

Appeals concerning land at Thames Farm, Reading Road, Lower Shiplake:

APP/Q3115/W/25/3373696 (Appeal A)

APP/Q3115/W/25/3373700 (Appeal B)

APP/Q3115/W/25/3373702 (Appeal C)

CLOSING SUBMISSIONS

on behalf of

South Oxfordshire District Council

as

Local Planning Authority

INTRODUCTION

1. These three linked appeals all concern the same essential question, namely, whether the site can be suitably developed for residential purposes without undue risk of harm to sensitive receptors at (and underneath) the site and in its immediate vicinity.
2. Appeals A and C lie at the heart of this case. The Appellant accepts that if Appeal A or Appeal C fail, Appeal B cannot succeed.¹ Appeal C is also dependent on the success of Appeal A.²
3. The Appellant argues that Appeal A could succeed even without Appeals B or C.³ The Council regards this as a highly theoretical and unlikely outcome, given the shortcomings of Appeal A, but agrees that it is a possibility. It must also be recognised that there is no secured or binding commitment by the Appellant to undertake the works proposed in Appeals B and C, even if

¹ Knott POE, paras 1.1.5, and 6.6.1.

² Knott POE, para 1.1.5.

³ Knott POE, para 1.1.5.

Appeal A is allowed.⁴ It is axiomatic that any planning permission runs with the land and the Appellant may or may not be the ultimate developer of the site. The Appellant has provided no commitment to exclude its usual commercial freedoms to dispose of the site to another in the event that all or any of the appeals are successful.⁵ Thus, Appeal A, if allowed, could be a planning permission that stands on its own.⁶ It therefore needs to be assessed on that basis.

4. The Council considers that, given that Appeal B is dependent on both Appeal A and Appeal C, and that Appeal C is dependent on Appeal A, there is a logic to considering the Appeals in the sequential order of Appeal A, then Appeal C, and then Appeal B. These Closing Submissions therefore follow that sequence.

THE MAIN ISSUES

5. The Inspector's Summary Note of the Case Management Conference of 10 December 2025 identifies the main issues for each appeal and the Council adopts those main issues in its assessment of these appeals.

APPEAL A

6. *Whether or not it is sufficiently demonstrated that the proposed engineering operations and the ground stabilisation works would not pose an unacceptable risk to a local principal aquifer and public water abstraction.*
7. The Council considers that there is no sufficient demonstration that the Appeal A works can be achieved without posing unacceptable risks both to the principal aquifer and to the public water abstraction at the nearby Harpsden Public Water Supply (PWS). Primarily, this is because the Appellant

⁴ Knott in XX, notwithstanding earlier evidence that the present Appellant has “an appetite to implement” and a “keen commitment to deliver the site, subject to all technical approvals”. In fact, nothing is secured or committed.

⁵ Knott in XX.

⁶ Knott in XX.

has not provided the necessary information to show that the risks of the proposed grouting works can be safely controlled so that grout and any attendant displaced materials will not reach the aquifer or thence be borne to the PWS. The Appellant put to Mr Dodds that he was not able to say whether *“there will or won’t be harm”*⁷ but this misses the point for two essential reasons. First, Mr Dodds has addressed the main issue on Appeal A as formulated by the Inspector, and the Appellant confirmed both at the CMC and at the opening of the Inquiry that it took no issue with the formulation of the main issues. That main issue does not require the positive demonstration of harm but demonstration that the proposed works *“would not pose an unacceptable risk”* of harm. Second, Mr Dodds was very clear that the reason why he could not say whether there would or would not be harm was *“because the risk assessment is not adequate. It is not my role to do the risk assessment”*.⁸

8. The stance adopted by Mr Dodds (and the formulation of the main issue for Appeal A) is fully consistent with the Environment Agency (EA)’s approach to groundwater protection as set out in CD7.23. This policy guidance is quite clear that:

“A2 – Precautionary principle

Development must be appropriate to the sensitivity of the site. Where the potential consequences of a development or activity are serious or irreversible the [EA] will adopt the precautionary principle. The [EA] will also apply this principle in the absence of adequate information with which to conduct an assessment.

A5 – Supply of adequate information

The [EA] expects developers and operators to provide adequate information to statutory bodies, including the [EA] when submitting their proposals. This is so that the potential impact on groundwater resources and quality can be adequately assessed. In particular, where new techniques... are involved,

⁷ Dodds in XX.

⁸ Dodds in XX.

developers or operators should be prepared to supply specific relevant data to allow the risk to groundwater to be assessed.

N7 – Hydrogeological risk assessment

Developers proposing schemes that present a hazard to groundwater resources, quality or abstractions must provide an acceptable hydrogeological risk assessment (HRA) to the [EA] and the planning authority. Any activities that can adversely affect groundwater must be considered, including physical disturbance of the aquifer...

9. The guidance applies a precautionary approach in the absence of adequate information, expects developers to provide that adequate information, especially when proposing new techniques, including specific information on risks, and expects developers to provide an acceptable hydrogeological risk assessment which covers hazards to groundwater and physical disturbance of aquifers.
10. The responsibility on a developer to provide an adequate conceptual model for a risk assessment is also clear in the joint EA/Defra guidance on groundwater risk assessment (CD7.18). Whilst primarily focused on the assessments needed for an environmental permit, its guidance can be sensibly applied to any groundwater risk assessment, including an HIA presented for the purposes of the planning process. This guidance includes the need for a conceptual model to provide “*a description of...karst or karstic features (for example... pipes, large fissures...) that could provide rapid pathways between the [proposed] activity and groundwater*” and to provide “*information on the thickness of the unsaturated zone and, for some activities, measurements of water levels in wet and dry periods from boreholes or wells – seasonal variations are often important for specific types of aquifer, such as chalk.*”⁹

⁹ CD7.18, p9/31.

11. It was therefore entirely appropriate for Mr Dodds to adopt an approach of critical scrutiny of the adequacy of the Appellant's risk assessment for Appeal A (i.e. the HIA in CD7.2), to test whether it provided adequate information to assess the risks posed by the compaction grouting proposed, rather than seek to carry out his own risk assessment or to demonstrate the existence of harms by his own evidence. Given that he found that the HIA was inadequate and did not provide sufficient information to robustly assess the risks, it is scarcely surprising that he was not in a position to conclude whether the grouting works would or would not result in harm to the safeguarded water resources.
12. The Appellant sought to make much of the fact that Mr Dodds had no direct experience of grout or its properties but, again, this misses the point. As became clear from the evidence as a whole, not a single one of the experts giving technical evidence to the Inquiry has direct experience of the injection of grout via compaction grouting to unstable ground which is underlain by a principal aquifer and forming part of a Source Protection Zone 1 for a public water supply abstraction point.¹⁰ Mr Dodds clearly had considerable geological and hydrogeological expertise in the type of karst ground conditions present at (and under) the site, and in the processes of undertaking a hydrogeological risk assessment, and was more than sufficiently knowledgeable to carry out a critical appraisal of the HIA.
13. The main criticisms identified by Mr Dodds in the HIA were that there is insufficient information on groundwater levels at the site and its immediate vicinity over an adequate period of time to provide data on the range of those levels, insufficient information on the extent, number, and depth of solution features within the site, insufficient information on the nature of the hydraulic gradients between the site and the PWS, and insufficient information on the

¹⁰¹⁰ Confirmed in XX by Dr Edmonds, by Mr Dunhill, and by Ms Fraser. Whilst compaction grouting may be a widely used process in ground stabilisation, there is no evidence of it being used to stabilise ground in such a sensitive setting. Nor can it be taken to be a process that is always successful as a stabilisation technique, with Mr Brinkworth giving evidence (in XX) of direct involvement in a site at Orpington, Kent, where compaction grouting had failed to prevent the subsequent collapse of a drain, attributable in Mr Brinkworth's view to a failure of the grouting to treat all of the sources of instability.

presence of fast flow pathways between the ground beneath the site and the PWS.

