

Stonestreet Green Solar

Flood Risk Technical Note

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APFP Regulation 5(2)(e)
Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



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1 Introduction

- 1.1.1 EPL 001 Limited (the 'Applicant') has submitted an application to the Planning Inspectorate for a Development Consent Order ('DCO') from the Secretary of State for Energy Security and Net Zero for the Stonestreet Green Project (the 'Project'). The Project is a Nationally Significant Infrastructure Project ('NSIP') as defined in the Planning Act 2008 (the 'PA 2008').
- 1.1.2 The Project comprises the construction, operation, maintenance, and decommissioning of solar photovoltaic ('PV') arrays and energy storage, together with associated infrastructure and an underground cable connection to the existing National Grid Sellindge Substation.
- 1.1.3 The site ('Site') is situated on land located to the north and west of the village of Aldington, centred at Ordnance Survey ('OS') National Grid Reference ('NGR') TR 05898 and is approximately 192 hectares ('ha') in size. The Site is within the administrative boundaries of Ashford Borough Council ('ABC') and Kent County Council ('KCC'). The location of the Project is shown on **ES Volume 3, Figure 1.1 – 1.2 (Doc Ref. 5.3)** [\[APP-043\]](#).
- 1.1.4 A comprehensive flood risk assessment of the Project was undertaken by SLR Consulting as part of the Environmental Impact Assessment ('EIA') process and is reported in **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A)) ('FRA')** [\[REP1-036\]](#) [\[REP1-037\]](#) and [\[REP1-038\]](#). An assessment of the effects of the Project on the water environment was also undertaken as part of the ES and is reported in **ES Volume 2, Chapter 10: Water Environment (Doc Ref. 5.2(B))** [\[REP1-022\]](#).
- 1.1.5 This Flood Risk Technical Note has been prepared by Quod and SLR Consulting in response to an additional submission provided by the Environment Agency to the Examining Authorities ('ExA'): **Information for 'live' Nationally Significant Infrastructure Projects on new flood and coastal erosion risk** [\[AS-027\]](#). This Flood Risk Technical Note has been prepared to provide the 'ExA' with commentary on new flood risk data recently released by the Environment Agency ('EA'), including the updated Flood Map for Planning ('Updated FMP'). Specifically, this Technical Note considers whether:
- The assessment of flood risks and water environment effects provided in the DCO Application remain valid or whether updated/new assessments are required; and
 - Whether any changes are required to the Project as a consequence of the Updated FMP.

2 Updated Flood Map for Planning

2.1 Introduction

- 2.1.1 As advised by the Environment Agency in their additional submission: **Information for 'live' Nationally Significant Infrastructure Projects on new flood and coastal erosion risk** [\[AS-027\]](#), on 25 March 2025, the EA released a Flood Map for Planning ('Updated FMP') based on the data from the new National Flood Risk Assessment ('NaFRA2')¹.
- 2.1.2 The Updated FMP includes new and updated data sets which include:
- Flood zones;
 - Risk of flooding from rivers and sea ('RoFRS');
 - Risk of flooding from surface water ('RoFSW'); and
 - National coastal erosion risk map ('NCERM') – this is not relevant to the Project as the Site is not at risk of coastal erosion given its inland location.
- 2.1.3 The NaFRA2 process combines new and existing data to improve national flood risk maps with improved geographical coverage, improved model methodologies and outputs at a higher resolution.
- 2.1.4 A brief explanation of the new and updated data sets included in the Updated FMP is provided below. A detailed explanation of the new and updated data is available on the Defra Data Services Platform². The Updated FMP is considered by the EA and Defra to be a significant improvement to the previous FMP³.

2.2 Flood Map for Planning

- 2.2.1 The FMP categorises areas at risk from fluvial flooding (flooding from rivers and sea) as being in either Flood Zones 1, 2 or 3. Flood Zone 1 has a low risk of flooding (i.e. less than 0.1% annual probability of flooding); Flood Zone 2 has a medium risk of flooding (i.e. between 0.1% and 1% annual probability of flooding); and Flood Zone 3 has a high risk of flooding (i.e. greater than 1% annual probability of flooding).
- 2.2.2 The Updated FMP introduces:
- Updated Flood Zones 2 and 3 (Flood Zones 2 and 3 have been refined with improved geographical coverage, model methodologies and outputs at a higher resolution. Flood Zones 2 and 3 also no longer overlap);
 - New Defended Rivers/Sea extents Annual chance: 0.1%, 1.0% (rivers) / 0.5% (sea) and 3.3%;
 - New Undefended Rivers/Sea extents: Annual chance: 0.1%, 1.0% (rivers) / 0.5% (sea); and

- New Surface Water for Spatial Planning extents: Annual chance: 0.1%, 1.0% and 3.3%.

3 Implications of Updated FMP

3.1 Introduction

- 3.1.1 To reflect the Updated FMP, updated versions of submitted figures are provided which are detailed in this section. For ease of reference, this section provides figures from the previous FMP side-by-side with the Updated FMP. Full versions of replacement ES and FRA figures for the DCO Application are provided in Appendix A. Appendix B provides overlays of the submitted figures and the replacement figures to show the change in flood risk.
- 3.1.2 This section also considers the implications of the Updated FMP on assessed flood risks, Project design and submitted DCO Application documents.

3.2 ES and FRA Replacement Figures

- 3.2.1 A number of the Figures included in the DCO Application have been updated and **replaced** to reflect the Updated FMP as set out in Table 3.1.

Table 3.1: Submitted and Replacement Flood Risk Figures

Figure	Submitted Figure (Ref)	Replacement Figure (Ref)
ES Volume 3, Chapter 10: Water Environment Figure 10.4: Flood Map for Planning	ES Volume 3, Chapter 10: Water Environment Figures 10.1-10.8 (Doc Ref. 5.3) [APP-052].	ES Volume 3, Chapter 10: Water Environment Figures 10.1-10.8 (Doc Ref. 5.3(A))
ES Volume 4, Appendix 10.2: Flood Risk Assessment Figure 10.2.8: Flood Map for Planning	ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A)) [REP1-036], [REP1-037] and [REP-038]	ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(B))
ES Volume 4, Appendix 10.2: Figure 10.2.9: Long Term Flood Risk Rivers and Sea		
ES Volume 4, Appendix 10.2: Figure 10.2.10: Long Term Flood Risk Surface Water		

- 3.2.2 For ease of reference, Figures 1.1 to 3.2 provide side-by side comparisons of the submitted figures with the replacement versions as follows:

- Figures 1.1 and 1.2 – Flood Map for Planning (Submitted and Replacement)
- Figures 2.1 and 2.2 - Long Term Risk of Flooding from Rivers and Seas (Submitted and Replacement)
- Figures 3.1 and 3.2 - Long Term Risk of Flooding from Surface Water (Submitted and Replacement)

3.2.3 Figures 1 – 3 of Appendix B provide figures overlays of the submitted figures and the replacement figures for a additional comparison as follows:

