

## 2. Phase 1: Preparation

### 2.1 PARTNERSHIP

2.1.1 Under the FWMA and the FRR2009, all Unitary Authorities including the Royal Borough of Kingston upon Thames are designated as the LLFA. As such, the Royal Borough of Kingston upon Thames is responsible for leading local flood risk management, including establishing effective partnerships within their local authority as well as with external stakeholders such as the Environment Agency, Thames Water Utilities Ltd, Transport for London, Network Rail and others e.g. landowners.

2.1.2 In areas of multiple sources of flood risk and complicated interactions between different sources of flooding, there are often multiple water or drainage regulators, owners and maintainers. It is essential that all relevant partners with responsibility for making decisions and taking actions are involved in plans for flood risk management from the outset. One of the aims of the SWMP for the Royal Borough of Kingston upon Thames is to strengthen the partnership between these organisations and ensure inclusivity through all phases of this study and future flood risk management in the Borough.

#### *SOUTH WEST LONDON STRATEGIC FLOOD GROUP*

2.1.3 As part of the Drain London Project, the Royal Borough of Kingston upon Thames have been working closely with neighbouring Boroughs to forge partnerships with respect to local flood risk management as part of the preparation of SWMPs for all 33 London Boroughs.

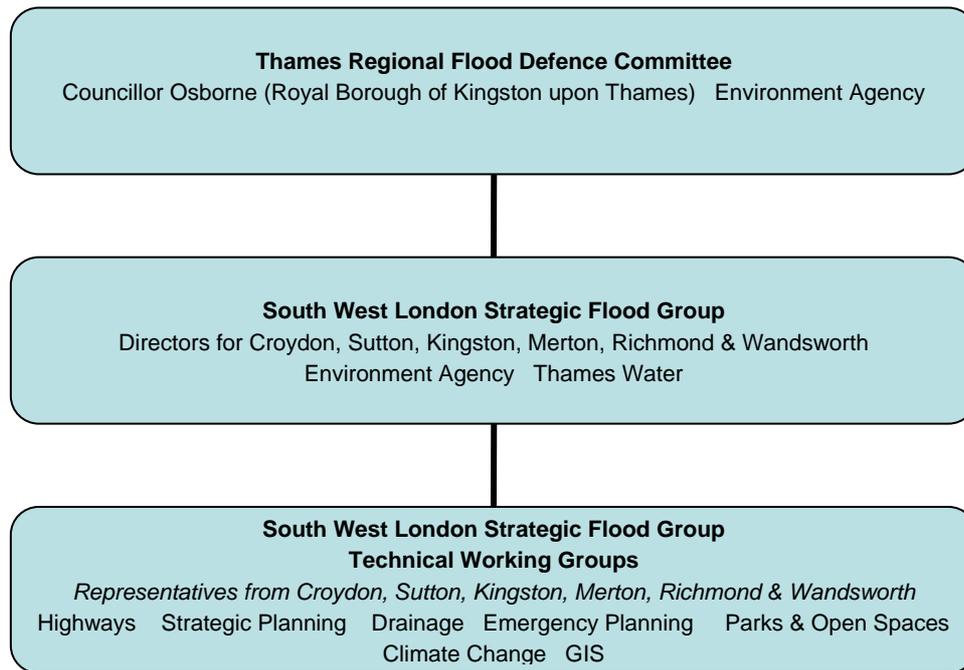
2.1.4 As a result, the **South West London Strategic Flood Group** which reports to the Regional Flood Defence Committee through Councillor Osborne at Royal Borough of Kingston has been established.

2.1.5 The flood group is divided into a Strategic Management Group which is responsible for making overall decisions about flood risk management such as severe weather incident management, operational maintenance, future flood risk investments and planning; and the Operational Management Group which serves as the 'day-to-day' flood risk group delivering the flood risk system operations and maintenance on the ground.

2.1.6 The Strategic Flood Group was set up during the Drain London project, meets every 3 months (first meeting held on the 29th March 2011) and will continue with the aim of ensuring collaborative working across relevant stakeholders as described above.

