

Appendix A
Data Register

Document Reference	Source of Data	Data Flag (See Section 5.1)	Data Quality Score (See Section 5.1.2)	Incoming Data Supplied
INC001	Environment Agency	EA Local Data	2	EA Geostore – flood zones and defences, main rivers, historic flood maps, areas susceptible to SW flooding, detailed river network, railways, roads, designated sites, LiDAR files, Threshold & Wrackmarks, E-planning tool dataset
INC002	Severn Trent Water	Partner Organisation	2	GIS datasets of STW assets across Shropshire Towns study area
INC003	Environment Agency	EA Local Data	2	EA Geostore – National Receptor Database DatasetsVersion 1.0
INC004	Shropshire Council	Local Authority	2	Historical Flooding Data – GIS data from Shropshire Flood Forums
INC005	Severn Trent Water	Partner Organisation	2	AMP3 GIS datasets on CSOs, Pumping Stations and Balancing Ponds
INC006	Cambridgeshire County Council	Local Authority	1	Extract from glian Water LAMPS database 2003.
INC007	Environment Agency	EA Local Data	1	GIS dataset of the Detailed River Network and inspection reports for structures and bridges in three Shropshire Towns study area
INC008	Shropshire Council	Local Authority	1	Mapping including 50k, address point, aerial photography, historic mapping, Land use, mastermap and streetview mapping (in various forms for 3 Shropshire Towns)
INC009	Shropshire Council	Local Authority	1	GIS dataset of the six Shropshire Flood Forum Areas
INC010	Shropshire Council	Local Authority	1	GIS dataset of all Shropshire watercourses
INC011	Shropshire Council	Local Authority	1	Shropshire – historic flooding records
INC012	Shropshire Council	Local Authority	1	GPS data collated of Gully cleansing Activity
INC013	Shropshire Council	Local Authority	1	GIS Dataset of Points of Interest (crossing on rivers, etc)
INC014	Shropshire Council	Local Authority	3	Asset dataset of SC Assets as of October 2010 – limited entries
INC015	Shropshire Council	Local Authority	1	GIS datasets of Geological maps from Water Cycle Strategy Report
INC016	Shropshire Council	Local Authority	2	GIS datasets of areas at risk of SW flooding maps from Water Cycle Strategy Report
INC017	Environment Agency	Partner Organisation	1	Severn CFMP Policy Unit GIS files
INC018	Environment Agency	Partner Organisation	2	GIS dataset - Reservoirs in and near Shropshire
INC019	Environment Agency	EA National Dataset	1	GIS dataset – Shropshire catchments.

