

Proof of Evidence
FLOOD RISK AND DRAINAGE

Expert Witness:

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Town and Country Planning Act 1990

Appeal Against Refusal of Planning Consent

Appeal Reference: APP/C1435/W/22/3307820

For

Appeal for Land at Bird in Eye Farm, Framfield, Uckfield.

Prepared for

Appellant: K. Smith (Rule 6 Party)

August 2023

Endorsement

The evidence which I have prepared and provide for this appeal reference APP/C1435/W/22/3307820 in this proof of evidence is true. It has been prepared and is given in accordance with the guidance of my professional institution (Chartered Institute of Water and Environmental Management - CIWEM) and I confirm that the opinions expressed are my true and professional opinions.

Contents Page

1	Qualifications, Background & Scope of Evidence	3
2	Policy Framework	9
3	Flood Risk Related Evidence	13
4	Drainage Issues	31
5	Summary and Conclusions	40

Appendices:

Appendix A.1 – Extract from the Appeal Decision from July 2023, Appeal Ref: APP/N1920/W/23/3314268

Appendix A.2 – Flood risk mapping from various sources

Appendix A.3 – Site context in relation to the surrounding watercourses

Appendix A.4 – Photographs of B2102/Framfield Road flooding in November 2022

Appendix A.5 – Information on rainfall gauging stations

Appendix A.6 – Historic flood information provided by ESCC

Appendix A.7 – R&D Output FD2320/TR2 and Supplementary Note

Appendix A.8 – Risk of flooding from surface water extent for Framfield Road

Appendix A.9 –Phase I Desk Study and Site Reconnaissance Report (2015)

Appendix A.10 – Extracts from relevant guidance

Appendix A.11 – Email correspondence with Stantec, dated 7th August 2023

Figures:

Figure 1 - Extract from WDC web map showing sites considered as part of the SHELAA process.

Figure 2 - Extracted from RoFSW maps for the 1 in 30 year return period event (most frequent), centred on the access routes to the SANG from the residential parcel of land (Imagery ©2023 Google).

Figure 3 - Extract from the North Wealden Level 1 SFRA (2022) - Appendices showing the areas of groundwater concern.

Figure 4 - Photo taken November 2022, looking west along Framfield.

Figure 5 - Photo taken November 2022, looking east along Framfield Road.

Figure 6 - EA Historic Flood Map showing the extent of flooding in October 2000, crossing the Framfield Road and extending along the reach of the Bird-in-Eye Shaw (contains Ordnance Survey data © Crown copyright and database right 2023).

Figure 7 - Flood contour with maximum water level up to 21.8m AODN shown in blue to replicate the extent of flooding witnessed in November 2022 (Imagery ©2023 Google).

Figure 8 - Aerial height data and cross section identifying the two low points in Framfield Road (either side of the Framfield Stream). (contains Ordnance Survey data © Crown copyright and database right 2023).

Figure 9 - Risk of Flooding from Surface Water Maps, for various return periods, centred on the location where Framfield Road joins Bird in Eye Hill (Imagery ©2023 Google).

Figure 10 - Southern Water sewer map showing surface water sewers (blue) and wastewater sewer (brown).

Figure 11 - Google Street View images showing location of the road drainage gullies, inset image showing double gullies blocked with sediment, which is likely to be a frequent occurrence (Imagery ©2023 Google).

Figure 12 - Image showing the alternative route from the development to Uckfield if the Framfield Road is impassible due to flooding (Imagery ©2023 Google).

Figure 13 – Area draining to watercourse catchment.

Figure 14 – Catchment plan.

Figure 15 – Swale and basin plan.

Figure 16 – Existing catchment of Bird in Eye Hill Farm.

Figure 17 – Proposed drainage system catchment.

Figure 18 – Impermeable area catchment.

Figure 19 – Exceedance plan.

Figure 20 - Extract from the Guide to Sustainable Drainage Systems in East Sussex, highlighting details which the appellant has failed to submit (outlined in red).

1 Qualifications, Background & Scope of Evidence

1.1 Qualifications

- 1.1.1 My name is Simon Maiden-Brooks. I am the Managing Director (former Technical Director) and a Partner at Herrington Consulting Limited (HCL) and my qualifications and experience are set out below.
- 1.1.2 I hold a BSc. (Hons) degree in water related science and an MSc. in Environmental Engineering. I am a Chartered Engineer (C.Eng) and a Chartered Water & Environmental Manager (C.WEM). I am also a Member of the Chartered Institution of Water and Environmental Management (MCIWEM).
- 1.1.3 I have been a Director and Partner at HCL since 2011 and I have worked within the Coastal, Flood Risk and Drainage Sector for over 21 years, including Local Authority. HCL is a specialist Flood Risk Management consulting practice, which was founded in 2005. The practice provides professional advice to the public and private sectors. HCL has offices in Kent and London, and work on projects throughout the UK. HCL also forms part of a larger organisation, 'Environmental Protection Strategies' (EPS), who specialise in geotechnical and in-ground engineering, with offices in Cambridge, Bristol and Leeds.
- 1.1.4 I have acted as an Expert Witness on numerous occasions, providing technical evidence on complex matters relating to the water engineering sector and planning matters related to flood risk and drainage, including at the High Court. I have advised Local Government, the Ministry of Defence (MOD) and the Environment Agency (EA), along with private developers and landowners.
- 1.1.5 I am responsible for overseeing the Flood Risk Management, Drainage and Numerical Modelling sectors of the consulting practice. HCL regularly undertakes detailed hydrological assessments to determine hydrological characteristics through technical analysis and detailed numerical flood modelling studies. I oversee the preparation of Flood Risk Assessments (FRAs) and Drainage Strategy reports, which include detailed design of Sustainable Drainage System (SuDS), for a wide range of development types. The analysis undertaken is underpinned by the use of industry standard approved software and procedures.
- 1.1.6 HCL has been instructed on behalf of Kassie Smith KC, a local resident and Rule 6 Party, to provide expert evidence at the Appeal (ref APP/C1435/W/22/3307820) by Croudace Homes Ltd ('the Appellants') for the proposed development at Land at Bird in Eye Farm, Framfield, Uckfield (the "Appeal Site"). Ms Smith opposes the grant of planning permission and first raised concerns about food risk and drainage issues in a letter from Town Legal LLP dated 6th April 2023 prior to my instruction. Prior to accepting this instruction, I undertook a conflict check and also conducted my own initial appraisal of the appeal proposal and the supporting documentation to decide whether I could support these concerns. I decided I could. As I have prepared the evidence my views have not changed. I became aware whilst drafting this evidence that Wealden District Council ('the

Council') has confirmed that they have withdrawn their third reason for refusal based, it seems, on a statement made by East Sussex County Council (ESCC) as Lead Local Flood Authority ('the LLFA') dated the 2nd August 2023 which, I first became aware of on 8th August 2023. I note that in their consultation response dated 1st August 2023 to Claire Turner at Wealden District Council, the LLFA state "The information provided is satisfactory and enables the LLFA to determine that the proposed development is capable of managing flood risk effectively. Although there will be a need for standard conditions which are outlined in the response". I explain the reasons why I feel unable to agree with this approach in section 4 of my evidence.

1.2 Previous Involvement

- 1.2.1 In 2015, HCL was instructed by Croudace Homes Ltd (the now Appellant) to review the site (Bird in Eye Hill Farm) for inclusion within the Strategic Housing Land Allocation Assessment (SHLAA). The report was entitled "Technical drainage note"¹ and the focus of the report was to investigate the potential solutions for discharging both foul and surface water from the site.
- 1.2.2 It should be recognised that the HCL report was not prepared to support a specific planning application, nor did it comprise a Flood Risk Assessment.
- 1.2.3 The boundary of the site used in the HCL report comprised a smaller section of the site when compared to the current development proposal and was limited to the eastern part of the redline boundary that is subject to this appeal. The total area of the site quoted in the HCL 2015 report was 11.6 hectares. The latest redline boundary, for comparison, can be found in the Appellant's Statement of Case Appendix WB18 (parameter plan)².
- 1.2.4 Since 2015 there has been changes in national planning policy and guidance on flood risk, drainage and climate change. In addition, an application has been made and now an appeal against non-determination. I also note significant amendments to the redline boundary have been made. All of these changes listed would have required the previous technical work undertaken by HCL to be revisited. In this case, Stantec was instructed by the Appellant to prepare a more detailed assessment of flood risk and drainage in support of the planning application.
- 1.2.5 HCL's previous involvement in relation to the site and associated drainage technical work was discussed with our client (Ms K Smith) prior to any involvement by HCL and I satisfied myself and my client that there is no conflict of interest when reviewing the technical work undertaken by Stantec on behalf of the Appellant for the appeal site, nor in expressing my own professional opinion.

¹ CDH.4 - Herrington Consulting Limited Technical Drainage Note: Proposed development Bird in Eye, Uckfield, dated May 2015

² CDC.2 - Appellant's Statement of Case: Appendix WB18 – PA4E Parameter Land Use Plan, 03/02/2023

1.3 Reasons for Refusal

- 1.3.1 The appeal is against the Council on the basis of non-determination of the application for outline permission, given Council reference WD/2021/2198/MAO with all matters reserved, except for the means of access from Bird in Eye Hill. The scheme is for the erection of up to 290 dwellings, associated landscaping, informal open space and a strategic Suitable Alternative Natural Green Space (SANG), with access from the B2101 on Land at Bird in Eye Farm, South of Bird in Eye Hill, Framfield, East Sussex, TN22 5HA.

1.4 Timeline of Application

- 1.4.1 Below is a summary timeline, identifying when the key technical documents were prepared, when technical responses were received and when relevant updates to planning policy were released.

Document/Event	Date	Summary	Core Document
Meeting between the applicant and ESCC	5 th May 2020	Meeting between East Sussex County Council acting as the Lead Local Flood Authority and Stantec to discuss the design principles in terms of the surface water drainage strategy.	CDA.18
FRA prepared by Stantec on behalf of the Appellant	29 th April 2021	Combined report, FRA including Drainage Strategy. Report acknowledges that the site is split into two parcels, one parcel providing the SANG. Report concentrates analysis on developable area. ³ Drainage strategy proposes outfall to Framfield Stream, through the ancient woodland.	CDA.18
NPPF 2021 published	20 th July 2021	Updates to the NPPF 2019 stating that a risk-based approach should be taken, and all sources of flood risk should be taken into consideration, including an allowance for climate change.	CDL.1
Planning submission	19 th August 2021	Planning documents submitted, including the FRA prepared in April 21, ref. WD/2021/2198/MAO.	
WDC Drainage response	25 th October 2021	Objection – Insufficient information on infiltration potential provided.	CDB.8
EA response	26 th October 2021	No Objection – suggest condition in relation to Environmental Permitting.	CDB.9
ESCC Flood Risk Management response	4 th November 2021	Objection – Due to insufficient information on the method of surface water discharge and the impact on Ancient Woodland.	CDB.11
Response by Stantec	4 th November 2021	Response in relation to WDC Drainage comments, received on the 25 th October 2021. Response references previous correspondence with ESCC regarding infiltration testing being undertaken at Reserved Matters stage.	CDA.33

³ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Section 2.1.1, p. 6

Document/Event	Date	Summary	Core Document
NE response	10 th November 2021	Objection – Insufficient information on SANG.	CDB.12
WDC Drainage response	26 th November 2021	Re-iteration of further information required regarding infiltration potential. Suggestion of conditions if planning is granted without further information.	CDB.15
ESCC SuDS and Flood Risk Management Response	15 th December 2021	Objection – maintained. Suggestion of conditions if planning is granted without further information.	CDB.19
Forestry Commission response	21 st December 2021 and 6 th January 2022	Raised concerns regarding the impact on the ancient woodland.	CDB.20 & CDB.21
Updated Surface Water Drainage Strategy following Infiltration Testing	1 st February 2022	Updated drainage strategy, proposing discharge of surface water runoff through infiltration. No updates to FRA.	CDA.38
Ground Conditions and Infiltration Assessment	15 th February 2022	Technical Note setting out results of ground investigation, which was undertaken between the 10 th and 13 th January 2022.	CDH.5
WDC Drainage response	1 st March 2022	Objection – maintained. Queries appropriateness of infiltration method based on infiltration testing results.	CDB.24
ESCC Flood Risk Management	11 th March 2022	No Objection – subject to conditions.	CDB.25
NE response	23 rd March 2022	No Objection – subject to conditions.	CDB.26
Update to CC allowance guidance	10 th May 2022	The EA issues updated guidance on the allowance for climate change. For the Adur and Ouse Management Catchment (which the site lies in), a <u>45%</u> allowance for climate change is required to be considered.	CDH1
The North Wealden Strategic Flood Risk Assessment	May 2022	Wealden District Council released a new Strategic Flood Risk Assessment (SFRA), which supersedes the previous version.	CDE.42
Update to the NPPG	25 th August 2022	The NPPG significantly updated, providing more detailed guidance on flood risk and drainage.	CDH.6
Appeal lodged	15 th May 2023	Appeal lodged by applicant due to non-determination.	