2.1.7 Responsibility for flood risk management at the Royal Borough of Kingston upon Thames is shared across several departments; however Roy Thompson, Director for Place and Regeneration will be responsible for the overall delivery of the FWMA across the Borough. Jay Judge, Strategic Projects Manager will represent the Borough on the South West London Strategic Flood Group (structure outlined in Figure 2-1 and Table 2-1 below).

**Figure 2-1 Organogram of South West London Flood Partnership**



2.1.8 A summary of roles and responsibilities is shown in Table 2-1.

**Table 2-1 Flood Group Members and Roles**

<b>Tier 1 - Strategic Management Group</b>			
<b>Organisation</b>	<b>Name</b>	<b>Title</b>	<b>Role</b>
London Borough of Sutton	Chris Reid	Head of Environmental Sustainability	Overall lead on local flood risk management activities within the Council.
Royal Borough of Kingston upon Thames	Roy Thompson Jay Judge	Director of Place & Regeneration Strategic Projects Manager	Mr Thompson has the ownership and responsibility for delivery of the FWMA. Mr Judge will be the lead officer, sitting on the Areas Strategic Flood Group.
London Borough of Richmond upon Thames	Jon Freer	Assistant Director of Environment	Overall lead on local flood risk management activities within the Council.
London Borough of Croydon	TBC : Short term contact David Carlisle	Project Officer – Spatial Planning Team	Currently responsibility for flood risk management is shared across four departments. Discussions are currently underway to determine future governance

<b>Tier 1 - Strategic Management Group</b>			
			arrangements.
Thames Water	Mark Dickinson/ David Harding	Performance Manager, Asset Management	Share data on the performance of Thames Water assets within the administrative area.
Environment Agency	David Bedlington/Ivan Parr		Overview role for Inland Flooding, provide guidance on methodology, share best practice and provide data.
<b>Tier 2 - Technical &amp; Operational Management Group</b>			
<b>Organisation</b>	<b>Name</b>	<b>Title</b>	<b>Role</b>
London Borough of Sutton	Gerry McLaughlin	Drainage Engineer	Operational support. Operational maintenance
London Borough of Croydon	David Carlisle	Project officer, Spatial Planning Team	Linking SWMP and SFRA with Multi-Agency Flood Plan / Severe Weather Plan. Drain London primary contact
London Borough of Richmond upon Thames	Andrea Kertzberger	Planning policy officer	Linking SWMP and SFRA with Multi-Agency Flood Plan / Severe Weather Plan. Drain London primary contact
Royal Borough of Kingston upon Thames	Rob Bell	Contingency Planning Manager	Linking SWMP and SFRA with Multi-Agency Flood Plan / Severe Weather Plan. Drain London primary contact

*PUBLIC ENGAGEMENT*

- 2.1.9 Members of the public may also have valuable information to contribute to the SWMP and to an improved understanding and management of local flood risk within the study area. Public engagement can afford significant benefits to local flood risk management including building trust, gaining access to additional local knowledge and increasing the chances of stakeholder acceptance of options and decisions proposed in future flood risk management plans.
- 2.1.10 However, it is also recognised that it is crucial to plan the level and timing of engagement with communities predicted to be at risk of flooding from surface water, groundwater and ordinary watercourses. This is to ensure that the potential for future management options and actions is adequately understood and costed without raising expectations before solutions can reasonably be implemented.
- 2.1.11 It will be important to undertake some public engagement when formulating local flood risk management plans (including the upcoming LFRMS) as this will help to inform future levels

of public engagement. It is recommended that the Royal Borough of Kingston upon Thames follow the guidelines outlined in the Environment Agency’s “Building Trust with Communities” which provides a useful process of how to communicate risk including the causes, probability and consequences to the general public and professional forums such as local resilience forums.

2.2 DATA COLLECTION

2.2.1 The collection and collation of strategic level data was undertaken as part of the Drain London Tier 1 work and disseminated to Tier 2 consultants by the GLA. Data was collected from each of the following organisations:

- 33 London Boroughs including the Royal Borough of Kingston upon Thames
- British Airports Authority
- British Geological Survey
- British Waterways
- Environment Agency
- Greater London Authority
- Highways Agency
- London Underground
- Network Rail
- Thames Water
- Transport for London

2.2.2 A comprehensive data set was passed onto Tier 2 consultants and in some cases additional supplemental data was provided by individual organisations.

