

**Crawley Borough Local Plan Examination: Reissued Inspectors' Matters,
Issues and Questions - Revised October 2023**

Matter 1: Legal Compliance and General Plan-making

Issue 4 – Climate Change

1.15 Is the plan's approach to flood risk, including the site selection process, consistent with national policy and suitably precautionary, including modelling for the long term, to take account of the effects of climate change? Will the update to the Strategic Flood Risk Assessment (due mid November 2023) appropriately conclude the evidence required on this matter?

The updated Level 1 Strategic Flood Risk Assessment (SFRA) will set out the most recent peak river flow and peak rainfall intensity allowances for the appropriate river management catchment, the River Mole, which are based on UKCP18 data and set out within the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG) on Flood Risk and Coastal Change. The climate change allowances have been revised since the previous SFRA (dated September 2020) so updating the Level 1 SFRA is essential to reflect the most up to date guidance on climate change and flood risk.

It is understood that the updated Level 1 SFRA will not carry out updating modelling to produce mapped outputs which reflect the most recent climate change allowances published in 2021 for fluvial or surface water flooding, for example the climate change mapping in Appendix D would use the previous fluvial climate change allowances taken from the 2019 guidance for the Thames River Basin District/outputs from the Upper Mole Modelling 2020. In terms of fluvial flood risk, the previous River Basin District climate change allowances based on UKCP09 data are greater for all epochs than the River Mole Management Catchment climate change allowances based on the UK Climate Projects 18 (UKCP18) data. In the absence of further modelling being carried out, the use of the UKCP09 peak river flow allowances and associated mapping from the 2020 fluvial model would offer a precautionary approach to determining areas at risk to fluvial flooding in the future. Where no fluvial modelling is available, Flood Zone 2 will be used to provide indicative information on areas which could be at risk in the future due to climate change. This approach is considered to offer a conservative approach to defining areas at risk to fluvial flooding including climate change.

In terms of surface water flooding, the UKCP18 data is broadly similar for peak rainfall intensities to the UKCP09 data, however, the central allowance for the 1% AEP rainfall event for the 2070's epoch is now 25% where previously it was given as 20%. It is understood the updated SFRA will highlight this difference and give the recommendation that the upper allowance of 40% only is used for surface water climate change mapping to offer a conservative approach.

In the absence of additional modelling to reflect the UKCP18 allowances, these approaches would offer a conservative methodology to consider climate change for

fluvial and surface water flood risk. The SFRA will seek for detailed modelling to be carried out at a site-specific level Flood Risk Assessment (FRA) stage in terms of climate change.

The Level 1 SFRA is a living document so this should be updated in the future when further information and mapping on climate change become available.

Draft Policy EP1 does make reference to the need for climate change to be taken into account in terms of flood risk. The updates understood to be taking place to the SFRA are reflective of the most up to date information within the NPPF/PPG. In terms of site selection, it is clear that flood risk has been considered in the SHLAA and Site Allocations and flood risk background paper. However, once the SFRA has been updated, it will be helpful to understand how the future risk of flooding has been accounted for in terms of the site selection process.

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Matter 9: Environment and Green Infrastructure

Issue 1: Whether the approach to Environmental Protection is justified, effective and consistent with national policy

9.1 Is the update to the Strategic Flood Risk Assessment likely to have any soundness implications for Policy EP1 on Development and Flood Risk?

As part of updating the SFRA, consideration should be given to reviewing draft Policy EP1 against the revisions within the SFRA and if necessary, make recommendations to update draft Policy if needed. The current wording of Policy EP1 makes reference to all sources of flooding (in Paragraph 16.9 draft Local Plan) and sets out the process to be followed when considering site suitability for development in line with NPPF and PPG Flood Risk and Coastal Change. In essence, the suggested update to the SFRA should strengthen the current content of Policy EP1 by reflecting the most up to date information in the NPPF/PPG Flood Risk and Coastal Change.

The updated SFRA should also contain the most recent information on the appropriate climate change allowances to be used and offer recommendations on how climate change in the Borough should be considered in terms of planning for development. It is noted that point ii of draft Policy EP1 states that climate change must be taken into account during the development planning process.

In line with the changes to NPPF/PPG Flood Risk and Coastal Change, the updated SFRA should contain information on the suggested cumulative impacts of flooding from all sources and how this will be used within the Sequential Test. In addition, consideration of flood risk from all sources should be set out within the updated SFRA.

Draft Policy EP1 does make reference to the need to consider groundwater and sewer flooding for example, though it seems prudent to review the wording of draft Policy EP1 once the updated SFRA is available to ensure that both all sources and the cumulative impact of flooding are given suitable weight in the draft Policy wording.

Paragraph 16.18 of the draft Local Plan discusses that all housing sites identified in draft Policy H2 are considered to be appropriate in terms of flood risk. Once the updated SFRA is available, it would also be recommended to check against the site allocations to ensure that all forms of flooding and the cumulative impact of flooding have been considered during the site selection process.

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Matter 10: Transport and Infrastructure

Issue 3: Whether there is sufficient infrastructure capacity or scope for planned improvements to support the plan's proposals and secure sustainable growth.

