

25/01756/AOP: Land North of Glebe Close, Pitstone: outline application for demolition of No. 61 Albion Road and residential development of up to 100 dwellings, landscaping, drainage, open space, and associated works. All matters reserved except for access off Albion Road (details of internal roads and footpaths reserved) on land north of Glebe Close

As trailed, this is the second submission from Pitstone Parish Council. It comprises our objection on the basis of negative environmental impact on the Whistle Brook.

The ecological survey has correctly identified that the Whistle Brook (locally known as The Brook, which the local school is named after) is a Chalk Stream. As per the preliminary ecological survey provided with the application, this has been identified as having high ecological value. We believe the Brook should be considered of **very** high ecological value because it is a Chalk Stream. Chalk Streams are internationally recognised e.g. by the WWF as habitats of high ecological importance and are some of the globally rarest habitats on earth. There are only 200-250 Chalk Streams and Rivers on Earth and ~80% are in England. As such we have a local, regional, national and international duty of care to ensure these habitats are protected and enhanced wherever possible. The importance of Chalk Streams is recognised by DEFRA, who have produced development plans to improve these habitats. The Brook is considered locally important as it is used for recreation (trout fishing), aesthetically (a public footpath crosses and runs alongside it) and as part of the core identity of the village; the school is named after it and the Historic Watermill and associated dyke (50m downstream of the application) is historically a core feature of the local community.

The ecological impact assessment plan provided estimates that the proposal will have a negative (-1.98%) impact of the biodiversity of Whistle Brook. This negative impact is likely inaccurate and unacceptable. Indeed, the Ecological Impact Survey provided states that the Trading Rules are not satisfied in regards to water courses.

Furthermore, we believe the negative biodiversity impact is a significant underestimate, as it appears to **only** reflect the loss of habitat area caused by the development and not the additional negative impacts the proposed development itself will likely then have on The Brook.

As stated in the Planning statement (pg 12 para 5.6) "It is proposed that surface water run off will be discharged to a tributary of the Whistle Brook watercourse, with a discharge rate that mimics the pre-development situation." It is likely this run-off will have an additional negative impact on the Chalk Stream Habitat over and above the estimated negative impact provided in the Ecological Impact Survey. It is also highly unlikely that surface water run-off rate will, or indeed can, mimic the current pre-development situation either quantitatively or qualitatively.

Additional run-off will be created by the development, due to residents' external water use. For example, a conservative estimate based on the number of houses would be an additional ~90,000 ltrs per annum of surface water based on the hose discharge rate of ~3-5 ltrs per minute and those hoses being used for ~15 minutes on ~30 days per year by 50% of the residences. Natural run off will also increase as transpiration rates will decrease due to the majority replacement of grassland with hard surfaces. The run-off rate will also increase as hard surfaces will not allow water to penetrate the ground at the same rate as it currently does, thereby increasing the rate of run-off and concentrating that run-off in one discrete location in the Brook, rather than being spread out over the course of The Brook, with resultant erosion of the bank and bed of the stream likely at that location.

As per the Flood Risk Assessment Document, (pg81) the outfall will be directly into the Brook (not a tributary as stated in the Plan provided by the applicant) via the west outfall. Around 2/3 of the outflow will be via swales and ponds created around the perimeter, which may mitigate some of the run-off rate. However, this plan indicates that around 1/3 of the run-off will flow directly into the Brook.

The run-off water quality will very likely be of a poorer quality than the current situation due to the development and thereby introduce contaminants into The Brook. For example, there will be an additional 150-200 vehicles on site and other potentially hazardous chemicals being used on site by residents, such as cleaning products on vehicles and windows. As such, there is very likely to be an increase in settleable solids, suspended solids, metals (such as copper, iron, zinc, cadmium and tin), surfactants and petrochemicals in the C20-30 range (and also potentially in the C10-C20 range). As a result of this, COD (Chemical Oxygen Demand) and BOD (Biochemical Oxygen Demand) will be higher in the discharge water than the current situation, with the result that there will be a lower dissolved oxygen level in the water. It is worth noting that Chalk Streams are particularly sensitive to changes in dissolved oxygen levels.

It is therefore very likely that this will result in contamination of the Chalk Stream, which is an internationally important and rare habitat. Given standard ecological assessment methods to derive changes in biodiversity levels, it is unlikely the Ecological Impact Assessment provided by the applicants has taken account of this and therefore, the indicated -1.98% is likely to be a considerable underestimate of the actual negative impact on biodiversity. This will also have a negative impact on social activities in the immediate vicinity; for example, a local angling club currently utilises the catchment pond created by the Watermill Dyke for Trout fishing and their population is likely to be negatively impacted by the additional contaminants entering the Chalk Stream.

Despite the statement within the Ecological Impact Survey that Trading Rules are not satisfied, it appears that the current plan includes no attempt by the developers to mitigate for the indicated negative impact. As such, we believe Buckinghamshire Council should (and, in fact, is under a duty to) contact DEFRA for their comments on this proposal given their overall responsibility for watercourses.

The suggested mitigation within the Ecological Impact Survey is to purchase off-site Water-Course units from an off-site provider. This proposal is inappropriate in this instance. Chalk Streams are habitats of international importance and very rare (there are only an estimated 200-250 in the world). **Any** depreciation in their quality is unacceptable, whether it is mitigated elsewhere or not. Furthermore, watercourses should not be considered in piecemeal units; a negative impact upstream will have a negative impact downstream due to the nature of flowing water. In addition to this, any off-site Water-Course units would need to be of an equivalent ecological value, i.e. a Chalk Stream. As far as we are aware, such units do not exist.

The current plan indicates that there will be a significant number of houses built directly adjacent to the Brook (areas 11 and 12 of the illustrated masterplan). During the construction phase, it is likely there will be significant disruption to the local ecology, including the Brook and additional contaminants introduced due to the construction activity. There is no indication as to how the developers intend to mitigate for this negative environmental impact on The Brook during the construction phase. Once built, it is also highly likely that these houses will cause direct contamination of The Brook and disruption to the local ecology due to their close proximity to The Brook. Therefore, in addition to the foregoing general ecological concerns

about the proposed development, we specifically believe it is inappropriate for these houses to be built at these locations (11 and 12 on the illustrative masterplan) given the particularly sensitive nature of Chalk Streams and their internationally recognised importance and rare status.

In conclusion, this planning application should be rejected due to the negative impact on an internationally recognised important habitat, a Chalk Stream and the apparent failure of the current plan to mitigate for this. It should also be rejected as it is inappropriate for the surface run-off to be directed into a Chalk Stream, whether directly or via swales and catchment ponds, given the additional negative impact that will have on this rare and internationally important habitat. Finally, houses should not be built in areas 11 and 12 as indicated in the illustrative masterplan given the likely negative environmental impact of their construction in close proximity to a Chalk Stream.

This objection has been written by Dr. David Frearson who is a Pitstone Parish Councillor and approved by others on the Parish Council. Dr. Frearson is a trained Ecologist (1st Class Honours BSc Ecology at Lancaster University). Dr. Frearson has 18 years of experience in the water hygiene and water management sector and is a senior member of The Water Management Society. Dr. Frearson is currently Director of and majority owner of ENVOQ Ltd who are an award winning company registered in Pitstone with offices in Tring, who specialise in water sampling, testing and water quality. This includes regularly testing waste water quality in regards their impact on water courses in the UK. Dr. Frearson also has expert witness experience in this field.