

Type	Layer	Source	Description of Layer	Included (Y/N)	Comment	Benefits	Limitations
Fluvial & Tidal	Main River Centrelines	Provided as GIS layer by the EA	Polyline layer showing all watercourses designated Main Rivers	Y		Identification of the watercourses for which the EA have discretionary and regulatory powers.	There are other watercourses that may be a significant flood source.
	Canals	Provided as a GIS layer by LBH	Polyline layer showing canal network in Hackney	Y		Identification of canals within the study area.	
	Flood Zone 2	Provided as a GIS layer by the EA	Polygon layer showing extent of Flood Zone 2 – Medium Probability (1 in 1000yr fluvial and 1 in 20yr tidal flood event)	Y		A quick and easy reference that can be used as an indication of flood risk.	There are watercourses that have not been modelled and therefore the flood risk from these can not be as accurately assessed.
	Flood Zone 3a	Provided as a GIS layer by the EA	Polygon layer showing extent of Flood Zone 3a – High Probability (1 in 100yr fluvial and 1 in 20yr tidal flood event)	Y		A quick and easy reference that can be used as an indication of flood risk.	There are watercourses that have not been modelled and therefore the flood risk from these can not be as accurately assessed.
	Flood Zone 3a + CC	Provided as a GIS layer by the EA	Polygon layer showing extent of Flood Zone 3a + CC – High Probability (1 in 100yr fluvial and 1 in 20yr tidal flood event + 20%)	Y		A quick and easy reference that can be used as an indication of flood risk.	There are watercourses that have not been modelled and therefore the flood risk from these can not be as accurately assessed.
	Flood Zone 3b	Provided as a GIS layer by the EA	Polygon layer showing extent of Flood Zone 3b – Functional Floodplain (1 in 20yr fluvial and 1 in 20yr tidal flood event)	Y		A quick and easy reference that can be used as an indication of flood risk.	There are watercourses that have not been modelled and therefore the flood risk from these can not be as accurately assessed.
	Depth Grid for River Lee, 1 in 1000yr fluvial + 1 in 20yr tidal event	Provided as a GIS grid by the LDA	GIS grid files showing depth of flooding	Y		Provides detail regarding the maximum depth of flooding at each element in the model for each of the three modelled scenarios. Useful for informing future development, particularly with respect to finished floor levels and safe access/egress.	These datasets have been derived from modelled outputs of the Lower Lee Valley Regeneration SFRA TUFLOW Model, completed by Capita Symonds, May 2007. The Modelling Report should be consulted to determine limitations and uncertainties associated with the Model.
	Depth Grid for River Lee, 1 in 100yr fluvial + 1 in 20yr tidal event	Provided as a GIS grid by the LDA	GIS grid files showing depth of flooding	Y			
	Depth Grid for River Lee, 1 in 100yr fluvial + 1 in 20yr tidal event, + 20% Climate Change	Provided as a GIS grid by the LDA	GIS grid files showing depth of flooding	Y			
	Velocity Grid for River Lee, 1 in 1000yr fluvial + 1 in 20yr tidal event	Provided as a GIS grid by the LDA	GIS grid files showing velocity of floodwaters	N		Provides detail regarding the maximum flood velocity at each element in the model, for each of the three modelled scenarios. When combined with flood depth and an appropriate debris factor, a Hazard Rating can be prepared.	These datasets have been derived from modelled outputs of the Lower Lee Valley Regeneration SFRA TUFLOW Model, completed by Capita Symonds, May 2007. The Modelling Report should be consulted to determine limitations and uncertainties associated with the Model.
	Velocity Grid for River Lee, 1 in 100yr fluvial + 1 in 20yr tidal event	Provided as a GIS grid by the LDA	GIS grid files showing velocity of floodwaters	N			
	Velocity Grid for River Lee, 1 in 100yr fluvial + 1 in 20yr tidal event, + 20% Climate Change	Provided as a GIS grid by the LDA	GIS grid files showing velocity of floodwaters	N			
	Hazard Grid for River Lee, 1 in 1000yr fluvial + 1 in 20yr tidal event	Created from the hydraulic modelling	GIS grid files showing hazard rating of floodwaters	Y		Provides useful measure of flood risk within Flood Zone to inform future development in the area. The depth and velocity outputs from the 2D hydrodynamic modelling of the River Lee are used in this equation, along with a suitable debris factor. For the purpose of this report, a precautionary approach has been adopted inline with FD2320; a debris factor of 0.5 has been used for depths less than and equal to 0.25m, and a debris factor of 1.0 has been used for depths greater than 0.25m. This provides a conservative estimate based on the urban environment.	These datasets have been derived from modelled outputs of the Lower Lee Valley Regeneration SFRA TUFLOW Model, completed by Capita Symonds, May 2007. The Modelling Report should be consulted to determine limitations and uncertainties associated with the Model.