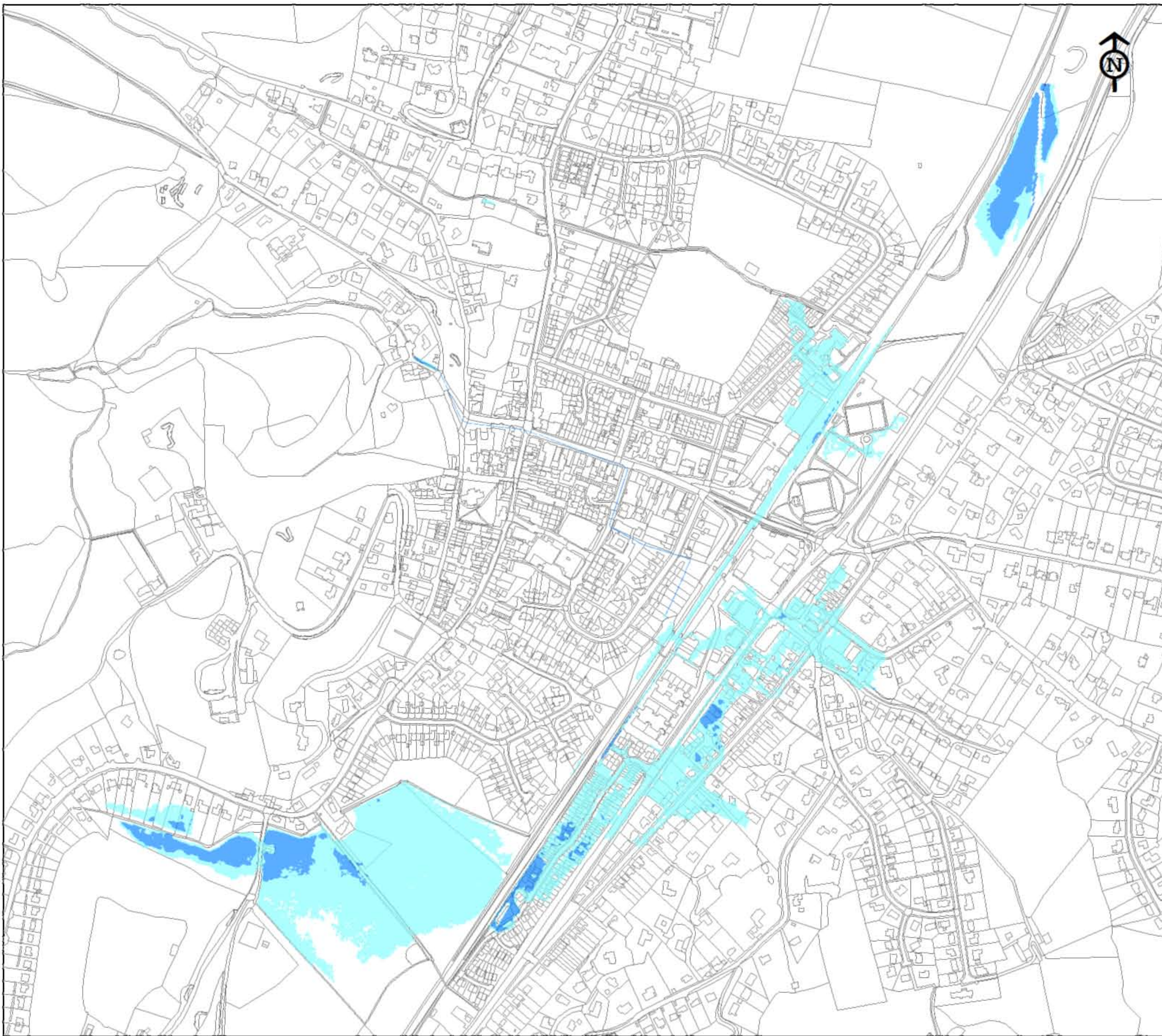
Document Reference	Source of Data	Data Flag (See Section 5.1)	Data Quality Score (See Section 5.1.2)	Incoming Data Supplied
INC020	Environment Agency	EA National Dataset	1	GIS dataset - Source Protection Zones – 50k
INC021	Environment Agency	EA National Dataset	1	GIS datasets of US Water Management
INC022	Highways Agency	External Data Provider	3	Available asset Data for the three Towns – including the M50 near Shifnal
INC023	Severn Trent Water	Partner Organisation	2	GIS dataset – further
INC024	Shropshire Council	Local Authority	2	Consultation document for Shifnal and Sheriffhales Area Site Allocations
INC025	Shropshire Council	Local Authority	2	Consultation document for Church Stretton Area Site Allocations
INC026	Shropshire Council	Local Authority	2	Former Bridgnorth DC – Level 1 SFRA
INC027	Telford & Wrekin Council	Local Authority	2	Level 2 SFRA
INC028	Shropshire Council	Local Authority	2	Map of flood forum areas
INC029	Shropshire Council	Local Authority	2	Former South Shropshire DC – Level 1 SFRA
INC030	Shropshire Council	Local Authority	2	Photos and drawing of culvert dimensions for Clun Road Railway Bridge
INC031	Shropshire Council	Local Authority	2	Photos and drawing of culvert dimensions for Clun Road Railway Bridge
INC032	Shropshire Council			
INC033	Shropshire Council	Local Authority	2	Comments on Report template
INC035	Shropshire Council	Local Authority	2	GIS dataset of Local Property Gazetteer for Shropshire - extract
INC036	Shropshire Council	Local Authority	2	GIS dataset of SC freehold in Shropshire
INC037	Shropshire Council	Local Authority	2	GIS dataset of substations within Shropshire Towns study areas.
INC038	Environment Agency	Partner Organisation	2	Revised LiDAR (Flown JUNE 2010) for Shifnal
INC039	Environment Agency	Partner Organisation	1	MORECS datasets Square 124 data from 1961 - 2010
INC040	Environment Agency	Partner Organisation	2	2 nd Generation Surface Water Maps (FRMfSW – 30 return period maps)
INC041	Environment Agency	Partner Organisation	1	2 nd Generation Surface Water Maps (FRMfSW – 200 return period maps)