10.18 The evidence indicates that Crawley Wastewater Treatment Works (WWTW) are likely to reach capacity during the middle of the plan period and be subject to further permitting likely to require a tighter consent. Does the Plan provide a positive policy framework to enable additional / expanded waste water treatment facilities to be provided? Is there evidence that land needs to be allocated for waste water infrastructure to support the growth identified in the Plan?

The policy has clearly stated that the Crawley Council will support new or improved infrastructure. Crawley Council should proactively engage with the water company on growth, ensuring that the company has the best available growth projections which will help them determine the necessary sewerage infrastructure upgrades required to accommodate planned growth in the area. This will ensure that growth is strategically planned, and the corresponding wastewater infrastructure aligns with the council's vision set out in the Local Plan. Although it is important for the developers to proactively collaborate with the water company, as stated in the policies, the council also has an important role in collaborating with the water company at the strategic level to ensure that sewerage infrastructure is able to keep up with growth in the area.

The local council need to initiate discussions with Thames Water promptly for any land that is allocated to waste water infrastructure to support the future growth.

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Supplementary Questions

Strategic Flood Risk Assessment Update 2023 PS.ES.EP.17 - Including updated appendices C, D, H & J

Matter 9: Issue 1 – Approach to Environmental Protection

SQ9.7 The SFRA states that Crawley is identified as a ‘wet spot’ within WSCCs draft Local Flood Risk Management Strategy (2021-26) by reference to surface water flooding and that the Borough is more generally regarded by the Environment Agency and DEFRA as an area with flood risk. Are the development and planning considerations recommended in the updated SFRA appropriately reflected in the submitted Plan?

The updated SFRA reflects the changes to the NPPF and PPG Flood Risk and Coastal Change and is an important update to the previous SFRA from 2020. The development and planning considerations within the updated SFRA for the most part build upon those in previous iterations of the NPPF/PPG Flood Risk and Coastal Change and in broad terms, the draft Plan does reflect the recommendations made in the SFRA in terms of flood risk mainly through draft Policies EP1 and EP2. These draft Policies make clear reference to both fluvial and surface water flooding and highlight that flooding from all sources must be considered.

Section 14 of the updated SFRA does make a recommendation around the assessment of cumulative impacts, which have been given greater emphasis through recent revisions to the NPPF/PPG Flood Risk and Coastal Change. The SFRA sets out a cumulative impact analysis and mapping in Section 12 and states in paragraph 12.4.5 these implications should be fully considered within site specific Flood Risk Assessment's (FRA's). Draft Policy EP1 does highlight the need for site-specific FRA's to be undertaken as necessary to support development, and that all sources of flood risk should be considered. A review of the wording of draft Policy EP1 could be helpful to ensure that the Local Authority feel this is fully reflective of the NPPF/PPG Flood Risk and Coastal Change updates, and if adding to the wording would strengthen this Policy and better steer site-specific FRA's.

SQ9.2 Does the updated SFRA, including its application of recent climate change allowances, result in a need to revisit any of the proposed site allocations in the submitted Plan in terms of the sequential test and, where necessary, the exception tests in accordance with the NPPF and the latest iteration of Planning Practice Guidance?

The latest revisions to the NPPF/PPG Flood Risk and Coastal Change are reflected within the updated SFRA. The main areas to consider in terms of this question appear to be around the updates to climate change allowances, the consideration of flood risk from all sources and the cumulative impacts of flood risk which are some of the areas

updated in NPPF/PPG Flood Risk and Coastal Change.

The updated SFRA uses the UKCP09 climate change allowances to map both fluvial and surface water flood risk. As such, this is the same information utilised in the previous SFRA from 2020 though the SFRA does contain the most recent climate change allowances for the River Mole management catchment for both peak river flows and rainfall intensity, and highlights these are the figures to be used for site specific FRA's. The use of the UKCP09, rather than UKCP18, climate change allowances is considered to offer a conservative approach to mapping future climate change, as these previous allowances are either greater or the same as the most recent climate change allowances. Although there is currently no guidance on considering the impact of climate change on development located within Flood Zone 1, the guidance does state that peak river flow allowances can be applied to developments and allocation where the SFRA shows an increased risk of flooding in the future. This includes locations that are currently in Flood Zone 1 but might be in Flood Zone 2 or 3 in the future. The Authority may wish to confirm how future flood risk has been considered during the site selection process.

The findings of the Strategic Housing Land Availability Assessment (SHLAA) and Sustainability Assessment (SA), in combination with the 2020 version of the SFRA were used to inform the Flood Risk and Sequential Test for Site Allocations Background Paper (referred to from here as the Background Paper), dated October 2020. It is noted that the SHLAA was last updated in February 2023 and does highlight flood risk as a development constraint, with fluvial and surface water flood risk highlighted on a site-by-site basis. The SA was last updated in May 2023. Although the general content of these two documents in terms of flood risk principles do not appear materially different to when they were used to help inform the Background Paper, the Local Authority may wish to confirm whether the 2023 updates to the SHLAA and SA would affect the content of the Background Paper.