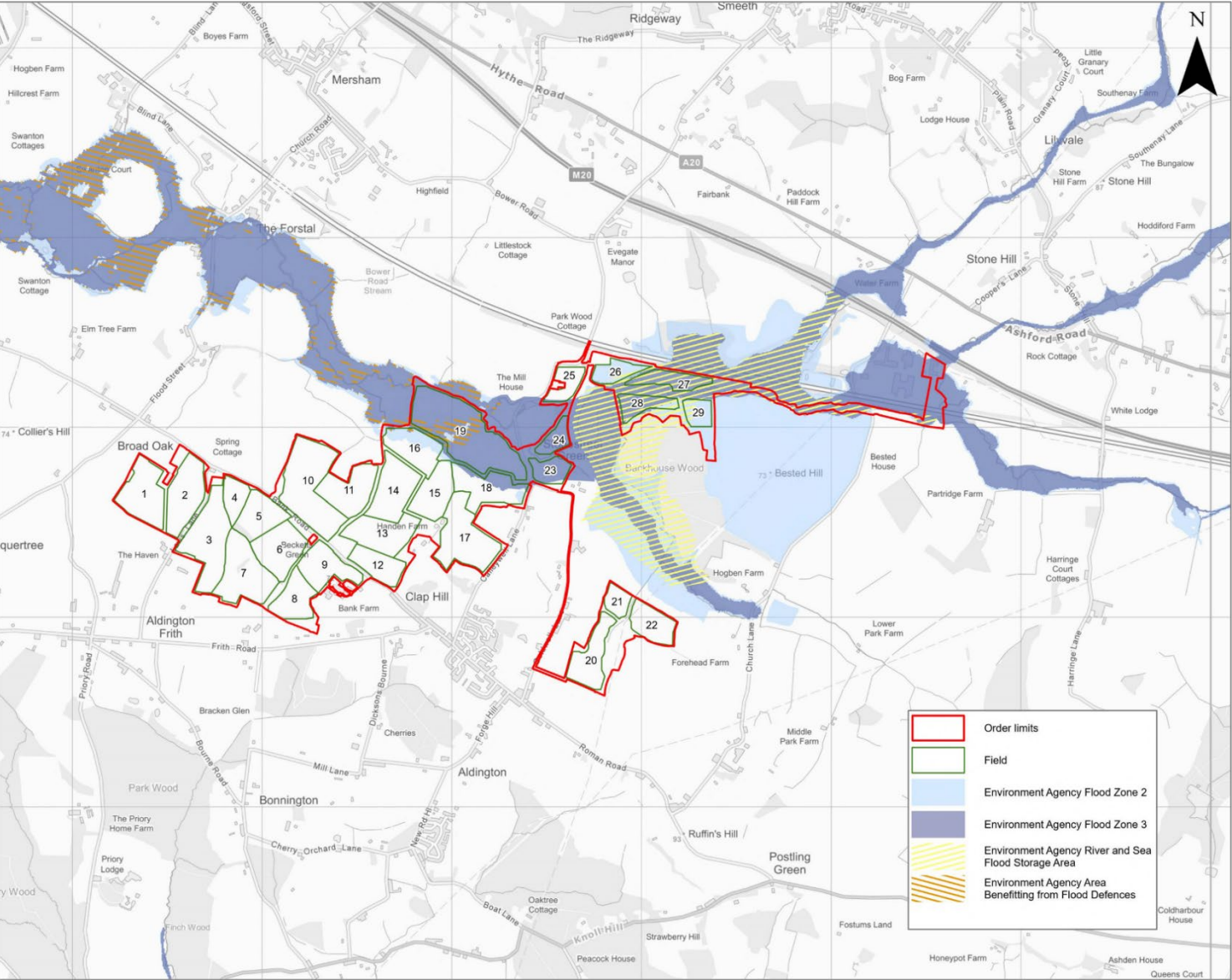
- Figure 1, Appendix B: Flood Map for Planning Comparison
- Figure 2, Appendix B: Long Term Risk of Flooding from Rivers and Seas Comparison
- Figure 3, Appendix B: Long Term Risk of Flooding from Surface Water Comparison

3.2.4 In addition, the following new figures have been created to reflect new data sets included in the Updated FMP. These figures are provided in Appendix C

Table 3.2: New Flood Risk Figures

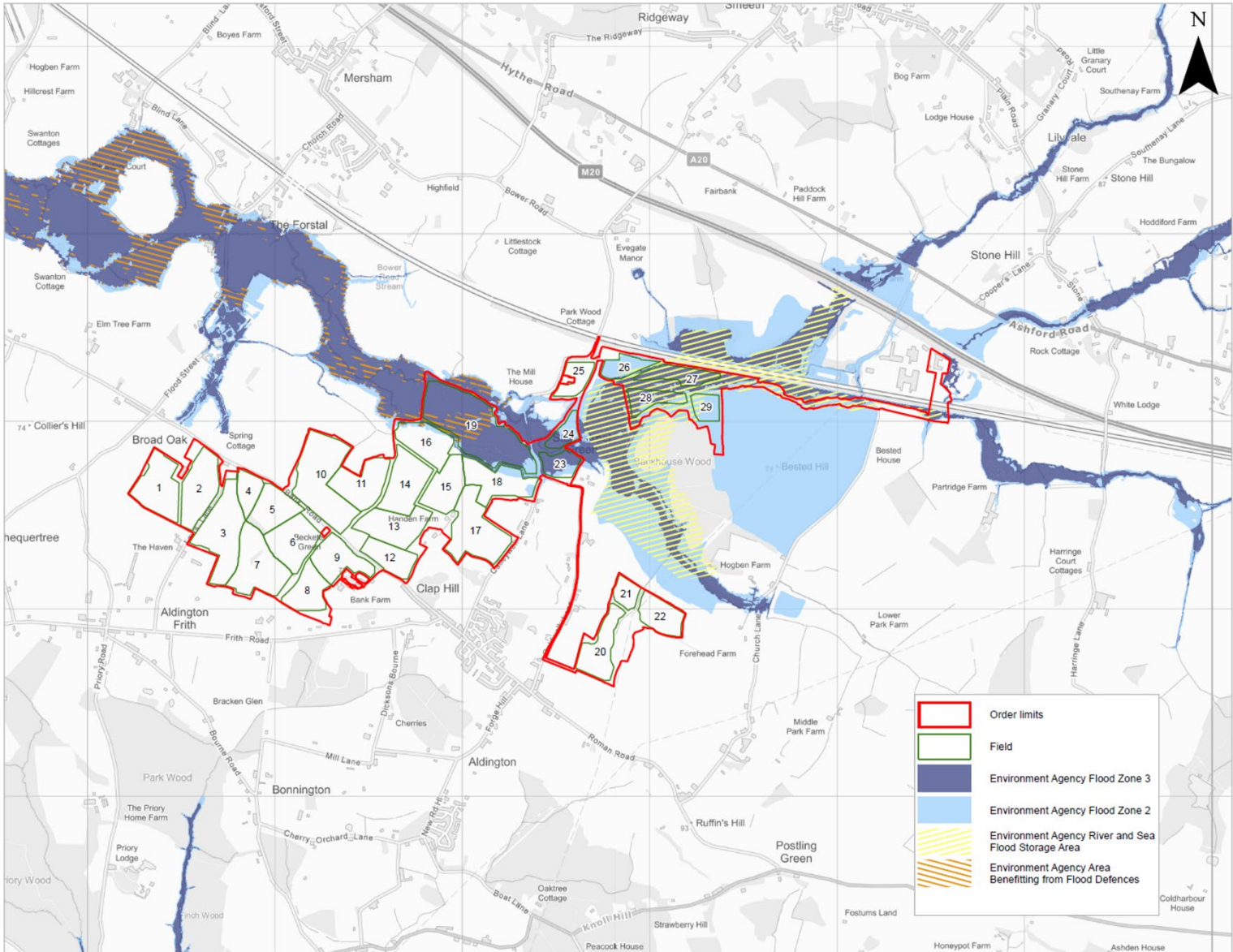
Figure Reference	Title and Brief Description
Figure 1, Appendix C	Risk of Flooding from Rivers and Sea – Climate Change (new data set included in the Updated FMP)
Figure 2, Appendix C	Risk of Flooding from Surface Water – Climate Change (new data set included in the Updated FMP)

Figure 1.1: Flood Map for Planning (Submitted)