Document/Event	Date	Summary	Core Document
Accompanying Updated Drainage Tech Note issued by Stantec	17 th July 2023, report dated 17 th January 2023	<p>Description of previous work and mention of additional infiltration testing, which has not been submitted.</p> <p>Revised report states that due to high groundwater levels, poor infiltration rates were recorded and drainage design has been amended to reroute the outfall to the Framfield Stream.</p> <p>No drainage calculations have been provided, so it is unclear whether new drainage model considers new a allowance for climate change. Drawing provided suggests this has not been undertaken.</p> <p>No update to FRA since original report was prepared in April 2021.</p>	CDA.54

1.5 Scope of my Evidence

- 1.5.1 My evidence reviews and considers the technical work undertaken by the Appellant's consultants (Stantec) in relation to flood risk and drainage.
- 1.5.2 I explain how the Appellant's FRA report does not quantify the risk of flooding from all sources, taking into consideration the impact of climate change over the lifetime of the development. I conclude that the Stantec FRA therefore fails to satisfy the requirements of national and local planning policies in this respect. I highlight in my proof of evidence that the Appellant has provided insufficient information to confirm that the proposals are appropriate for their location and satisfy the Sequential Test, as incorrectly stated within the Stantec FRA.
- 1.5.3 My evidence demonstrates that access to the SANG and the wider area has not been appropriately accounted for and does not consider the impact if these access points were to become flooded, e.g., as the access paths to the SANG are shown to cross the Bird-in-Eye Shaw watercourse. There has been no assessment of whether safe pedestrian access can and will be provided in flood events and whether these access paths will remain functional all year round.
- 1.5.4 My proof of evidence also highlights that flooding has been witness and recorded on several occasions within Framfield Road (B2102), as recent as November 2022, when a flood event severely impeded both vehicular and pedestrian access to Uckfield town. The road was impassible when the water level was high, through a combination of both pluvial and fluvial flooding.
- 1.5.5 Applying industry standard methodology to analyse the frequency of the flood events at this location, my evidence shows the impact that flooding could have on people living within the proposed development. Having concluded that the main access road to the site from Uckfield can become inaccessible and indeed has been in the past, the sustainability of the development over its lifetime is questioned, as safe access via this essential transport route on foot cannot be guaranteed during times of flood.

- 1.5.6 My evidence also discusses the flawed methodology which has been applied to size the drainage basin in the surface water drainage strategy for the appeal site. I highlight that industry best practice has not been applied to the drainage calculations, omitting additional inflows which could otherwise result in the drainage basin being undersized. My evidence concludes that the Appellant has failed to provide sufficient and adequately detailed information in relation to flood risk and drainage, which therefore, is not policy compliant. This means that an informed decision cannot be made to determine whether the drainage system is capable of functioning as the Appellant has suggested. As drainage is not a Reserved Matter, in my view the onus is on the appellant to demonstrate that these concerns can be addressed before outline planning permission is awarded.

2 Policy Framework

2.1 Introduction

- 2.1.1 I discuss the relevant policy framework against which the proposals will be assessed below, with policy relevant at two levels, namely the national and local levels.

2.2 National Policy

- 2.2.1 The National Planning Policy Framework (NPPF) was published on the 27th March 2012, and updated in 24th July 2018, 19th February 2019 and 20th July 2021. This Framework is a key part of the Government's reforms to protect the environment and to promote sustainable growth. Chapter '14 - Meeting the challenge of climate change, flooding and coastal change' includes policies in relation to climate change and flood risk.
- 2.2.2 Paragraph 159⁴ sets out that inappropriate development in areas at highest risk of flooding (either nowadays or in the future) should be avoided.
- 2.2.3 Paragraph 161⁵ further addresses the need for all plans to apply a sequential approach to the location of development. When appraising the suitability of sites as part of the sequential approach, Paragraph 161 explicitly states that all sources of flooding should be considered, taking the impacts of climate change into account.
- 2.2.4 Paragraph 162⁶ sets out the aim of the Sequential Test, i.e., to locate development within areas shown to be at lowest risk of flooding from any source. It is also stated that development should not be permitted on unallocated sites if there are reasonably available sites at lower risk and that the strategic flood risk assessment should be used to inform the sequential test.
- 2.2.5 Paragraph 164⁷ outlines the requirements of the Exception Test, with Paragraph 164b stating that development needs to be safe for its lifetime, without increasing flood risk elsewhere. Paragraph 169⁸ states that major development should incorporate sustainable drainage systems (SuDS).
- 2.2.6 Further guidance to support national policy in the NPPF is found in the accompanying Planning Policy Guidance Suite (NPPG, August 2022) Flood Risk & Coastal Change.
- 2.2.7 Paragraph 20 of the NPPG⁹ outlines the objectives of a site-specific flood risk assessment, which include;

⁴ CDL.1 - National Planning Policy Framework, July 2021

⁵ CDL.1 - National Planning Policy Framework, July 2021

⁶ CDL.1 - National Planning Policy Framework, July 2021

⁷ CDL.1 - National Planning Policy Framework, July 2021

⁸ CDL.1 - National Planning Policy Framework, July 2021

⁹ CDH.6 - National Planning Policy Guidance – Flood risk and coastal change, August 2022

- whether a proposed development is likely to be affected by current or future flooding from any source;
- whether it will increase flood risk elsewhere;
- whether the measures proposed to deal with these effects and risks are appropriate;
- the evidence for the local planning authority to apply (if necessary) the Sequential Test, and;
- whether the development will be safe and pass the Exception Test, if applicable.

2.2.8 Paragraph 021 of the NPPG¹⁰ sets out the level of detail required for a site-specific Flood Risk Assessment (FRA). It states that the assessment should be commensurate with the scale of development, highlighting that for new development with a greater number of houses, a more detailed assessment is required. It states that the FRA needs to be appropriate to the scale, nature and location of the development. The onus is on the applicant to demonstrate compliance with NPPG guidance on flood risk and drainage for this site. The following would be relevant in this case;

- the scale of the proposals (290 residential dwellings),
- the proposed development is situated on steeply sloping land on the edge of Uckfield,
- the site is adjacent to Ancient Woodland,
- the site is required to provide access to a SANG,
- the site surrounds retained former farm buildings which require consideration,
- the extent of Flood Zones 2 and 3,
- the proximity of both the Framfield Stream and Bird-in-Eye Shaw,
- known local flooding along Framfield Road , B2102 (the major route connecting the site to Uckfield).

2.2.9 Paragraph 023 & 024 of the NPPG¹¹ address the aims of the sequential approach, stating that the requirements of the Sequential Test still need to be met, even if it can be demonstrated that development can be made safe throughout its lifetime. It clearly sets out that development should be steered to areas at lowest risk of flooding. To ensure that a risk-based approach can be applied appropriately across all areas of flood risk, all sources will have to be considered consistently and equally.

¹⁰ CDH.6 - National Planning Policy Guidance – Flood risk and coastal change, August 2022

¹¹ CDH.6 - National Planning Policy Guidance – Flood risk and coastal change, August 2022

- 2.2.10 Paragraph 006 of the NPPG¹² states that for residential development, the lifetime should be assumed to be at least 100 years.
- 2.2.11 In February 2016 the EA published Guidance on 'Flood risk assessments: climate change allowances'¹³. The guidance has since been updated numerous times, with significant updates to the climate change allowances. The latest major update was undertaken in May 2022, which updated the peak rainfall allowances using 'UKCP Local 2.2km projections and supporting research FUTURE-DRAINAGE'. The development site lies within the Adur and Ouse Management Catchment and therefore, a **45%** allowance for peak rainfall intensity is required to be applied to a development with a lifetime up to the year 2125, as is the case here. I understand that Stantec are now aware of the 45% allowance and will be presenting an assessment using this allowance as part of their evidence. I reserve my position.

2.3 Local Policy

- 2.3.1 The Core Strategy Local Plan was adopted in February 2013 and makes specific reference to flood risk in Uckfield as part of Chapter 6, 'Local Spatial Implications of the Strategy'. In particular, Paragraph 6.11, point 10,¹⁴ states that new development must demonstrate that it does not exacerbate flood risk elsewhere.
- 2.3.2 The Council is currently in the process of updating the adopted Local Plan. At the time of writing (August 2023), the 'Regulation 18' consultation for the draft emerging Local Plan has been paused. The Council plan to publish the Local Plan for consultation by autumn 2023, however, exact timescales are uncertain.
- 2.3.3 The Council's position in terms of site allocation is such that it is currently in the process of reviewing its Strategic Housing Land Availability Assessment (SHELAA). This means that sites shown to have been submitted for assessment, have not yet been allocated, until such time that the Local Plan is published.
- 2.3.4 Paragraph 160 of the NPPF confirms that strategic policies should be informed by a Strategic Flood Risk Assessment (SFRA) and should manage flood risk from all sources. When the planning application was submitted in August 2021, the WDC Level 1 SFRA 2017¹⁵ (herein termed SFRA 2017) was the SFRA which formed part of the evidence base used to inform the Local Development Framework. Section 3.4 of the SFRA 2017, entitled Sequential Test, states that individual sites in Flood Zone 1 can normally be considered to satisfy the requirements of the Sequential Test. However, the section goes on to clarify that as part of the Sequential Test, the risk of flooding from all sources should be considered. [underlined for emphasis]

¹² CDH.6 - National Planning Policy Guidance – Flood risk and coastal change, August 2022

¹³ CDH.1 - Environment Agency 'Flood risk assessments: climate change allowances' guidance 2016, updated May 2022.

¹⁴ CDE.1 - Wealden District Council Core Strategy Local Plan, adopted February 2013 Chapter 6 para 6.11, page 37, https://www.wealden.gov.uk/UploadedFiles/Adopted_Core_Strategy_2013_for_web.pdf

¹⁵ CDE.42 - Wealden District Council Strategic Flood Risk Assessment, prepared by JBA Consulting, June 2017

- 2.3.5 Section 11.1 of the SFRA 2017 explains that the flood map for planning, as provided by the EA, does not show flooding from ordinary watercourses, surface water or groundwater, and that the risk of flooding from these sources should therefore be assessed accordingly.
- 2.3.6 The SFRA 2017 has been superseded and in May 2022 an updated SFRA¹⁶ for North Wealden was released (herein termed SFRA 2022). The SFRA 2022 forms part of the evidence base to inform WDC's new emerging Local Plan.
- 2.3.7 Both the SFRA 2017 and Section 121 of the SFRA 2022 state that the risk of flooding from smaller watercourses should be appraised as part of a site-specific Flood Risk Assessment.
- 2.3.8 East Sussex County Council acting as the Lead Local Flood Authority released a Guide to Sustainable Drainage (SuDS) in East Sussex, in 2015¹⁷. This document sets out the requirements in relation to SuDS for different types of applications, including outline design.

¹⁶ CDE.42 - Wealden District Council Strategic Flood Risk Assessment at Section 5.3, paragraph 121, prepared by JBA Consulting, May 2022, <https://www.wealden.gov.uk/UploadedFiles/Final-Wealden-Level-1-SFRA-SDS-Checked-1.pdf>

¹⁷ Appendix A.10 - East Sussex County Council Guide to Sustainable Drainage Systems in East Sussex, June 2015

3 Flood Risk Related Evidence

3.1 General Background in relation to the application of Flood Risk Policy

- 3.1.1 When considering the technical work that has been prepared by the Appellant relating to flood risk and drainage, it is important to recognise that the initial appraisal was undertaken in April 2021, when the NPPF 2019 was the 'then' current policy. In July 2021, the NPPF was updated and the NPPG subsequently updated in August 2022.
- 3.1.2 The Appellant has submitted technical updates to the FRA/Drainage Strategy reports in January 2022 and January 2023, refer to timeline in Section 1.4 of this proof of evidence.
- 3.1.3 The wording of the NPPF and NPPG has changed to some degree with each iteration, with a greater emphasis on how flood risk is considered, however, the basic principles have remained unchanged.
- 3.1.4 The proposed site includes a Suitable Alternative Natural Green Space (SANG), which I understand is required to be accessed at all times. In this respect, the SANG forms part of the development which is considered to be 'essential' to allow the approval of the scheme. If the SANG cannot be accessed for any reason, for example due to flooding, then the development cannot provide the alternative green space as intended to offset additional recreational pressure elsewhere. I am unclear whether Natural England is aware of any flood risk issues. It is for others to judge the significance of this matter and the extent to which it undermines the ability of the SANG to function. I am aware that too much SANG is provided, but not the extent of the surplus.
- 3.1.5 Pedestrian access to the SANG is proposed to be provided between the northern residential parcel of land to/from the southern parcel of SANG land. There are two access points to allow for the required minimum circular route, however, both of these access paths are required to cross the Bird-in-Eye Shaw watercourse, which lies between the northern and southern parcels of land. The application proposes to use a woodchipped/gravel path¹⁸, refer to Appendix A.3.
- 3.1.6 Similarly, the development relies upon pedestrian access to the town of Uckfield, which requires a footpath over the Framfield Stream, where the Bird in Eye Hill (B2102) meets the Framfield Road. This route is an essential link to the town, the hospital, bus services and the railway station (all located on the western side of the Framfield Stream), and access is required at all times from the proposed development. This essential transport link should not become inaccessible from the development, e.g., during times of flooding when the road can, and has in the past, become impassible.