Document Reference	Source of Data	Data Flag (See Section 5.1)	Data Quality Score (See Section 5.1.2)	Incoming Data Supplied
INC042	Severn Trent Water	Partner Organisation	2	Hydrological & Hydraulic Study of Priorslee Reservoir – October 2010
INC043	Shropshire Council	Local Authority	2	Drawing & Photos of Church Stretton Town Culvert from archives
INC044	Surveyors	External Data Provider	1	Survey of Wesley Brook and Silvermere lake (2010 – 2011)
INC045	Surveyors	External Data Provider	1	CCTV survey of culverts in the Three Towns (2010 – 2011)
INC046	Surveyors	External Data Provider	1	Survey of watercourses in Church Stretton (2010 – 2011)
INC047	Surveyors	External Data Provider	1	Survey of watercourses in Craven Arms (2010 – 2011)
INC048	Natural England	External Data Provider	1	GIS mapping of the Environmental Sites & Receptors
INC049	Environment Agency	Partner Organisation	2	Planned improvements to Flood Warning Services in Midlands West area – Including the Wesley Brook in Shifnal
INC050	Shropshire Council	Local Authority	2	Drawing of new Silvermere Pond high level outfall and culvert
INC051	Shropshire Council	Local Authority	2	Additional topographic and channel survey of watercourse around Park Lane, Shifnal
INC052	Shropshire Council	Local Authority	2	Additional topographic and channel survey of watercourse around Aston Road, Shifnal
INC053	Shropshire Council	Local Authority	2	Details of current sewer re-lining being undertaken in Church Stretton
INC054	Shropshire Council	Local Authority	2	Update of Flood forum information (February 2011)
INC055	Shropshire Council	Local Authority	2	CCTV of Ludlow Road culverts from the EA
INC056	Shropshire Council	Local Authority	2	South West Shropshire Flood Forum Notes of meeting 16/09/10
INC057	Shropshire Council	Local Authority	2	Shifnal and Albrighton Flood Forum Notes of meeting 16/10/10
INC058	Shropshire Council	Local Authority	2	National Order for Surface Water Risk – taken from Environment Agency datasets based on Areas Susceptible to Surface water flooding.

Appendix B

Drawings

Flood Depth and Hazard Maps – Baseline



LEGEND

Depth (metres)

- <0.3m
- 0.3 - 1m
- >1m

Map not suitable to assess flood risk to individual properties.

