Appendices

A Data Review

Tables A-1 to A-6 describe the data collated from the Kent County Council and the key partners, its quality and relevance to the Surface Water Management Plan.

Table A 1 Data provided by the Environment Agency

Data Received	Details	Quality of Data
Borough Council Boundaries	GIS files of boundaries	Useful for delineating boundaries
CFMP - Medway and North Kent Rivers	Catchment Flood Management Plans - PDF Reports	This is useful for determining an overview of issues within the catchment.
Historic Flood Event Outlines	Outline of historic flooding	The historic flooding outline based on aerial photography and data collected whilst out on site during events.
Historic Flood Photos	Photographs held by the EA of historic flood events	A variety of photographs predominantly describing fluvial floods
IDB	IDB boundaries	Useful for mapping purposes
Middle Medway Strategy output documents	Details of previous and proposed schemes as part of the Middle Medway Strategy.	This provided insight into previous as potential schemes the EA are involved with and highlighted areas where there are issues.
Southern Water Authority, Kent River and Water Division Water Act 1973, Section 24 (5), Land Drainage Survey	Survey of historic events, GIS and accompanying report	The records are, in some instances old, however it was useful to display historic risk.
Meeting Minutes		The meeting with the EA was very informative and provided much local knowledge of the area

Table A 2 Data provided by Kent County Council

Data Received	Details	Quality of Data
Tonbridge and Malling 2012 P1.xls	Incidents of flooding on roads in 2012	The data did not have as specific USRN (unique road identifier) so pin pointing a location of an event proved difficult.
Drainage Hotspots.xlsx	KCC Highways Drainage Hotspots	The spreadsheet was useful to highlight where KCC Highways considered to be problem areas. A USRN was included within this dataset, so locating the roads, with certainty, described in the data was possible.
Tonbridge and Malling SWMP PA.shp	KCC initial policy areas for the LFRMS	This data was used initially to influence the delineation of the first draft Drainage Areas
IDB Boundaries	IDB Boundaries	IDB Boundaries
Detailed River Network*	River Network including Ordinary Watercourse e	The classification for Main River is not clear within the attributes of the GIS files.
Areas Susceptible to Surface Water Flooding (AStSWF)*	Surface water flood maps give an indication of the areas likely to be at risk of surface water flooding.	Broad scale mapping, not suitable for identifying whether an individual property will flood as a result of surface water
Flood Maps for Surface Water (FMfSW)*	The FMfSW shows predictions of flooded areas but does not show whether individual properties will be affected by surface water flooding or have been affected in the past.	1 in 200yr Deeper Surface Water Flooding (flooding greater than 0.3m deep), useful to aid identification of pathways and receptors within the SWMP.
Areas Susceptible to Ground Water Flooding (AStGWF)*	Strategic scale map illustrating areas a risk of groundwater flooding.	Based on a 1km2 grid set, suitable for strategic high scale assessments, this should not be used for small scale individual assessments.

Data Received	Details	Quality of Data
Groundwater vulnerability zones*	EA define GWV are used to define where groundwater may be vulnerable from activities on the surface	
Groundwater Source protection zones*	The EA have defined Source Protection Zones (SPZs). These zones show the risk of contamination from any activities that might cause pollution in the area.	Useful for determine the appropriate type of SuDS to use within a specific area The SPZ is a useful map to determine the type of SuDS that should be used within the study area.
Geology (Bedrock and superficial soils)*	Details of Geology and Superficial deposits within Tonbridge and Malling	This is a useful GIS dataset to determine the type of SuDS should be used within Tonbridge and Malling
National Receptors Database*	The National Receptor Dataset (NRD) is a collection of receptors.	NRD contains a number of datasets arranged in the themes of Buildings, Transport, Utilities, Land Use, Agriculture, Heritage, Environment and Miscellaneous. Each information theme contains a number of relevant data layers.
Gully and road information	GIS file of road and gullies within the Tonbridge and Malling Study Area	Comprehensive description of roads and gullies within the area
Sewer networks	GIS file with details of Sewer types	Provides details and description of sewer type
Tonbridge and Malling_SWMP_KCC_Highway_Drainage_Hotspots.shp	An additional GIS file illustrating further areas considered by KCC to have drainage issues	The date of this information was not specified, so it was not clear whether these drainage hotspots are still relevant.
IDB Watercourses	GIS files detailing the location of IDB Drains	These shapefiles have to be updated as certain drains that were classified as being IDB Drains, were actually designated as EA Main River
KCC Highways Meeting Minutes		The meeting with KCC Highways was useful and provided details of their problem areas and of some information regarding schemes programmed.
* Please note that this data was provided to Kent County Council by the Environment Agency through their DataShare service GeoStore. All intellectual property used in or in connection with GeoStore such as trademarks, trade names, database rights, patents, registered designs and any other automatic intellectual property rights derived from the aesthetics or functionality of GeoStore will remain the property of the Environment Agency or Infoterra Ltd as the case may be.		

Table A 3 Data provided by Southern Water

Data Received	Details	Quality of Data
Sewer Model Coverage Study Areas.xls	Details of sewer model coverage across Tonbridge and Malling	This data will be useful if further study is required within Tonbridge and Malling
Southern Water flooding incidents (postcode level)	A .csv file describing at postcode level whether sewer flooding occurred	The dates events occurred were not clear.
Meeting Minutes		General overview of Southern Waters role within SWMPs.

Table A 4 Data provided by Tonbridge and Malling Borough Council

Data Received	Details	Quality of Data
TM SWMP flood history.xls	Details of historic flooding	Provided details of location, properties affected and some additional comments. Dated events from 1958 to present.
Update Report on Burham, Eccles and Wouldham Road Flooding 22 MARCH 2013	This report describes problems in the Burham, Eccles and Wouldham Ward of Tonbridge and Malling Borough Council	Useful to highlight issues within the Borough.

Table A 5 Data provided by Upper Medway IDB

Data Received	Details	Quality of Data
Meeting minutes		The meeting was very informative and provided detailed information regarding historic events and how the UMIDB operates.
Upper IDB Drains	GIS file	These shapefiles have to be updated, as certain drains that were classified as being IDB Drains, were actually designated as EA Main River

Table A 6 Data provided by Thames Water

Data Received	Details	Quality of Data
Thames Water flooding incidents (postcode sector level)	Excel file describing incidents of sewer flooding at postcode sector level (for e.g. TN13 1)	The dates events occurred were not provided within the spreadsheet and the data is at a high level, i.e. postcode sector.
Meeting Minutes		Provided details of where there were issues with Thames Water sewers within Sevenoaks, very useful.