	Hazard Grid for River Lee, 1 in 100yr fluvial + 1 in 20yr tidal event	Created from the hydraulic modelling	GIS grid files showing hazard rating of floodwaters	Y			
	Hazard Grid for River Lee, 1 in 100yr fluvial + 1 in 20yr tidal event + 20% Climate Change	Created from the hydraulic modelling	GIS grid files showing hazard rating of floodwaters	Y			
	Rate of Onset of Flooding Grid for Hackney Wick AAP, 1 in 1000yr fluvial + 1 in 20yr tidal event	Created from the hydraulic modelling	GIS grid files showing rate of onset of flooding in Hackney Wick AAP	Y		Provides an indication of the rate of floodwaters inundating the Hackney Wick area. The rate of onset of flooding in Hackney Wick has been calculated from the point at which flood waters come out of bank at points A and B, shown on Figures 06A-C. This information is useful for considering provision of safe access and egress as well as provision of areas of safe refuge.	These datasets have been derived from modelled outputs of the Lower Lee Valley Regeneration SFRA TUFLOW Model, completed by Capita Symonds, May 2007. The Modelling Report should be consulted to determine limitations and uncertainties associated with the Model.
Rate of Onset of Flooding Grid for Hackney Wick AAP, 1 in 100yr fluvial + 1 in 20yr tidal event	Created from the hydraulic modelling	GIS grid files showing rate of onset of flooding in Hackney Wick AAP	Y				
Rate of Onset of Flooding Grid for Hackney Wick AAP, 1 in 100yr fluvial + 1 in 20yr tidal event + 20% Climate Change	Created from the hydraulic modelling	GIS grid files showing rate of onset of flooding in Hackney Wick AAP	Y				

Type	Layer	Source	Description of Layer	Included (Y/N)	Comment	Benefits	Limitations
	Reservoirs	Drawn from OS 50K Mapping	Polygon layer showing reservoirs in the Hackney study area	Y	Limited data	Identification of reservoirs within the study area, ownership and approximate capacity details.	
	Flood Event Outline	Provided as GIS layer by the EA	Polyline layer showing the extent of historic flood events.	Y	Limited data	Provides detail on historic fluvial flooding in the study area. Enables verification with modelled outlines.	
	Groundwater flooding records	Provided as GIS layer by LBH	Point later showing areas that have been affected by groundwater flooding.	Y			
Overland Flow	Areas Susceptible to Surface Water Flooding	Provided as a GIS layer to LBH by EA	Polygon layer showing areas that are More, Intermediate, and Less Susceptible to surface water flooding based on broad-scale surface water modelling.	Y	Limited data	Provides an initial indication of areas at risk of surface water flooding, based on an assessment of the topography. Useful for emergency planning procedures.	This mapping provides national coverage and has been produced using a highly simplified method that excludes urban sewerage and drainage systems, excludes buildings, and uses a single rainfall event. It is noted that this mapping is intended for use by the Local Resilience Forums solely to inform emergency planning and should not be used for spatial planning decisions. In addition, the Environment Agency strongly recommend that local knowledge is applied to assess the suitability of the mapping as an indicator of surface water flooding before emergency planners make decisions based upon it.
	Digital Terrain Model	Provided by EA	Reference Only	Y		Enables an appreciation of the local topography.	SAR 5m DTM. Coverage of data only spans the north and east of the borough.
	Transport for London Flooding Records	GIS layer provided from the Level 1 SFRA for North London	Point data showing areas along the public transportation routes that have been affected by surface water flooding.	Y			
Sewer Flooding	Sewer Flooding History	List of properties affected by sewer flooding, geo-referenced as part of this study.	Point data layer showing points of flooding with incident and source of flooding	Y		Provides a record of historic sewer flooding records in the borough.	This dataset has been georeferenced, accuracy is limited to street name rather than property number.
	Postcode Flooding	Records of sewer flooding from Water company records	Polygon layer showing number of properties affected by sewer flooding in postcode regions.	Y		Indicates approximate postcode areas that have experienced flooding in the last 10 years due to hydraulic incapacity.	The extent and source of the flooding is not known and cannot be displayed in this layer.
Mitigation	Flood Warning Areas	Provided as GIS layer, and a series of 4 figures by EA	Polygon layer showing areas benefiting from flood warning.	Y		Indicates which areas are covered by the flood warning system,	
	Flood Defence Locations	EA flood defence data	Polyline data for the county showing the location of linear raised flood defences such as embankments and walls.	Y	Limited	Shows where there are existing defences	No metadata behind the data to provide information on height, type and design standard. The National Flood & Coastal Defence Database (NFCDD) has been requested from the EA for the County study area.
Planning	LB Hackney Administrative Area	Provided as GIS Layer by LBH	Polygon layer showing LBH administrative area	Y		Clearly identifies the study boundary	
	Hackney Wick AAP Area	Provided as GIS layer by LBH	Polygon layer showing Hackney Wick AAP area				
	OS Mapping	LBH provided OS Mapping under contractor license	1:10k and 1:50k OS raster maps for use in GIS	Y		Provides background mapping to other GIS layers.	Designed for use at 1:10k and 1:50k scales
	OS Mastermap Data	LBH provided OS Mapping under contractor license	Mastermap GIS layers	Y		Provides background mapping to other GIS layers	