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Shropshire County Council

Shirehall, Abbey Foregate, Shrewsbury, SY2 6ND

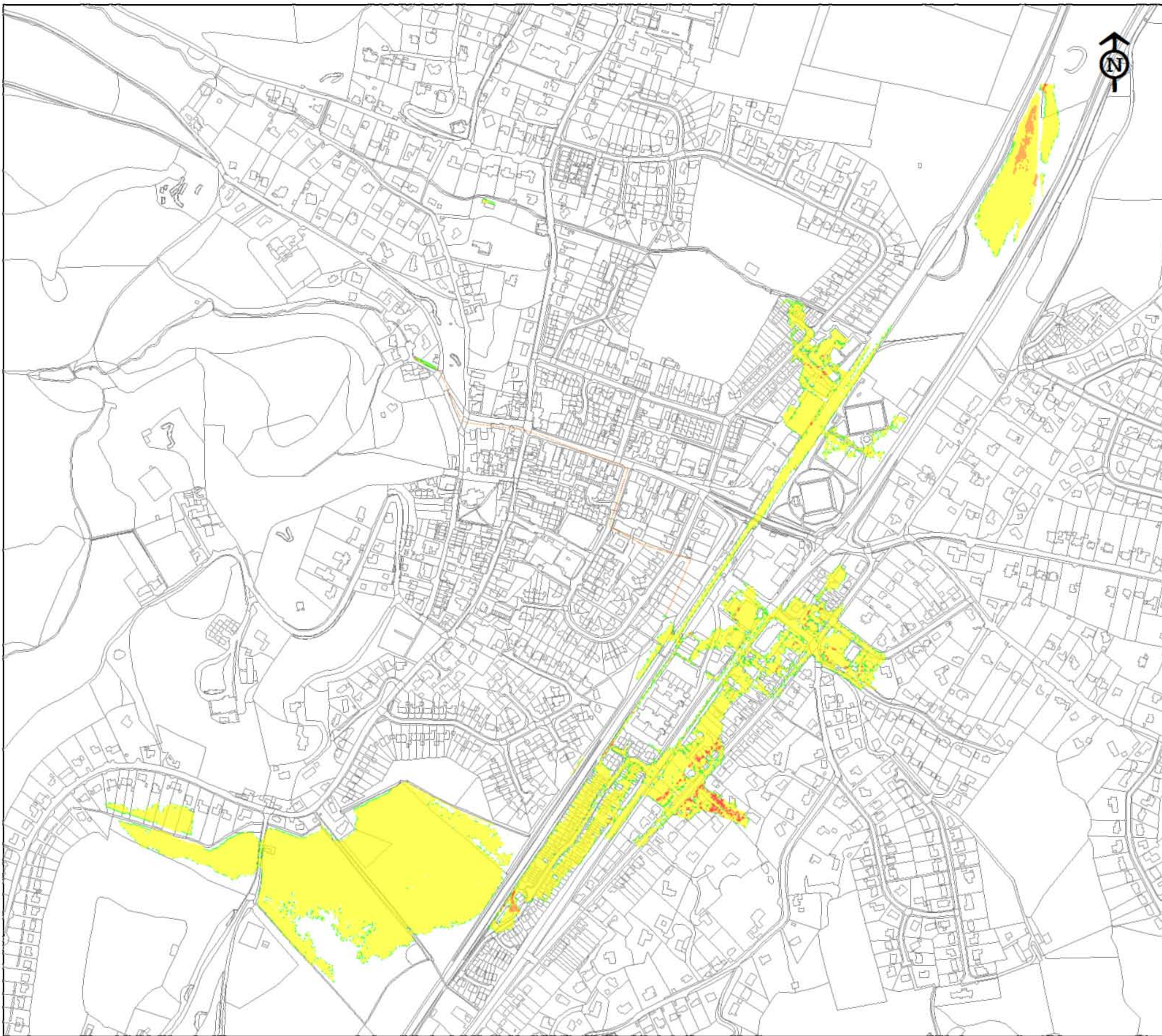
**SHROPSHIRE TOWNS
SURFACE WATER MANAGEMENT
PLAN**

CHURCH STRETTON

PREDICTED FLOOD DEPTH 1% AEP
(1 in 100 chance of occurring in any given year)

SCALE 1:5,000 @ A3	Produced	ARP	AUG 2011
	Checked	AN	AUG 2011
	Approved	RL	AUG 2011

DRAWING NO.
0001-UA002182-BMD-01



LEGEND

- Hazard Rating*
- Very Low Hazard - Caution
 - Moderate Hazard - Danger for Some
 - Significant Hazard - Danger for Most
 - Extreme Hazard - Danger for All

Map not suitable to assess flood risk to individual properties.