14. With regard to the information on groundwater levels, it is important to distinguish between two materially different issues. The first is whether there is sufficient information known at present about the range of groundwater levels so as to inform the creation of a coherent conceptual model for the purposes of risk assessment. The second is whether it would be possible to devise a monitoring regime so as to establish the particular groundwater levels at the future point in time when grouting is being undertaken.
15. The Council accepts that the second issue could be addressed by the imposition of a suitable future monitoring regime. However, any future data that such a regime might yield cannot be relied on at present to support the assessment in the HIA, precisely because that future data is not yet known. The first issue therefore needs to consider the available data on groundwater levels relied on in the HIA and to test whether it is adequate. Resolution of the second issue does not render the first issue redundant or academic, because the conceptual model is the essential lynchpin of the HIA, and having a robust HIA is fundamental to satisfying the EA's policies for groundwater protection (in particular N7 in CD7.23).
16. The HIA only presents episodic or 'snapshot' data on groundwater levels. Some limited monitoring was provided from five 'MW' boreholes on 7 occasions between November 2021 and October 2022 (with data for a single date in November, January, March, April, June, August, and October).¹¹ This monitoring threw up an anomalous result, such that *"It was advised that additional groundwater monitoring wells were installed especially targeting the far west of the site as here groundwater flow directions are unknown"*.¹² Notwithstanding that advice, the subsequent groundwater monitoring only included one location at the western edge of the site (borehole HF2)¹³ and groundwater levels were only monitored on 3 further occasions, seven and

¹¹ CD7.2, Figure 3.3.

¹² CD7.2, para 57.

¹³ CD7.2, Figure 4.1.

five days apart, in January and February 2023.¹⁴ For borehole HF2 only two data points are available.¹⁵

17. More recent data on groundwater levels was presented with Ms Fraser's evidence, which included monitoring results in December 2025 and January 2026.¹⁶ In addition, offsite data from Thames Water has also been provided.¹⁷ However, the new data has not been incorporated into the HIA, and the site data still does not provide data on the seasonal range of groundwater levels, and remains only episodic.¹⁸ Mr Dodds' conclusion, in the light of the new data, was *"Whilst Ms Fraser presents new data collected on site, the data only covers a short period of about 3 months. This is insufficient to assess and draw conclusions regarding inter-seasonal and inter-annual variation, and does not reduce the uncertainty in the variation in groundwater levels below the Site."*¹⁹

18. In the absence of an adequate understanding of the range of groundwater levels at the site, it is not possible to build up a robust understanding of groundwater gradients across the site or to gauge the velocities of groundwater flows to the PWS. These deficiencies are serious shortcomings in the conceptual model which underpins the HIA.

19. In addition, the Appellant's approach to ground investigation, in order to identify the extent of the solution features which are the source of the instability of the ground conditions, has been inadequate, even in the view of its own technical advisers. The initial geophysical assessment of ground conductivity, undertaken by Zetica in 2019, identified *"Areas of low apparent ground conductivity possibly related to voiding in the underlying chalk"* and recommended *"intrusive investigation of 3No. priority locations (Z1 – Z3) within features C4, C5, and C11, to determine if theses are related to voids in the chalk. A further 5No. locations (Z4 – Z8) within features C6 – C10 are*

¹⁴ CD7.2, Table 4.9.

¹⁵ CD7.2, Table 4.9.

¹⁶ Fraser POE, Table 5.1.

¹⁷ Fraser POE, Figure 5.2.

¹⁸ See the piecemeal data points in Fraser POE, Figure 5.4a, and Dodd's Rebuttal, paras 2.4 to 2.7.

¹⁹ Dodds' Rebuttal, para 2.10.

recommended for intrusive investigation.” Notwithstanding that these features were spread widely across the site and so justified a site-wide intrusive investigation, the Appellant chose to limit that investigation to (a) isolated boreholes, undertaken by Zetica, within the zones of the potential features, (b) limited dynamic probes within those same zones, undertaken by Terramech, and (c) some 1,200 dynamic probes across most of the site, but restricted to a 6m grid square, undertaken by Stantec.

20. As regards the Zetica boreholes, several were recorded with results of “*void (no recovery)*” in the chalk strata, (at boreholes Z2, Z5, Z7).²⁰ These boreholes were the result of using a sonic drilling rig “*In order to gain some samples which could be examined properly*” and, in the view of the persons carrying out that investigation and subsequent analysis of the results, yielded “*resulting cores are of superior quality and allowed us to properly examine the nature of the strata that had been penetrated*”.²¹ It was assessed that, for the linear features so investigated, “*Each appears to comprise a deep seated void in the underlying Chalk which is either still intact or has collapsed and allowed the overlying superficial deposits to drop down into the void formerly occupied by soft Chalk*”.²² The report was alive to the possibility that such voids might not be wholly free of material, noting “*[It] is not clear if the voids are open and air or water filled, or if they are filled with very soft chalk slurry*”, but nor did it discount the prospect of the voids being ‘open’ and containing only air or water.²³

21. Some seven years after this investigatory work was carried out, and without access either to the persons who carried it out or to the core samples that they collected, the Appellant’s witnesses now contend that the report was incorrect or “*entirely misleading*” to describe the presence of voids in the weakened chalk affected by solution features.²⁴ Necessarily, the Appellant’s witnesses have no evidence from the site to support this contention and, with

²⁰ CD7.2, Appendix B (NB the borehole locations and records are in a sub-appendix C within that Appendix B).

²¹ CD8.3, paras 3.10, 3.11.

²² CD8.3, para 4.1.

²³ CD8.3, para 4.5.

²⁴ Edmonds Rebuttal, para 1.2.8,

due respect to their experience and expertise, it is not credible, in the absence of data, to completely rule out the presence of ‘open’ voids in the unstructured chalk. The HIA noted that *“The disturbed ground extends below the top of the structured Chalk, this means that grout flowing into voids in the disturbed ground will have a route to the structured Chalk, even if grouting boreholes don’t extend this far.”*²⁵ This comment only makes sense on the basis that it was accepting that there are voids in the unstructured chalk which will receive grouting boreholes, and that those voids are of a nature (i.e. ‘open’) such that they can allow any grout flowing into them to then have a route to the structured chalk. The HIA was, of course, authored by Ms Fraser. Indeed, when Dr Edmonds provided his Technical Note in December 2024 (CD2.18) he saw no difficulty in recognising that air-filled voids could be present within a solution feature²⁶, that *“The disturbed profiles can often contain voids as well”*, and that *“Given these challenging ground conditions it is necessary to undertake ground stabilisation works to strengthen the ground and infill voids.”*²⁷ The apparent change of heart by these two experts on the possibility of such voids existing in the unstructured chalk does not seem to be based on any new evidence and cannot be regarded as a robust or justified conclusion from the available evidence.

22. As regards the Terramech dynamic probes, they confirmed the presence of weakened ground across parts of the site, including locations/depths where there was no resistance to the probe, which could indicate the presence of voids, such as in probes DP5 and DP12A.²⁸ The HIA concluded that the results for probes DP5 and DP12A *“could be interpreted as void space due to the lack of any resistance to the probe”*.²⁹ At that time (December 2024) it did not seem to be the view of Ms Fraser (as the author of the HIA) that voids simply could not exist in unstructured chalk.