2.3 DATA REVIEW

2.3.1 The following table provides a brief summary of key datasets used in the preparation of the SWMP. Further details regarding the datasets used as part of this SWMP are included in Appendix A.

**Table 2-2 Data Review**

Data Supplier	Dataset	Description
<b>Royal Borough of Kingston upon Thames</b>	Strategic Flood Risk Assessment (SFRA)	The Royal Borough of Kingston upon Thames SFRA contained useful information on historic flooding, including local sources of flooding from surface water and groundwater.
	Historical flooding records	Historical records of flooding from surface water, groundwater and ordinary watercourses.
	Anecdotal information relating to local flood history and flood risk areas	Anecdotal information from authority members regarding areas known to be susceptible to flooding from excessive surface water, groundwater or flooding from ordinary watercourses.

Data Supplier	Dataset	Description
	Royal Borough of Kingston upon Thames Feasibility Study for Culvert Strengthening Drainage Asset Survey Report	The Drainage Asset Survey Report completed by Jacobs in 2002 provided useful information on the location and condition of Ordinary Watercourses' within the Borough and their associated Assets
	Maintenance Regime	Details of the maintenance regimes undertaken by Royal Borough of Kingston upon Thames Council.
	First Edition SWMP (Jacobs 2009)	The SWMP contained useful details of past flood events and site visits
Environment Agency	Environment Agency Flood Map (Fluvial)	Shows the extent of flooding from rivers with a catchment of more than 3km <sup>2</sup> and from the sea.
	Areas Susceptible to Surface Water Flooding	A national outline of surface water flooding held by the Environment Agency and developed in response to Pitt recommendations.
	Flood Map for Surface Water	A second generation of surface water flood mapping which was released at the end of 2010.
	National Receptors Dataset (v1.0)	A nationally consistent dataset of social, economic, environmental and cultural receptors including residential properties, schools, hospitals, transport infrastructure and electricity substations.
	Indicative Flood Risk Areas	National mapping highlighting key flood risk areas, based on the definition of 'significant' flood risk agreed with the Defra.
	Historic Flood Map	Attributed spatial flood extent data for flooding from all sources.
	Groundwater Flooding Database	Database of groundwater flooding incidents recorded in the last 10 years.
	Thames Estuary 2100 (TE2100) Groundwater Hazard Maps	Environment Agency / Jacobs dataset of the Thames Estuary 2100 (TE2100) Groundwater Hazard Maps
Thames Water Utilities Limited	DG5 Register for Thames Water Utilities areas	DG5 Register logs and records of properties at risk of flooding from sewers. The dataset supplied provides those properties at risk at end of June 2010.
	Thames Water Sewer Network and Asset Location	The Thames Water Sewer network shows the location and size of the foul, combined, surface water and storm relief sewers across the Greater London area along with the locations for Sewage Treatment Works, Pumping Stations and Combined Sewer Overflows.
Greater London Authority	Ordnance Survey Mapping (1:10k, 1:50k, Mastermap)	Ordnance Survey Mapping for the Greater London Area for the 1:10k and 1:50k scale and Mastermap dataset.
London Fire Brigade	Historical flooding call-out records	Records of all London Fire Brigade callouts for 'flooding' events since 2000. However, no flooding source is provided, so could be a result of water mains bursting as well as heavy rainfall / surface water flooding.
Network Rail	Areas Prone To Flooding	A list of areas prone to flooding across their South West Territory.
Transport for London (TfL)	TfL Red Routes	Pdf of the TfL Red Routes for the Greater London area
	TfL Gullies	GIS dataset of the TfL owned / managed gullies along the Red Routes for the Greater

Data Supplier	Dataset	Description
		London area
	TfL Pumps	Location and pump regimes for TfL owned / managed gullies in the Greater London area
London Underground	Flooding records – July 2007	Records relating to station closures (location and duration) on 20 <sup>th</sup> July 2007 due to heavy rainfall.
British Geological Survey	Groundwater Flooding Susceptibility Map	GIS dataset of areas susceptible to groundwater flooding
Jacobs / JBA	Groundwater Emergence Maps (GEMs)	GIS dataset of areas of groundwater emergence (GEMs)
	Groundwater Flood Map	GIS dataset of groundwater flood map
	Increased Potential for Elevated Groundwater (iPEG)	GIS dataset of areas of increased potential for elevated groundwater (iPEG), produced using existing Environment Agency, BGS and Jacobs / JBA datasets, produced for the Greater London area for the purpose of assessing groundwater flood risk as part of the Drain London project.