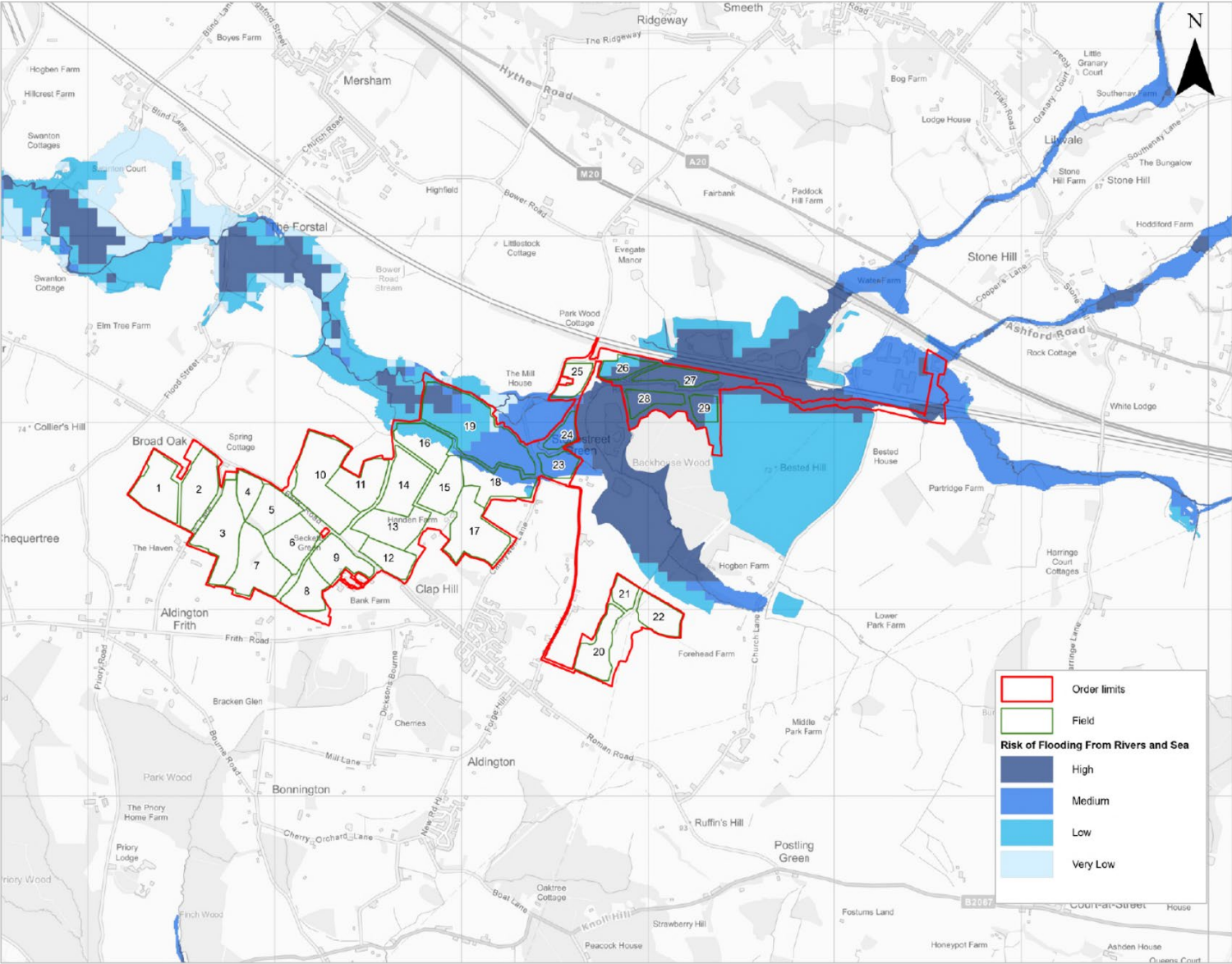
Submitted Versions:
Figure 10.4 of ES Volume 3, Chapter 10: Water Environment Figures 10.1-10.8 (Doc Ref. 5.3) [APP-052].
Figure 10.2.8 of ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A)) [REP1-036], [REP1-037] and [REP-038]

Figure 1.2: Flood Map for Planning (Updated)



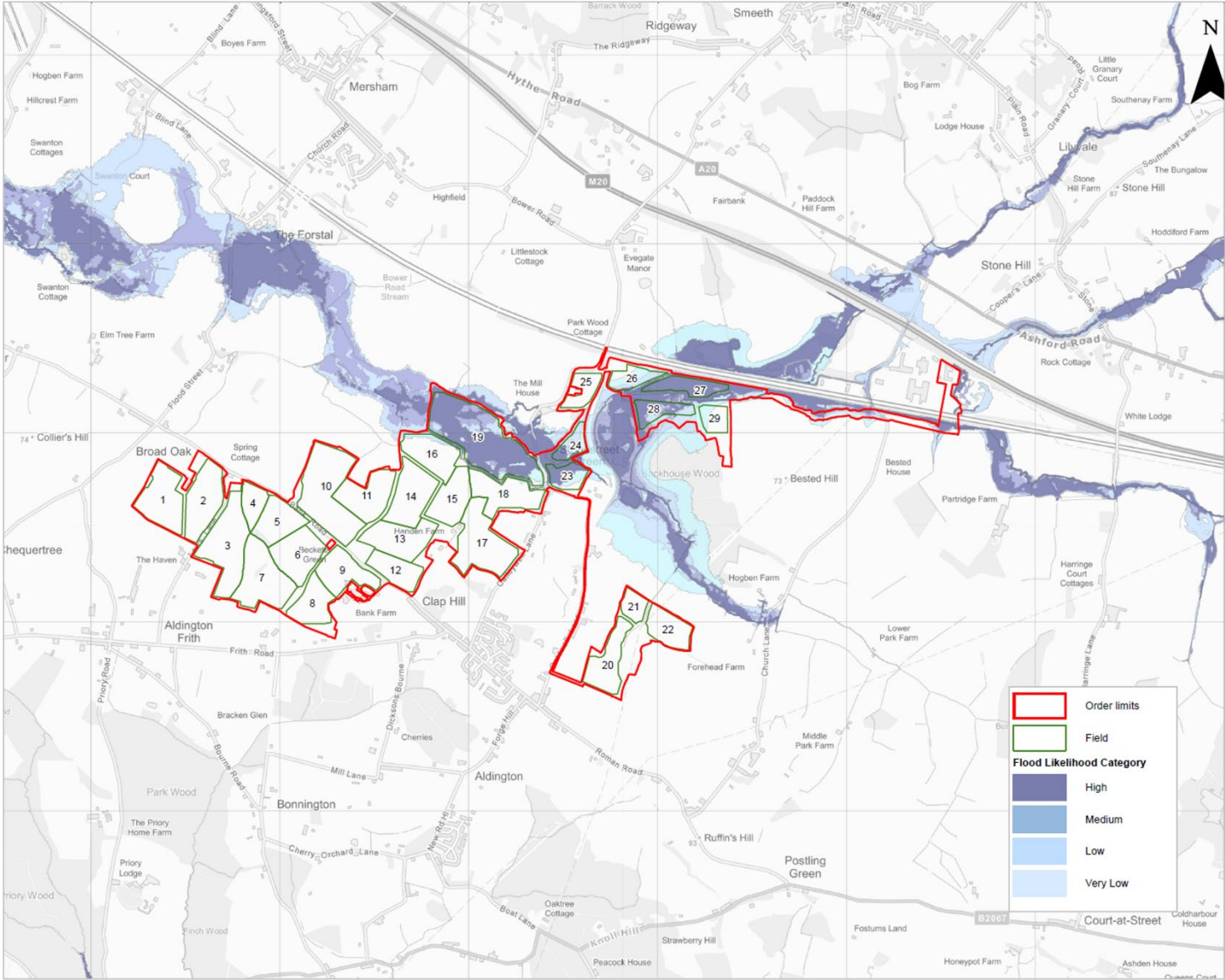
Replacement Versions:
Figure 10.4 of ES Volume 3, Chapter 10: Water Environment Figures 10.1 - 10.8 (Doc Ref. 5.3(A))
Figure 10.2.8 of ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(B))

Figure 2.1: Long Term Risk of Flooding from Rivers and Seas (Submitted)



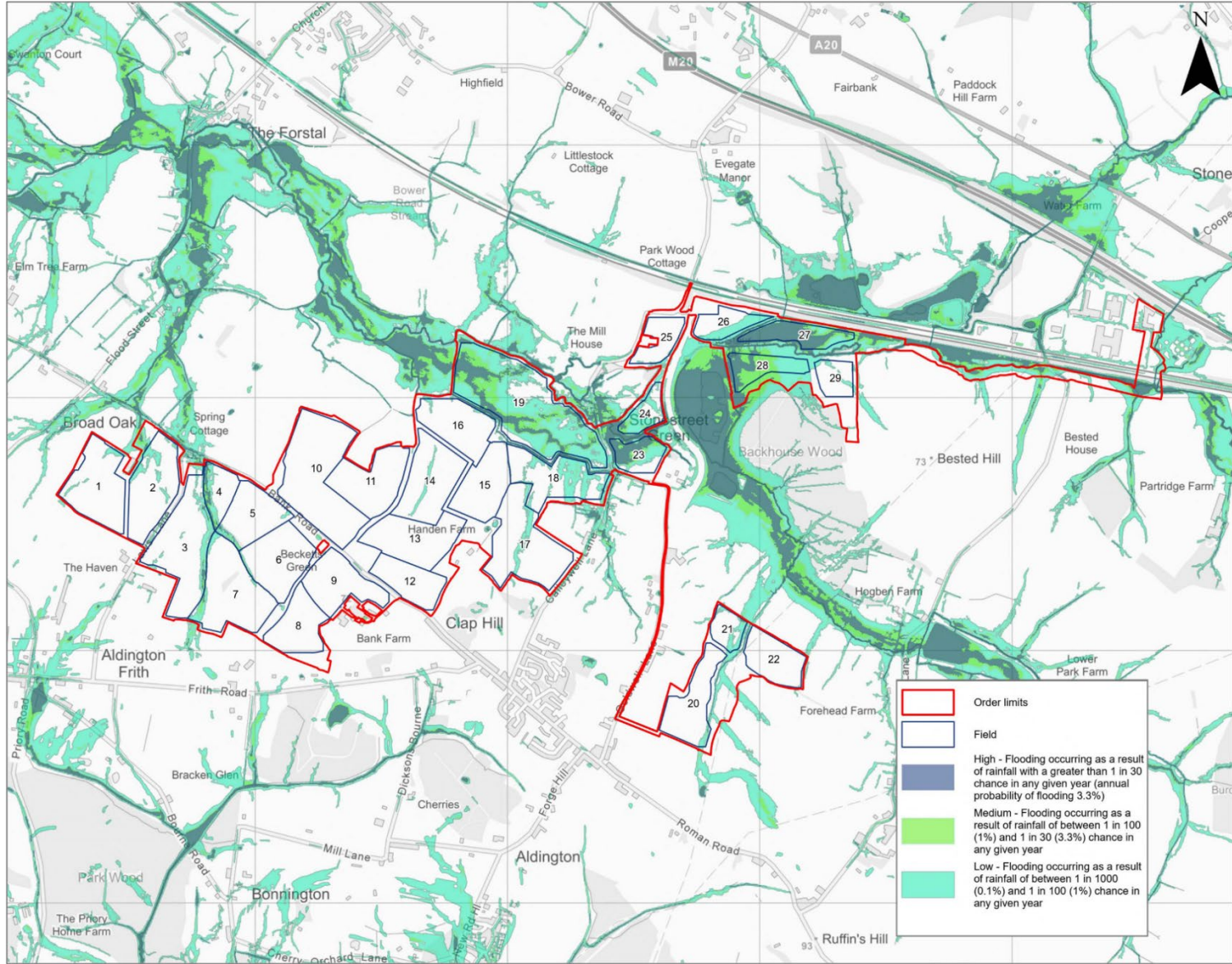
Submitted Version:
Figure 10.2.9 of ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A)) [\[REP1-036\]](#), [\[REP1-037\]](#) and [\[REP-038\]](#)