²⁵ CD7.2, para 54.

²⁶ CD2.18, para 4.8 and Figure 2.

²⁷ CD2.18, paras 5.2 and 5.3.

²⁸ CD8.3, Appendix D.

²⁹ CD7.2, para 55.

23. As regards the Stantec dynamic probes, they provided useful data for the particular locations that were probed down to the depths assessed (noting a large swathe of shallow refusals in the western part of the site), but the 6m grid spacing was too staggered to provide an adequate assessment of conditions across the site. The choice of a 6m grid spacing was not a recommendation of Dr Edmonds.³⁰ Nor was it a decision made by Mr Dunhill, who was “*not personally involved in the decision*”.³¹ Mr Dunhill attributed the decision in part to his colleague, Neil Hopkins, but acknowledged that in his 2020 correspondence with the EA about this site Mr Hopkins had considered a 3m spacing to be “*quite common*” when investigating for solution features, and that there is no evidence he had changed his mind about that.³² Dr Edmonds also did not “*essentially disagree*” with the views expressed by Mr Hopkins in 2020 on a 3m grid spacing.³³ Mr Dunhill also acknowledged that the choice of a 6m grid was an “*economic/financial decision*”, leaving “*the design solution to take on board the risk of only investigating at 6m.*”³⁴ In short, no one in the Appellant’s team of experts provided technical evidence to support the use of a 6m grid as either suitable or sufficient to provide adequate data on ground conditions across the site.

24. Some further ground investigation was undertaken in February 2023 by Geotron on behalf of HFCL, with some 5 further boreholes being drilled (the HF boreholes).³⁵ Borehole HF2 (in the southwest corner) resulted in a depth of no core recovery in the unstructured chalk, which could be consistent with an ‘open’ void.³⁶ The HF boreholes also identified sub-vertical fractures and sub-horizontal discontinuities in the unstructured chalk (for HF2, HF3, and HF5). Dr Edmonds was driven to describing these results as “*wrong*” because they did not fit his interpretation of the expected ground characteristics of unstructured chalk, but he had no site-specific data to justify disagreeing with

³⁰ Edmonds in XX.

³¹ Dunhill in XX.

³² Vertase letter of 14 April 2020 in CD7.37 and Dunhill in XX.

³³ Edmonds in XX.

³⁴ Dunhill in XX.

³⁵ CD7.2, Appendix C.

³⁶ Brinkworth POE, paras 2.24 and 2.25.

or setting aside the contemporary logging by those who had actually carried out the investigations and inspected the samples.

25. Some attempt was made to address the limitations of the Stantec dynamic probing in the Western Ground Conditions Technical Note (December 2024),³⁷ but this too was a limited sampling exercise, and even for the western part of the site did not provide confirmation of the absence of solution features but was primarily an assessment of ground conditions in the layer above the unstructured chalk.
26. These shortcomings in the available information on the ground conditions beneath the site mean that the HIA is not supported by a robust evidence base, its hydrological conceptual model lacks validity, and its risk assessment suggesting that there are no plausible pathways for the grout to reach either the aquifer or the PWS is not well-founded.
27. In terms of there being such pathways (or it not being possible to exclude the risk of them being present), it is not necessary to resolve the differences between Mr Dodds and Dr Edmonds/Ms Fraser on the properties of unstructured chalk and whether it can support pathways capable of allowing the passage of grout. This is because there is no dispute about the presence of open fractures/fissures in structured chalk,³⁸ and Dr Edmonds accepted that the grouting process, using the locations shown on the Drill and Grout Plan (CD1.14), will also include “*drilling in the structured chalk*” (as well as in the unstructured chalk) and that “*in certain circumstances it is possible to go through to a fracture*” in the structured chalk.³⁹
28. The proposed 2m stand-off above groundwater levels for any injection of grouting will not preclude drilling to the depth of the structured chalk, because that layer in places sits above the expected water table,⁴⁰ and some of the solution features penetrate down to that layer (even if the outer edges of the

³⁷ CD7.3, Appendix D.

³⁸ Edmonds in XX.

³⁹ Edmonds in XX.

⁴⁰ CD7.2, Figure 3.2 and para 54; Fraser in XX.

features themselves are regarded as a form of putty-like unstructured chalk).⁴¹ Thus, treating the solution features, even if limited to the extent that those features are above the water table, by drilling and grouting within them and around them will involve grouting in the structured chalk, and that grouting may be in parts of the structured chalk that contain fractures and fissures. Such fractures and fissures may be up to 10 mm in size⁴² and may provide sub-vertical or sub-horizontal pathways to the aquifer lying below the area of the grouting works. The HIA itself noted that *“It can be seen that even if grouting is well above the structured chalk and the water table, there is a small possibility that grout could be forced through the soft ground to below the water table.”*⁴³

29. In addition, if any of the solution features do contain ‘open’ voids (which cannot sensibly be ruled out on the available evidence), those voids could provide a further pathway for grouting within the solution feature to ‘escape’ into the void and then (simply by the process of gravity) reach the aquifer below.

30. As well as this concern as regards grout reaching the aquifer, Mr Dodds also expressed concern that unset grout could also be conveyed to the PWS via a fast-flow pathway. It was Mr Dodd’s evidence that grout would not set when in water.⁴⁴ The Appellant’s argument that unset grout can be relied upon to set within about two hours in all circumstances, before any likely transmission to the PWS, was based on the experience of slump tests, which are not the equivalent of unset grout being placed into water.⁴⁵ No evidence was presented on the setting properties of grout if it reaches the groundwater before it has had time to set.

31. There was considerable debate about whether grout could reach the PWS and about the amount of time it would take to do so. These matters are

⁴¹ Fraser POE, Figure 6.1.

⁴² CD7.2, para 90.

⁴³ CD7.2, para 99.

⁴⁴ Dodds in XX.

⁴⁵ Edmonds in chief and Dunhill in chief.

necessarily informed by the nature of the intervening ground, both as regards the existence and nature of any pathways within the chalk strata under the site and its environs and the hydraulic gradients for any groundwater flows between the site and the PWS. Resolution of these matters depends on the validity and robustness of the hydrogeological conceptual model that has been used to assess the relevant risks. For the reasons explained by Mr Dodds, the conceptual model used in the HIA is not robust and, essentially, is not sufficiently informed by baseline data on groundwater levels, ground conditions in the chalk, and hydraulic gradients between the site and the PWS, and so cannot be relied on to conclude that there are no risks of unset grout reaching the PWS via one or more fast-flow pathways. In that context, it does not matter whether the alternative conceptual model put forward by Mr Dodds is correct (or not), because (as he explained) it is not his role to undertake the risk assessment. That task rests with the Appellant.

32. In addition to these shortcomings in the evidence seeking to address the impacts of the proposal on water resources, it is apparent that the drainage arrangements for the grouting works will give rise to undue risks of flooding to off-site properties. The proposed temporary bunds have not been adequately tested against the residual risk of flooding should either or both fail during a severe event. Ms Philpott sought to address this issue in her Rebuttal, but the exercise did not utilise the model for surface water runoff that had been used to size the temporary bunds (which was based on Flood Estimation Handbook rainfall parameters and the application of the Causeway Flow drainage software)⁴⁶ but rather used a different direct rainfall model⁴⁷. This produces a significantly reduced volume of runoff to be retained by the temporary bunds (as shown in the Rebuttal, Figure 1). Whilst Ms Philpott contended⁴⁸ that the exercise shown in her Figures 2 and 3 had allowed for the full volume of water stored by the bunds to be released, this cannot have been correct. Those Figures assumed a flow rate of 0.5m³/s for a period of 20 minutes.⁴⁹ This

⁴⁶ CD2.3 Part 1, paras 7.14, 7.21, and 7.29.