¹⁸ CDB.26 - Natural England email to the Council dated 23rd March 2022, 13:39.

3.1.7 Annex 3: Flood risk vulnerability classification¹⁹, clearly states that 'Essential Infrastructure' is defined at the first bullet point as; *"Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk."* In my view, in the context of this particular appeal, I consider the access road (B2102) from the development to Uckfield is indeed classified as Essential Infrastructure.

3.1.8 Directing people (pedestrians or vehicles) through floodwater, is inadvisable and is even discouraged by the EA²⁰. On occasions where the risk may be considered acceptable, this risk should be accurately quantified as part of a detailed assessment and if necessary, appropriate alternatives discussed with emergency planners for approval. There is no evidence that this approach has been taken by the Appellant.

3.2 Sequential Test

3.2.1 When considering how the application of the Sequential Test (and wider technical work relating to flood risk and drainage) has been approached in the technical work undertaken by the Appellant, it is important to recognise that the initial appraisal was undertaken in April 2021, when the NPPF 2019 was the current policy. In July 2021 the NPPF was updated and the NPPG subsequently updated in August 2022. The Appellant has submitted technical updates to the FRA/Drainage Strategy reports up until January 2023

3.2.2 The Appellant's flood risk and drainage consultants, Stantec, prepared a Flood Risk Assessment²¹, including Drainage Strategy & SuDS Report, which was submitted in April 2021. The report includes an executive summary which states the following;

3.2.3 "...As all built development lies entirely within Flood Zone 1, the requirements of the Sequential and Exception tests are met." [underlined for emphasis].

3.2.4 Reference to the EA 'Flood Map for Planning'²², hosted on the gov.uk website, provides a definition of the Flood Zones as follows:

"Flood zones give you one type of flood risk information for the planning process.

They are based on a location's chance of flooding from rivers or the sea in any year. They do not take into account:

- *other sources of flooding*
- *future flood risk from rivers or the sea*

¹⁹ CDL.1 - National Planning Policy Framework, Annex 3: Flood risk vulnerability classification, July 2021

²⁰ What to do in a flood, <https://check-for-flooding.service.gov.uk/what-to-do-in-a-flood>

²¹ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, page 1

²² Flood Zones and what they mean, <https://flood-map-for-planning.service.gov.uk/flood-zone-results-explained?zone=FZ3>

This means a site in flood zone 1 could still flood now or in the future."

- 3.2.5 The site is located a significant distance from the sea and therefore, the risk of flooding referred to in the FRA is attributed to fluvial (river) flooding from the Framfield Stream (Main River). The EA Flood Zone maps show the current day risk, but do not include an allowance for climate change. Flood Zone 2 (light blue) shows the predicted risk from an event up to a 1 in 1000 year return period, whilst Flood Zone 3 (dark blue) indicates the predicted risk from an event with a 1 in 100 year return period.
- 3.2.6 Reference to the latest (August 2023) nationally published EA Flood Zone Maps for planning, confirms that the extent of the flood zones shown by this mapping has not changed from those referenced in the HCL report in 2015. As such, the various reports which have been updated since 2015 all refer to the same maps, with only a change in the redline boundary.
- 3.2.7 The FRA prepared in 2021 shows a the redline boundary within the report which is limited to the area to the north of Bird in Eye Shaw watercourse²³. However, reference to Appendix E²⁴ of the FRA shows an Illustrative Site Layout by Paul Brown Architects, dated April 2020, which includes the wider site redline boundary. The extent of this revised redline boundary is also delineated in WB18 – PA4E Parameter Land Use Plan ²⁵.
- 3.2.8 The wider site, including the two access paths to the SANG, do not appear to have been appraised within the FRA. Consequently, the FRA did not address the whole of the redline boundary and failed to appraise the extent to which the entire site is likely to be affected by current and future flood risk, as is required per Paragraph 020 of the NPPG²⁶. It is my understanding that the current landowners in their capacity as riparian owners own the east side of the Framfield Stream, which lies just west of the redline boundary. I also understand from Town Legal that they own the land to the south of the redline boundary, including the Bird-in-Eye Shaw watercourse and surrounding areas. As the SANG and access across the Bird-in-Eye Shaw form part of the application boundary, the risk of flooding from all sources should have been assessed as part of the FRA. By deliberately curtailing the redline boundary as shown, it limits the overall percentage of the site shown to be located within Flood Zones 2 and 3 and minimises the perceived risk to the entire site. It is not common practice to ignore parts of the redline boundary when appraising the risk of flooding and in fact, industry best practice is to apply a precautionary approach to flood risk, to ensure the objectives of Paragraph 020 of the NPPG and Paragraph 159 of the NPPF can be met.
- 3.2.9 The location of the proposed buildings within Flood Zone 1 does not alter the fact that the site (even when referencing the smaller redline boundary) is still located partially within Flood Zones 2 and 3,

²³ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Figure 3.1, page 9.

²⁴ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Appendix E, Illustrative Site Layout PRB-BIE-PA2N by Paul Brown Architects date April 2020.

²⁵ CDC.2 - Appellant's Statement of Case: Appendix WB18 – PA4E Parameter Land Use Plan, 03/02/2023

²⁶ CDH.6 - National Planning Policy Guidance – Flood risk and coastal change, August 2022

even when the impacts of climate change are not applied. This was the case when the original FRA was prepared by the Appellant in 2021. Appendix A.2 contains a series of maps with the wider redline boundary overlaid on the EA Flood Zone maps (without climate change) to demonstrate this point.

- 3.2.10 Paragraph 155 of the NPPF (2019) states that development in areas at risk of flooding should be avoided and development directed away from areas at highest risk (whether be it existing or in the future).
- 3.2.11 Both Paragraph 157 of the NPPF (2019) and Paragraph 161²⁷ of the updated NPPF (2021) states; “All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change.” [underlined for emphasis].
- 3.2.12 NPPF (2021) at paragraph 162 states; “The aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding..” [underlined for emphasis].
- 3.2.13 Following the wording of the NPPF, it is incorrect for the Appellant to simplistically state within the FRA that the proposed development site meets the requirements of the Sequential Test, solely on the basis that the built part of the site is located entirely within Flood Zone 1. The NPPF requires the Appellant to appraise the risk of flooding from all sources in detail, consider the future impacts of climate change and appraise the entire redline boundary (including the access points).
- 3.2.14 An appeal decision made by Joanna Gilbert on the 19th July 2023²⁸ states that “[...] when considering the ST [Sequential Test], the Framework refers to development and not housing. Furthermore, consideration needs to be given to all sources of flood risk affecting the site. Accordingly, I consider that it is necessary to consider the entire site when establishing whether the ST should be applied.” [underlined for emphasis]
- 3.2.15 Whilst an update to the surface water drainage strategy was prepared by Stantec in January 2023²⁹, the FRA was not updated and the January 2023 Stantec report fails to acknowledge the updates made to both the NPPF in 2021 and the NPPG in 2022. Regardless, it is evident from Paragraph 157 of the NPPF (2019) that the risk of flooding was still required to be appraised from all sources for both current day and future day when the original FRA was prepared in 2021.
- 3.2.16 A detailed review of the Stantec FRA identifies that the risk of flooding from all sources has not been considered in sufficient detail, nor has the impact of climate change been assessed in relation

²⁷ CDL.1 - National Planning Policy Framework July 2021, paragraph 161.

²⁸ Appendix A.1 - Appeal Decision made by Joanna Gilbert, Appeal Ref: APP/N1920/W/23/3314268 for a site located in Hertsmeire Borough Council, 19th July 2023²⁸

²⁹ CDA.54 - Stantec Technical Summary – Surface Water Drainage Strategy, January 2023

to these sources. The evidence to demonstrate this point is discussed in the following section of this proof. No consideration has also been given to the fact that the access to the SANG is located within Flood Zone 2 (current day).

- 3.2.17 Whilst the Appellant's FRA states (incorrectly in my view) that "...As all built development lies entirely within Flood Zone 1, the requirements of the Sequential and Exception tests are met.", section 4.3.2 of the Stantec FRA³⁰ appears to provide a separate justification for why the Sequential Test is not required. At Section 4.3.2 of the FRA it is assumed that the site is allocated in the emerging Local Plan and therefore, the Sequential Test has been applied by the Council on this basis and is considered to be passed.
- 3.2.18 Reference to the Council's Emerging Local Plan map³¹ confirms that the site has not been allocated, contradicting the assumption made within the FRA. The information dialogue box shown in Figure 1 is taken from the Council's Policy maps, and reads;
- "...This map only shows sites that are submitted to us [Wealden District Council] for assessment. It does not mean that the site is suitable for development or that the site has planning permission or will be automatically granted planning permission or allocated within a Local Plan." [underlined for emphasis].
- 3.2.19 This point is reiterated in the Council's Strategic Housing and Economic Land Availability Assessment document³² at Section 2.1, where the text confirms that "The SHELAA only identifies opportunities for housing and/ or employment development on sites that are considered suitable, available and achievable It does not allocate sites to be developed." [underlined for emphasis].
- 3.2.20 At Section 1.3 of the Appellant's Statement of Case³³ the following is stated; "...In addition, the Site is not allocated for housing development..." [underlined for emphasis].
- 3.2.21 It is unclear why the FRA provides two separate justifications on why the Sequential Test is assumed to be passed. No further evidence has been provided by the Appellant to show that the requirements of the Sequential Test can and have been met.
- 3.2.22 It is acknowledged that the Council in their response from the Engineer and Countryside Officer, dated the 25th October 2021³⁴, incorrectly states; "*The site lies wholly within EA Flood Zone 1 so the sequential test is met and the exception test is not required for this site. The nearby areas in Flood Zones 2 and 3 alongside the watercourses described below are outside the site boundary.*". Regardless, it the responsibility of the Appellant's flood risk consultant to undertake a detailed

³⁰ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, page 1.

³¹ <https://maps.wealden.gov.uk/WebMap/>

³² CDE.54 - Wealden District Council Strategic Housing and Economic Land Availability Assessment document at Section 2.1, page 1.

³³ CDC.2 - Appellant's Statement of Case, January 2023, Section 1.3, page 5

³⁴ CDB.8 - WDC First Response, dated 25th October 2021, author Graham Keen

appraisal in accordance with the requirements of the NPPF, supported by the NPPG and if necessary, highlight where the facts may have been misinterpreted or misunderstood by mistake.

- 3.2.23 **Conclusions** – Whilst the Appellant's flood risk consultant has *assumed* the site to be allocated, there is no evidence to confirm that this is the case. Submitting the site to the Council as part of the Strategic Housing and Economic Land Availability Assessment (SHELAA) and separately stating that all built development lies entirely within Flood Zone 1, is insufficient evidence to confirm that the requirements of the Sequential Test have been met in accordance with the requirements of the NPPF. This is confirmed by the Council's SHELAA document³⁵ and the accompanying online map³⁶ and also stated within the Appellant's Statement of Case³⁷. It still cannot be demonstrated that the development site has been allocated, and so there was (and still is) a requirement³⁸ to apply the Sequential Test as part of the application process. From the evidence provided by the Appellant, this does not appear to have been undertaken. The NPPF 2021³⁹ states that when applying the Sequential Test, a risk-based approach should be taken to the location of development and that the risk of flooding from all sources should be appraised as part of a site-specific FRA. National policy⁴⁰ also confirms that the impacts of climate change should be taken into consideration as part of the appraisal, and without this information, the FRA does not comply with the NPPF. No additional evidence has been presented by the Appellant as part of the application to show that the risk of flooding from all sources is (and will remain) low over the lifetime of the development. It is therefore incorrect to state that the requirements of the Sequential Test have been met.

