



## WATER NEUTRALITY / MAINS SEWAGE REPORT

This report has been prepared by Plaistow and Ifold Parish Council. It summarises key issues for consideration when assessing the water neutrality and mains sewage implications of application 22/02346/OUT.

### Summary

#### Water Neutrality:

- The Parish Council has considered in detail the Quantum CE report V6 on Water Neutrality on behalf of the Substantia Group, dated 25<sup>th</sup> August 2022.
- This report appears comprehensive; however, a detailed critical review demonstrates some significant omissions and misguided assumptions that demonstrate that the proposed development does not achieve water neutrality.
- What is abundantly clear is that the development will bring about a significant increase in water consumption.
- The Parish Council has considered [Natural England's Position Statement for Applications within the Sussex North Water Supply Zone September 2021 – Interim Approach](#) and also Natural England's '[Arun Valley and Water Neutrality - Frequently asked questions \(FAQs\) - Developers March 2022](#)' documents, which is aimed at supporting developers when considering its 2021 Position Statement when applying for development in Sussex North. Summarising these two documents the following points are mentioned:
  - Developments within this zone must not add to this impact, as required in case law.
  - One way of achieving this is to demonstrate water neutrality.
  - The definition of water neutrality is the use of water in the supply area before the development is the same or lower after the development is in place.
  - In the absence of a water neutrality strategy, only critical applications should proceed which need to demonstrate water neutrality.
  - All new development must demonstrate it can achieve strict water targets (e.g., 85L/pp/day) after measures such as grey water recycling, rainwater harvesting, and water efficient fixings have been applied.
- The main findings upon reviewing the Quantum CE report V6 on Water Neutrality are as follows:
  - 1) The application for a Wellness Spa and 121 holiday units is not a 'critical development'. Therefore, the application should be rejected by the Local Planning Authority pending the

development of a Water Neutrality Strategy in compliance with Natural England's Position Statement.

- 2) The golf course closed in 2019. Therefore, the water uses at the Site, before the proposed development, is minimal. The report is erroneously drafted to refer to the water consumption of the golf course (mainly due to irrigation) as if it is the current usage; however there has been no golf course associated water consumption at the Site for 3 years. It is incorrect for the Applicant to refer to the historic use as a golf course to demonstrate the water consumption before the development.
- 3) The report gives a common water consumption of 90Litres/person/day (L/p/d) for many of the users, but this is a wrong interpretation. Natural England clearly state this is the figure after measures have been taken, NOT before. The water consumption for the Spa Pool & Concierge has been significantly underestimated by 5 times (See Issue 3 below, 10L/p/d vs 50L/p/d)
- 4) The water report has several omissions with regards to potential water consumption at the Site such as: the farm shop, soft landscaping, new ponds, tree planting, water for initial filling and maintenance of the swimming pool and other Spa facilities.
- 5) Insufficient detail has been provided for rainwater harvesting and the annual rainfall figure of 875mm is incorrect for the Plaistow area.
- 6) The report takes credit for the WaterBank, but this should not be assumed and therefore not taken as a credit.
- 7) The Site is not on mains sewage. The only residences on mains water are located adjacent to Foxbridge Lane/Plaistow Road. Details for connection to the mains system should be included in the application along with communication with Southern Water or details of onsite sewage treatment including an Odour Assessment Report to the EA and permit to discharge.

**Issue 1 – The application does not amount to a critical need, which, in of itself, should lead to a rejection of the application by the Local Planning Authority.**

It is the Parish Council's understanding that Natural England are still working with their partners, at a strategic level, on developing a Water Neutrality Strategy. Therefore, in accordance with their advice, only developments deemed critical by the Local Planning Authority (LPA) should be considered.

