

Appendix E - Data Collection

Data Sources and Use

Table C-1 provides a summary of the data sources for the SWMP and how the data was used in preparing the SWMP.

Table C-1 Data Sources and Use

Source	Dataset	Description	Use in this SWMP
Environment Agency	Main River centre line	GIS dataset identifying the location of Main Rivers across they study area	To define waterway locations within the study area.
	Environment Agency Flood Map (Flood Zones)	Shows extent of flooding from rivers during a 1 in 100yr flood and 1 in 1000yr return period flood. Shows extent of flooding from the sea during 1 in 200yr and 1 in 1000yr flood events. Ignores the presence of defences.	To identify the fluvial and tidal flood risk within Loughton, Buckhurst Hill and Theydon Bois and areas benefiting from fluvial and tidal defences.
	Areas Susceptible to Surface Water Flooding	A national outline of surface water flooding held by the EA and developed in response to Pitt Review recommendations.	To assist with the verification of the pluvial modelling
	Flood Map for Surface Water	A second generation of surface water flood mapping which was released at the end of 2010.	To assist with the verification of the pluvial modelling
	LiDAR topographic data	1m resolution terrain model compiled from aerial surveys in 2007.	Creation of terrain model for pluvial modelling
	Historic Flood Outline	Attributed spatial flood extent data for flooding from all sources.	Used to assist with the verification of modelling results and CDA locations (where available)
	Areas Susceptible to Groundwater Flooding	Mapping showing areas susceptible to groundwater flooding	To assess groundwater flood risk
	Thames Catchment Flood Management Plan Summary Report	Summarises the scale and extent of flooding now and in the future, and set policies for managing flood risk within the catchment.	To ensure a coordinated approach is taken for mitigation solutions
	National Receptors Dataset	A nationally consistent dataset of social, economic, environmental and cultural receptors including residential properties, schools, hospitals, transport infrastructure and electricity substations.	Utilised for property/infrastructure flood counts and to determine CDAs.
Essex County Council	Strategic Flood Risk Assessment (SFRA)	Contains useful information on historic flooding, including local sources of flooding from surface water and groundwater.	Provide a background to flood risk in the study area.
	Anecdotal information relating to local flood history and flood risk areas	Records of flooding from surface water, groundwater and ordinary watercourses.	Where available used to assist with the verification of modelling results and CDA locations.
	OS Mapping / MasterMap	Topographic maps of the study area	Used to derive modelling parameters

Source	Dataset	Description	Use in this SWMP
	Core Strategy	Identification of broad locations for growth in Loughton, Buckhurst Hill and Theydon Bois	Understanding of areas of future development.
	Historic Flood Records	Locations of historic flooding	Used to assist with the verification of modelling results and CDA locations (where available)
Essex Highways	Blocked Gullies	Gully Data for blocked gully defects in Loughton.	Used to divert surface water into the drainage network.
	Historical Flood Data	Photographs and grid references of previous flooding events.	Used to assist with the verification of modelling results and CDA locations (where available)
Epping Forest District Council	DG5 Register	DG5 Register logs and records of sewer flooding incidents in each area.	Mapping sewer flooding incidents.
Thames Water	Sewer pipe network	GIS dataset providing the geo-referenced location of surface water, foul and combined sewers across the study area. Includes pipe size and some information on invert levels.	Verifying CDA locations and Phase 3:Options Assessment
	InfoWorks CS Model	1D only model developed by Thames Water. The model purpose was to identify deficiencies within the network, assess flood alleviation schemes and any implications of proposed growth within the catchment. The extent of the model includes Loughton, Buckhurst Hill and Theydon Bois.	Used as the basis for the 1D component of the 1D-2D pluvial model.
British Geological Society	Geological datasets	Licensed GIS dataset: Bedrock and superficial geology.	Understanding the geology of the study