3.3 Deficiencies in the Appellant's Flood Risk Assessment

Appraisal of Smaller Watercourses (non-main rivers)

- 3.3.1 The Stantec FRA⁴¹ lists the fluvial sources surrounding the proposed development, acknowledging that the Framfield Stream (main river) runs along the western boundary of the site in a south-north direction. The report makes further reference to the Bird-in-Eye Shaw (ordinary watercourse). However, the Stantec FRA only appraises the risk of flooding to the development area and fails to consider the access to the SANG, which crosses the Bird-in-Eye Shaw, which is essential to allow delivery of the SANG (a requirement of the overall development).
- 3.3.2 Appendix A.3 includes a map delineating each of the watercourses listed above and their location with respect to the site and the SANG. The image clearly delineates the two pedestrian access points which cross the Bird-in-Eye Shaw to connect the residential parcel of land to the north and

³⁵ CDE.54 - Wealden District Council Strategic Housing and Economic Land Availability Assessment document at Section 2.1, page 1.

³⁶ <https://maps.wealden.gov.uk/WebMap/>

³⁷ CDC.2 - Appellant's Statement of Case, January 2023, Section 1.3, page 5

³⁸ CDL.1 - National Planning Policy Framework, July 2021, Paragraph 161

³⁹ CDL.1 - National Planning Policy Framework, July 2021, Paragraph 161

⁴⁰ CDL.1 - National Planning Policy Framework, July 2021, Paragraph 161

⁴¹ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Section 3.

the SANG land to the south of the watercourse. These access points can also be found in the Appellant's Statement of Case Appendix WB18 (parameter plan)⁴².

- 3.3.3 The Stantec FRA references data obtained from the EA (product 4 data ref: SSD168006), which is included within Appendix D of the FRA⁴³. Inspection of the EA Product 4 information confirms that the modelling data (taken from the River Uck Flood Risk Mapping Study 2012) covers the Framfield Stream main river only. Whilst water from the Framfield Stream model is shown to enter the adjacent smaller tributary, the Bird-in-Eye Shaw watercourse, the Bird-in-Eye Shaw is not modelled as an independent source by the EA.
- 3.3.4 The Appellant's parameter land use plan⁴⁴ clearly delineates two access points from the residential parcel of land to the SANG, located to the south of the site. Both of these access points are shown to cross the Bird-in-Eye Shaw, and to gain access to the SANG it is necessary to cross this watercourse. Consideration should have been given to the risk of flooding from the Bird-in-Eye Shaw as an independent source within the FRA and modelled to quantify the risk. This does not appear to be the case.
- 3.3.5 No mapping or modelling has been provided in the FRA to appraise the impacts of flooding from the Bird-in-Eye Shaw, either for the current day scenario, or in the future (i.e., to include the impacts of climate change over the lifetime of the development).
- 3.3.6 The NPPF 2021 at paragraph 161 clearly states, all sources of flood risk and the current and future impacts of climate change should be considered. By not undertaking an assessment of the Bird-in-Eye Shaw, the FRA does not comply with the NPPF regarding this point.
- 3.3.7 Reference to the Council's SFRA 2022⁴⁵ states that risk of flooding to smaller watercourses, such as the Bird-in-Eye Shaw, should be considered as part of site-specific FRA. Whilst these smaller watercourses may not be included within the EA flood risk mapping, it does not necessarily mean that there is not a risk of flooding from this source.
- 3.3.8 The Council's SFRA 2022, in the above paragraph 121, also concludes that as part of a site-specific FRA, the potential flood risk and extent of Flood Zones should be refined for these smaller watercourses and this information used as appropriate to perform the Sequential and Exception Test. The FRA does not consider the risk from this source in detail and no site-specific modelling of the Bird-in-Eye Shaw has been undertaken.
- 3.3.9 There is the potential risk that the access paths to the SANG could become flooded should the water levels in the Bird-in-Eye Shaw become elevated due to high flows and the real risk that he

⁴² CDC.2 - Appellant's Statement of Case: Appendix WB18 – PA4E Parameter Land Use Plan, 03/02/2023

⁴³ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Appendix D, EA Product 4 data.

⁴⁴ CDC.2 - Appellant's Statement of Case: Appendix WB18 – PA4E Parameter Land Use Plan, 03/02/2023

⁴⁵ CDE.42 - Wealden District Council Strategic Flood Risk Assessment at Section 5.3, paragraph 121, prepared by JBA Consulting, May 2022, <https://www.wealden.gov.uk/UploadedFiles/Final-Wealden-Level-1-SFRA-SDS-Checked-1.pdf>

paths could be washed away. Without accurately quantifying this risk within the FRA, the exact frequency of when the flows in the Bird-in-Eye Shaw would be high enough to wash away the proposed access paths to the SANG remains unknown.

- 3.3.10 Notwithstanding this, if flows are sufficiently high in the watercourse it is recognised that both access paths to the SANG could be severed when water levels in the Bird-in-Eye Shaw are at their peak. The removal of the path during such an event could also impede access to the SANG for a longer period of time, i.e., even after the water level has returned to normal flow conditions.
- 3.3.11 It is unclear whether Natural England (NE) was aware of the potential risk of flooding from the Bird-in-Eye Shaw, considering that the risk of flooding from this source had not been accurately quantified by the Appellant in the FRA 2021, or any of the subsequent submissions (i.e., Technical drainage notes in January 2022 and January 2023). It is also unclear whether NE would have removed their objection in March 2022⁴⁶ if they were aware of the inherent risk that the path could be regularly damaged, therefore preventing access to the SANG.
- 3.3.12 The NE correspondence with the Council⁴⁷ reads; “I have been in contact with the applicant since our last consultation (ref 370366, 10 November 2021), and subsequently have additional comments for consideration for this application. In our previous response letter (ref 370366, 10 November 2021), we spoke about the functionality of the SANG, and recommended that boardwalks were installed through areas of woodland to ensure that the paths remained functional all year round. The applicant has now clarified this point and has shown that boardwalks may not be feasible due to safety concerns, and may cause greater damage to neighbouring woodland/trees. Woodchipped/gravel paths have been proposed as an alternative solution to boardwalks which we have now considered. Natural England are content with the use of wood chip/gravel paths on the condition that the paths will be suitable managed and maintained to ensure that they remain function all year round.” [underlined for emphasis].
- 3.3.13 Reference to the CSA SANG Design and Framework Management Plan⁴⁸ states the key features of the proposed SANG and the second bullet point in the list reads; “Safe access for walkers to the SANG from the proposed development area and car park, and maintenance of a safe environment for users of the car park and SANG area” [underlined for emphasis]. If the Bird-in-Eye Shaw is in flow, or should the wood chip/gravel path be washed away, there is a question regarding how safe the access is for walkers. Without an appropriate assessment of the risk of flooding from the Bird-in-Eye Shaw with respect to the access points to the SANG, it is unclear how the Appellant can confirm that the bullet point above can be met.

⁴⁶ CDB.26 - Natural England email to the Council dated 23rd March 2022, 13:39.

⁴⁷ CDB.26 - Natural England email to the Council dated 23rd March 2022, 13:39.

⁴⁸ CDA.23 - CSA Environmental SANG Design and Framework Management Plan RevB, paragraph 3.3, page 10

- 3.3.14 Reference to Table 1. WDC SANG Criteria Assessment⁴⁹, under the row entitled 'Paths, Rows and Tracks', the key requirements state the following *"Paths must be easily used and well maintained; they should remain unsurfaced where possible but must be accessible all year round....Path routes must be designed to avoid safety concerns..." [underlined for emphasis]. Again, it is unclear how the Appellant can confidently say that there will be safe access all year round if the risk of flooding from the Bird in Eye Shaw has not been considered in sufficient detail to determine the frequency of flooding and to quantify the depth and velocity of flooding from this watercourse over the 100-year lifetime of the development.*
- 3.3.15 Whilst it is acknowledged that the FRA does consider the risk of surface water flooding using the National Risk of Flooding from Surface Water (RoFSW) maps⁵⁰, no detailed analysis has been undertaken to quantify the true extent of flooding under an extreme event to establish whether safe access to the SANG can be achieved at all times. The RoFSW maps do not include an allowance for climate change.
- 3.3.16 Reference to the RoFSW maps indicate that the Bird-in-Eye Shaw could be in flow under relatively low return period events (i.e., a 3.33% change of flooding to this degree in any one year) and therefore, support the contention that the risk of flooding to the access points to the SANG is a real threat. Figure 2 shows the predicted extent of the Bird-in-Eye Shaw under a 1 in 30 year return period event, which extends across both access paths to the SANG.

Groundwater

- 3.3.17 HCL prepared a technical drainage note in 2015⁵¹ for the Appellant, providing drainage information regarding the eastern portion of the site, which at that time was being put forward for inclusion in the (then) Strategic Housing Land Availability Assessment (SHLAA).
- 3.3.18 The HCL report at section 1.6⁵² states that the review does not constitute a site-specific FRA, but does highlight some of the potential groundwater flooding issues which could affect the site, referencing a report prepared by Leap Environmental⁵³. The comments in the HCL report relating to the risk of groundwater are as follows:

"Groundwater - There are two groundwater springs in close proximity to the site. Based on the nature of these two springs, and the analysis of the desk study and site reconnaissance report (undertaken by others), [reference the Leap report] it is unlikely the groundwater level will be significantly elevated across the parts of the site which are not directly adjacent to the existing watercourses. Consequently, providing a sufficient buffer between these watercourses and the

⁴⁹ CDA.23 - CSA Environmental SANG Design and Framework Management Plan RevB,, Table 1, Appendix C, row Path, Roads and Tracks

⁵⁰ <https://www.gov.uk/check-long-term-flood-risk>

⁵¹ CDH.4 - Herrington Consulting Limited Technical Drainage Note: Proposed development Bird in Eye, Uckfield, dated May 2015

⁵² CDH.4 - Herrington Consulting Limited Technical Drainage Note: Proposed development Bird in Eye, Uckfield, dated May 2015, Section 1.6, page 7

⁵³ Appendix A.9 - Phase I Desk Study and Site Reconnaissance Report, prepared by LEAP Environmental Ltd, 29th April 2015

development is maintained, it is unlikely any proposed SuDS features, such as soakaways or storage ponds, will intercept the natural groundwater table.”

- 3.3.19 The HCL report at section 2.6 continues, clarifying...”Nonetheless, if following site specific investigations the use of soakaways is found to be inappropriate due to a low infiltration rate, high groundwater level or instability within the soils or bedrock then an alternative option utilising cellular storage is available.”
- 3.3.20 Whilst the above comments on groundwater are primarily related to the appraisal of the drainage, the text does highlight the need to undertake further site-specific testing to quantify the potential risk of groundwater flooding at this location.
- 3.3.21 The Council in their first response⁵⁴ to the Appellant, dated October 2021, comment in the flood risk section that; “There is no information on groundwater”, suggesting that Stantec did not provide any detailed analysis of the risk of groundwater flooding in the original FRA.
- 3.3.22 A review of the Stantec FRA confirms a comprehensive assessment of groundwater was not undertaken. Groundwater is briefly mentioned at Section 2.4.2 in the FRA and reference is made to several springs in the surrounding area, in Section 2.3.3. However, at Section 3.2 in the FRA the groundwater risk is appraised in the following 3 bullet points;
- “3.2.1 No records of groundwater flooding have been identified within the site boundary, as part of the information gathering for this FRA.
- 3.2.2 The SFRA highlights there to be one historic record of groundwater flooding in the Uckfield area.
- 3.2.3 The PFRA, LFRMS and SWMP hotspot mapping shows the site lies in an areas of moderate/low groundwater flood risk.”
- 3.3.23 The Council's SFRA 2022 mapping⁵⁵ shown in Figure 3 clearly shows the entire proposed residential parcel of the appeal site is located within an area with groundwater concern and therefore, an area where further investigation is required. As such, the risk of flooding from groundwater should have been considered in more detail as part of the site-specific FRA.
- 3.3.24 The necessity for further site investigation was already highlighted in the HCL report prepared in 2015, however, high groundwater was only confirmed by the Appellant at a later stage (i.e., after November 2022), when soakage testing and groundwater monitoring was undertaken to inform the revised drainage strategy⁵⁶.

