APPENDIX A – FLOOD RISK DATA SOURCES

Flood Risk Data Sources

The data sources listed below were collected and used for mapping purposes in this Level 1 SFRA project. Table 1 outlines the data used in the maps within this report. The source and limitations of each data file have been included.

WMS (Web Map Service) layers are live data feeds. The owner of the layer may perform regular updates to these layers. The WMS included in the maps will be the most up to date version of that layer at any particular time.

Table 1 – Flood Risk Data Sources

Data	Source	Information and Limitations
Fluvial Flood Risk Map		
Haringey Borough Boundary	Ordinance Survey Open Data (Provided in 2021)	No known limitations.
Detailed River Network (DRN)	EA (2012)	The DRN is captured from the water features theme of the OS Master Map topographic layer and built into a network using automated rules. Other input datasets and extensive local Environment Agency staff knowledge has been used to augment the core geometry to incorporate critical spatial detail and attribution, such as flow direction and path, not available from the OS mapping and to verify the accuracy of the centreline itself.
Flood Zone 3 (Fluvial)	EA (WMS, accessed in December 2021)	Land assessed as having a 1 in 100 (0.1%) annual probability of river or sea flooding when the presence of flood defences is ignored. The information provided is largely based on modelled data and is therefore indicative rather than specific. Locations may also be at risk from other sources of flooding. The Flood Map for Planning (Rivers and Sea) only shows the predicted likelihood of flooding from rivers or the sea for defined areas and is not detailed enough to account for precise addresses. Individual properties therefore may not always face the same chance of flooding as the areas that surround them.

Data	Source	Information and Limitations
		Symbology will need to be edited to adjust layer transparency.
Flood Zone 3b (Fluvial)	Same as above	The River Lee 1 in 20-year extents form the flood zone 3b outline.
Flood Zone 2	EA (WMS, accessed in December 2021)	Land assessed as having a 1 in 1000 (0.1%) annual probability of river or sea flooding when the presence of flood defences is ignored. The information provided is largely based on modelled data and is therefore indicative rather than specific. Locations may also be at risk from other sources of flooding. The Flood Map for Planning (Rivers and Sea) only shows the predicted likelihood of flooding from rivers or the sea for defined areas and is not detailed enough to account for precise addresses. Individual properties therefore may not always face the same chance of flooding as the areas that surround them. Symbology will need to be edited to adjust layer transparency.
River Lee	EA (2015)	Flood extents have been included for the 1 in 100 year event with climate change allowances of 20%. It also includes 1 in 200 year events and 1 in 1000 year events.
Flood Defences	EA (WMS, accessed in December 2021)	This layer shows linear defences that act to prevent flood water from flowing inland. Typically, these can be man made embankments and walls but also naturally occurring processes such as shingle ridges and dunes. This information is designed to only give an indication of flood risk to an area of land and is not sufficiently detailed to show whether an individual property is at risk of flooding.
Areas Benefitting from Flood Defences	EA (WMS, accessed in December 2021)	The Flood Map for Planning (Rivers and Sea) shows areas that would benefit from the presence of defences in a 1 in 100 (1%) chance of flooding each year from Rivers; or 1 in 200 (0.5 %) chance of flooding each year from the Sea. If the defences were not there, these areas would flood. The data does not show all areas that benefit from all flood defences. The information provided is largely based on modelled data and is therefore indicative rather than specific.
EA Historic Flood Map	EA (WMS, accessed in February 2021)	This shows the maximum extent of all individual recorded flood outlines from rivers, the sea and groundwater springs and shows areas of land that have previously been

Data	Source	Information and Limitations
		subject to flooding in England. Records began in 1946 when predecessor bodies to the EA started collecting detailed information about flooding incidents, although the EA may hold limited details about flooding incidents prior to this date. This dataset differs from the Recorded Flood Outline dataset in that it contains only those flood outlines that are 'considered and accepted' if the following criteria are met: • photographic/video evidence with the location referenced. • recorded flood levels with the location referenced. • evidence that the outline represents the time of peak water level (for example date / time stamped photo). evidence that the source of flooding is from rivers, the sea or groundwater and not surface water/overland runoff.
Flood Storage Areas	EA (WMS, accessed in December 2021)	The information on the Flood Map for Planning (Rivers and Sea) is designed to only give an indication of flood risk to an area of land and is not sufficiently detailed to show whether an individual property is at risk of flooding. The flood data is improved and updated quarterly. Some areas that already benefit from recently completed flood defences may not yet be indicated on these maps. It has been assumed that flood storage areas act perfectly and give the same level of protection as when the assessment of the area was carried out. Flood storage areas do not completely remove the chance of flooding and can be overtopped or fail in extreme weather conditions.
Flood Alert Areas	EA (WMS, accessed in February 2021)	Flood Alert Areas are geographical areas where it is possible for flooding to occur from rivers sea and in some location's groundwater. The greatest extent of flooding defined using Flood Zone is used to delineate the Flood Warning Service Limit which is subdivided into Flood Alert Areas.
Surface Water Flood Risk Map		
Haringey Borough Boundary	Ordinance Survey Open Data (Provided in 2021)	No known limitations.

