Appendix B – Asset Register Recommendation

1.1 Introduction

1.1.1 The Flood and Water Management Act (FWMA) 2010, require that each Lead Local Flood Authority (LLFA) has a duty to maintain a register of structures or features which are considered to have an effect on flood risk, including details on ownership and condition as a minimum. The FWMA requires that the register must be available for inspection and the Secretary of State will be able to make regulations about the content of the register and records.

1.1.2 As of the 6th April 2011, all LLFAs will need to maintain a register. Defra have determined the legal characteristics of the register and records, this is provided in Table B1 below

Table B1. Asset Register Requirements

	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 FWMA 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.	

Source: Defra, 2011 Lead Local Flood Authority Duty to Maintain a Register)

1.1.3 The creation of the asset register was outside of the scope of the Drain London project and is the responsibility of the LLFA. It is recommended that the LLFAs utilise a risk-based approach to the creation of the register, and begin recording structures or features which are considered the have the greatest influence on flooding. This appendix highlights assets and methods for their capture within the register and should be utilised as a guideline only.

1.2 Review and Recommendations

1.2.1 As part of the Drain London project, a review of the London Borough (LB) of Hillingdon's asset information was undertaken and recommendations have been put forward as to how best to fulfill the requirements of the Flood and Water Management Act 2010.

1.2.2 LB of Hillingdon's existing asset management system has been reviewed against the following criteria:

- Level 1 – The Borough knows where 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 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 Flood and Water Management Act. 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.

1.2.3 LB Hillingdon provided limited asset information as part of the Drain London Tier 1 'data collection' exercise and based on the current review of the asset register appears to be Level 1.

1.2.4 In order to achieve a 'Level 3' status, it is recommended that the Council obtain and maintain the information identified within Table B2. If any additional information is required by the Council, then it is recommended that where possible this is incorporated into a Geographical Information System (GIS) system (MapInfo, ArcGIS, AutoCAD etc) and captured within a relevant Council database.

Table B2 – LLFA Asset Register Recommendations

Data	Format	Recommendations
Highway flooding and drainage records – including location and serviceability of road gulley's.	GIS	Compile and maintain: • GIS layer of Highway flooding • GIS Layers of drainage network flooding. • GIS layer of gullies with serviceability state; • Where possible hyperlink imagery of flooding and anectodatl information from external sources (newspapers, websites, blogs etc)
Drainage network information – sewers (surface, foul, combined), culverts, drains (surface water, highway), gullies, ditches, other open drainage channels	GIS	Compile and maintain GIS layers of: • Sewers (surface, foul, combined) • Culverts from PDFs • Drains (surface water, highway) • Gullies • Ditches • Other open drainage channels Include hyperlinked imagery of necessary information to improve identification in the field.
Local Authority led flood risk improvement schemes	Database and GIS	Maintain a living document which records all such scheme details and contact details. Map locations of the scheme including hyperlinks to photos, design drawings, and pre and post construction information including imagery during rainfall events and any information recorded during the schemes operational life.

Data	Format	Recommendations
SUDS schemes information (Council adopted SUDS)	GIS and Database	Maintain a living document which records all Council adopted scheme details and contact information. Map locations of the scheme(s) including hyperlinks to photos, design drawings, and pre and post construction information including imagery during rainfall events and any information recorded during the schemes operational life. A copy of the maintenance management plan should be hyperlinked within the GIS layer and database.
SUDS schemes information (Privately owned SUDS schemes)	GIS and Database	Hyperlink development application information within the GIS system including: • Flood Risk Assessments, Feasibility Studies, Detailed Drainage Studies, etc; • Hyperlinks to photos, design drawings, and pre and post construction information - including imagery during; construction, rainfall events and any information recorded during the schemes operational life. • Approved maintenance management plan; • This should also capture the development connection point and any other relevant drainage information. When available, include operational phase information and any field results.
Pond and lake information (not included as SUDS)	Database and GIS	Keep a living document which records all details of these features along with a GIS layer detailing asset (name, purpose, maintenance) and location information.
Critical local asset records (assets which are known to, or have the potential to flood)	GIS	Compile GIS layer of Critical local asset records. Include hyperlinks to images of these assets for easy field identification.
Historic sewer records (if any)	GIS	Inquire if any specific flood records can be made are available from Thames Water. Where available, include drawings/photos of historical events and compile a GIS layer/database of historic sewer records available. Where images are available this should be hyperlinked linked within the GIS system.
Historic construction records of drainage assets	GIS	Locate and create GIS layer of plans and drawings relating to foul and surface water drainage. Where possible these should be hyperlinked within the GIS system,.
Capacity and condition of 'ordinary' watercourses essential to operation of the urban drainage systems, including culverted watercourses and flow models (where they exist).	GIS	Compile GIS layer of capacity and condition of 'ordinary' watercourses. Include hyperlinked images of key structures and features (possibly walls, spillways etc) of the watercourse.

Data	Format	Recommendations
New development drainage studies and supporting information	Database	Collate new development drainage studies and supporting information. Hyperlink development application information within the GIS system (including Flood Risk Assessments, Detailed Drainage Studies, Private development SUDs schemes etc) including post development connection and drainage information. When available, include operational phase information and any field results.
Road gulley cleaning/ maintenance records	Database	Create record and hyperlink imagery (where appropriate).of key gullies prone to flooding