However, the out-of-date data presented by the Applicant in the Visitor Accommodation Needs Assessment (VANA) document, is unable to justify this application as ‘critical development’. The Applicant has failed to demonstrate that the proposals meet a critical local and/or district need for tourist accommodation. All qualitative data is taken from CDC's Visitor Economy of Chichester 2016 report relating to estimated visits from 2015. This data is taken before the growth in popularity of Airbnb and other holiday home rental websites/apps that have exponentially expanded the availability of serviced accommodation and furnished holiday lets. Airbnb shows 26 holiday homes of various sizes within a 4.8km radius from Foxbridge, all high quality and all offering year-round provision. Expanding this search area to encompass the application promoted visitor attractions, and Airbnb alone indicates over 1000 properties are available. Other direct booking holiday accommodation websites i.e. [bookings.com](http://bookings.com), [vrbo.com](http://vrbo.com), [cottages.com](http://cottages.com), all confirm a plentiful availability of high quality accommodation in the immediate area, in Chichester District and in West Sussex. This is current qualitative data that indicates there is no need or demand for the Foxbridge development and the 816 bedspaces. The data, as presented by the Applicant, is out of date and the demand / need figures are flawed; therefore, the conclusion is inaccurate and flawed.

**Issue 2 – Incorrect baseline (existing consumption) taken for determination of water neutrality.**

The Quantum CE report V6 refers to the Foxbridge Golf Course as a current water consumer, however the Golf course closed in 2019. It has not been a ‘water consumer’ for 3 years.

Natural England are very clear in that the existing water demand (baseline for demonstrating water neutrality) should be taken before the development to show how water consumption will increase. Taking a very estimated water consumption prior to 2019 is a gross misinterpretation of what Natural England are trying to safeguard, i.e., the Sussex North Water Supply Zone and preventing adverse effects on the integrity of the Arun Valley SPA, SAC and Ramsar Site.

The water report should be amended with a baseline (existing demand) of the current consumption which should **be provided by meter readings**.

This would overturn the incorrect assertions by the Applicant of water neutrality.

**Issue 3 – Incorrect base water consumption of 90L/pp/day**

In section 1.3 of the Quantum CE report V6 it states, *“The Council has stipulated the allowable daily water consumption for each guest as 90litres/person/day”*.

This seems to contradict Natural England, which states: -

*“All new builds to demonstrate that they can achieve strict water targets (e.g., 85L/pp/day\*)*

*This can be achieved by measures such as:*

- Grey water recycling (advantage of being reliable in hot dry weather);
- Rainwater harvesting;
- Water efficient fixings (such as shower aerators) to demonstrably reduce demand-this would need to be suitably certain

*\*This is the reasonably achievable figure with the above measures based on the early data from the strategic solution and may be subject to change as the strategic solution evolves.\**

The Parish Council asserts that the Applicant has misinterpreted 90L/pp/day provided by the LPA as a consumption, rather than a target after credits have been taken.

The Applicant has assumed 90L/pp/day for Type 3, 4 & 5 holiday units, as well as the Spa apartments; 30L/pp/day for the Restaurant; 10L/pp/day for the Spa Pool & Concierge and 71.1L/pp/day for Tents.

The Parish Council has had regard for [British Water’s Code of Practice Flows and Loads – Sizing Criteria, Treatment Capacity for Sewage Treatment Systems](#) to provide a summary of water loads per person per day.

The following is a summary of the loads from the above British Water information, with figures assumed by the Applicant in red: -

Loads	<a href="#">British Water</a>	Quantum CE report V6
<b>Holiday Camp Chalet resident</b>	150L/pp/day	90L/pp/day
<b>Hotel Guests</b>	250L/pp/day	90L/pp/day
<b>Restaurant</b>	30L/pp/day	30L/pp/day
<b>Health Club/Sports Centre</b>	50L/pp/day	10L/pp/day
<b>Tents</b>	75L/pp/day	71.1L/pp/day

For the holiday camp chalets, the Applicant needs to confirm that washing of bed linen at each changeover will be considered in the consumption.

