operation considering all possible contamination risks and monitoring strategy.

Based upon all submitted information Anglian Water upholds its objection.

Kind regards,
Hannah Wilson
Pre-Development Planning Manager

Anglian Water Services Limited
Tel Office: 0345 60 66 087 Option 1
Mobile: 07885135312
Thorpe Wood House, Thorpe Wood, Peterborough, PE3 6WT
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AW Reference: 00020573

Local Planning Authority: Broadland District

Site: Land South of Broadland Gate, Adjacent to Postwick Interchange, Postwick

Planning Reference: 20170095

Date 18/12/2017

The purpose of this response is to outline Anglian Water’s position relating to groundwater matters relating to the above application following a request for further comments from Broadland District Council on the latest Implementation and Operational Method Statement received on the 4th December. This response should be read in conjunction with all previous responses.

Infrastructure Design

Section 2.1 states that the EA are in agreement with the concept of tertiary containment. Anglian Water has been very clear from the outset that we disagree with the EA’s position. We object to the installation of underground fuel storage within such a vulnerable Source Protection Zone 1, only 210m from Anglian Waters groundwater abstraction point for public water supply.

The reference to Ciria 748 guidance, this guidance specifically refers to the use of membranes to act as barriers to volatile organic compound (VOC) vapours into building. Whilst it does include details about the durability and resistance to damage of membranes, and indeed the potential degradation risks, it fundamentally focuses on the performance of membranes to reduce vapour migration from the ground. It is not related to containing hydrocarbons within the ground.

Anglian Water would expect the vault to include more than just a membrane, if the LPA were to grant permission. The latest proposed design includes a sheet steel cofferdam surround and then a membrane sandwiched between a concrete base. We do not consider this is sufficient without significantly more evidence and detailed risk assessment. **It is not appropriate** for the detail to be dealt with via conditions as this proposal presents extremely high levels of risk. We require the applicant to present the case for the effectiveness of the membrane as part of the detailed specification. We need to understand the risk that is posed should the fuel tanks leak within the proposed vault.
We have previously discussed the need for the fuel lines to be vaulted such that if there was a leak it would be contained. This is not detailed in the design.

**Implementation methodology**

It is stated that the methodology will be presented in response to conditions. Anglian Water has requested, from the start, that this is presented as part of the upfront design and should not be dealt with via conditions. We acknowledge that a contractor would need to be engaged to help develop this and that it may be subject to change, however, as a minimum we would expect details to be presented outlining the risks and proposed mitigation measures that will be undertaken during construction and installation.

It is assumed that the proposed membrane is Visqueen Ultimate rather than Intimate. This membrane is designed to provide a barrier to vapour and it is not clear how effective it is as a barrier to petrol or diesel. We would need to understand more about the permeability tests that are presented in the company literature but the evidence suggests that they are not completely impermeable. We also question how the installer would guarantee the weld? The literature suggests a ‘gas-tight’ seal but again is this completely impermeable?

**Failure response procedures**

The section on ‘if a leak is detected’ is weak and requires more detail to give confidence that the lost fuel would be recovered and the ground remediated in a timely fashion. This is not considered to be an unreasonable request considering the vulnerability of the site.

**Conclusion**

Based upon all previous correspondence and information to date Anglian Water strongly objects to the proposed development on the grounds of potential implications for public health and the local economy. There is a lack of up-front design, control and monitoring information, the submitted documentation does not provide the sufficient level of detail needed to ensure that the proposal can be delivered without causing a detrimental impact on water quality, which could lead to restrictions to the public water supply, implications on public health and the local economy.

If you wish to discuss any aspect of this response please do not hesitate to contact me.

Kind regards

[Signature]

Hannah Wilson

Pre Development Planning Manager
Dear Christopher Rickman,

Thank you for sending us the latest information submitted by the applicant, please find attached Anglian Water’s response.

We would appreciate it if you could let us know the next stops regarding committee dates or postponing until further information is submitted.

If you have any questions regarding our response please do not hesitate to contact me.

Kind regards,

Hannah Wilson
Pre-Development Planning Manager

Developer Services
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