Mr Belal Rashid
Belal Rasid Technical Architecture
11 Queen Street
Oldham
United Kingdom
OL1 1RD

19th December 2025

Dear Sir

PROPOSED CHANGE OF USE TO SECOND FLOOR FROM OFFICES TO 6 SELF CONTAINED FLATS AT 22 TO 26 LORD STREET & 10 TO 14 EGERTON STREET, WREXHAM, LL11 1LR

WREXHAM COUNTY BOROUGH COUNCIL PLANNING APPLICATION P/2024/1548

Dear Sir,

1.00 INTRODUCTION

1.01 Planning permission for the proposed Change of Use to Second Floor from Offices to 6 self-contained flats at 22 to 26 Lord Street & 10 to 14 Egerton Street, Wrexham, LL11 1LR (hereafter referred to as the application site) was refused by Wrexham County Borough Council. The second reason for refusal was stated as '*The River Dee where the WwTW discharges into presently has no headroom (i.e. capacity) to accommodate further unmitigated increases in phosphorus discharges. Consequently it is not possible to conclude that the proposed development would not have a significant effect on the SAC, the proposed development therefore would not accord with LDP policies NE1 and NE6'.*

1.02 For reference, Natural Resources Wales (NRW) has published new targets to reduce river phosphate levels in Special Areas of Conservation (SAC) across Wales. This may affect certain developments and planning applications.

1.03 Phosphorous is a nutrient that occurs naturally in low levels and is necessary for the healthy functioning of rivers. It is released slowly at low levels from natural sources, from natural bankside erosion for example. However, in high levels it is the most harmful nutrient in freshwater and can lead to eutrophication. Eutrophication happens when an excess of nutrients causes a dense growth of plant life and subsequent death of animal life due to lack of oxygen.

1.04 The main sources of phosphorous are from:

- Agriculture (found in fertilisers and runoff from manure)
- Sewage (from homes and other developments (such as commercial premises and offices) that generate wastewater containing sewage, food waste and cleaning products)

1.05 The Joint Nature Conservation Committee has found new evidence that warmer and drier weather, predicted as a result of climate change, could reduce river flows during the summer and therefore increase phosphate concentrations. The new targets are also based on new evidence about the damaging effects of phosphates to water ecosystems and species. Currently, over 60 percent of waterbodies in Wales fail against the tighter targets. Welsh local planning authorities are being asked to take more action to avoid further deterioration of the environment.

1.06 Any proposals for development within SAC river catchments (particularly those that will generate increased volume or concentration of wastewater) must now prove that the design will not contribute to increased phosphate levels.

1.07 The River Dee is designated as a SAC, and the majority of Wrexham County Borough is located within its catchment. The river is currently failing against NRW's targets. Until Wrexham County Borough Council have received further guidance and are able to measure and mitigate the impact on phosphate levels, it is unable to determine some planning applications in these SAC areas. This is not unique to Wrexham - this has affected other Welsh local planning authorities and many construction projects across Wales have been put on hold. Types of development that may be affected include (this list is not exhaustive and is subject to review):

- New residential units
- Tourism attractions and commercial developments with overnight accommodation
- Agricultural development
- Prior notifications for change of use of office to homes and agricultural buildings to homes
- Operations which generate phosphate such as fisheries and car washing facilities

1.08 Wrexham County Borough Council is still able to determine some panning applications including 'any development that does not increase the volume or concentration of wastewater'.

2.00 EXISTING AND PROPOSED USE

2.01 The existing second floor plan is shown below. The office has a gross internal floor space of 390 square metres. This is reduced to circa 377 square metres when the circulation space (corridors and stairwell) and WCs are excluded.



Existing Second Floor
1 : 100

2.02 The Health and Safety Executive (HSE) provides guidelines regarding office space requirements. It suggests a minimum of 11 cubic metres per person (4.6 square metres per person based on a typical floor to ceiling height of 2.4 metres). The maximum capacity of the existing 2nd floor office space is therefore 82 persons (377 square metres / 4.6 square metres per person). Notwithstanding this, normal occupancy is around 40 persons.