The Background Paper states the sequential test, and where necessary, the exception test were undertaken for housing allocations shown to be partially at flood risk. Through this process, the Local Authority has steered development away from areas at risk to fluvial flooding and for those three sites described within the Background Paper, development could be carried out in a sequential manner to keep built development away from fluvial flood risk areas. This Background Paper focusses on the sites that have an element of fluvial flood risk, though it is noted that surface water flood risk was also considered.

It is clear the current site allocations have been steered away from sites at risk from fluvial flooding. With the recent updates to the NPPF/PPG Flood Risk and Coastal Change and the SFRA that place emphasis on flood risk from all sources and the cumulative impacts, it is recommended the Local Authority review the content of the Background Paper to understand whether this could be considered as reflecting flood risk from all sources, and any flood risk cumulative impacts.

Section 12 of the updated SFRA highlights that 40 sites were screened against a suite of available flood risk information to provide a summary of risk at each site, including the proportion of each site affected by different sources of flooding. The sites assessed are mapped in Figure 12.1, a summary of the finding given in paragraph 12.2 and site

by site detail including the percentage of the site affected by each source of flooding set out in SFRA Appendix K.

As stated above, it may be necessary for the Local Authority to revisit the site allocations and possibly the sequential test using the methodology as set out in the updated SFRA if all sources of flood risk have not previously been considered. Other forms of flooding need to be treated consistently with fluvial flooding in mapping probability and assessing vulnerability so the sequential approach can be applied across all forms of flood risk.

Should the nature of flood risk on site require the exception test to be undertaken, consideration should also be given to the need for a Level 2 SFRA to be carried out to support this process.

Paragraph 12.4 of the updated SFRA discusses the cumulative impacts of development on flood risk, which the revised NPPF requires to be assessed as part of the SFRA process. The findings of the cumulative impact assessment offer a scoring process for each sub-catchment identified, with the SFRA highlighting the need for this scoring to be taken into account during the preparation of site-specific FRA's. The Local Authority may wish to consider whether the findings of the cumulative assessment would have any impact on the site allocations.

Although it is recognised the approach to climate change is very similar to that taken during the 2020 SFRA, as the recommendation is for the Local Authority to review and confirm whether the site allocations have taken into account flood risk from all sources and cumulative impacts, as well as confirmation climate change has been fully considered.

SQ9.3 Paragraph 12.3 of the SFRA update states: “Inclusion of the SHLAA and Main Employment Areas sites in the SFRA does not imply that development can be permitted without further consideration of the Sequential Test. The required evidence should be prepared as part of a Local Plan Review Sustainability Appraisal or alternatively, it can be demonstrated through a free-standing document, or as part of strategic housing land or employment land availability assessments. NPPF Planning Practice Guidance for Flood Risk and Coastal Change describes how the Sequential Test should be applied in the preparation of a Local Plan Review. The assessments undertaken for this SFRA will assist Crawley Borough and Horsham District Councils in the preparation of the Sequential Test.” Does the Sustainability Appraisal require revisiting to take account of the updated SFRA and ensuring that the Sequential Test is satisfied?

It is understood the draft Sustainability Appraisal (SA)/Strategic Environmental Assessment (SEA) was last updated in May 2023.

Flood risk is recognised as one of the Sustainability Objectives within the SA/SEA and is recognised as a Key Topic 'Flood Risk and Drainage'. The suggested sample assessment criteria include assessing whether site proposals are located away from areas that are in high-risk flood zones, now or in the future, as well as whether flood mitigation or resilience measures are incorporated in new development proposals. Paragraphs A11 to A16 of the SA/SEA discuss the issue concerning 'the concentration

of new development in Crawley and the surrounding area may increase the risk to flooding’.

One point to note is reference is made to the 2020 version of the SFRA within paragraphs A11 to A16. These references should be updated to reflect the update to the SFRA dated 2023. The Local Authority may also wish to check whether the 2020 version of the Gatwick Sub-Region Outline Water Cycle Study is the most up to date, if not, then making reference to the most recent version would be helpful.

The content of paragraphs A11 to A16 of the SA/SEA are still relevant following the update to the SFRA, it could be considered that the updates to the SFRA to reflect the most recent version of the NPPF/PPG Flood Risk and Coastal Change should reinforce this wording. Considering the wording of both draft Policies EP1 and EP2, the content of both appear to remain relevant and are written to offer a more local interpretation of the National Planning Policy, also using references to the SFRA to connect more directly with that document. Again, it highlights the need to make reference to the most up to date version of the SFRA.

Appendix H of the SA/SEA lists the sites under consideration and sets out information related to the various sustainability objectives. Reference is made to flood risk, though this may need revision or adding to in light of the revisions made within the updated SFRA around considering flooding from all sources and cumulative impacts if this has not been considered previously. If the sequential test were undertaken in light of the revisions to the NPPF/PPG Flood Risk and Coastal Change, and the updated content of the SFRA, it seems likely that a review of the SA/SEA may be necessary.