Figure 2.2: Long Term Risk of Flooding from Rivers and Seas (Updated)



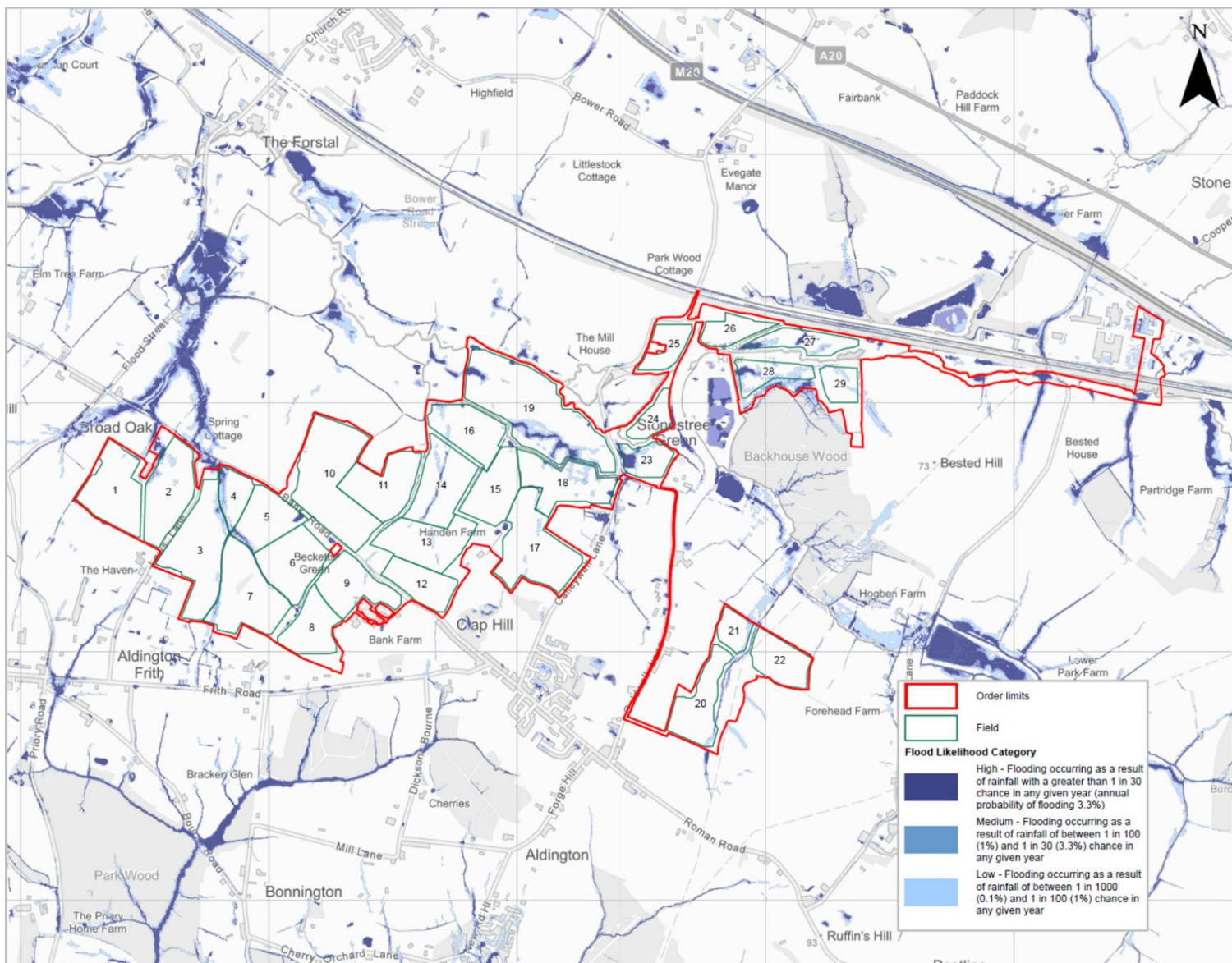
Replacement Version:
Figure 10.2.9 of ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(B))

Figure 3.1: Long Term Flood Risk Surface Water (Submitted)



Submitted Version:
Figure 10.2.10 of ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A)) [\[REP1-036\]](#), [\[REP1-037\]](#) and [\[REP-038\]](#)

Figure 3.2: Long Term Flood Risk Surface Water (Updated)



Replacement Version:
Figure 10.2.10 of ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(B))

3.3 Changes to Flood Risk

- 3.3.1 It is important to note that Site-specific detailed hydraulic modelling was undertaken as part of the submitted **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A))** which is considered to be the most accurate, best available information on fluvial and surface water flood risk pertaining to the Site. The parameters and outputs of the hydraulic modelling were agreed with the EA and the Applicant has signed a Statement of Common Ground ('SoCG') which includes consideration of sources of flood risk: **Signed Statement of Common Ground with the Environment Agency (Doc Ref. 8.3.2(C))** [\[REP4-015\]](#)
- 3.3.2 Nonetheless, Table 3.3 below comments on the change in flood risk extents affecting the Site as indicated by the new and updated data included in the Updated FMP.

Table 3.3: Updated FMP Flood Risks

Flood Type	Change and Current Flood Risk
Flood Zones	<p>Figure 1.2 and Figure 1, Appendix B show the Updated FMP data compared to the submitted version (Figure 1.1) and shows:</p> <ul style="list-style-type: none"> ▪ The extent of Flood Zone 2 and Flood Zone 3 no longer overlap within the Site; ▪ There has been an overall reduction in the extent of Flood Zones 2 and 3 within and surrounding the Site; and ▪ There are no areas of the Site where Flood Zones have increased.
Long Term Flood Risk from River and Seas	<p>Figure 2.2 and Figure 2, Appendix B show the Updated FMP data compared to the submitted version (Figure 2.1):</p> <ul style="list-style-type: none"> ▪ There has been an overall reduction in the extent of long term risk of flooding from rivers or sea (when defences are operating); ▪ Areas which are likely to experience flooding from rivers and sea are the same as the areas located within Flood Zone 2 and 3; and ▪ There are no new areas at risk of long term flooding area identified within or adjacent to the Site. <p>Figure 1 Appendix A illustrates new data included in the Updated FMP and shows the Risk of Flooding from Rivers and Sea – Climate Change. This shows there is no significant change in fluvial flood risk for the Site and surrounding area when considering possible impacts of climate change on future flood risk.</p>
Surface Water Flood Risk	<p>Figure 3.2 and Figure 3, Appendix B show the Updated FMP data to the submitted version (Figure 3.1):</p> <ul style="list-style-type: none"> ▪ There is an overall reduction in the extent of surface water flood risk within and surrounding the Site;

- Small, localised areas of low to high risk of surface water flooding across the Site remain; and
- There are no areas within the Site where surface water flood risk has increased.