2.03 The proposed second floor plan is shown below. This illustrates 6 x 1-bedroom self-contained flats (total maximum occupancy 12 persons).



Proposed Second Floor
1 : 100

3.00 NUTRIENT NEUTRALITY ASSESSMENT

3.01 The British Water Code of Practice, Flows and Loads-4 (Sizing Criteria, Treatment Capacity for Sewage Treatment Systems) has been used to estimate the existing daily foul flows. Foul flows have been estimated based on:

- A staff population of typically 40 for the office building
- A daily flow of 50 litres per person per day (for an office without canteen)

3.02 Based on a flow of 50 litres per person per day, the estimated daily flow from the existing office building is 2,000 litres.

3.03 The proposed residential development includes the conversion of the office into 6 x 1-bedroom self-contained flats (total maximum occupancy 12 persons).

3.04 In accordance with the Welsh Government Nutrient Budget Calculator Guidance (2025), 'the estimated average water usage per person is set to a default of 120 litres/person/day which is 10 litres higher than the Building Regulations standard set by the Welsh Ministers. The standard is based on a 'fittings approach' where water efficiency compliance is achieved through water efficient fittings. The extra 10 litres/person/day is a precautionary approach to account for water usage variations and account for any potential future changes to the water fittings in perpetuity.

3.05 If a dwelling/unit is formed by a material change of use of a building, then this value should be changed to 135 litres/person/day. Again, this value is 10 litres/person/day above the Building Regulations standard of 125 litres/person/day in order to be precautionary for the same reasons identified above.'

3.06 Based on a population of 12 and a water usage of 135 litres per person per day, the estimated daily wastewater flow from the proposed residential development is 1,620 litres.

3.07 It is evident that the maximum flow of the proposed residential use is lower than that of office use. This meets the nutrient neutrality assessment as Wrexham County Borough Council is still able to determine some planning applications including 'any development that does not increase the volume or concentration of wastewater'.

3.08 The phosphate concentration (mg/l) discharged into the River Dee Special Area of Conservation (SAC) is controlled by the performance of the receiving Welsh Water wastewater treatment works and is not influenced by the proposed development use. Therefore, where a development results in a reduction in wastewater flow entering the public sewer and downstream wastewater treatment works, it will also reduce the phosphate quantity discharged from the wastewater treatment works into the River Dee.

3.09 As the proposed development will reduce the quantity of foul flows, it will also reduce the phosphate quantity entering the River Dee. The development is therefore phosphate neutral and will not cause detriment to the River Dee SAC.

3.10 It is also noteworthy that the consultation response from Welsh Water dated 28th November 2024 stated:

We can confirm capacity exists within the public sewerage network in order to receive the domestic foul only flows from the proposed development site.

The proposed development site is located in the catchment of a public sewerage system which drains to Five Fords Wastewater Treatment Works (WwTW) and ultimately discharges to a river Special Area of Conservation (SAC). We would advise that this WwTW has a phosphorus consent limit and is currently compliant with the 95% quartile for its flow passed forward (FPF) performance, at the time of this consultation. Accordingly, we would advise there is currently suitable hydraulic capacity in the public sewerage system and downstream WwTW to accommodate foul water flows from the development subject of this application.

3.11 This response from Welsh Water indicates that there was suitable hydraulic capacity in the system as of 28th November 2024. It is not known whether this is still the case at the time of writing, however this not relevant as the proposed residential development will generate less quantity of foul flows into the sewer than the consented office use and therefore meets the nutrient neutrality assessment criteria.

3.12 In conclusion, the second reason for refusal stated in Wrexham County Borough Council Planning Application P/2024/1548 that '*The River Dee where the WwTW discharges into presently has no headroom (i.e. capacity) to accommodate further unmitigated increases in phosphorus discharges. Consequently it is not possible to conclude that the proposed development would not have a significant effect on the SAC, the proposed development therefore would not accord with LDP policies NE1 and NE6'* is incorrect as the nutrient neutrality assessment criteria for the proposed residential development shows a reduction in foul flows into the sewer from the consented office use.

Yours sincerely

Mr J Rigg
MEng (Hons) in Civil and Engineering
JWR Consulting