⁴⁷ Philpott Rebuttal, para 3.1.3.

⁴⁸ Philpott in XX.

⁴⁹ Philpott Rebuttal, para 3.1.6.

would equate to a volume of c.600m³ (0.5 x (60s x 20) = 600). However, the temporary bunds have capacities of 2340m³ and 1728m³ (north and south) to cater for a critical storm event.⁵⁰ Clearly, a failure of either of the bunds in such an event would discharge materially more water to Reading Road and the properties east of Reading Road than the modelling suggested by Ms Philpott in her Rebuttal. The effects of such flooding on those properties and on the highway itself has not been adequately assessed by the Appellant.

33. The Appellant proposes that all and any uncertainties in the available information can be addressed by imposing planning conditions to require further information and planning conditions setting parameters that the works must adhere to. The Appellant relies (heavily) on the fact that both the Council's internal officers and external consultees considered that a package of conditions could meet any outstanding concerns.

34. As regards the EA, its final position (in CD4.15) was that, without a Source Protection Strategy condition, *"we would object to the proposal in line with paragraph 187 of the National Planning Policy Framework because it cannot be guaranteed that the development will not present unacceptable risks to groundwater resources."* It is worth noting the reason that the EA suggested for its proposed SPS condition: *"Reason: to ensure that the proposed development does not harm the water environment..."* (emphasis added). In testing the reasonableness of the proposed SPS condition, the objective that it is intended to achieve must be kept in mind.

35. Thames Water formulated its proposed SPS condition slightly differently (CD4.35) but with the same objective. Thames Water's wording was *"Development hereby approved shall not commence until a Source Protection Strategy, detailing how the developer intends to ensure the water abstraction source is not detrimentally affected by the proposed development, both during and after its construction, has been submitted to and approved by the local planning authority..."* (emphasis added). Both statutory consultees therefore

⁵⁰ CD2.3 Part 1, para 7.29, and the plan in CD2.3 Part 4 at p.91.

only withdrew their objections on the proviso that a condition would “ensure” that there was no “harm” (or “detrimental effect”) on groundwater resources.

36. However, that objective is not achieved by the proposed SPS condition. The condition does not preclude grouting taking place in the structured chalk. The condition does not preclude grouting wherever there is a fracture or fissure in the chalk. The condition does not preclude the presence of such fractures or fissures providing pathways to the aquifer. The condition does not preclude grouting wherever there may be a void in a solution feature. The condition does not preclude grouting from reaching the groundwater beneath the site, whether by a fracture, fissure, or void as an available pathway between the grouting activity and the aquifer. The consequential harm is recognised in the HIA, which notes that *“If grout enters fractures/voids below the groundwater table, it is possible, although by no means certain that this may cause turbidity in the groundwater, either caused by particulates from the grout itself or from erosion of the Chalk matrix.”*⁵¹

37. The presence of grout in the aquifer would also constitute physical disturbance of the aquifer, contrary to the EA’s policy N8 in CD7.23. Unset grout would also be a contaminant of the aquifer by reason of its high pH from its cement content.⁵² This contrasts with the current baseline condition of effectively a ‘neutral’ pH value for the groundwater.⁵³

38. The Appellant implicitly acknowledges that the proposed SPS condition cannot be expected to ensure that there is no harm to water resources, because part of what is proposed is a mechanism which includes setting *“Action levels – indicators that there is a departure from baseline conditions and action needs to be taken”*, requiring a *“Contingency action plan – what action will be taken if a threshold is exceeded”*, and requiring *“Remedial actions - outline options for remediating impacts”*.⁵⁴ Monitoring and remedial

⁵¹ CD7.2, para 111.

⁵² Dodds POE, para 4.11 (no change in position whether the grout includes Sulphate Resisting Portland Cement or Ordinary Portland Cement CEM 1: Dodds in RX, Brinkworth in chief, Dunhill in XX, Fraser in XX).

⁵³ Fraser POE, Table 5.3.

⁵⁴ Fraser POE, Table 7.2

action also feature in the proposed condition advanced by the Appellant, based on what was recommended in the officer report.

39. Thus, it is quite clear that the SPS condition will not achieve the objectives expected by either the EA or Thames Water of ensuring no harm to water resources. The most it will achieve is a monitoring programme to identify the occurrence of harm, after the event, and then require the taking of remedial action. The EA and Thames Water were, unfortunately, mistaken in thinking that the SPS condition(s) they wished to see would be capable of achieving the objective of ensuring no harm to water resources. Whilst the Appellant will no doubt make much of the expertise of the statutory consultees, and of the weight that would ordinarily be given to their judgments, that cannot stand in the face of the objective facts. This Inquiry has provided an opportunity to explore in very great detail the intended grouting process and the potential for it to interact with pathways in the chalk strata leading to the principal aquifer and thence to the PWS. The evidence shows that the risk of such pathways existing cannot be excluded. Nothing in the proposed SPS condition obviates that risk nor can the SPS condition prevent grout injected into either the structured or the unstructured chalk from reaching the aquifer.

40. It is uncontentional that conditions can only be imposed where it would be reasonable to do so.⁵⁵ That applies just as much to a condition suggested by a statutory consultee as it does to any other proposed condition.⁵⁶ Nothing in the case law on the weight generally to be given to the views of statutory consultees (including the case of Morge v Hampshire County Council [2011] UKSC 2, to which it is understood the Appellant will refer) provides a reason to depart from the tests that all conditions must meet. The case of Morge (on the interrelationship between habitats regulation assessment in the planning process and protected species licensing) does not address the tests for planning conditions.

⁵⁵ Knott in XX.

⁵⁶ Knott in XX; PPG paras ID21a-003-20190723, ID21a-005-20190723, and ID21a-016-20140306.

41. A condition which would fail to address its intended objective would not be reasonable, as an exercise of planning judgment. A condition which defers a critical matter when there is no confidence it can be satisfactorily resolved would not be reasonable, as an exercise of planning judgment.
42. It is understood that the Appellant intends to rely on the case of R (Isherwood Carter) v City & County of Swansea [2015] EWHC 75 (Admin) to suggest that a decision maker is entitled to impose a planning condition even if there is no positive evidence that the condition can be met, if it is otherwise necessary and reasonable for proper planning purposes. The Appellant also relies on that case for the contention that it is inconceivable that the EA did not consider whether a SPS condition was capable of being met before it suggested it.
43. The Swansea case was concerned with the question of whether it was legally open to a decision maker to impose conditions to protect a water main and local water courses from the construction of an access track to serve a wind farm (see para 19). The case report does not set out the conditions that were in dispute, so their actual requirements cannot be compared to the proposed SPS condition. What the Swansea case does not address is whether it is reasonable or not, as a matter of planning judgment, to impose a condition for the purpose of avoiding a harm when the proposed condition is either (a) incapable of avoiding that harm or (b) defers the question of whether the harm can be avoided. In the Swansea case, the Court considered (para 41) that it was “*inconceivable*” that the water company would have proposed conditions to protect its water main and local water courses if it had not been satisfied that adequate protective measures were capable of being put in place, and that the local planning authority was “*entitled*” (but not bound) to assume that the conditions could be met. The Court added that “*It is not suggested that the issues in question gave rise to any particularly complex or difficult engineering issues.*”
44. In this case, the proposed SPS condition does not seek to avoid harm from arising by reason of the grouting operations (see para 36 above). The