Figure 1 Appendix A illustrates new data included in the Updated FMP and shows the Risk of Flooding from Surface Water – Climate Change. This shows there is no significant change in surface water flood risk for the Site and surrounding area when considering possible impacts of climate change on future flood risk.

- 3.3.3 In summary, the Updated FMP present more refined flood risk data compared to the previous FMP. In some instances, flood risk extents (fluvial and surface water) have reduced, and none have increased.

3.4 Submitted Documents

- 3.4.1 This section provides brief comment on the submitted DCO Application documents which refer to the previous FMP and RoSWF mapping and implications of the Updated FMP.

Flood Risk Assessment

Detailed Flood Risk Review

- 3.4.2 Section 5.2 of **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A))** provides a detailed review of flood risks at the Site. As stated above, SLR Consulting undertook detailed hydraulic modelling of the East Stour River to provide an accurate assessment of the prevailing flood risks (inclusive of climate allowances) at the Site and its surrounds to inform the Project design and FRA. This modelling provides a more robust assessment of the flood risk from both fluvial and pluvial sources than the Updated FMP.
- 3.4.3 The Updated FMP does not identify new sources of flood risk or expanded geographical extents which would be material to the detailed assessment risks of flooding considered in the FMP. However, the FRA should now be read in conjunction with the updated figures presented in Table 3.1.

Flood Risk to the Project

- 3.4.4 The Project layout was informed by detailed hydraulic modelling and the previous FMP or RoSWF in combination. Section 10: Flood Risk to the Project of **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A))** sets out how flood risks will be controlled through mitigation and management measures that form part of the Project.
- 3.4.5 The risks relating to fluvial and surface water flooding at the Site have been mitigated as far as practicable through the design principles and the layout of the Project as set out in Section 10.2: Avoidance of **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A))**. Measures to manage residual flood risks during the construction, operation and decommissioning stages of the Project

are set out in Section 10.3: Flood Management of the FRA. These measures do not require any alteration as a result of the Updated FMP since they are based on detailed hydraulic modelling. As noted at paragraph 3.4.2 above, this modelling provides a more robust assessment of the flood risk from both fluvial and pluvial sources than the Updated FMP.

Flood Impacts Arising from the Project

- 3.4.6 Section 11: Flood Impacts Arising from the Project of the **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A))** assesses flood impacts arising from the Project. The assessment draws upon various data sources, including the previous FMP and RoFSW, but was principally based on SLR's hydraulic modelling.
- 3.4.7 For the same reasons set out in section 3.4.2 to section 3.4.5 of this note, the conclusions of **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A))** are unaffected by the Updated FMP. Updated or additional assessment is therefore not considered to be required. However replacement figures are provided to reflect the Updated FMP as set out in Table 3.1.

Environmental Statement

- 3.4.8 **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A))** was used to inform **ES Volume 2, Chapter 10: Water Environment (Doc Ref. 5.2(B)) [REP1-022]**. As explained above, **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A))** remains valid and therefore the commentary on flood risks and effects in **ES Volume 2, Chapter 10: Water Environment (Doc Ref. 5.2(B)) [REP1-022]** also remains valid.
- 3.4.9 Figure 10.4: Flood Map for Planning of **ES Volume 3, Chapter 10: Water Environment Figures 10.1-10.8 (Doc Ref. 5.3(A))** has, however, been updated to reflect the Updated FMP.

Planning Statement and Sequential and Exception Test

- 3.4.10 The EA's previous FMP was included within Appendix 2: Sequential and Exception Test of the **Planning Statement (Doc Ref. 7.6) [APP-151]**.
- 3.4.11 As Figure 1.2 shows, although there has been a reduction in the amount of the Site located within Flood Zone 2 and Flood Zone 3, the Site is still partially located within Flood Zone 2 and 3 and therefore the Sequential Test is still required.
- 3.4.12 The Updated FMP shows reductions in the areas of the Site and surroundings within Flood Zones 2 and 3. However, these reductions are not material to the Sequential and Exception Test of the **Planning Statement (Doc Ref. 7.6) [APP-151]** which remains valid.

Outline Operational Surface Water Drainage Strategy

- 3.4.13 The **Outline OSWDS (Doc Ref. 7.14(C)) [REP4-013]** was informed by **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A))** which remains valid. The **Outline OSWDS (Doc Ref. 7.14(C)) [REP4-013]** therefore also remains valid.

3.5 Other Management Plans

3.5.1 The following outline management plans include reference to flooding and / or flood risk:

- **Outline CEMP (Doc Ref. 7.8(A))** [\[REP1-044\]](#);
- **Outline LEMP (Doc Ref. 7.10(B))** [\[REP3-020\]](#);
- **Outline OMP (Doc Ref. 7.11(A))** [\[REP1-050\]](#);
- **Outline DEMP (Doc Ref. 7.12)** [\[APP-157\]](#); and
- **Outline RoWAS (Doc Ref. 7.15(A))** [\[REP1-056\]](#).

6.1.2. The above documents include management measures which would be used to respond to, and prevent, flood events as a result of the construction, operation and decommissioning of the Project. The measures have been informed by the results of the detailed hydraulic modelling, rather than the previous FMP. As such, for the reasons set out in paragraph 3.4.2 above, they remain valid and no consequential amendments to the management measures set out in these documents are considered necessary.

4 Conclusion

4.1.1 SLR Consulting has considered whether the Updated FMP has any implications for the Project or whether updated assessments are required. This Technical Note confirms that:

- The assessment of all sources of flood risk provided as part of the submitted **ES Volume 4, Appendix 10.2: Flood Risk Assessment (Doc Ref. 5.4(A))** do not change as a result of the Updated FMP;
- The assessment of effects on the Water Environment as reported in **ES Volume 2, Chapter 10: Water Environment (Doc Ref. 5.2(B))** remains valid;
- The **Outline SWDS (Doc Ref. 7.14(C))** [\[REP4-013\]](#) and other submitted outline management plans remain valid;
- No additional assessments are required; and
- No changes to the proposals for construction, operation or decommissioning of the Project set out in this DCO Application are considered necessary in light of the Updated FMP.

References

¹ Environment Agency. Updated 25 January 2025. National assessment of flood and coastal erosion risk in England 2024. Available at: <https://www.gov.uk/government/publications/national-assessment-of-flood-and-coastal-erosion-risk-in-england-2024/national-assessment-of-flood-and-coastal-erosion-risk-in-england-2024> (Accessed 07 April 2025).