According to the British Water table referenced above there is a significant variation in water consumption between a Holiday Camp Chalet vs Hotel: 150L/p/d vs 250L/p/d respectively. The figure for a Holiday Chalet at 150L/p/d is similar to that of resident housing.

However, it is a reasonable assumption to make that the proposed holiday units (121) will be used akin to hotel rooms; holiday makers will book them for a period and the turnover of guests will be frequent. It is also reasonable to assert that the changeover water usage – between occupancies -

associated with the holiday units will be greater than for the hotel rooms – the units are bigger; have multiple bedrooms (linen / towel washing) are designed to be ‘self-contained’ with associated linen for kitchen areas and floor washing etc.

Similarly, if this development is approved, it is likely that many of the chalets will be privately sold/purchased in accordance with the Applicant’s business plan. Many of the privately owned chalets will be listed on platforms such as Airbnb for private rental; particularly to ‘fill’ empty weeks to cover the cost of investment.

Consequently, due to the frequent changeovers between guest stays (based on chalet occupancy capacity) there will be a much increased need to change several items of linen, towels, blankets etc. which will have a significant increase in water consumption more akin to a hotel room. Therefore, it is suggested for the Applicant to use the water consumption figure for a Hotel (250L/p/d) as opposed to a Chalet (150L/p/d) as per the aforementioned table.

Due to the severity placed on water neutrality by Natural England, the water consumption should be based on the more likely/conservative use. Therefore, the water consumption for the Holiday Units has been underestimated by the Applicant and needs to be recalculated.

This correction should be requested without delay to allow a proper review by the Parish Council and other consultees.

#### **Issue 4 – Missing Water users in the report**

The Quantum CE report V6 has omitted the water consumption for several users, namely: -

- i) Farm Shop
- ii) Soft Landscaping
- iii) New Ponds
- iv) Tree Planting
- v) Water for initial filling/refilling of swimming pool following maintenance

These users need to be included in the report and submitted as a matter of urgency.

#### **Issue 5 – Rainwater Harvesting**

According to [World Weather Online](#) the average rainfall by month in Plaistow, West Sussex is given below:

Month	Average Rainfall (mm)	Average Rainfall to date (mm)
January	78.2	78.2
February	68.3	146.5

March	52.9	199.4
April	41.3	240.7
May	59.3	300
June	67.3	367.3
July	61.1	428.4
August	65.4	493.8
September	47.8	541.6
October	81.7	623.3
November	81.2	704.5
December	87.6	792.1

The annual average being 792mm, which is considerably less than the figure of 875mm given in the Quantum CE report V6. Also, insufficient detail has been provided for the rainwater harvesting system since it does not include how the water from the existing golf course drains/ponds gets into the existing tank. The existing tank appears to take water from the adjacent building roof.

**Issue 6 – Credit for theWaterBank**

The Quantum CE report V6 makes the following statement in section 4.5, P26:

*“theWaterBank will secure the water offsetting credits on its GIS database which will allocate a unique reference number associated to the development site and the schools providing the water credits. Once assigned to a site the water offsets credits cannot be transferred to another site and are secured via a S106 agreed with the Council. theWaterBank can provide a letter of commitment to support this development. Therefore, in order to meet the offsetting requirement, this development would require 5 schools”.*

Everything in the above statement is future tense and so should not be taken as a credit, i.e., these schools will not currently have made any provision for improved water facilities and/or have committed to the scheme.

**Issue 7 – Lack of provision for Foul Sewer**

The Quantum CE report V6 provides no details for connection to the existing mains sewer, or for an independent sewage treatment plant. As demonstrated by the catchment map for mains sewage, only the Northerly end of Foxbridge Lane connects to the mains sewer: -



Therefore, the proposed Site is not currently connected to the foul main. The Applicant will need to liaise with Southern Water on whether it can connect to the mains sewer, or to show plans for an independent sewage treatment plant along with proposed discharge, permit from the Environment Agency and Odour Assessment.