⁵⁴ CDB.8 - WDC First Response, dated 25th October 2021, author Graham Keen

⁵⁵ CDE.42 - Wealden District Council Strategic Flood Risk Assessment, Appendices, Appendix F Areas of groundwater concern, <https://www.wealden.gov.uk/UploadedFiles/Appendices.pdf>

⁵⁶ CDA.54 - Stantec Technical Summary – Surface Water Drainage Strategy, Project Ref: 48494/2002 | TN004/C | Date: January 2023, page 4, paragraph 2.2.17.

- 3.3.25 Despite this subsequent testing showing the risk of groundwater to be higher than anticipated, the Stantec FRA has not been updated to appraise the risk of groundwater flooding to the development. The impact of climate change with respect to this source has not been appraised by the Appellant, despite this being a requirement of the NPPF⁵⁷.
- 3.3.26 If groundwater is already close to surface, any further increase (e.g., as a direct result of the impacts of climate change), could heighten the risk of groundwater emergence at the surface, or the need for dewatering during construction.
- 3.3.27 Given the low-lying nature of the Bird-in-Eye Shaw, it should also be recognised that the impacts of elevated groundwater and climate change could influence the hydraulic regime of this watercourse and consequently, access to the SANG.
- 3.3.28 Additional investigations and seasonal groundwater monitoring should therefore be conducted to accurately quantify the risk to the development and this should be appraised in a revised FRA prepared by the Appellant before any outline planning permission can properly begin to be granted in accordance with NPPF paragraph 162.
- 3.3.29 Despite the drainage strategy being updated twice, once in January 2022 and again in January 2023, the original FRA prepared by the Appellant in April 2021 remains unchanged and fails to assess the risk from this source now and over the lifetime of the development.
- 3.3.30 **Conclusion**– The Appellant’s flood risk consultant has failed to appraise the true risk of flooding from the Bird-in-Eye Shaw watercourse and has not considered the risk of groundwater in accordance with the requirements of the NPPF. There is no site-specific assessment of the risk of flooding from the Bird-in-Eye watercourse based on any direct modelling of this watercourse, despite the Council’s SFRA 2017 and SFRA 2022 reports highlighting the requirement to refine the flood extent for smaller watercourses. The Appellant’s assessment of risk does not include an appraisal of climate change over the lifetime of the development, as required by National planning policy⁵⁸. There is the real potential risk that the SANG may be inaccessible when the Bird-in-Eye Shaw is in flow and the real risk that the flows in the watercourse could damage the surfacing of the proposed SANG access tracks (proposed to comprise wood chip/gravel). This could require regular maintenance of the access track to ensure that safe access to the SANG is not severed. Similarly, the impacts of groundwater flooding have not been adequately appraised within the FRA and despite some additional testing being conducted, the FRA has not been updated to confirm whether the risk will remain acceptable over the lifetime of the development. In summary, the Appellant’s FRA fails to appraise the risk from all forms of flooding over the lifetime of the development, which is a fundamental requirement of an FRA to ensure it is compliant with the NPPF 161 and the Council’s SFRA 2022⁵⁹.

⁵⁷ CDL.1 - National Planning Policy Framework, July 2021, Paragraph 161

⁵⁸ CDL.1 - National Planning Policy Framework, July 2021, Paragraph 161

⁵⁹ Wealden 2022 SFRA, Section 3.1.2, paragraph 73, page 24

3.4 Safe access/egress to Uckfield

3.4.1 The NPPF60 Paragraph 167 e) states that it should be demonstrated that 'safe access and escape routes are included where appropriate'. The FRA addresses safe access at section 5.3⁶¹.

“5.3.1 It is necessary to consider and incorporate safe access arrangements as part of the mitigation, to ensure the users/occupants of the development are safe in times of flooding.

5.3.2 The proposed access to the site is shown not to be at risk of flooding as the site lies within Flood Zone 1. Therefore, it is considered that safe access and egress will be available during extreme events.”

3.4.2 Whilst the FRA (at section 5.3.2) asserts that the access to the site is not at risk of flooding, it should be recognised that this refers to the immediate access onto the B2102 Bird in Eye Hill. When access to the wider surrounding area is considered, there is evidence to suggest that the access road (bottom of Bird in Eye Hill leading onto the Framfield Road) to Uckfield has been subject to deep flooding in the past on more than one occasion since year 2000. This is only likely to become more frequent when considering the impacts of climate change.

3.4.3 Figures 4 and 5 show two photographs looking west and east respectively, along the Framfield Road during a recent flood event in November 2022. Additional photographs are located in Appendix A.4.

3.4.4 The Stantec FRA references historic flooding at Section 3.5 and more specifically the events recorded by the EA in October 2000 at Section 3.5.2. In this section the FRA focusses on the risk of flooding to the site, within the smaller redline boundary, rather than considering the entire redline boundary and the offsite impacts. Figure 6 is an extract of the EA historic flood map, taken from the Stantec FRA⁶², focussed on the point at which the Framfield Road crosses the Framfield Stream.

3.4.5 A more recent flood event at this location has also been recorded in November 2022, which resulted in flooding on the Framfield Road, making it impassable for both vehicles, cyclists and pedestrians.

3.4.6 A review of EA hydrology data explorer⁶³ and Flood Estimation Handbook (FEH web service)⁶⁴ published by the UK Centre for Ecology and Hydrology confirms that these flood events occur frequently and are not solely attributed to extreme events. Both of these sources of material are openly available to access and are typically used by flood risk consultants to quantify the risk of flooding. It is unclear why this data was not referenced by Stantec when the FRA was prepared, or when the technical work was updated in January 2023.

⁶⁰ NPPF 2021 Paragraph 167

⁶¹ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Section 5.3, page 15.

⁶² CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Appendix D, EA Product 4 data.

⁶³ Defra Hydrology Data Explorer, <https://environment.data.gov.uk/hydrology/explore>

⁶⁴ UK Centre for Ecology and Hydrology, Flood Estimation Handbook Web Service, <https://fehweb.ceh.ac.uk/>

- 3.4.7 ESCC has also provided records of flooding with two notable events in November 2018, resulting in standing water at the bottom of Bird-in-Eye Hill (Appendix A.6).
- 3.4.8 Several rainfall gauges near to the site have been reviewed and details of the location of these gauges are included in Appendix A.5.
- 3.4.9 Larger prolonged periods of rainfall were recorded with peaks at the beginning of November 2022 (01/11/2022 until 03/11/2022), which correspond with the date that the photographs were taken showing flooding on the Framfield Road (B2102), refer to Appendix A.4.
- 3.4.10 The November 2022 recorded flood event is supported by the Appellant's own site investigations, which needed to be abandoned on the night of the 8th / 9th November 2022, due to heavy rainfall, which resulted in surface water runoff entering the soakaway pits and water levels within all of the soakaway pits seen to rise overnight.⁶⁵
- 3.4.11 To better understand the magnitude of the flood events, the FEH22 Depth-Duration-Frequency model⁶⁶ has been used to assign a return period to the observed rainfall event. This is an industry standard model which is frequently used in applications such as flood risk assessments.
- 3.4.12 The analysis of the data suggests there is a 20% to 34% chance of flood events of this magnitude occurring every single year, which equates to a 1 in 2.9 to 1 in 4.8 year return period. The National Planning Practice Guidance (NPPG 2022)⁶⁷ states that the functional floodplain is defined by an event with a 1 in 30 year return period or less and as such, by this definition, the access from the site to Uckfield town falls within this category. Despite this, the Appellant has proposed a new pedestrian footpath along this flooded route.
- 3.4.13 Further analytical investigation has been undertaken using the aerial height data and the observed water level data to determine the estimated flood depths on the Framfield Road during the witnessed flood events. The results have been verified using photographic evidence of flooding at this location (refer to Appendix A.4), some of which show several vehicles attempting to traverse the floodwater, before becoming stranded.
- 3.4.14 Figure 7 is a contour map that has been prepared to delineate the extent of flooding, created by comparing the road levels either side of the Framfield Stream with the witnessed flood extent. The November 2022 flood event has been used to verify the extent plotted, with the flood extent closely replicating where the water is shown to reach in the photographs, taken during the flood event (refer to Figures 4 and 5).
- 3.4.15 Figure 8 is a cross section along the Framfield Road (B2102) showing two points on the road surface, with the actual ground level in metres Above Ordnance Datum Newlyn (m AODN). The

⁶⁵ Geotechnical Investigations Limited Site Investigation Report, appended to CDA.54 - Stantec Technical Summary – Surface Water Drainage Strategy, January 2023

⁶⁶ Flood Estimation Handbook (FEH) web service, User Guide, <https://fehwebdocs.hydrosolutions.co.uk/DDF-Science/FEH22/>

⁶⁷ CDH.6 - National Planning Policy Guidance – Flood risk and coastal change, Paragraph 078, Table 1

location of the watercourse channel (below the road bridge) is shown by the green line. An indicative flood level has been sketched (blue line at 21.8m AODN), which has been calibrated from the photographic evidence shown in Figures 4 and 5 and the contour plot in Figure 7.

3.4.16 Reference to Figure 8 suggests that the depth of flooding during the November 2022 flood event was in the region of 390mm deep. It should be recognised that this flood event does not represent the depth of flooding that would be witnessed under the design flood event (i.e., 1 in 100 year event including 100 years of climate change). Flooding under this event would be significantly deeper and flow velocities are also expected to be much higher.

3.4.17 In the report 'Flood Risks to People' (R&D output FD2320/TR2)⁶⁸ an industry standard methodology is set out for quantifying flood hazard, using the following equation:

$$HR = ((v + 0.5) d) + DF$$

where,

HR = flood hazard rating

d = depth of flooding (m)

v = velocity (m/sec)

DF = debris factor (see Table 3.1)

Depths	Debris Factor (DF)
d = 0 to 0.25m	0.5
d > 0.25m	1.0

Table 1 - Guidance on the use of Debris Factor (DF).

Hazard Rating (HR)	Degree of Flood Hazard	Description
< 0.75	Low	Caution – shallow flowing water or deep standing water
0.75 to 1.25	Moderate	Dangerous for some, i.e., children – deep or fast flowing water
1.25 to 2.0	Significant	Dangerous for most people – deep fast flowing water
> 2.0	Extreme	Dangerous for all – extreme danger with deep and fast flowing water

Table 2 - Hazard classification based on report 'Flood Risks to People' (R&D output FD2320/TR2)

⁶⁸ Appendix A.7 - R&D Technical Report FD2320/TR2, Phase 2, issued by Defra, October 2005

- 3.4.18 Table 2 above provides a classification of Hazard, based on the Hazard equation above, and is used to determine whether a route is safe for pedestrians. Walking or driving through any depth of floodwater is not advisable, as this can be extremely hazardous. Notwithstanding this, the classifications in Table 2 provide a guide on when the risk is dangerous.
- 3.4.19 The levels along the route from the site to Uckfield have been reviewed using the flood conditions witnessed in November 2022 (outlined above), an event with an estimated return period of 1 in 5 years (i.e., 20% chance of occurrence in any one year). The following parameters have been derived, i.e., $d = 0.390\text{m}$ and $v = 0.2\text{m/s}$ (assumed to be very low, although unknown). When these values are entered into the above equation it yields a Hazard Rating of 1.273.
- 3.4.20 Even when a low velocity of floodwater is assumed (0.2m/s) during this low return period event, the degree of hazard is classified as 'Significant – Dangerous for most people'.
- 3.4.21 As such, the access from the site to/from Uckfield is likely to be inaccessible when the depth of water in the road reaches the level recently witnessed.
- 3.4.22 Both the depth of flooding and the velocity of the floodwater will increase as the return period approaches the design event conditions. The NPPF requires a 1 in 100 year return period, including 100 years of climate change to be appraised as the 'design event'. As such, the Hazard Rating will only increase, approaching 'Extreme - dangerous for all', making the route impassible for a greater period of time.
- 3.4.23 Inspection of the Risk of Flooding from Surface Water mapping hosted on the .gov website⁶⁹, centred on the area above, at 185 Framfield Road⁷⁰ (Appendix A.3), shows that the risk of surface water flooding is classified as 'High' (Appendix A.8). Figure 9 indicates that during a rainfall (pluvial) event surface water would flow overland from the higher ground towards the river and collect in the lower area, at the junction where the Framfield Road meets the Bird in Eye Hill (B2102).

