

COLNEY HEATH PARISH COUNCIL

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Land to the Rear of 42-100 Tollgate Road & 42 Tollgate Road, Colney Heath

CD 9.19

date	Issue version	Revision
22 Aug 2023	1	Issue to Planning Inspectorate

FLOODING

Proof of Evidence

by

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Colney Heath Parish Councillor

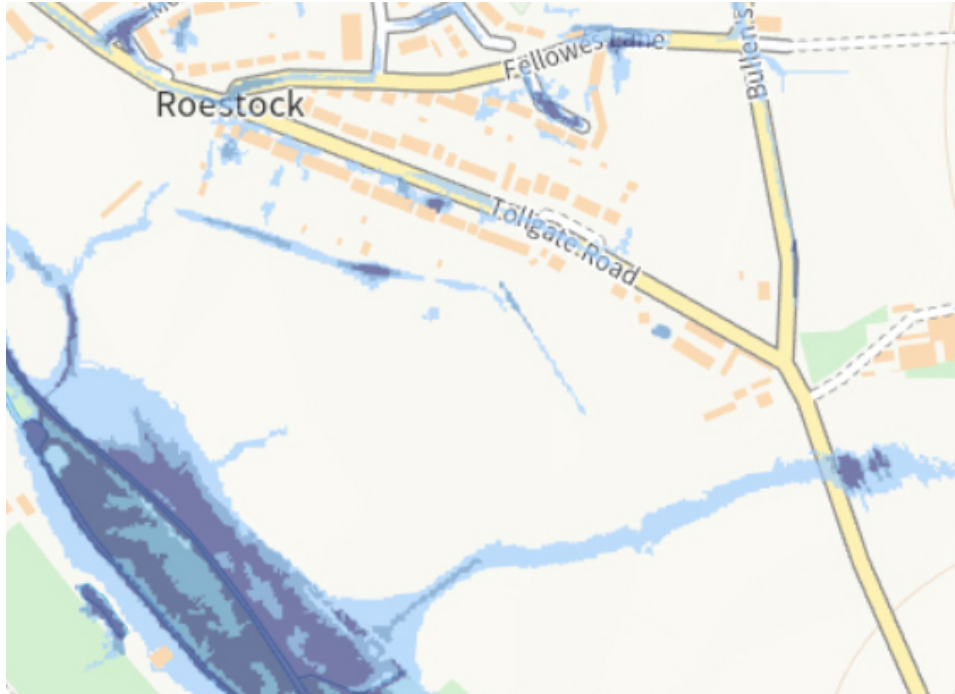
For Colney Heath Parish Council Rule 6 Party

Planning Inquiry

PINS Ref : APP/B1930/W/23/3323099

LPA REF: [5/2022/1988](#)

- 1 The SoCG CD 8.3 notes in 2.4 *The majority of Appeal Site is located within Flood Zone 1, with the south western part located within Flood Zones 2 and 3.*
- 2 The SoCG fails to note or consider the area to the rear of the houses in Tollgate Road which shown on the EA surface flood risk map. Therefore, CHPC must challenge the SoCG as it fails to include this area. The EA flood map clearly shows the area to the rear of the houses.



3 **Surface water flooding**

- 3.1 The EA flood risk assessment map (downloaded on 30th July 2023) indicates the risk of flooding to the rear of the houses 42-100 Tollgate Road.



- 3.2 CHPC does not have access to the site so must rely on the appellants data.
- 3.2a Vistry Phase 2 Ground Investigation Report
4.6.2 As shown in the table below, monitoring recorded a relatively high groundwater table beneath the site, with groundwater present at approximately 3.0 to 4.0m bgl in the north and east of the site, and at around 0.6 to 2.0 bgl in the south and west of the site.
4.6.3 These results show that groundwater is typically shallower as you approach the River Colne that forms the southwestern site boundary.
- 3.2b Vistry Mineral Assessment
3.3.7 It should be noted that the groundwater monitoring was undertaken in early summer only, when groundwater levels would have likely been at their lowest. Groundwater levels are generally at their highest in late winter/early spring.
- 3.3 The ground condition studies were undertaken in the early summer and following a drier than the normal spring on 3rd-6th and 25th May, and on 10th June. Therefore, fails to reflect winter flooding levels or those following heavy rain.
- 3.4 The upper Colne valley has several areas prone to flooding and/or water flow in addition to the area to the rear of Tollgate houses, one is shown on the EA map to the east of the site crossing Tollage Road running down to the river Colne. Two others can be found on Colney Heath common the nearest 425m to the west of the site this remains wet for much of the year and spreads over a wide area.
- 3.5 Due to the lack of data and understanding of the area to the rear of the houses in Tollgate Road it is not known if any mitigation is possible, the possible impacts from flooding on the dwellings in Tollgate Road and finally how much of the proposed area will be developable. If only limited mitigation or remedial works are possible this will reduce the developable area and so result in poor use of Green Belt land which is contrary to NPPF para 119 and 124.

