Appendix A: Mapping Portal User Guide

Please tick the boxes next to the dataset titles in the map legend to display the data. If data does not display, it means it is not present in that particular area.

Legend	Description	Reference
Authority Information Melton borough boundary	The boundary of Melton borough, the study area for this SFRA.	**Section 1.5** Study area
Watercourses All Watercourses Canals Main Rivers	**Main Rivers** – the Environment Agency (EA) statutory main rivers map detailing the watercourses which are designated a Main River by the EA. **All Watercourses** – the OS MasterMap Water Network showing every river, stream, lake and canal in Great Britain. **Canals** - WFD Artificial Water Bodies – Canals Cycle 1, is a polyline shapefile dataset containing Water Framework Directive (WFD) attributes that have been collated as defined for the implementation of the WFD. The WFD defines an 'artificial water body' as a body of surface water created by human activity.	**Section 1.5** Study area **Section 4.3** Fluvial flood risk **Section 4.7** Flooding from canals
Defences Embankment Engineered High Ground Natural High Ground Spillway Wall	The EA Asset Information Management System (AIMS) spatial Flood Defence dataset, which shows flood defences currently owned, managed, or inspected by the EA.	**Section 6.4** Major flood risk management assets in Melton borough **Table 6-2** Locations shown in the 'EA AIMS' data set

Legend	Description	Reference
Modelled Flood Zones (Fluvial) Modelled Flood Zone 3b including Flood Storage Areas Modelled Flood Zone 3b	**Modelled Flood Zone 3b (including Flood Storage Areas)** – Functional Floodplain: This zone comprises land where water must flow or be stored in times of flood, identified as land which would flood with an annual probability of 3.3% AEP (1 in 30 years). For this SFRA, this includes Flood Storage Areas. Within this SFRA the following model outputs have been used: • River Devon - 3.3% AEP (defended) • Lower Wreake and Tributaries - 3.3% AEP (defended) **Modelled Flood Zone 3b** – This shows the same model outputs as those specified above, without the inclusion of Flood Storage Areas.	**Section 4.3** Fluvial flood risk **Appendix B** – for model details
EA Flood Map for Planning Indicative Flood Zone 3b Flood Zone 3a Flood Zone 2	**Indicative Flood Zone 3b** - This shows the same extent as Flood Zone 3a from the EA Flood Map for Planning and should only be used where no detailed hydraulic modelling exists. Further work should be undertaken as part of a detailed site-specific Flood Risk Assessment (FRA) to define and refine the extent of Flood Zone 3b where no detailed modelling exists. **Flood Zone 3a -** High risk: between a 3.3% and 1% chance of river flooding in any given year. **Flood Zone 2 -** Medium risk: between a 1% and 0.1% chance of river flooding in any given year.	**Section 4.3** Fluvial flood risk **Appendix B** – for model details

Legend	Description	Reference
Flood Storage Areas Flood Storage Area	Areas that act as a balancing reservoir, storage basin or balancing pond, to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel. It may also delay the timing of a flood peak so that its volume is discharged over a longer time interval. In Melton borough, there are three Flood Storage Areas: • Brentingby Flood Storage Reservoir • Scalford Brook Reservoir • Frisby Lake	**Section 3.2.1** Flood Zones - Fluvial Risk **Appendix B** - for model details
Climate Change Fluvial Modelled 1% AEP Central Modelled 1% AEP Higher Central Indicative 1% AEP Climate Change	**Modelled 1% AEP Central** - The 1% AEP plus 29% Central climate change scenario for the River Devon. **Modelled 1% AEP Higher Central** - The 1% AEP plus 39% Higher Central climate change scenario for the River Devon. **Indicative 1% AEP Climate Change** - Where no hydraulic modelling is available, Flood Zone 2 from the EA Flood Map for Planning can be used as a proxy.	**Section 5** Impact of Climate Change **Appendix B** – for model details
Reservoir Flood Extents (EA) Dry Day Extent Wet Day Extent	The EA reservoir flood extents show the predicted flooding which would occur if a dam or reservoir fails. **Dry Day** – the predicted flooding which would occur if the dam or reservoir fails when rivers are at normal levels. **Wet Day** – the predicted worsening of the flooding which would be expected if a river is already experiencing an extreme natural flood.	**Section 4.8** Flooding from reservoirs

Legend	Description	Reference
Risk of Flooding from Rivers and Sea (EA) Very Low Low Medium High	The Risk of Flooding from Rivers and Sea maps have been generated from the EA's National Flood Risk Assessment (NaFRA) taking account of flood defences and the condition they are in. Shown at a resolution of 50m, the four flood risk likelihood categories are: • Very low: each year there is a chance of flooding of less than 1 in 1000 (0.1%) • Low: each year there is a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%) • Medium: each year there is a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.3%) • High: each year there is a chance of flooding of greater than 1 in 30 (3.3%)	**Section 4.3** Fluvial flood risk **Appendix E** Summary of flood risk
Reduction in Risk of Flooding from Rivers and Sea (EA)	The Reduction in Risk of Flooding from Rivers and Sea is a spatial dataset that indicates where areas have reduced flood risk from rivers and sea due to the presence of flood defences.	**Section 6** Flood alleviation schemes and assets
Risk of Flooding from Surface Water (EA) 3.3% AEP 1% AEP 0.1% AEP	The EA's Risk of Flooding from Surface Water (RoFSW) flood maps give an indication of the broad areas likely to be at risk of surface water flooding. This includes flooding that takes place from the surface runoff generated by rainwater. The data includes the extent, velocity, depth, and hazard mapping for the 3.3%, 1% and 0.1% AEP events.	**Section 4.4** Surface water flooding **Appendix E** Summary of flood risk
Climate Change Surface Water Extent 3.3% AEP Upper End 1% AEP Upper End	The RoFSW was uplifted with the Upper End 2070s allowances to represent the impact of climate change on surface water flood risk.	**Section 5** Impact of Climate Change

Legend	Description	Reference
Groundwater Flooding Susceptibility (EA) <25% >=25% <50% >=50% <75% >=75%	The EA's groundwater flooding susceptibility data shows the degree to which areas are susceptible to groundwater flooding on the basis of geological and hydrogeological conditions. This is shown at a resolution of 1km. It does not show the likelihood of groundwater flooding occurring, i.e. it is a hazard not risk-based dataset.	**Section 4.6** Groundwater flooding **Appendix E** Summary of flood risk
Historic Flooding EA Historic Flood Map EA Recorded Flood Outlines	**EA Historic Flood Map** - areas of land that have been previously subject to fluvial flooding in the area. This includes flooding from rivers, the sea, and groundwater springs but excludes surface water. **EA Recorded Flood Outlines** - all the EA records of historic flooding from rivers, the sea, groundwater and surface water. If an area in not covered by the Recorded Flood Outlines or Historic Flood Map, it does not mean that it has never flooded, only that currently there are no records of flooding in this area from the EA records.	**Section 4.1** Historical flooding **Appendix E** Summary of flood risk
Emergency Planning EA Flood Warning Areas EA Flood Alert Areas	**EA Flood Warning Areas** - The EA issue flood warnings to designated areas when a river level hits a certain threshold or when heavy rainfall or high tides and strong winds are forecast. "Flooding is expected, immediate action is required". **EA Flood Alert Areas** - The EA issue flood alerts to designated areas when there is water out of bank for the first time anywhere in the catchment and when forecasts indicate flooding may be possible. "Flooding is possible, be prepared". Both datasets are a polygon GIS shapefile where the above are issued; they are not flood extents.	**Section 4.9** Flood alerts and flood warnings **Appendix D** Flood Alerts and Flood Warnings