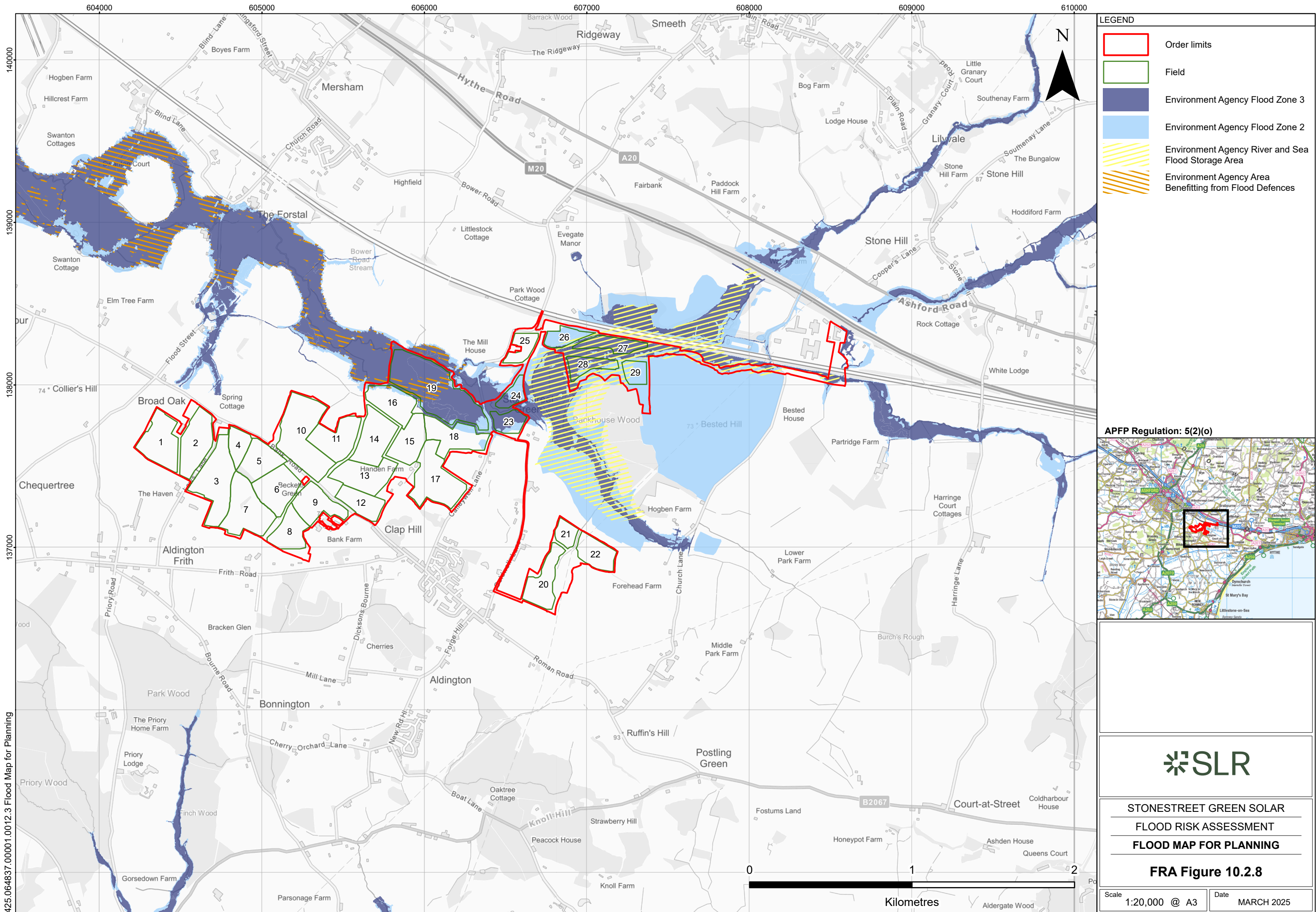
² Defra. Data Services Platform. Available at: <https://environment.data.gov.uk/support/announcements/569147407/568393733> (Accessed 07 April 2025).

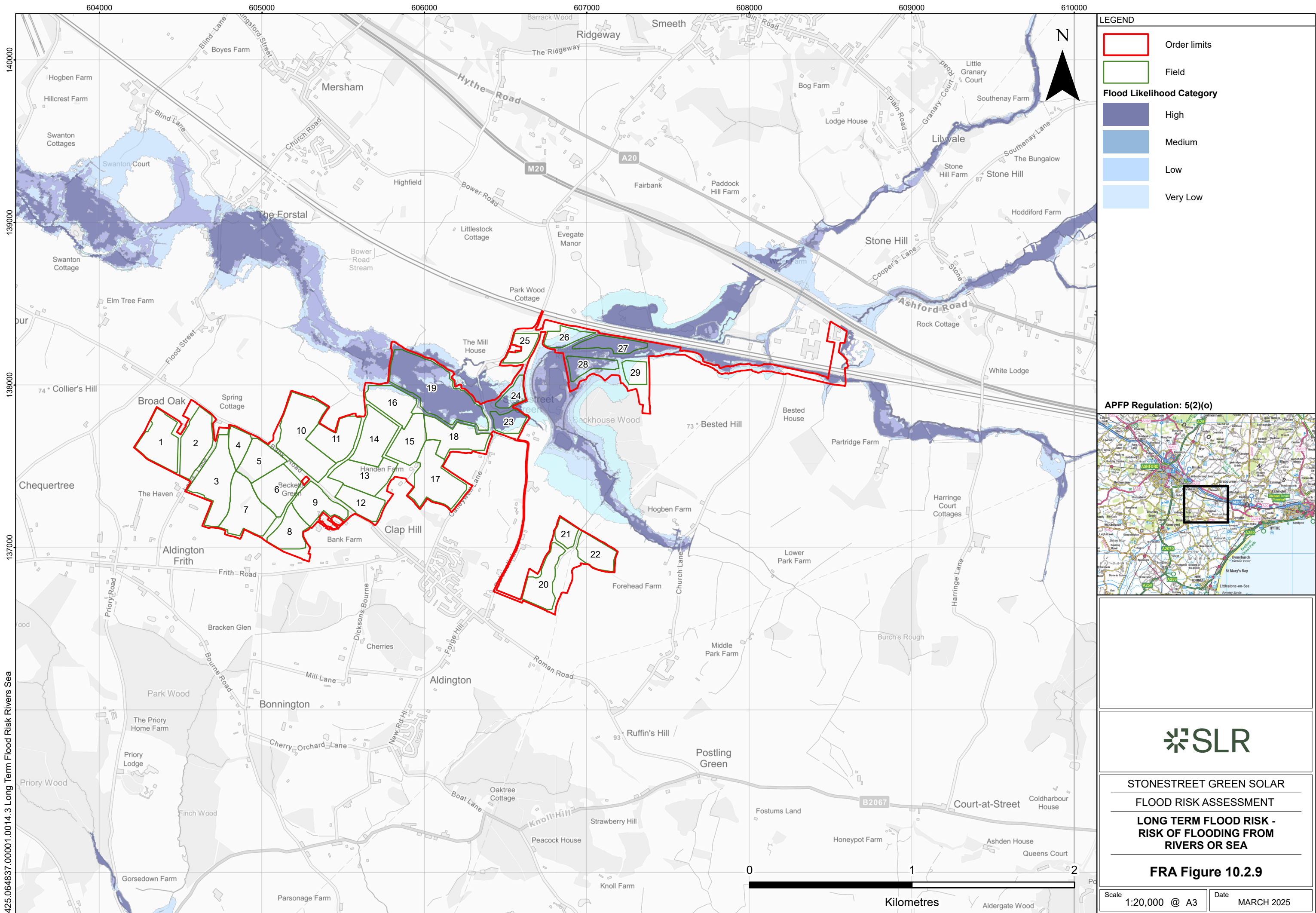
³ Defra. Data Services Platform. Flood Map for Planning – Information and guidance about the FMP. Available at <https://environment.data.gov.uk/support/faqs/778338325> (Accessed 07 April 2025).