⁶⁹ <https://check-long-term-flood-risk.service.gov.uk/map?easting=547915.06&northing=120775.27&map=SurfaceWater>

⁷⁰ Appendix A.8 - Risk of flooding from surface water extent for Framfield Road

- 3.4.24 The Southern Water asset data included within the Stantec FRA⁷¹ (Figure 10), shows where the public surface water sewers discharge into the Framfield Stream. A site visit and Google Street view confirm where the surface water gullies for the highway are located on the Framfield Road, which are also assumed to drain into the Framfield Stream (Figure 11).
- 3.4.25 From the images above, it is evident that a significant amount of surface water is directed towards the Framfield Stream at this location. The overland flow of water is likely to collect sediment from the neighbouring allotments and surrounding area, which washes onto the road and into the surface water drains (gullies). The accumulation of sediment is likely to cause regular blockages, which can contribute to the flooding. This is evidenced by the flooding records obtained from ESCC.
- 3.4.26 Furthermore, if the water level in the Framfield Stream is elevated, the surface water system cannot discharge as readily into the river and as a consequence, the surface water can begin to back-up (surcharge) the drainage system, contributing to flooding at this location.
- 3.4.27 Given the low-lying nature of the area and from the evidence presented above, it has been demonstrated that the B2102 Framfield Road at this location is at risk of both surface water (pluvial) and fluvial flooding, i.e., when the river level is high and a rainfall event occurs. Any increase in surface water flows from the development will only exacerbate this situation. It is therefore critical that the drainage system for the development takes this into consideration and the basin is sized appropriately to ensure flooding does not occur offsite, (refer to Section 4 on Drainage in this proof of evidence).
- 3.4.28 Recognising the likelihood of flooding at this location and given that this can cause the road to be impassible, the impact to the occupants of the proposed development should be considered as part of the FRA. The Stantec FRA and the two subsequent updates to the drainage strategy (January 2022 and January 2023) all fail to address this risk, yet the Appellant's documents promote a sustainable scheme with good links to Uckfield.
- 3.4.29 Section 5.72 of Appellant's Statement of Case⁷² for example, states; "The Appeal Site is located adjoining an identified settlement, within safe and convenient walking distance to local services and facilities." [underlined for emphasis].
- 3.4.30 If the route to Uckfield, is severed due to floodwater, it would require the occupants of the new development to take an alternative route. Figure 12 is a map which shows the most likely alternative route to Uckfield, with the yellow line delineating a distance of travel of 7.2 km. In contrast, the green line shows a distance of travel of 0.8 km when the Framfield Road is not blocked by floodwater.

⁷¹ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Appendix C, Southern Water data.

⁷² CDC.2 - Appellant's Statement of Case, February 2023, Section 5.72, page 43

- 3.4.31 From Figure 12 it is evident that when Framfield Road becomes flooded it could result in the following concerns;
- Residents unable to access the public transport at the proposed bus stop on Framfield Road (shown to be underwater).
 - Residents being unable to use the proposed footpath to Uckfield, also shown to be within the flood extent.
 - Access to the local hospital will be severed, with less mobile occupants of the development unable to traverse floodwater to reach the hospital.
 - Longer response times for emergency vehicles to get to/from the site whilst the road is flooded. (Often flood routes are blocked by cars that have attempted to drive through deep floodwater, blocking the road to other vehicles).
 - Encourages more residents to opt to use a car, as they are required to travel a significantly longer route, which is unlikely to be an option for most on foot.
- 3.4.32 This raises the question of the sustainability of the site, in both the short term and the longer term. The impacts of flooding at this location are only likely to become worse with climate change and the access road impassible more frequently and for longer periods of time.
- 3.4.33 It should also be recognised that the alternative route shown in Figure 12 crosses the Framfield Stream to the south. This road comprises a small B-road and no analysis has been undertaken to confirm whether this alternative route is passable when the Framfield Stream is in full flood and/or when the Framfield Road is impassable.
- 3.4.34 **Conclusions** – The Appellant's flood risk consultant has failed to appraise the true risk of flooding along the main access route to Uckfield from the development site (i.e., west down Bird-in-Eye Hill, across the Framfield Stream and onto the Framfield Road), a route which can be classified as 'Essential Infrastructure'⁷³ when referencing the definition in Annex 3 of the NPPF. Photographic evidence has been provided to show that this main access road (Framfield Road) has flooded in the past, which is also supported by the EA historic flood records (showing flooding in 2000). Additional analysis has been undertaken to confirm the likely cause and depth of flooding, along with a hydrological analysis to confirm the likely frequency of flooding at this location. The results of the analysis for the events witnessed suggest that the hazard rating is classified as 'Dangerous for Most' and as such, this would have a significant impact on the occupants, forcing a longer route of travel when the road is impassible. No further analysis has, however, been undertaken to determine whether this alternative route to Uckfield is indeed viable, as it too crosses the Framfield Stream and may also be subject to deep flooding. The risk will only increase as the magnitude of the flood event approaches the design event (i.e., the 1 in 100 year event, including 100 years of climate change). The risk from this source has not been addressed in the Appellant's FRA, or any

⁷³ CDL.1 - National Planning Policy Framework, Annex 3: Flood risk vulnerability classification, July 2021

supporting material included, but instead, the application proposes a new footway along this flooded route, as evidenced at Section 6.2 of Mr Richard White's (Miles and White Transport) evidence⁷⁴. It is considered inappropriate to direct pedestrians into an area at risk of flooding and is not compliant with Part b of the Exception Test⁷⁵, which states the following "*b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.*" [underlined for emphasis].

⁷⁴ Proof of Evidence of Richard White, Miles and White Transport, Section 6.2.

⁷⁵ CDL.1 - National Planning Policy Framework, July 2021, p. 47, Paragraph 164b

4 Drainage Issues

- 4.1.1 The Appellant's original FRA includes a section on surface and foul water drainage⁷⁶. The surface water strategy presented in the initial drainage report included within the 2021 FRA proposed to discharge surface water from the development to the Framfield Stream, via an attenuation basin. The outfall from the basin was originally shown to pass through the ancient woodland.
- 4.1.2 The Appellant's consultants met with the Lead Local Flood Authority (LLFA – East Sussex County Council) on the 5th May 2020, to discuss the proposed strategy in advance of the planning submission. It was agreed by Stantec and the LLFA that any areas downstream of the basin would not be included within the drainage calculations. The areas downstream in this case would be the areas of the site that would not drain to the drainage basin, such as the fringes of the site, which would continue to drain in the way they do currently (regardless of development). Figure 13, has been prepared by HCL and is a catchment plan showing the areas downstream of the basin which would remain unchanged. The measurement from the HCL catchment plan shows this area to measure 3 hectares in size, 1 ha less than is inferred from Table 7.2 in the FRA⁷⁷ (i.e., 16ha total site area – 12.090ha area upstream of DB-1). No catchment plan has been provided by the Appellant in any of the documentation provided to verify how the values in Table 7.2 of the FRA are derived.
- 4.1.3 The minutes of the meeting held between the Appellant and the LLFA are included in the appendix of the FRA⁷⁸, in which Stantec explain that *"the drainage strategy presented so far is just a schematic and will be refined when submitting the FRA"*. The Appellant and the LLFA agreed that the discharge rate would be set to the equivalent greenfield runoff rate (i.e., flow matched, to prevent any increased discharge of water to the Framfield Stream), presumably to ensure that the risk of flooding downstream would not be increased by the proposed development.
- 4.1.4 In item 4 of the minutes, the LLFA questioned which impermeable area had been used to calculate greenfield runoff rate on site and the Appellant confirmed that the *entire* redline had been used (16ha). The LLFA and Appellant agreed that this could be reduced if the area upstream of the swales is considered in the greenfield runoff calculations, with any downstream areas not included in the catchment. Figure 14 is a catchment plan that has been prepared by HCL to show the areas of the site that would drain towards the swales and drainage basin (as delineated for ease of reference on Figure 15). Based on the topographic survey of the site, the upstream contributing areas draining towards the swales and basin are shown by the orange shaded area (proposed development including green space 11.5ha) and the existing farm (grey shade area 1.6ha).

⁷⁶ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Section 6, p. 23.

⁷⁷ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Table 7.2 page 25

⁷⁸ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Appendix F – LLFA Meeting Minutes, p. 71.

- 4.1.5 Figure 19 shows a total catchment plan with the topographic contours overlaid. The arrows on the catchment plan delineate the path water would take as it falls on the site, post-development.
- 4.1.6 The size of the areas discussed with the LLFA was not recorded in the minutes, although as the Appellant has stated within the meeting that the *entire 16ha* site had been used. It is therefore assumed that further refinement of the exact areas had not been undertaken at that stage in time and the LLFA was under the impression that all of the areas upstream would be considered by the Appellant's consultants.
- 4.1.7 No further correspondence with the LLFA is included within the planning documentation to confirm whether the LLFA understood the catchment areas that had been applied to the drainage calculations, (e.g., that Bird in Eye Hill Farm shown in grey in Figure 16, had been excluded on the basis that it was not located within the redline boundary). The minutes simply state "if the area upstream of the swales is considered", however, reviewing the values stated at Section 7.3.11 within the FRA, Table 7.2⁷⁹ it is unclear how these values have been derived and no further details have been provided by the Appellant to make this clear to the LLFA.
- 4.1.8 As it is not entirely clear from the FRA documentation which areas have been considered to drain to the drainage system, it would be understandable if the LLFA had misinterpreted the FRA and understood that it complied with what had been agreed in the previous meeting with the Appellant in May 2020 (i.e., areas upstream of the swales).
- 4.1.9 With reference to the original Stantec FRA 2021 and the two subsequent updated drainage strategy reports, (January 2022 and January 2023 respectively), there is no evidence of a drainage catchment plan, which would clarify which areas have been assumed by Stantec to drain to the proposed drainage system.
- 4.1.10 The Guide to Sustainable Drainage Systems in East Sussex⁸⁰, outlines what is required to be provided by the developer for an Outline Planning application with respect to drainage, with a clear checklist (at Table 3F.1: Outline design checklist).
- 4.1.11 Figure 20 is a marked version of Table 3F.1, which identifies the information that the Appellant has failed to provide in any of the three submissions (i.e. FRA 2021 and January 2022 and 2023 drainage update notes). As discussed above, one of the vital pieces of information that has been omitted is a clear catchment plan to identify to the LLFA and LPA which areas of land are assumed to drain to the proposed drainage basin and which areas have been ignored.
- 4.1.12 In the process of preparing my proof of evidence, I contacted Stantec to clarify what information is available and the returning correspondence⁸¹ (via email) confirms that a catchment plan was not

⁷⁹ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Section 7.3.11, page 25.

⁸⁰ Appendix A.10 - Guide to Sustainable Drainage Systems in East Sussex, June 2015, pages 37-38

⁸¹ Appendix A.11 - Email correspondence with Stantec, dated 7th August 2023

prepared, contrary to the requirements of Table 3F.1. Stantec also confirm in this correspondence that the LLFA was satisfied with this approach, although the LLFA do not appear to have stated this in any of the correspondence submitted.

- 4.1.13 In the absence of any further correspondence on catchment areas, the minutes from the meeting between Stantec and the LLFA on 20th May 2020 are the only evidence of catchment areas having been discussed. As it was agreed between the LLFA and Stantec that the area upstream of the swales would be considered in the calculations this would suggest that the LLFA were unaware that the Bird in Eye Hill Farm catchment area (Figure 16) has been excluded from the drainage model, despite the topographic survey suggesting that the Farm buildings could drain towards the basin (Figure 19).
- 4.1.14 Without any detailed information on the areas which have been used to size the drainage system (e.g., a clear catchment plan), the numbers contained within the FRA report cannot be easily verified. It is therefore unclear how the LLFA can be confident that the drainage system has been appropriately designed without this information and be satisfied that the proposed drainage system (including these additional inflows that have not been accounted for) will not cause flooding offsite, thereby exacerbating the risk of flooding on the Framfield Road. One explanation is that the LLFA was simply unaware, as this information that was not clearly presented.
- 4.1.15 The fourth row in Table 3F.1 highlights the requirement for Site Investigations, and whilst some site testing was eventually undertaken by the Appellant in November 2022, leading to a third revision of the drainage strategy, the LLFA did agree in their meeting with the Appellant on 20th May 2020 that seasonal groundwater monitoring could be conditioned. This nevertheless highlights that there is still some uncertainty surrounding the actual groundwater levels at this location, which could influence the design of the drainage system (most notably the depth of the drainage basin).
- 4.1.16 Regarding discharge rates, Stantec provided the calculated pre-developed greenfield runoff rates, based on 1 hectare of land, the results of which are included within the appendix of the FRA.
- 4.1.17 Stantec only included the results of the 1 in 100 year event, including 40% allowance for climate change, post-development discharge rates as an appendix to the original FRA. As such, it can only be assumed that the discharge values stated in Table 6.1 of the FRA⁸² for the remaining return periods can be met with the design proposed. There is no evidence to confirm that this is the case.
- 4.1.18 Considering the uncertainty regarding the catchment areas used, I contacted Stantec via email⁸³ to request the hydraulic model results (outputs) for the remaining return period events listed in Table 6.1 of the FRA⁸⁴, to reassure myself that the drainage system would function as designed. The

⁸² CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Table 6.1, page 19.