4 **River flooding**

- 4.1 The risks relate from changes and in the timing and rates of flow of water into the river due to limited water holding capacity on site and non-porous areas resulting in water entering the river more quickly. There is also a risk

of debris or contamination washing into the river and downstream from the roads, homes, and gardens. Just downstream from the site is Colney Heath common containing many rare plants and area of rare acidic grassland.

Any contamination could cause harm and damage this area is subject to a 5 year management plan. (CD 16.13 HMWT Colney Heath Management Plan 2022).

- 4.2 CHPC are also very concerned over low height difference between the area which floods regularly and the proposed development area the concerns are for four reasons.
- 1) The data supplied indicates the high levels of groundwater in the site this also a particular concern that soil has limited additional water holding capacity so following heavy rain there is a significant risk of run off resulting in flooding.
 - 2) The impacts from the construction of bunds in Fredericks Wood on the opposite side of the riverbank which is subject to planning application 5/2022/0425 and appeal App/B1930/X/22/3297501. See below - Recent construction in the area related to flood risks.
 - 3) Impact of climate change resulting in heavier rainstorms as reported on BBC news including Norway, Germany and Italy and several locations in UK. The reported magnitude of some these storms even with the plus 40% allowance for climate change does cause us considerable concerns.
 - 4) If developed the risk to the internationally rare river Colne chalk stream, with less than 200 worldwide is extremely high.

- 4.3 The risks are from changes in the timing and rates of flow of water into the river. Risk debris or contamination washing into the river and flowing downstream from the roads, homes, and gardens.

5 **Impact on flows into the river Colne.**

- 5.1 Higher winter flows increasing the risk both up and down stream of houses flooding due to increased flow rates into river resulting from the change of porous open grass land to hard waterproof surfaces. The houses upstream, Kennel Cottage and downstream in Park Lane and St Marks Close and all have a long history of flooding.

- 5.2 An additional concern is that the sustainable drainage system (SuDS) with its lagoons does not have the capacity to handle prolonged period of heavy rain and would rapidly flow into the river.
- 5.3 Also, as the proposed lagoons are lined, they would offer little or no filtration of the surface water before it enters the river Colne chalk stream there by risking contamination of the river.
- 5.4 The river Colne in Colney Heath has seen a significant reduction in summer water flow rates and in many years the flow has stopped altogether, while this not uncommon for a chalk stream the period now lasts longer and has resulted in the loss of some species.
- 5.5 Climate change is a factor, however CHPC believe the current levels of water extraction is also a significant factor.
- 5.6 This is exacerbated by a former industrial site in Sandridge which processed bromate compounds, the site has now closed and redeveloped for housing. While the site was in operation a large amount of bromate was released into the aquifer.
- 5.7 The carcinogenic bromate is harmful to health and international maximum limits apply in drinking water. The levels in ground water are significantly above these levels so remedial action is currently being undertaken.
- 5.8 The bromate plume is moving towards Hatfield and the Hertford however it is currently managed by pumping from the Bishop's Rise PS. None this water goes into the public water supply but is processed to remove much of the bromate before entering the sewer network. The current extraction rate is up to 9 million/litres per day for the remedial action.
- 5.9 The short fall in water supply is made up by from the existing pumping stations in the area, Roestock and Church Lane, as well water piped in from elsewhere.
- 5.10 The concern is the diversion of surface water into proposed lagoons will not replace the water held in the soil which is then released over longer periods into the river and aquifer.
- 5.11 While the area is, in percentage terms, quite small with the development of 100 dwellings at Bullens Green Lane which diverts some of its surface water into the main sewer together, they impact on river already under

considerable stress in summer months from high water extraction in the area.



Photo taken winter 2021-22 from inside Osier beds wood looking toward Colney Heath village in the far distance the flood plain is under water.



River Colne flooding at Colney Heath Farm on 21st October 2021
This image was taken from the public footpath linking Tollgate and Coursers Road Colney Heath. This also shows the low height difference between the flooding areas and proposed development area.

6 Recent construction in the area related to flood risks

- 6.1 The current EA flood risk assessment predates the construction of bunds in Fredericks wood across the river to the application site.
- 6.2 The impact from the construction of bunds in Fredericks Wood on the opposite side of the riverbank which is subject to planning application 5/2022/0425 and appeal App/B1930/X/22/3297501.
- 6.3 If granted it could have significant impact on flooding along the river by reducing the width of the flood plain in an area which already floods so increasing the flooding levels. Application 5/2022/0425 contained no evidence or assessment on the impact on flooding in the area.
- 6.4 However, if refused, without significant remedial work the risk still exists. Following a FOI by CHPC to the Environment Agency (EA) they are not currently proposing any requirement for the removal of the dumped soil.

7 Environmental Factors

- 7.1 The river Colne is an internationally rare chalk stream, with less than 200 worldwide. Considerable efforts are being made to improve the river with schemes in the rivers Colne, Ver, Chess and Misbourne and downstream in Watford by Watford Borough Council and The Colne Catchment Action Network.

8 Relevant Planning Matter

We note the representation made in the document “Relevant Planning Matter” regarding the failure to comply with paragraph 162 national planning policy framework.