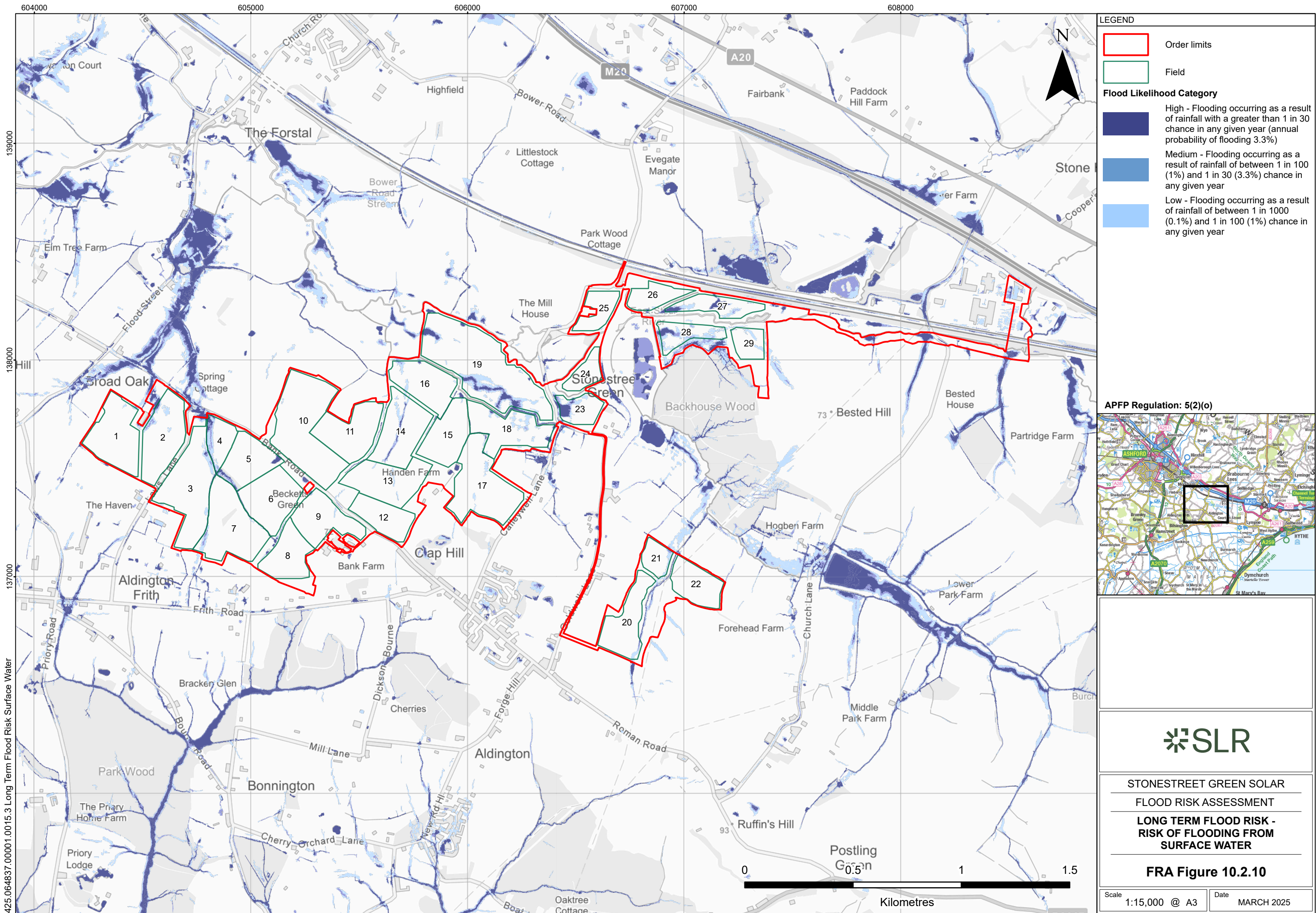


Stonestreet Green Solar

Appendix A - Replacement Figures







LEGEND

Order limits

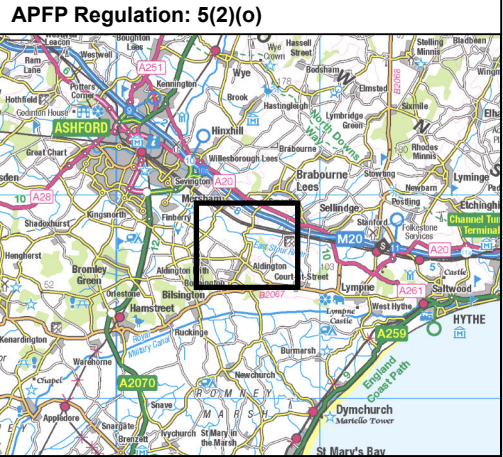
Field

Flood Likelihood Category

High - Flooding occurring as a result of rainfall with a greater than 1 in 30 chance in any given year (annual probability of flooding 3.3%)

Medium - Flooding occurring as a result of rainfall of between 1 in 100 (1%) and 1 in 30 (3.3%) chance in any given year

Low - Flooding occurring as a result of rainfall of between 1 in 1000 (0.1%) and 1 in 100 (1%) chance in any given year



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FLOOD RISK ASSESSMENT

LONG TERM FLOOD RISK -
RISK OF FLOODING FROM
SURFACE WATER

FRA Figure 10.2.10

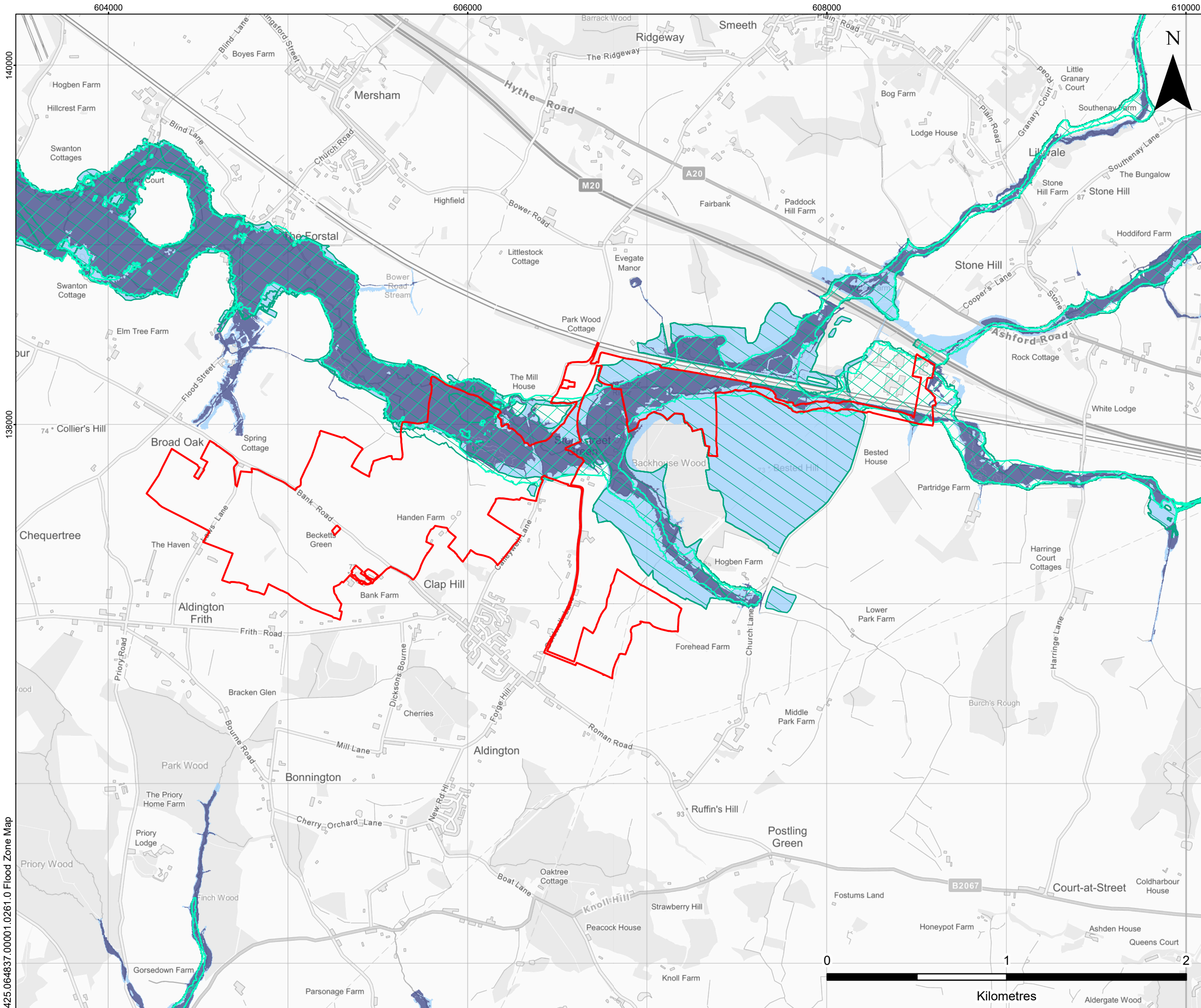
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DateMARCH 2025



Stonestreet Green Solar

Appendix B - Comparison Figures



LEGEND

Order Limits

Environment Agency Flood Map for Planning Rivers and Sea Flood Zones (2023)

Environment Agency Flood Zone 3

Environment Agency Flood Zone 2

Environment Agency Flood Map for Planning Rivers and Sea Flood Zones (2025)

Environment Agency Flood Zone 3

Environment Agency Flood Zone 2

Note
Environment Agency updated the Flood Map for Planning - Flood Zone layers on the 27th March 2025