⁸³ Appendix A.11 - Email correspondence with Stantec, dated 7th August 2023

⁸⁴ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Table 6.1, page 19

response I received from Stantec simply referred back to the summary table of results (Table 6.1) included within the original FRA 2021. Stantec did not provide any further modelled data to enable the design of drainage system to be fully checked.

- 4.1.19 I also requested, in the same correspondence, the updated model results for the revised scheme (submitted by the Appellant in January 2023), however, this information has not been provided. Instead, Stantec confirmed that there was no requirement to update the modelling that was undertaken in 2021.
- 4.1.20 Stantec's subsequent response confirmed that further sensitivity testing to account for the increase in climate change allowances will be provided within Stantec's proof of evidence, confirming that the updated guidance was not considered in the latest January 2023 issue. Considering this information is absent, I am even more surprised that the LLFA and the Council have taken the stance that they have and withdrawn the drainage reason for refusal.
- 4.1.21 Similar to the evolution of the NPPF and NPPG, since the first drainage strategy was discussed in 2020 and presented in 2021, the guidance for climate change allowances has also been updated, in May 2022⁸⁵. Reference to this data suggests that the new climate change allowances have increased for the design event. The climate change allowance that was required to be applied in 2021 was a 40% increase in peak rainfall intensity. In 2022 this allowance had increased to 45%.
- 4.1.22 Reference to the C753 SuDS Manual, which is document used as standard practice in SuDS design, confirms in the penultimate paragraph of section 24.7.1 the impacts of climate change⁸⁶, the following: *"It should be noted that storage volumes will approximately increase by the square of any rainfall uplift factor. This means that a 10% increase in rainfall (an uplift factor of 1.1) will result in a 20% increase in storage (uplift factor of 1.21), while a 40% increase in rainfall will nearly double the storage required."* [underlined for emphasis].
- 4.1.23 No reference to this has been made in the latest drainage strategy to any potential increase in required storage, with the drainage details on the accompanying drainage layout plan (Figure reference 48494/2002/SK05) remaining unchanged from the 2021 FRA. This is a requirement on the drainage check list (7th Row of Table 3F.1⁸⁷) and as such, should have been considered within the update January 2023 drainage strategy, to ensure that the basin is not undersized and would not exacerbate the risk of flooding offsite.
- 4.1.24 Whilst it is understood from recent correspondence with Stantec (August 2023) that this increase is to be accounted for as part of a sensitivity test within Stantec's proof of evidence, the Council and LLFA did not have this additional information at the time of submission and therefore, it is unclear on how the Council or LLFA could be asked to approve the drainage strategy with such vital information missing. Once again, given this information is absent I am surprised that the LLFA

⁸⁵ CDH.1 - Environment Agency 'Flood risk assessments: climate change allowances' guidance 2016, updated May 2022.

⁸⁶ Appendix A.10 - Circa C753 SuDS Manual, Section 24.7.1, page 527

⁸⁷ Appendix A.10 - Guide to Sustainable Drainage Systems in East Sussex, pages 38, Table 3F.1 row 7.

and the Council have taken the stance that they have and withdrawn the drainage reason for refusal.

4.1.25 Urban Creep is the factor which accounts for any increase in impervious area that is drained to an existing drainage system, without planning permission being required. The East Sussex Guide to Sustainable Drainage Systems checklist in Table 3.1F⁸⁸, states on the same row as climate change, that there is also the requirement to apply urban creep to the development. British Standard (BS 8582:2013)⁸⁹ recommends a 10% increase in impermeable area to take into account urban creep, as does C753 SuDS manual⁹⁰. It is industry standard and best practice to do so.

4.1.26 Correspondence between Stantec and the Council's Engineer and Countryside Officer (Graham Keen) dated 4th November 2021⁹¹, comprises a response to the Council's previous concerns raised in respect to the proposed drainage in October 2021. On page 2, the Council specifically request full detail in the drainage calculations and the inclusion of urban creep, as follows: Stantec's response on the original correspondence is in blue text below the Council's text;

“In considering the drainage principles proposed for the site, the Lead Local Flood Authority, ESCC, will require full detail in the drainage calculations used to design the system and Wealden, as the planning authority, would support this request. The calculations should prove that the final design can accommodate the site runoff rates for the standard 1 in 100 year rainfall event plus 40% climate change allowance plus urban creep.”

[Stantec response below WDC comments] Stantec agree with this statement. The calculations provided in this FRA have been developed to these design standards up to a level of detail suitable for the outline application. These will be developed further in response to an anticipated suitably worded condition related to Reserved Matters on this site.” [underlined for emphasis].

4.1.27 Despite the statement above, there is no reference to urban creep within any of the drainage material provided by the Appellant, and no evidence of its application within the calculations provided, or notes on the drawings. Similar to climate change, increasing the volume of water running off the development site as a result of increasing the impermeable area by 10% due to urban creep will increase the inflow into the proposed basin. This could result in the drainage basin having insufficient capacity, resulting in flooding offsite.

4.1.28 Table 3F.1 of the East Sussex Guide to Sustainable Drainage Systems, row 12, highlights the need for an assessment of offsite impacts, demonstrating how they have been managed. As discussed in this proof, without a catchment plan and no explanation on the existing drainage within any of the Appellant's documentation, it is unclear from the information submitted by the Appellant whether Bird in Eye Farm was included within the drainage calculations.

⁸⁸ Appendix A.10 - Guide to Sustainable Drainage Systems in East Sussex, pages 38 Table 3F.1

⁸⁹ Appendix A.10 - Extract from BS 8582:2013

⁹⁰ Appendix A.10 - Circa C753 SuDS Manual, Section 24.7.2, page 527

⁹¹ CDA.33 - Stantec response to holding objection, ref. 332510180/2001/TAU/LD/ET/ASm, dated 4 November 2021

- 4.1.29 Subsequent correspondence⁹² with Stantec in the preparation of this proof of evidence confirms that “the existing farm buildings [Bird in Eye Hill Farm] are not within the application boundary and therefore excluded.” The water from this 1.6ha area has the potential to be captured by the proposed drainage system and be directed towards the drainage basin (Figure 19). It is therefore critical to consider this area within the drainage calculation to ensure that the drainage basin has sufficient capacity to accommodate the additional runoff from the existing farm buildings.
- 4.1.30 Alternatively, it must be demonstrated by the Appellant that the runoff from the farm buildings and any surrounding impermeable areas are captured by the existing drainage system, which has the capacity to discharge water generated under the design event. There is no evidence provided by the Appellant in the FRA or subsequent drainage strategies to confirm that there is an existing drainage system in place that will not result in additional runoff entering the proposed drainage system.
- 4.1.31 I have included a series of catchment plans within my proof (Figure 13 – Figure 19), based on the information available, with the aim of better understanding the areas that have been applied by Stantec when designing the drainage system. Reference to this plan confirms that inflows from 1.6 hectares (Bird in Eye Farm) have been ignored in the calculations, refer to Figures, 14, 16 and 19.
- 4.1.32 The implications of not including this area within the calculated impermeable catchment will result in an underestimation of the volume of water entering the drainage basin. Similar to excluding both urban creep and the increased allowance for climate change, this is likely to result in the basin being undersized and therefore, result in flooding offsite.
- 4.1.33 As no further details have been provided within any of the three drainage strategies provided by the Appellant, it cannot be confirmed with any certainty that these additional factors will not increase the inflows into the basin and therefore, it cannot be confirmed whether the drainage system will function as Stantec has presented.
- 4.1.34 A review of the pre-developed greenfield runoff calculations suggest that the values presented within the FRA 2021 are correct for a 1 hectare area. However, there is uncertainty regarding the methodology used to size the proposed attenuation system, most notably the drainage basin.
- 4.1.35 The methodology outlined in the FRA at Section 7.13.12⁹³ does not appear to follow any industry best practice, instead referring to a model where *“the volume is based on scaling up a “per impermeable hectare” volume”*.

⁹² Appendix A.11 - Email correspondence with Stantec, dated 7th August 2023

⁹³ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Section 7.12.12, page 25

- 4.1.36 The standard methods used to determine the attenuation required are outlined in the Ciria SuDS Manual (C753)⁹⁴, and section 24.2.2 of C753 discusses how the designer should consider the greenfield contributions to the SuDS, to ensure that runoff estimation methods are consistent.
- 4.1.37 A basic Micro Drainage (Source Control) model has been constructed by Stantec in the FRA 2021 to size the basin, based on 1 hectare of impermeable area. The outflow has been restricted to match the corresponding greenfield rates, as requested by the LLFA. The calculated volume of water has subsequently been scaled by the area of impermeable surfacing in Table 7.2⁹⁵ of the FRA (5.192 ha).
- 4.1.38 Referencing the series of catchment plans I have prepared to accompany this proof (Figure 13 – Figure 19), if only the areas which are 100% impermeable are considered (e.g. roads, roof and hardstanding etc.), the area is equal to approximately 5.25 hectares (Figure 18). This value is closely aligned with the value shown in Table 7.2 of the Stantec FRA 2021 (5.192ha). However, the important point to note is that this calculated area *excludes* gardens and green space.
- 4.1.39 It should also be recognised that the areas comprising the swales and the basin (Figure 15), also appear to have been excluded from the impermeable area calculation. As these features would transport or hold water, it is standard practice to include these features within the impermeable area (i.e., an additional 900m²).
- 4.1.40 A review of the drainage model (MicroDrainage) outputs appended to the Stantec FRA shows that the default volumetric runoff coefficient (Cv) value 0.84⁹⁶ has been applied to the drainage model for 1 ha of impermeable surface. As such, the model does not consider 100% of the rainfall landing on this 1 hectare area. Careful consideration needs to be given to the specification of Cv, as the default values used in software packages (i.e., 0.84) may not be appropriate⁹⁷ and Sewers for Adoption (7th Edition)⁹⁸ recommends that an impermeability of 100% should generally be assumed whenever calculating runoff from impermeable surfaces (i.e., roofs and paved areas). As such a Cv of 1.0 should be applied to the model.
- 4.1.41 The combination of using this wrong coefficient results in less water per hectare entering the drainage system. When this is scaled up to account for 5.192 hectare of impermeable surfacing it would result in a lesser amount of runoff being accounted for.
- 4.1.42 This underestimation of the runoff from the impervious surfaces, coupled with 10% urban creep not been applied, incorrect (lower) climate change allowance being reference (40% not 45%) and the

⁹⁴ Appendix A.10 - Circa C753 SuDS Manual, Section 24

⁹⁵ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Table 7.2 page 25

⁹⁶ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Appendix F, page 85

⁹⁷ Appendix A.10 – Susdrain paper on Assessing attenuation storage volumes for SuDS, Anthony McCloy Managing Director of McCloy Consulting.

⁹⁸ Appendix A.10 - Sewers for Adoption 7th Ed. Section C5.1, Page 55

impact of potentially ignoring the additional runoff from 1.6 hectares of Bird in Eye Farm and the basin itself, is likely to result in less water entering the drainage system and ultimately the basin.