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Shropshire County Council

Shirehall, Abbey Foregate, Shrewsbury, SY2 6ND

**SHROPSHIRE TOWNS
SURFACE WATER MANAGEMENT
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Appendix C

Multi Criteria Analysis Data

C1 Type Weightings

MCM Code	Type of use	Number in Wetspot	Suggested Multi Criteria Weighting	Majority Social Class	Social Weighting (Assumed Unity)	Flood Susceptibility				Basis of weighting
						Shallow	Deep	Total Score	MC Score	
Domestic Properties										
1	Detached		2.34	AB	1			0	0	The overall multi-criteria score is commensurate with an approximation of the number of household units inundated.
1	Semi-Detached		2.34	AB	1			0	0	
1	Terrace		2.34	AB	1			0	0	
1	Flat		2.34	AB	1			0	0	
	Upper middle and middle class	AB	0.74							Weighting used in the Multi-Coloured Manual. (Relatively easy to apply and can also be applied separately)
	Lower middle class	C1	1.12							
	Skilled working class	C2	1.22							
	Working class and those at the lowest level of subsistence	DE	1.64							
Flood Susceptibility										
		Number in Wetspot	Suggested Multi Criteria Weighting			Shallow	Deep	Total Score	MC Score	
610	School/College/University/Nursery	0	50					0	0	
620	Surgery/Health Centre - Urban	0	50					0	0	
	Surgery/Health Centre - Rural	0	100					0	0	
625	Residential / Care Home	0	50					0	0	
650	Fire/Ambulance station									
	Fire (Regional HQ)		100					0	0	
	Fire station (District)		50					0	0	
	Fire station (Local/Retained)		20					0	0	
	Ambulance station (Regional HQ)		100					0	0	
	Ambulance Station		50					0	0	
651	Police Station									
	Police Station (Constabulary HQ)		100					0	0	Based upon estimate of relative importance.
	Police Station (District HQ)		50					0	0	
	Police Station (Local)		20					0	0	
660	Hospitals									Based upon approximate number of beds within hospital.
	Large Regional Hospital (>1000 beds) with A&E		1125					0	0	
	Large Regional Hospital (>1000 beds)		1000					0	0	
	Medium Sized Hospital (500 to 1000 beds) with A&E		950					0	0	
	Medium Sized Hospital (500 to 1000 beds)		750					0	0	
	Small Hospital (200 to 500 beds) with A&E		600					0	0	
	Small Hospital (200 to 500 beds)		350					0	0	
	Cottage Hospital (Up to 200 beds) with A&E		250					0	0	
	Cottage Hospital (Up to 200 beds)		100					0	0	
901	Emergency Response Centre		1					0	0	
911	Integrated Pollution Prevention Control IPPC (Active)		25					0	0	
912	Waste Licence REGIS Site		25					0	0	
913	Historic Landfill Site		25					0	0	
914	Radioactive RAS Sites (Active Licence)		25					0	0	
915	Radioactive RAS Sites (Active Disposal)		25					0	0	
921/922	Pumping Station (Foul/SW) - In-line		50					0	0	
921/922	Pumping Station (Foul/SW) - Small TPS		100					0	0	
921/922	Pumping Station (Foul/SW) - Trunk TPS		500					0	0	
931	Pumping Station (Potable Water)		1					0	0	
840	Wastewater Treatment Works		500					0	0	
932	Water Treatment Works		1500					0	0	
933	Oil & Gas Refineries		1					0	0	
934	Power Stations		1500					0	0	
935	Electricity Sub-Stations		10					0	0	
936	Telephone Exchange		100					0	0	
211	(High Street) Shop		1					0	0	
213	Superstore/Hypermarket		10					0	0	
214	Retail Warehouse		1					0	0	
215	Showroom		1					0	0	
216	Kiosk		1					0	0	
217	Outdoor market		1					0	0	
218	Indoor Market		1					0	0	
221	Vehicle Repair Garage		1					0	0	
222	Petrol Filling Station		1					0	0	
223	Car Showroom		1					0	0	
224	Plant Hire		1					0	0	
231	Hairdressing Salon		1					0	0	
232	Betting Shop		1					0	0	
233	Laundrette		1					0	0	
234	Pub/Social club/wine bar		1					0	0	
235	Restaurant		1					0	0	
236	Café/Food Court		1					0	0	
237	Post Office		1					0	0	
238	Garden Centre		1					0	0	
310	Offices (non specific)		1					0	0	
311	Computer Centres (Hi-Tech)		1					0	0	
320	Bank		1					0	0	
410	Warehouse (including store)		1					0	0	
411	Warehouse Electrical		1					0	0	
412	Warehouse Non Frozen		1					0	0	
413	Warehouse Frozen		1					0	0	
420	Land Used for Storage		1					0	0	
430	Road Haulage		1					0	0	
511	Hotel		1					0	0	
512	Boarding House		1					0	0	
513	Caravan Mobile		1					0	0	
514	Caravan Static		1					0	0	
515	Self catering Unit		1					0	0	
516	Hostel (including prisons)		1					0	0	
517	Bingo hall		1					0	0	
518	Theatre/Cinema		1					0	0	
519	Beach Hut		1					0	0	
521	Sports Grounds and Playing Fields		1					0	0	
522	Golf Courses		1					0	0	
523	Sports and Leisure centres		1					0	0	
524	Amusement Arcade/Park		1					0	0	
525	Football Ground and Stadia		1					0	0	
526	Mooring/Wharf/Marina		1					0	0	
527	Swimming Pool		1					0	0	
630	Community Centres/Halls		1					0	0	
640	Library		1					0	0	
670	Museum		1					0	0	
680	Law court		1					0	0	
690	Church		1					0	0	
810	Workshop		1					0	0	
820	Factory/Works/Mill		1					0	0	
830	Extractive/Heavy Industry		1					0	0	
850	Sewage treatment works		1					0	0	
920	Laboratory		1					0	0	
950	Dock hereditament		1					0	0	
960	Electricity Hereditament		1					0	0	
999	General Commercial		1					0	0	
	National Trust Site		1					0	0	
	English Heritage Listed Buildings Site		1					0	0	