condition does not specify the avoidance of harm as an outcome that must be delivered by any SPS, and the reference to monitoring and subsequent remedial action is a strong indication that the condition recognises that the avoidance of harm is not achievable, and so it seeks to address (by remedial action) the consequences of any harm. The SPS condition also leaves entirely open what measures will be included in the SPS to manage the grouting process, and yet this is the critical issue. If the provision of a SPS was a mechanism that could be assured to prevent harm to either the principal aquifer or the PWS, it is surprising that no choate strategy has yet been provided and that the contents of the strategy are at present wholly at large and deferred to another stage of the process. A reasonable inference to draw is that insufficient is presently known about the risks to allow a meaningful strategy to be prepared. In such circumstances, deferring the difficulties to another day is not a reasonable response. A reasonable response is to expect critical issues to be addressed at the stage that any planning permission is granted.

45. A further issue on the inappropriateness of a SPS condition in the circumstances here is that a condition which leaves the local planning authority at risk of having to approve something which is the best that can be achieved, even if that something is still not acceptable, would not be reasonable.
46. In relation to that latter point it is relevant to consider the circumstances that arose in the Proberun case (CD14.7). In that case an outline permission for residential development was granted, leaving access as a reserved matter for subsequent approval. The developer proposed at the reserved matters stage an access arrangement which was the best that could be achieved within the confines of the application site. The local planning authority did not approve that arrangement because of an outstanding objection to it from the local highway authority. There was therefore an appeal against non-determination. The Inspector considered the access arrangement was seriously flawed and

dismissed the appeal. The High Court quashed that decision and an appeal against the High Court judgment was dismissed by the Court of Appeal.

47. The Court of Appeal formulated the legal issue it had to decide as:

*“The issue on this appeal is if on an outline permission a condition is imposed which requires the approval of the local planning authority to be obtained of details of the means of access to the buildings, are the planning authority empowered to refuse to approve proposals for access which are the best which can be achieved within the site, on the grounds that they are not good enough? Or, in effect: can approval of detail be refused unless the applicants are able to obtain control over some land outside the site?”*⁵⁷

48. The Court of Appeal (per Glidewell LJ) answered the issue in the negative: i.e. the local authority could not refuse what was the best that was achievable:

*“In my opinion if a planning authority, perhaps because it regrets that outline planning permission has been granted, refuses to approve detailed proposals for access within the boundaries of the site, and makes it clear that only a scheme for access which involves the developer acquiring rights outside the land currently under its control will be approved, it is, to adopt Lord Morris’s wording, misusing its function so as to achieve, without compensation, what would amount to a revocation or modification of a permission already given. Such a misuse of power patently is unlawful.”*⁵⁸

49. In other words, once a planning permission is granted, even if it is subject to conditions which require further details to be submitted and approved, the local planning authority cannot use that power of further approval to achieve an outcome amounting to revocation of the permission by declining to approve the best details that the developer can achieve within the context of the site and the permission that has been granted. In simple terms, as Mr Knott accepted, once a permission is granted the local planning authority has

⁵⁷ CD4.7, p.10 (per Glidewell LJ).

⁵⁸ CD4.7, p.14.

to be prepared to approve something under conditions which call for further details.⁵⁹ It cannot say ‘no’ to everything, even if the best that is achievable would not be satisfactory and would result in harm.

50. This will apply to the SPS condition (and indeed to other conditions seeking to defer approval of further details on drainage matters). If planning permission is granted for Appeal A, the developer will be entitled to insist that any decision on the content of the terms of a strategy for the discharge of the SPS condition cannot go back on, or behind, the fact that permission has been granted for “*engineering operations associated with ground stabilisation works*” by means of compaction grouting.⁶⁰ If those operations entail a risk of grout reaching the aquifer (which is the effect of the evidence to this Inquiry), the Council cannot use the SPS condition to prevent those operations from taking place if the developer shows that the method put forward is the best that can be achieved to minimise the risk.

51. The Court of Appeal also rejected the argument that any problems could be overcome by treating the condition requiring further details as a negative (or Grampian) condition. Absent any evidence that a condition for a SPS (whether in positive or negative form) could achieve the stated objective of ensuring no harm is caused to water resources, it would not be reasonable, as a matter of planning judgment, to impose such a condition.

52. The fact that SPS conditions have been imposed in other cases is nothing to the point. The Council’s concern is not to the principle of such a condition but to its reasonableness in the circumstances that arise at the Thames Farm site, given (a) the deficiencies in the availability of information to adequately assess the risks of harm to water resources and (b) the expectations of the relevant regulatory bodies that any condition should ensure that the development causes no harm to those resources.

⁵⁹ Knott in XX.

⁶⁰ The description of development in the planning application for Appeal A (CD1.1).

53. In addition to the SPS condition, the Appellant also relies on a condition on grouting which in part seeks to regulate the composition of the grout. However, the proposed condition requires that the grout “*shall not contain any ingredients that have the potential to contaminate the groundwater*”. Since the grout has to be made with cement, and cement is inevitably of a high pH and alkalinity (compared to ‘neutral’ water), and raising the pH of groundwater would have the potential to contaminate that groundwater, the condition sets a requirement that would not be reasonable. In effect, it would require the grout to be made without cement, which would prevent it from being grout.
54. The grouting condition also requires the development to comply with the Outline Project Method Statement (CD2.5) and the Specification for the Stabilisation of Dissolution Features (CD2.15). Both of these documents rely on compliance with the Drill and Grout Plan (CD1.14) to identify the areas that are to be subject to grouting operations,⁶¹ but the Appellant has been clear that it is not intending to adhere to the details shown on that plan, especially as regards the western area.⁶² It is, therefore, uncertain precisely which parts of the site are to be grouted and the proposed grouting condition is unreasonable because it is uncertain in what it requires. That uncertainty would be compounded if the Appellant’s late suggestion that there should be no reference to the Drill and Grout Plan (or its associated Site Layout Plan⁶³) in any planning permission conditions for Appeal A. Such a course would leave the spatial scope of the grouting works wholly at large anywhere within the site and would allow for a quite different proposal, in both spatial and temporal extent, to anything that has been appraised in the evidence (including the ES) or addressed at the Inquiry. It is a suggestion that should be rejected but the fact that it has been made speaks volumes about the uncertainties in what is intended.

⁶¹ CD2.5, section 4: “*Drawing D1827_66F in Appendix A shows the design layout for the grouting works*”; CD2.15, para 7.1.2. The references to secondary and tertiary grouting (in para 7.1.5) relate to grouting within the grid of primary drill holes and not to a ‘roving’ free-for-all across the site. This is confirmed by Mr Dunhill’s evidence on “*the split-spacing method*” that is to be followed in the grouting works: Dunhill POE, para 6.5.

⁶² Dunhill in chief and in XX explained there was “*no intention to address the green areas under the infiltration basin*”.

⁶³ CD1.15.

55. In this case, there are clear deficiencies in the HIA and its conceptual model, coupled with the limitations in the available data on ground conditions beneath the site, such that the risks of grout reaching the aquifer have not been adequately assessed. The proper approach is for the Appellant to resolve the uncertainties by the provision of sufficient information to support its engineering works before seeking planning permission and not to ask for a planning permission which ‘kicks the can down the road’ as regards the risks posed by the development.