- 4.1.43 This additional water does not appear to have been accounted for in the Stantec design of the drainage basin. The accumulative impact could result in the basin being significantly undersized, increasing the risk of flooding to an area downstream if the basin was to overtop, flowing towards an area which is already shown to be susceptible to flooding (i.e., the Framfield Road).
- 4.1.44 No detailed information has been provided by the Appellant to confirm that this would not be the case and despite requesting further information from Stantec to allow the performance of the drainage system to be verified, no further details have been provided.
- 4.1.45 Drainage is not a Reserved Matter and the Council should have confidence that the proposed scheme will operate as designed, within the requirements specified by policy. In my view it is difficult to see how the LLFA or the Council could have this confidence based on the current assessments provided by the Appellant. For all these reasons I disagree with the latest consultation response from the LLFA, which I consider to be in breach of their own guidance and national and local policy.
- 4.1.46 If the drainage basin is shown to be undersized in the drainage strategy, there are limited options to resize, or relocate it given the constraints on this site. The steep topography, the requirement to keep shallow gradients on the embankments, the proximity to the ancient woodland buffer and the footprint of development itself, will all significantly impact how the basin can be redesigned.
- 4.1.47 Ground testing by the developer in November 2022 has also identified high groundwater at the location of the basin and consequently, this factor would form another potential constraint if the basin is required to be resized to ensure the development does not have an increased risk of flooding offsite.
- 4.1.48 The final iteration of the drainage strategy proposes to discharge surface water to the Framfield Stream, however, the primary change from the original strategy comprises the diversion of the outfall from the drainage basin to the north, around the ancient woodland.
- 4.1.49 The Stantec January 2023⁹⁹ report states that the outfall would go deeper than is typically acceptable by Southern Water as an adoptable system. Whilst it is acknowledged that there is a section of the outfall pipe provided on the accompanying drawing, which shows how this system could be designed to overcome the issues using a series of backdrops in the manholes, there is also a note on the same drawing stating that *“the watercourse has not been surveyed as part of the topographic survey”*.
- 4.1.50 The level of the watercourse has therefore been assumed. For a system that is so critically dependant on an outfall at this location and land levels, without impacting the ancient woodland,

⁹⁹ CDA.54 - Stantec Technical Summary – Surface Water Drainage Strategy, January 2023

this approach in my professional opinion is unacceptable. The information provided does not demonstrably confirm whether the proposed drainage outfall would be viable and the Appellant cannot say with any certainty whether these changes would impact the design.

- 4.1.51 **Conclusions** – Despite three iterations of the drainage strategy, the Appellant has not provided sufficient information to make an informed decision regarding the suitability and effectiveness of the drainage system, which if changed, could significantly impact on the scheme layout and the adjacent ancient woodland.

5 Summary and Conclusions

5.1.1 This proof of evidence has been prepared in response to the documentation provided on behalf of the Appellant for the proposed development at Land at Bird in Eye Farm, Framfield, Uckfield.

5.1.2 The findings highlight a number of failings in the Appellant's approach to appraising flood risk in accordance with both local and national planning policy.

5.2 Sequential Test

5.2.1 The NPPF 2021 states¹⁰⁰ that when applying the Sequential Test, a risk-based approach should be taken and that the risk of flooding from all sources should be appraised as part of a site-specific FRA. National policy confirms that the impacts of climate change should be taken into consideration as part of the appraisal. Without this information, the FRA does not comply with the NPPF.

5.2.2 The FRA assumes that the site is allocated and on this basis, the Sequential Test is passed. Reference to the Council's SHELAA document¹⁰¹ and the accompanying online map¹⁰² confirms that the site is not allocated. The Appellant's Statement of Case¹⁰³ also states that the site is not allocated.

5.2.3 The FRA also asserts that the Sequential Test is passed on the basis that the built development is located entirely within Flood Zone 1.

5.2.4 Both reasons are factually incorrect.

5.2.5 The evidence presented within my proof of evidence confirms that parts of the site (i.e., the access routes to the SANG) are located within Flood Zones 2 and 3. Further evidence should therefore have been submitted to confirm that the site can meet the requirements of the Sequential Test.

5.2.6 It is unclear why the redline boundary has been drawn to only take into account the access routes to the SANG, but not the whole site, thereby presenting a picture of a lower risk.

5.2.7 An appeal decision made by Joanna Gilbert¹⁰⁴ on the 19th July 2023 acknowledges that the *entire* site should be considered when determining whether a Sequential Test is required.

5.2.8 The evidence I have presented shows where the risk from all sources of flood risk and the current and future impacts of climate change have not been appropriately addressed in the FRA submitted,

¹⁰⁰ CDL.1 - National Planning Policy Framework, July 2021, Paragraphs 161 and 162

¹⁰¹ CDE.54 - Wealden District Council Strategic Housing and Economic Land Availability Assessment document at Section 2.1, page 1.

¹⁰² <https://maps.wealden.gov.uk/WebMap/>

¹⁰³ CDC.2 - Appellant's Statement of Case, January 2023, Section 1.3, page 5

¹⁰⁴ Appendix A.1 - Appeal Decision made by Joanna Gilbert, Appeal Ref: APP/N1920/W/23/3314268 for a site located in Hertsmere Borough Council, 19th July 2023,

e.g., risk from the Bird-in-Eye Shaw and groundwater flooding. The Sequential Test has not been applied to this site and as such, the FRA has not been prepared in accordance with Paragraphs 157 NPPF (2019) or paragraph 161 NPPF (2021).

5.3 Detailed Assessment of Flood Risk – Access to the SANG

- 5.3.1 The proposed site includes a SANG, which I understand is required to be accessed at all times¹⁰⁵. In this respect, the SANG forms part of the development which is considered to be 'essential' to allow the approval of the scheme.
- 5.3.2 If the SANG cannot be accessed for any reason, for example due to flooding, the development cannot provide the alternative green space as intended to offset additional recreational pressure elsewhere.
- 5.3.3 The Stantec FRA fails to consider the risk of flooding to the access paths to the SANG, which cross the Bird-in-Eye Shaw. The FRA instead relies upon national mapping datasets to appraise the risk of surface water flooding¹⁰⁶ to the development. Figure 3.2 presented in the FRA¹⁰⁷ does not appear to even show the access paths to the SANG.
- 5.3.4 Without undertaking any detailed analysis of the flows in the watercourse, it is unclear how the Appellant, the LLFA, or indeed NE can be confident that the access tracks will not be frequently washed away, or impassible for long periods of time. It is unclear whether NE are even aware of the true risk of flooding, which can only be quantified by a site-specific analysis.
- 5.3.5 The Appellant's FRA fails to reference the Council's SFRA2017, updated May 2022¹⁰⁸, which clearly states at paragraph 121 that risk of flooding to smaller watercourses, such as the Bird-in-Eye Shaw, should be considered as part of site-specific FRA.
- 5.3.6 The EA historic flood map contained within the FRA at Appendix D¹⁰⁹, suggests that one of the access points to the SANG was flooded as recently as October 2000. Despite this information being included within the Appellant's FRA, there is no detailed assessment of the risk, or a numerical model of the Bird in Eye Shaw, nor are the impacts of climate change on this watercourse appraised in detail.
- 5.3.7 As such the FRA fails to take account of paragraph 161 NPPF and the Council's SFRA.

¹⁰⁵ CDA.23 - CSA Environmental SANG Design and Framework Management Plan RevB,, Table 1, Appendix C, row Path, Roads and Tracks

¹⁰⁶ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, page 9 and 10

¹⁰⁷ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, page 10

¹⁰⁸ CDE.42 - Wealden District Council Strategic Flood Risk Assessment at Section 5.3, paragraph 121, prepared by JBA Consulting, May 22, <https://www.wealden.gov.uk/UploadedFiles/Final-Wealden-Level-1-SFRA-SDS-Checked-1.pdf>

¹⁰⁹ CDA.18 - Stantec Flood Risk Assessment, Including Drainage Strategy & SuDS Report (Project Ref: 48494/2001 | Rev: C | Date: April 2021, Appendix D, EA Product 4 data.

5.4 Detailed Assessment of Flood Risk – Safe access and escape routes

- 5.4.1 The NPPF Paragraph 167 e) states that it should be demonstrated that 'safe access and escape routes are included where appropriate'.
- 5.4.2 Annex 3: Flood risk vulnerability classification¹¹⁰, clearly states that 'Essential Infrastructure' is defined at the first bullet point as; *"Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk."* It is therefore put that the access road (B2102) from the development to Uckfield is indeed classified as 'Essential Infrastructure' and should have been appraised as part of the FRA.
- 5.4.3 The Appellant's FRA fails to appraise the risk of flooding to the main link road from the site to Uckfield (Framfield Road B2102), despite the application proposing to introduce a footway along this route.
- 5.4.4 Historic records show the road flooded in 2000 and more recently in November 2022, just two months prior to the Appellant's final drainage note being submitted in January 2023. Notwithstanding this, no detailed analysis has been undertaken in the FRA, nor the FRA updated to quantify the risk to the occupants/users of the proposed development.
- 5.4.5 The results of the analysis I have undertaken are presented within this proof of evidence, which suggest that flooding to the extent witness in November 2022 could occur as regularly as every 5 years, potentially severing the access to Uckfield along the Framfield Road.
- 5.4.6 The implications of this main access road becoming impassible due to flooding is focussed on residents and emergency services needing to take a significantly longer journey (9 times as long) to reach the same destination. It is questioned whether this could be achieved by occupants on foot and whether the alternative routes are indeed suitable, as the suggested alternative route has not been appraised and also crosses the Framfield Stream. Mr White's proof of evidence¹¹¹ at Section 6.11 to 6.19 discusses the implication of this in more detail.
- 5.4.7 I have calculated the Hazard rating for the recent flood event in November 2022, applying an industry standard methodology. The hazard rating for the main access route from the development to Uckfield (B2102) is estimated to be 'Significant – Dangerous for Most'. This hazard rating is likely to increase if the magnitude of flooding was to increase, e.g., during the design flood event and when the impacts of climate change are considered.
- 5.4.8 This raises the question of the sustainability of the site, in both the short term and the longer term. The impacts of flooding at this location are only likely to become worse with climate change and the access road impassible more frequently and for longer periods of time.

¹¹⁰ CDL.1 - National Planning Policy Framework, Annex 3: Flood risk vulnerability classification, July 2021

¹¹¹ Proof of Evidence of Richard White, Miles and White Transport, Section 6.2.

5.4.9 The Appellant's FRA fails to acknowledge this wider impact and the risk of flooding from this source.

5.5 Surface Water Drainage Assessment

5.5.1 The Appellant has presented three iterations of the drainage strategy for the proposed development. The only difference between the latest iteration and the first strategy proposed, was the location of the outfall from the basin, which is proposed to be rerouted to the north of the ancient woodland.

5.5.2 My proof shows that there is no evidence provided in the Appellant's FRA, or subsequent drainage strategy reports, to confirm that the proposed drainage system is sized correctly and would not result in an increased risk of flooding offsite.

5.5.3 No catchment plans have been provided by the Appellant to definitively show which areas of the site will drain to the proposed swales and basin.

5.5.4 I have prepared a series of drainage catchment plans to accompany this proof of evidence (Figure 13 to Figure 19), in an attempt to understand how the drainage system has been designed, in order to verify whether the drainage basin has sufficient capacity and would not result in offsite flooding if it was to overflow.

5.5.5 From the result of my analysis, it appears that the Appellant's drainage strategy reports do **not**:

- Apply the correct areas for the downstream catchment (i.e., the areas which the LLFA agreed could be ignored from the drainage system).
- Include the drainage basin or swales in the calculation of impermeable area.
- Apply the required 10% allowance for urban creep to the development.
- Apply the correct coefficient (Cv) to the drainage model used to size the runoff from the impermeable areas.
- Apply the correct climate change allowances (45%).
- Include the 1.6 ha of Bird in Eye Hill Farm, which could drain to the proposed drainage system.

5.5.6 The combination of applying the incorrect inflows into the drainage basin would result in an underestimation of the size of the drainage basin which could potentially increase the risk of flooding offsite.

5.5.7 Without undertaking a detailed assessment addressing the points above, it cannot be demonstrated whether the proposed development would increase the risk of flooding, as required by the NPPF.

5.5.8 The physical constraints of the site, e.g., the steep topography, proximity of the ancient woodland and high groundwater, could all mean that it may not be possible to retain the proposed drainage basin at its current location.

- 5.5.9 It is recognised that the Council has removed the reason for refusal in relation to drainage, based on the LLFA's latest response and that the LLFA has not raised an objection to the material submitted by the Appellant. However, it is unclear whether the LLFA and the Council were made aware of the changes from the agreed points from the meeting between the Appellant and the LLFA in May 2020, (e.g., the omission of the Bird in Eye Farm upstream).
- 5.5.10 The LLFA's response appears to be focussed on the location of the outfall, rather than the technical work presented by the Appellant in sizing the drainage system. I would therefore disagree with the LLFA's findings on this basis.
- 5.5.11 The Appellant has not followed the relevant guidance or best practice and has failed to consider the true drainage catchments. As such, the information provided by the Appellant does not demonstrate that the proposed drainage system would function without increasing the risk offsite.
- 5.5.12 Whilst it is recognised that this is not a detailed drainage design, the size and location of the drainage basin is critical to ensure that risk of flooding offsite is not increased, the proposed ancient woodland is not impacted and that the proposed development can be delivered.
- 5.5.13 My evidence has shown the proposal is contrary to Paragraphs 161 and 162 of the NPPF 2021, and Paragraphs 20, 21, 23 and 24 of the NPPG. On this basis, flood risk and drainage provide good reasons why planning permission should be refused. I therefore respectfully request that the appeal is dismissed.