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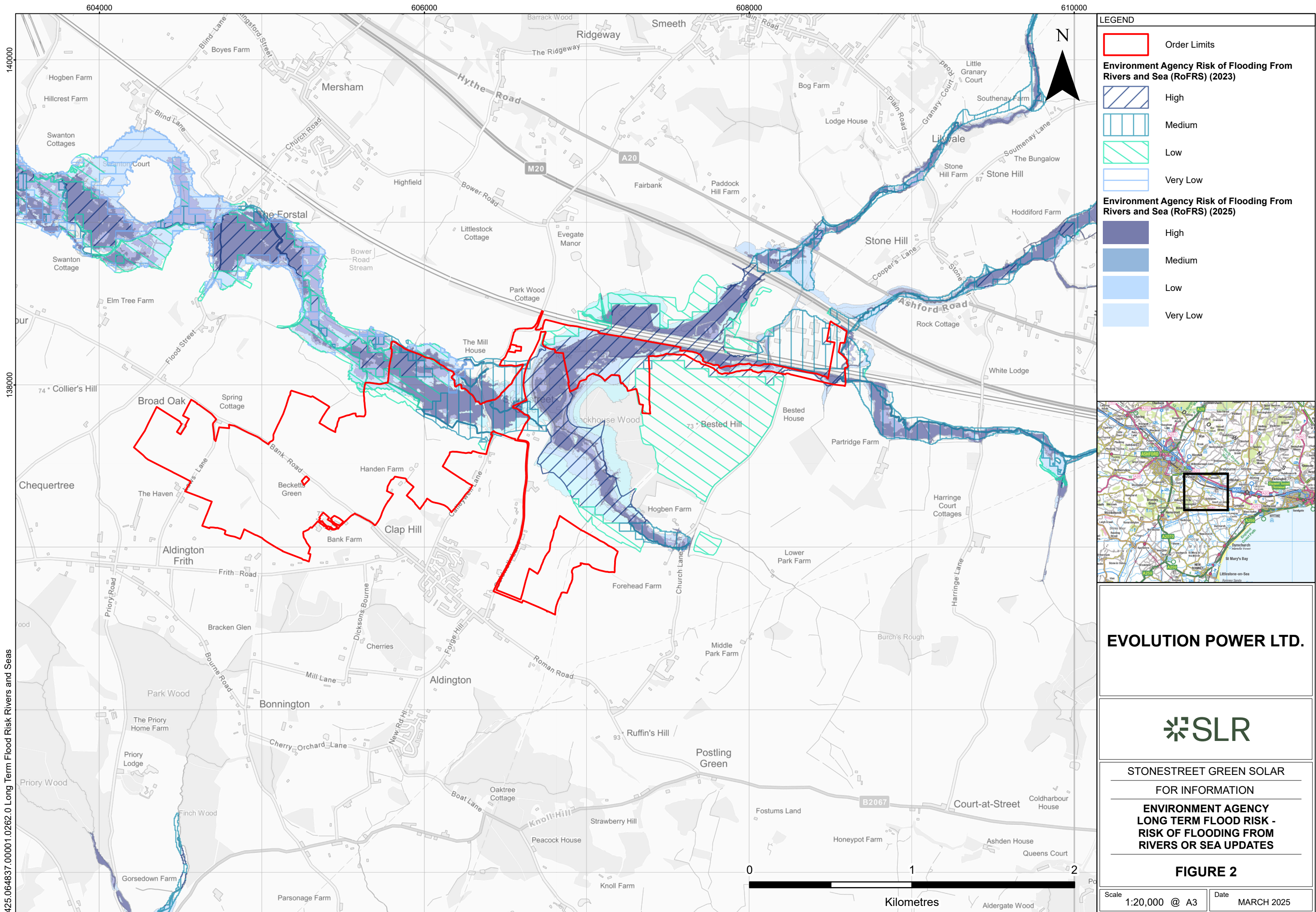
FOR INFORMATION

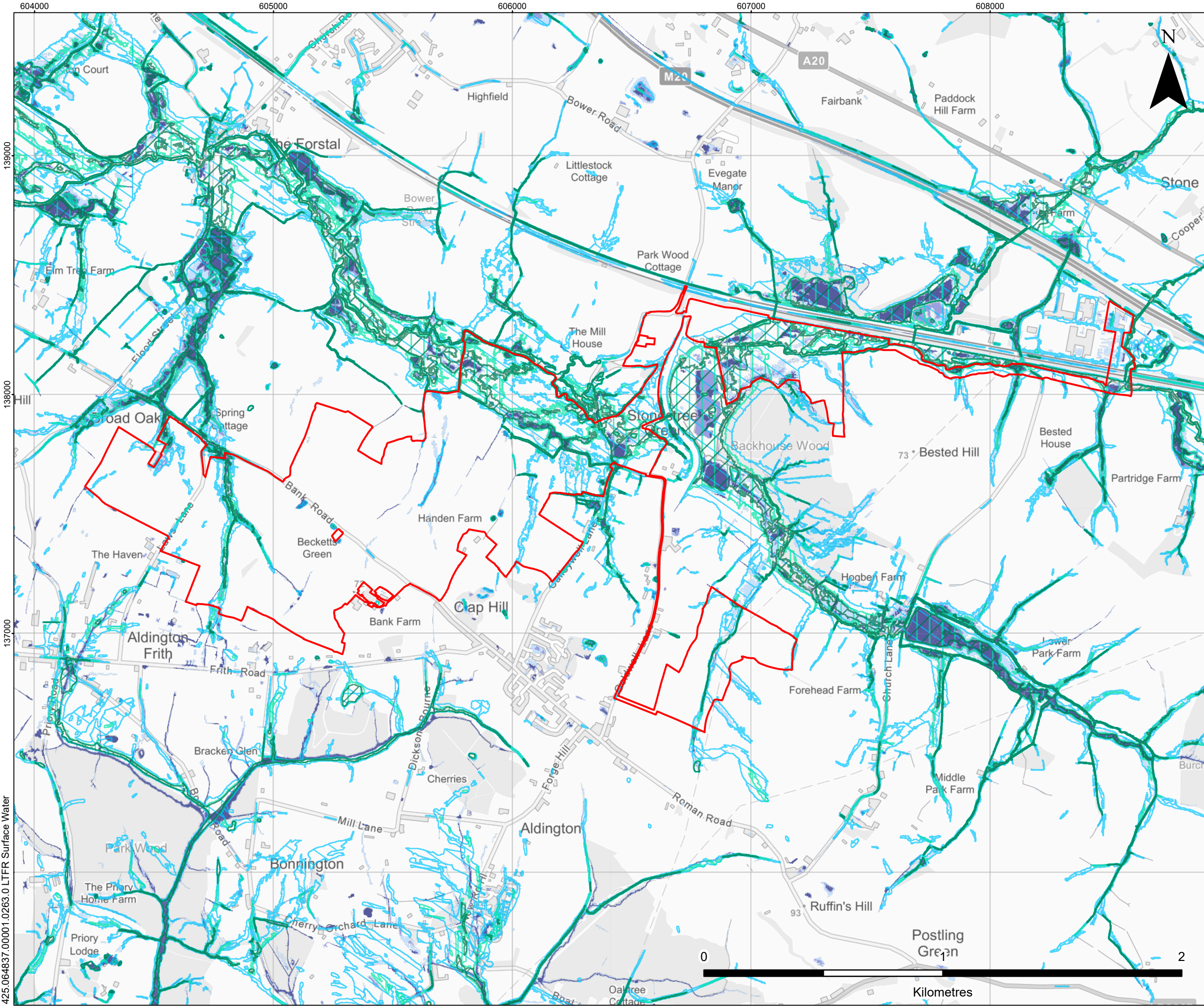
**ENVIRONMENT AGENCY
FLOOD ZONE UPDATES**

FIGURE 1

Scale 1:20,000 @ A3

Date MARCH 2025





LEGEND

Order limits

Environment Agency Risk of Flooding Surface Water (RoFSW) (2023)

High - Flooding occurring as a result of rainfall with a greater than 1 in 30 chance in any given year (annual probability of flooding 3.3%)

Medium - Flooding occurring as a result of rainfall of between 1 in 100 (1%) and 1 in 30 (3.3%) chance in any given year

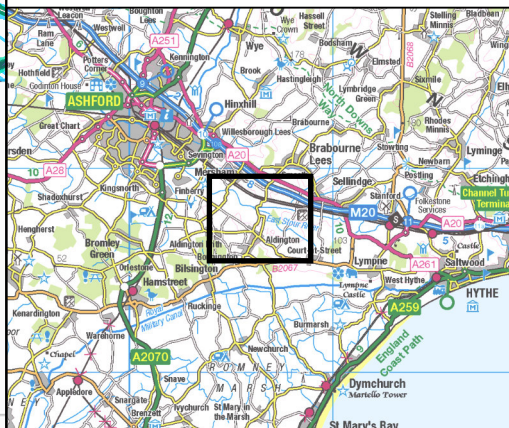
Low - Flooding occurring as a result of rainfall of between 1 in 1000 (0.1%) and 1 in 100 (1%) chance in any given year

Environment Agency Risk of Flooding Surface Water (RoFSW) (2023)

High - Flooding occurring as a result of rainfall with a greater than 1 in 30 chance in any given year (annual probability of flooding 3.3%)

Medium - Flooding occurring as a result of rainfall of between 1 in 100 (1%) and 1 in 30 (3.3%) chance in any given year

Low - Flooding occurring as a result of rainfall of between 1 in 1000 (0.1%) and 1 in 100 (1%) chance in any given year



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**ENVIRONMENT AGENCY
LONG TERM FLOOD RISK -
RISK OF FLOODING FROM
SURFACE WATER UPDATES**

FIGURE 3

Scale
1:15,000 @ A3

Date
MARCH 2025



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Appendix C - New Figures