56. In terms of the operation of the development plan and NPPF policy to Appeal A, the analysis is quite straight-forward and will reflect the way in which the main issue is decided. If the evidence of Mr Dodds and Mr Brinkworth is accepted that there are unresolved risks of grout reaching the aquifer and thence being conveyed to the PWS, there will be a breach of Policies DES7 and ENV12 of the SOLP (CD6.1) and a failure to have regard to the geology of the site contrary to Policy ENV5 of the JHNNP (CD6.4). There would also be a conflict with para 187(e) of the NPPF. Appeal A is not a proposal which “*involves the provision of housing*” for the purposes of footnote 8 to para 11 of the NPPF, being a proposal for ground stabilisation works which, if granted permission, would have to be implemented before any residential development at the site, and may or may not be followed by subsequent residential development. It is not proposed (and nor would it be reasonable) to require that the development in Appeal A can only be carried out if it is followed by residential development. Merely because it is a pre-condition to any residential development of the site (whether under Appeal B or some other scheme) does not make it a development involving the provision of housing.

57. Consequently, for the purposes of Appeal A, the absence of a five year housing land supply (5YHLS) has no relevance. Leaving 5YHLS matters aside, it is agreed that the relevant SOLP policies carry “*significant weight*”.⁶⁴ Mr Knott did not seek to argue that if the main issue on Appeal A was resolved against the Appellant, there were nonetheless other material

⁶⁴ Knott POE, para 5.2.4.

considerations to justify the grant of consent.⁶⁵ The “*tilted balance*” attempted by Mr Knott, apart from being inapplicable to Appeal A, was premised on the only harm being as regards the climate change impacts of the proposal.⁶⁶

58. Appeal A should therefore be dismissed.

APPEAL C

59. *The acceptability of details for discharge of: Condition 4 (vehicular accesses, footways, cycleways, driveways and turning areas); Condition 5 (construction management); Condition 8 (landscape management); Condition 9 (bat method statement); and Condition 11 (drainage strategy).*

60. The Council's primary concern is that the details submitted for discharge of Condition 11 are not acceptable because of serious inadequacies in the proposed drainage strategy. There is a related concern as regards the drainage arrangements during the construction period which are sought to be discharged by the details submitted under Condition 5.

61. The fundamental issue is the proposal for infiltration of all surface water into the ground beneath the western part of the site, which is not proposed to be subject to grouting to stabilise the ground, with the construction of a new bunded detention basin into which the surface water will be pumped prior to its discharge into an infiltration ‘blanket’ and then its release into the untreated ground and thence to the aquifer.

62. The Appellant has not demonstrated that this part of the site is free from solution features or that the ground is stable enough to support the detention basin and its bunds. The Appellant has identified that there are some solution features in this part of the site, within the footprint of the detention basin and its supporting bunds. There is no plan which explicitly provides an overlay of

⁶⁵ Knott in XX.

⁶⁶ Knott POE, paras 6.1.3, 6.5.1, and 6.6.3.

the identified areas of weak ground from the dynamic probing and the entirety of the detention basin and its bunds, but the main area of overlap can be seen on a version of the Drill and Grout Plan presented as part of the Specification for Stabilisation of Dissolution Features.⁶⁷ That plan clearly shows that there are ‘green areas’ identified as containing dissolution features and proposed drilling and grouting points within the south east corner of the detention basin and underneath the proposed retaining bunds. Notwithstanding what is shown on the Drill and Grout Plan (CD1.14), the Appellant has stated (in the evidence of Mr Dunhill)⁶⁸ that no drilling or grouting will take place under the detention basin, and so those identified features under the basin will remain untreated.

63. Of course, the limitations of the 6m grid spacing for the site investigation work mean that other solution features, not as yet detected, may also exist under the footprint of the detention basin and its bunds.⁶⁹ This was confirmed by Dr Edmonds who accepted that *“you cannot rule out some isolated features”* but he would *“not expect too many”*. Mr Dunhill also accepted that the process of grouting, working outwards from the ‘green areas’ on the Drill and Grout Plan meant that *“in the non-green areas, the process of working outwards will not find other features.”* Much of the detention basin extends over ‘non-green areas’ where no drilling/grouting is proposed. Mr Dunhill suggested *“We might do some sporadic drilling [but] it was not the intention to treat every solution feature”*. However, the Drill and Grout Plan does not accommodate any *“sporadic drilling”* outside of the ‘green areas’ as part of Appeal A and nor is such an exercise described in either the Method Statement or in the Specification. No weight can therefore be placed on an exercise of sporadic drilling to treat other unidentified features. In any event, as Mr Dunhill also accepted, *“There will be some residual risk, we won’t find by drilling.”* Moreover, the intention not to use compaction grouting in the areas that lie under the detention basin (to avoid compromising the infiltration process)

⁶⁷ CD2.15, the plan is version Rev C of the Drill and Grout Plan, and appears following p.27 of the text. This version of the Drill and Grout Plan also shows the residential layout and the western detention basin and its bunds.

⁶⁸ Dunhill in XX: *“No intention to address the ‘green areas’ under the infiltration basin”*.

⁶⁹ Brinkworth POE, para 3.21 and Figure 13.

would preclude any sporadic drilling from resolving unidentified solution features.

64. Dr Edmonds also confirmed that he had not been asked to advise on the drainage strategy or on the proposed western detention basin and its infiltration blanket. He did, however, state that he stood by the terms of para 6.6.1 of the Ground Stability Assessment (CD8.9) which was clear that *“The adoption of the infiltration drainage at this site will need to take into consideration the ground conditions identified in this report. Shallow soakaways are not recommended for drainage discharge into the ground because of the potential for destabilising existing solution features.”*

65. Notwithstanding that recommendation, what is proposed by way of the infiltration blanket is, in effect, a shallow soakaway, which is sited in an area which, based on the existence of known solution features within parts of the site and the limitations of the ground investigations undertaken, has the potential to contain existing solution features.⁷⁰ The Appellant has clarified that no grouting will take place under the footprint of the detention basin as part of Appeal A, and so any existing solution features in that area (identified or unidentified) will remain untreated. The Appellant appears to rely on carrying out unspecified further works (not shown on any plans nor described in any documents) to treat any solution features that exist under the detention basin. However, such works are not part of the drainage strategy or the works proposed in Appeal C. They would be further engineering operations, and would need a separate planning permission, which has not been sought, and is not a matter that can be relied on in assessing the acceptability of the drainage arrangements proposed in Appeal C.

66. There is also the issue of how, within the context of the present appeals, the proposals could address any unidentified solution features under the footprint of the bunds. Mr Dunhill indicated that the known features under the bunds

⁷⁰ This potential was identified in the Ground Stability Assessment (CD8.9) and paras 5.2.4 and 6.4.1, with further ground investigation then being recommended, but subsequently only sporadic further boreholes were drilled, which were for the most part either outside of the area of the proposed detention basin or only at shallow depths above the level for the infiltration blanket: Brinkworth POE, Figure 7 and para 2.27.