## 2.4 ASSET REGISTER

2.4.1 Section 21 of the FWMA 2010 sets a duty on each London Borough as LLFA (Section 1.7) to maintain a register of structures or features, and a record of information about each of those structures or features, which, in the opinion of the authority, are likely to have a significant effect on flood risk in its area. From the 6th of April 2011 all LLFAs have a duty to maintain a register. The legal characteristics of the register and record are outlined below in Table 2-3.

2.4.2 Defra have provided each LLFA with templates to demonstrate what information should be contained in the asset register (e.g., asset type, asset location, asset condition). Although these templates are not intended as a working tool, they provide a good example of how an asset register might be structured.

2.4.3 Populating and ensuring the ongoing maintenance of the asset register is outside the scope of the Drain London project and is the responsibility of each London Borough. The expectation from Defra is that LLFAs will utilise a risk-based approach to populate the register and record with those structures or features considered the most significant first.

**Table 2-3 Legal Characteristics of Asset Registers & Records**

	Register	Record
a	Must be made available for inspection at all reasonable times.	Up to the LLFA to decide if they wish to make it available for inspection
b	Must contain a list of structures or features which in the opinion of the authority, are likely to have a significant effect on a local flood risk.	For each structure or feature listed on the register, the record must contain information about its ownership and state of repair.
c	s.21 (2) of the Act allows for further regulations to be made about the content of the register and record. There is currently no plan to provide such regulations therefore their content should be decided on by the LLFA depending on what information will be useful to them.	
d	There is no legal requirement to have a separate register and record although as indicated above, only the register needs to be made available for public inspection.	

*EXISTING ASSET MANAGEMENT ARRANGEMENTS*

2.4.4 A review of the existing asset arrangements for the Royal Borough of Kingston upon Thames has been undertaken using the following set of criteria.

**Level 1** – The Borough knows where a majority of their assets are, what they look like and what condition they are in. Register system may take the form of a spreadsheet or hard copy records.

**Level 2** – The Borough is aware of the ‘Local Authority Flood Risk Asset Tool’ currently being produced by the EA / Defra. Their register is GIS based (basic proprietary system only) or uses a highways based asset management system database. Their register captures information generally aligned with guidance provide by the Tool and the EA’s NFCDD system where practical. They know where their assets are and carry out reactive maintenance of significant structures as required.

**Level 3** – The Borough has a detailed understanding of Asset Registers as required by the FWMA. Their register system accurately replicates the ‘Local Authority Flood Risk Asset Tool’ data standards and related NFCDD structures to an attribute level. Their register is GIS based (advanced proprietary or bespoke system) or is completely integrated with an existing asset management system. They know where their assets are and carry out periodic maintenance on the structures using a risk based priority system.

*RECOMMENDATIONS*

2.4.5 Appendix B provides a summary of the current status of the asset register for the Royal Borough of Kingston upon Thames as well as recommendations for suggested actions that could be undertaken to meet the full Level 3 status as defined in Section 2.4.1.

2.5 PHASE 1 – SUMMARY

2.5.1 Phase 1 of the SWMP has achieved the following:

- Built upon the partnerships established between the Environment Agency, Thames Water, and the Royal Borough of Kingston upon Thames;
- Established a sub-regional flood risk partnership structure for the Royal Borough of Kingston upon Thames, London Boroughs of Wandsworth, Merton, Croydon, Sutton and Richmond (along with other key stakeholders), through the ‘South West London Strategic Flood Group’, to take forward and manage flood risk in the future;
- Collected and reviewed flood risk data and knowledge from key stakeholders and partner organisations;
- Set out recommendations for the Royal Borough of Kingston upon Thames Asset Register, as required under the FWMA; and
- Set out the objectives and governance for the Phase 2 – Risk Assessment, Phase 3 – Options Assessment, and Phase 4 – Action Plan of the Royal Borough of Kingston upon Thames SWMP.