

ST Connect

26 July 2023

**Severn Trent Services
(Water & Sewerage)
Limited**Severn Trent Centre
2 St John's Street
Coventry
CV1 2LZwww.st-connect.co.ukCanterbury City Council
Development Control
Council Offices Military Road
Canterbury
Kent
CT1 1YW**Ref: Land At The Hill, Bekesbourne Lane, East Of Bekesbourne Hill, Bekesbourne, Canterbury, CT4 5EA.**

ST Connect is the trading name of Severn Trent Services (Water & Sewerage) Ltd.

ST Connect are an Ofwat-regulated water company, appointed by the Secretary of State to provide wastewater and surface water management services in England and Wales. We have a strong track record for operating wastewater treatment assets and are part of the wider Severn Trent Group, which in its portfolio has one of the UK's largest water and sewerage companies.

ST Connect has been requested to provide a response to EA letter, ref; KT/2023/130653/01-L01, Canterbury City Council planning ref; CA/23/00484, regarding the foul water treatment proposal for the land mentioned above, whereby the EA have objected to the application.

For new housing and infrastructure developments ST Connect is aware of the requirement to connect to an existing foul sewer network and utilise an existing WwTW facility (as opposed to a Package Treatment Plant) where these exist and that are within the calculated distance, plus have capacity to take the flow.

However, the capability for nutrient removal for developments to achieve 'Nutrient neutrality' is also now required to be considered. In the case of the proposed development and the nearby Newnham Valley Preston works, it would seem to be that the existing permitted DWF into the works is already being exceeded by over 1000m³/day⁽¹⁾. There is also no permit constraint on Total Phosphorus (TP), with recorded readings of 23.22 mg/l AA⁽¹⁾.

The lack of nutrients constraint in the Newnham Valley Preston WwTW permit regarding Final Effluent (FE) prevents Nutrient Neutrality (NN) calculations to balance for this development. The only way for this to be so would be for these works be upgraded to be able to receive higher influent flows and to also have permitted constraints imposed upon its FE composition regarding TP. This would in practice likely require significant investment to upgrade the WwTW and a use of chemicals to strip out the nutrients to a lower level, assuming that Southern Water Services Ltd. would be inclined to do this. Whilst unaware of Southern WS's investment program, Ofwat's mechanisms of how water companies can spend their money during each Asset Management Period (AMP) are well documented. An upgrade program for these works would have been required to be included in the business plan at the start of the current Asset Management Period (AMP), which began before NN became the issue it now is, so is probably unlikely. Details for the next AMP are yet to be agreed and published by water companies.

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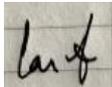
The proposed water recycling facility (WRC) by ST Connect for the above planning application is not a Package Treatment Plant. It is a new modular sewage treatment works design, which can be scaled to meet varying sizes of developments from a few hundred homes to several thousand. Following influent inlet screening to remove 'rag & grit', it utilises an activated sludge process that allows natural bacteria in a sequential batch reactor process to treat foul sewage and produce a FE low in phosphorus and nitrogen without the use of chemicals. Additional membrane filtration can also be employed to further reduce levels of nutrients in the FE if required. The sludge is removed from the plant at regular intervals and disposed of at a suitable treatment facility, the frequency dependent upon the size of the plant and influent load. Only foul sewer water would be treated at the WRC. All surface water would be handled by suitable surface water management systems, provided as part of the development.

The WRC would require a discharge permit from the EA. To support such an application, a detailed water quality and monitoring program would be undertaken to ascertain the current standard of that in the proposed receiving watercourse. This in enables permit condition requirements to be assessed by the EA and the WRC to then be designed to provide the necessary treatment level required to meet these.

As a 'Statutory Undertaker' appointed by Ofwat, ST Connect would operate and maintain the WRC 'in perpetuity' and adopt the sewers leading to it, subject to them being constructed to the required standards. These would become part of ST Connects Ofwat-regulated operating estate, and therefore be considered "public" assets.

⁽¹⁾*AECOM Kent Water for Sustainable Growth Study, May 2017 – is being the latest publicly available information.*

Yours faithfully



Ian Fendell
Compliance Manager
ST Connect