*“will be treated”*⁷¹(presumably as part of the Appeal A works) but this will not cover any other solution features in that area (such as any features in the vicinity of borehole HF2).⁷² Mr Dunhill went on to suggest that such other features would come to light as part of the construction works for the new bunds, which would entail initial excavation in order to provide the bunds with foundations. Mr Dunhill said there would *“visual inspection under the entirety of the bund. Grouting under the bund is the same process. If we found them, we could dig them out, depending on depth, or we [could] grout them.”*⁷³

However, this explanation failed to address the sequencing of events. The grouting works in Appeal A will need to be complete (and verified as complete) before the drainage works in Appeal C (which are part of the Appeal B development in terms of an authorising planning permission) can be commenced.⁷⁴ The opportunity to carry out further grouting works under Appeal A to address solution features only found after site excavations for Appeal C will simply not arise. Any such further grouting works (or indeed any other engineering operations to address a solution feature identified in the Appeal C works) would not be part of what is authorised by the drainage details proposed in Appeal C and would need a separate planning permission. No such planning permission has been sought and thus no reliance can be placed on the process described by Mr Dunhill for dealing with as yet unidentified solution features.

67. In addition to these concerns regarding the stability of the ground which is to accommodate the detention basin and its bunds, the Appellant’s assessment of the permeability of the ground, and so the suitability and sizing of both the infiltration blanket and the detention basin, is demonstrably deficient. This issue was addressed in detail by Mr Brinkworth.⁷⁵ Mr Abley did not dispute that the permeability testing *“should be at the invert level”* if it was to comply

⁷¹ Dunhill evidence in chief.

⁷² Brinkworth POE, paras 2.24 and 2.25.

⁷³ Dunhill evidence in chief.

⁷⁴ This is required by Condition 15 of the proposed conditions on Appeal B, which is an agreed condition by all parties.

⁷⁵ Brinkworth POE, paras 2.28, 3.32 to 3.36, Rebuttal paras 3.20 and 3.21.

with the BRE guidance for permeability testing⁷⁶ and he accepted that the permeability testing that was undertaken was “*not testing the ground where the infiltration blanket was*”.⁷⁷ Mr Abley contended that it was sufficient to test the “*suitability of the strata*” but the permeability testing was at the level of the superficial deposits and not at the level of the underlying chalk into which the blanket would primarily infiltrate.⁷⁸

68. Mr Abley abandoned⁷⁹ the suggestion in his Rebuttal that the falling head tests undertaken had been appropriate (given the permeability rates revealed)⁸⁰ and yet accepted that the infiltration rate that had been used to size both the detention basin and the infiltration blanket had been taken from these tests (and from the non-compliant BRE tests not undertaken at an appropriate invert level).⁸¹ What this meant was that there was no robust or reliable permeability testing to inform the most critical components of the drainage system.

69. Mr Abley sought to argue that any shortcomings in the permeability testing could be overcome because the sizing of the infiltration blanket had also taken account of a Factor of Safety (FoS). Not only was this a complete misuse of the concept of a FoS (which is not to compensate for deficient input information),⁸² but the specific FoS used here (5) was at the lower end of any reasonable judgment about the consequences of a failure and could not be said to provide any margin of comfort.⁸³ Mr Abley then suggested that the detention basin was sized such that it could accommodate a severe event even with a FoS of 10, but conceded that this could only be done by eroding

⁷⁶ Abley in XX and CD11.5, para 3.2.3.

⁷⁷ Abley in XX.

⁷⁸ CD7.3, Appendix D, the Western Ground Conditions report, section 5: “*The base of the proposed infiltration blanket will lie at the base of the sand layer (no lower than 47.7m aOD)...*” and Figure 5.1.

⁷⁹ Abley in XX.

⁸⁰ An infiltration rate of 1.52×10^{-5} m/s is not less than 10^{-6} m/s. The BS guidance (BS EN ISO 22282-2) setting out the limits on falling head tests, and the need to use constant head tests if rates are in excess of 10^{-6} m/s does not indicate that this does not apply to larger soakaways.

⁸¹ Abley in XX and the Drainage Statement for the Discharge of Condition 11 (CD2.151, para 6.43).

⁸² CD11.4, SUDS Manual, Table 25.2 and its preceding text.

⁸³ Table 25.2 suggests a FoS of 5 is appropriate for consequences no greater than inconvenience such as the flooding of a car park, whereas a FoS of 10 should be used for consequences that would be a major inconvenience, which is what could be expected from a failure of the drainage system.

the freeboard below the minimum freeboard requirement of 400mm, contrary to the Design and Construction Guidance.⁸⁴

70. Mr Abley accepted that the detention basin had not been sized so as to accommodate runoff from the permeable areas constituting the outer faces of the bunds or their immediate environs, and that accounting for such areas was now expected in the National Requirements for SUDS as published by Defra.⁸⁵ Mr Abley referred to earlier local guidance which did not require their inclusion but that guidance cannot sensibly be preferred to more up-to-date national guidance. Whilst Mr Abley was tempted to refer to an exercise (not presented in evidence) that he considered showed that any under-sizing could be accommodated by reducing the available freeboard, this can carry no weight given that (a) it was not supported by evidence (and so could not be tested) and (b) would also be a design that was non-compliant with the DCG.⁸⁶ In addition, Mr Abley acknowledged that the runoff coefficient values applied to both the western and the eastern detention basins (which would receive 100% of any rainfall landing within them) had incorrectly used a Cv of 0.90 rather than a Cv of 1.0.⁸⁷ The coefficient values are a necessary input to sizing a detention basin. Thus, on any view of the evidence, the detention basin is under-sized for the volume of water it is realistically expected to accommodate.

71. Nor has the Appellant adequately addressed both the on-site or off-site flood risks if the detention basin should fail (whether by over-topping, by breach, or by other collapse), located as it is on the higher ground on the western part of the site, above the proposed dwellings and above existing dwellings on both sides of Reading Road, and above the highway itself. It is worth noting that the DCG is quite clear that statutory bodies would not be expected to adopt a detention basin with a water level any higher than *“at least 500mm below the lowest floor level of any adjacent properties”*⁸⁸ whereas this detention basin

⁸⁴ CD11.3, section C7.7 item 6.

⁸⁵ CD11.6, para 3.32.

⁸⁶ CD11.3, section C7.7, item 6.

⁸⁷ Abley in XX and Dwg A253-APP-02 Rev P1 in Abley Appendix C.

⁸⁸ CD11.3, section C7.7, item 5.

will have a water level some 2m to 3m above the levels of the nearest properties.⁸⁹

72. Whilst Ms Philpott sought to downplay the residual risks of flooding due to a failure of the basin, and presented the results of a modelling exercise for the effects of a breach of the detention basin in her Rebuttal,⁹⁰ it became clear that this was not a full breach model, and relied on a series of questionable assumptions. The assumed breach event was modelled with a constant flow of 4m³/s, which is not a flow likely to be experienced in the event of a breach caused by a failure of the bund. The assumption that informed this flow rate was a breach that was 5m wide but the depth of water discharged was only 0.5m deep. Clearly, since the detention basin has a designed depth of water of some 1.135m in a 1:100 year event followed by a 1:30 event,⁹¹ this was not a reasonable worst case assumption.

73. Moreover, the ground modelling of the site extraordinarily did not include the built structures of the proposed dwellings,⁹² which in any realistic scenario would impede some flow paths and channel water to other available unobstructed pathways, so causing a materially different distribution of flood waters, and so it cannot be regarded as a representative indication (either on-site or off-site) of which areas would be flooded. Even with these deficiencies, the exercise showed flooding of existing and under-construction off-site residential properties to the north of Bolney Lane and to the east of Reading Road. Whether such flooding would be materially different to the baseline flooding in a 1:1000 year event somewhat misses the point. The exercise shows that in a breach scenario, even with a lesser 1:100 year event, there are residential properties that will experience flooding that would not arise in a baseline event of that same severity. It is of no real comfort to those affected to know that they might experience a similar degree of flooding in a much more severe 1:1000 year event.