Data	Source	Information and Limitations
Detailed River Network (DRN)	EA (2012)	See above.
Surface Water Flood Maps (extent)	EA (WMS, accessed in December 2021)	This mapping consists of the flood extent of rainfall scenarios with a 3.3% (1 in 30), 1% (1 in 100) and 0.1% (1 in 1000) chance of occurring in any given year: It is not suitable to be used: • to identify if an individual property will or will not flood. • in detailed flood risk assessments. • on a map with background mapping more detailed than 1:10,000. It does not: • show future scenarios, for example climate change. • show flooding from other sources, including overflowing watercourses, drainage systems or public sewers, river flow, groundwater or the sea. • include the presence or effect of pumping stations in catchments with pumped drainage. • include any allowance for high levels or fluvial levels where sewers cannot discharge. This means that where these elements play a role in the way flooding happens, this information may not show what occurs locally. Data on depth, hazard and flow direction is available from the EA. Symbology will need to be edited to adjust layer transparency.
Surface Water Flood Maps (depth)	EA (WMS, accessed in December 2021)	This mapping consists of the flood depth of rainfall scenarios with a 3.3% (1 in 30), 1% (1 in 100) and 0.1% (1 in 1000) chance of occurring in any given year: It is not suitable to be used: • to identify if an individual property will or will not flood. • in detailed flood risk assessments. • on a map with background mapping more detailed than 1:10,000. It does not:

Data	Source	Information and Limitations
		• show future scenarios, for example climate change. • show flooding from other sources, including overflowing watercourses, drainage systems or public sewers, river flow, groundwater or the sea. • include the presence or effect of pumping stations in catchments with pumped drainage. • include any allowance for high levels or fluvial levels where sewers cannot discharge. This means that where these elements play a role in the way flooding happens, this information may not show what occurs locally. Data on depth, hazard and flow direction is available from the EA. Symbology will need to be edited to adjust layer transparency.
Critical Drainage Area (CDA)	LBH (2011)	The CDA dataset is from the 2011 SWMP.
Groundwater, Sewer and Artificial Flood Risk Map		
Haringey Borough Boundary	Ordinance Survey Open Data (Provided in 2021)	No known limitations.
Town Centre Boundary	LBH (Provided in 2021)	No known limitations.
Area Susceptibility to Groundwater Flooding	EA (Provided in 2021)	Areas Susceptible to Groundwater Flooding (AStGWF) is a strategic scale map showing groundwater flood areas on a 1km square grid. It shows the proportion of each 1km grid square where geological and hydrogeological conditions show that groundwater might emerge. It does not show the likelihood of groundwater flooding occurring. The data should not be interpreted as identifying areas where groundwater is actually likely to flow or pond, thus causing flooding. The dataset provided was created in 2010 and is incomplete as it does not cover the entire borough.
Risk of Flooding from Reservoirs – Flood Extent – Dry Day	EA (WMS, accessed in December 2021)	The reservoir flood extent dry day shows the largest area that might be flooded if a reservoir were to fail and release the water it holds on a dry day where rivers are not

Data	Source	Information and Limitations
		at their capacity. Since this is a prediction of a credible worst-case scenario, it is unlikely that any actual flood would be this large. These data are intended for emergency planning only and are not reliable for large scale flood risk assessments. Please note that only flood maps for large reservoirs are displayed. Flood maps are not displayed for smaller reservoirs.
Risk of Flooding from Reservoirs – Flood Extent –Wet Day	EA (WMS, accessed in December 2021)	The reservoir flood extent wet day shows the largest area that might be flooded if a reservoir were to fail and release the water it holds on a wet day where rivers are already at their full capacity. Since this is a prediction of a credible worst-case scenario, it is unlikely that any actual flood would be this large. These data are intended for emergency planning only and are not reliable for large scale flood risk assessments. Please note that only flood maps for large reservoirs are displayed. Flood maps are not displayed for smaller reservoirs.
Number of Sewer Flood Incidents	Thames Water (2021)	This data shows where Thames Water have received reports of sewer flooding. This data was provided in partial postcode format. Therefore the dataset does not specify where the flooding is occurring at property level.
Policy Map		
Haringey Borough Boundary	Ordinance Survey Open Data (Provided in 2021)	No known limitations.
Detailed River Network (DRN)	EA (2012)	See above.
Flood Zone 3	EA (WMS, accessed in December 2021)	See above.
Flood Zone 2	EA (WMS, accessed in December 2021)	See above.
Flood Zone 3b (Fluvial)	EA (Data from EA main river models, see above)	See above.
Flood Zone 3a (Surface Water)	EA (WMS, accessed in December 2021)	Uses the 1% (1 in 100 year) Surface Water Flood Maps (extent) mapping. See above for further information.

Data	Source	Information and Limitations
Surface Water Flood Maps (extent)	EA (WMS, accessed in December 2021)	This mapping consists of the flood extent of rainfall scenarios with a 3.3% (1 in 30) and 1% (1 in 100) chance of occurring in any given year. See above for limitations.
Susceptibility to Groundwater Flooding	EA (Provided in 2021)	See above.
Flood Defences		
Areas Benefitting from Flood Defences	EA (WMS, accessed in December 2021)	See above.
Flood Storage Areas	EA (WMS, accessed in December 2021)	See above.
Critical Drainage Area (CDA)	LBH (2011)	See above.
Sustainable Drainage Systems (SuDS)	LBH (Provided in 2021)	The existing SuDS projects within in the borough.