⁸⁹ Compare CD2.94 for cross-sections of water levels in the basin of c.54m AOD and CD2.88 for levels of Plots 63 and 64 (51.75m and 50.80m AOD).

⁹⁰ Philpott Rebuttal, Figure 5.

⁹¹ The water level for the detention basin is shown in the cross-sections in CD2.94.

⁹² Philpott in XX.

74. In addition to these fundamental issues with the design and location of the detention basin, the Council has unresolved concerns about the design of the drainage system, especially as regards the outfall from the detention basin, the sizing of key features, the capacity of the system to be self-cleansing, and the long-term maintenance of the system. Dr Clothier set out a detailed critique of the proposals in both his POE and in his Rebuttal, and whilst he accepted that, on an individual basis, there may be scope to address particular shortcomings in the design, he had no confidence that collectively all of the problems could be resolved without impacting on the layout of the residential scheme that is proposed in Appeal B.

75. A key concern relates to the issue of the future maintenance of a drainage system which has to work in all respects for the lifetime of the residential development. If there was evidence that the drainage system was likely to be adopted by a statutory undertaker or public body, which would then become responsible for the future maintenance of the system, the issue would not be of concern. However, despite the Appellant's attempts to suggest that adoption by a New Appointment & Variation (NAV) body is likely to be forthcoming, the evidence does not bear this out. First, it remains wholly opaque as to why the Appellant, having started a process of adoption under s.104 of the Water Industry Act 1991 with Thames Water, has moved away from any expectation that Thames Water would be the adopting body. Second, the correspondence between the Appellant and the NAV now put forward, Icosa Water, shows that (a) Icosa's position is subject to the important proviso of *"provided all SUDS and the foul/surface water networks are constructed to meet Icosa technical standards/DCG..."*, (b) *"For the avoidance of doubt, Icosa will not adopt permeable pavements and carriageways"*, (c) any further progress is subject to Icosa's *"issue of technical approval"*, and (d) that process will only commence *"following planning"*.

76. Dr Clothier has identified key components of the drainage arrangements that do not meet adoptable standards and since meeting those standards is a pre-condition to Icosa taking the matter forward, it is clear that the arrangements

will not be adopted by Icosa (and there is no indication of any other NAV, in the offing, and in any event they would also be subject to the same requirements and the same Code⁹³).

77. Not only does this leave the long-term maintenance of a complex system in doubt (noting that Mr Abley contemplated that it may be necessary to replace/re-construct the infiltration blanket during its lifetime), it leaves completely unresolved the arrangements for the maintenance of the highway drainage on Reading Road which is intended to be incorporated into the drainage arrangements forming part of Appeal C. This is an important matter in view of the requirement of the local highway authority that such arrangements need to be put in place.⁹⁴ Mr Abley also confirmed that “yes, *adoption of the highway drainage, it is in the public interest for security of flooding*”.⁹⁵

78. The Appellant complains that the Council is seeking too much detail for the planning process and that the drainage design can be finessed post-consent to address any outstanding technical issues. However, this complaint misses the point that the drainage strategy is to support a fixed layout for the residential development (as proposed in Appeal B), and it is not possible to say that the shortcomings can be satisfactorily resolved without spatial implications for that layout. This is especially the case for drainage infrastructure located underneath the permeable paving for the internal road layout. Whilst Mr Abley suggested that there could be scope to relocate the rising main to the side of the roads, he acknowledged that this would not be possible within the layout for all of the surface water drainage.⁹⁶ Leaving the identified problems in the design to resolution post-consent is another case of ‘kicking the can down the road’, but with no assurance that any ultimate

⁹³ Clothier Rebuttal, para 4.47, Abley in XX.

⁹⁴ CD4.67. The issue of such a requirement ‘compelling’ a developer to surrender or cede land (which for the sake of argument may include adoption of sewers or other drainage infrastructure in land) could be readily resolved by expressing any such requirement in negative form so that the development cannot take place unless/until there are suitable arrangements for the long-term maintenance of the highway drainage.

⁹⁵ Abley in XX.

⁹⁶ Abley evidence in chief. Dr Clothier dealt with the practical problems of maintenance for drainage placed under permeable paving: Clothier POE, paras 5.9-5.11, 7.11-7.12.

solutions can be accommodated within the layout that is sought to be approved at this stage. Indeed, it is somewhat surprising that the Appellant, having sought the discharge of Condition 11 via Appeal C, now maintains that Appeal B should be permitted on the basis that it continues to require a further approval of a drainage strategy via a retained Condition 11 for Appeal B. This seems to be an exercise in circularity and underscores the shortcomings of the submitted drainage strategy.

79. In the light of these deficiencies in the drainage strategy, it is clear that if the Council's evidence is accepted, there is non-compliance with Policies ENV12 and EP4 of the SOLP as regards both land stability and drainage/flood risk. There are no material considerations that could outweigh these conflicts. There is no question of the "*tilted balance*" applying to Appeal C and in any event there is nothing in the NPPF that could support development that could not be adequately drained and which would present increased risks of off-site flooding to nearby residential properties.

80. Thus, Appeal C should also be dismissed.

APPEAL B

81. *(a) Whether adequate drainage design (under Appeal C) and ground stabilisation works (under Appeal A) can be provided, having regard to pollution risks to a local aquifer; public water abstraction; as well as the stability of the land for development.*

(b) Whether appropriate planning obligations towards facilitating (i) affordable housing provision; (ii) adequate infrastructure and mitigation can be secured.

82. Sub-issue (a) is substantially answered by the conclusions reached on Appeals A and C. The Council does not consider that it has been demonstrated that the site can be either stabilised or drained to as to make it

suitable for residential development as proposed without undue pollution risks to the aquifer and PWS and increased flood risks to off-site dwellings.

83. It is not in dispute that the site benefits from an extant and implemented planning permission for residential development but it is also not in dispute that no further development can be forthcoming under that permission as it stands and that it is only if these appeals are allowed that development can proceed.⁹⁷ In those circumstances, the existing permission provides no form of fall-back and is of minimal (if any) weight in the balance of planning arguments.

84. Whilst the Appellant's evidence makes much of the 'tilted balance' by reason of the current lack of a five year housing land supply, this is not really a case which turns on such matters. The 'tilted balance' has no role to play in Appeals A or C (without which Appeal B cannot get off the ground) and even if the 'tilted balance' is applied, it would be displaced by the harms caused to the aquifer and the PWS and the unresolved risks of flooding from the design weaknesses in the detention basin.

85. Sub-issue (b) is a matter where there is now every expectation that it will have fallen away provided only that there is a short period of time given for the formal execution of the Deed of Variation, the terms of which have been agreed between the relevant parties (the Appellant, the Council, and Oxfordshire County Council). The issue raised by the Inspector as to whether Schedule 7 of the original s.106 Agreement required any revision has been raised by the Council with Oxfordshire County Council (for whose benefit the provisions in Schedule 7 apply) and OCC has confirmed that it is content that no revisions are necessary. Once the Deed has been executed, there would be suitable arrangements in place to require affordable housing and infrastructure contributions for Appeal B, were Appeal B to be allowed.

86. However, for the reasons already stated, the deficiencies in Appeals A and C mean that the necessarily dependent Appeal B should also be dismissed.

⁹⁷ Knott in XX.

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