CADW Listed Buildings Site		1					0	0	
Article 4 Designations		1					0	0	
					Flood Susceptibility				
		Number in Wetspot	Suggested Multi Criteria Weighting		Shallow	Deep	Total Score	MC Score	
Motorway			500				0	0	The MCA for Transport infrastructure is based upon the length affected multiplied by the weighting. The MCA for 50m flooding on the M11 flooded to a depth of between 0.1 and 0.3m would therefore be 100.
Trunk Road			400				0	0	
County Highway			100				0	0	
Priority Route (to Emergency Services Centres or rural communities)			500				0	0	
Railway			600				0	0	
Metro / Underground Railway			1				0	0	
Tramway			1				0	0	
National (Footpath or Cycle) Trail			1				0	0	
					Flood Susceptibility				
		Number in Wetspot	Suggested Multi Criteria Weighting		Shallow	Deep	Total Score	MC Score	
Special Area of Conservation (SAC)			25				0	0	The MCA for Land and Open Space is based upon the area affected, multiplied by the weighting. The use of weightings has to be considered carefully for this group. For example the impact of Surface Water "Flooding" to wetlands such as the Norfolk Broads and Wicken Fen may not be consider to be a problem and a higher weighting which indicate that it is detrimental may not necessarily be valid. SACs, SPAs, RAMSAR sites may all fall within this category and if flooding is not consider detrimental they may be excluded from the analysis by assigning a flood susceptibility weighting of 0 if appropriate.
Special Areas of Protection (SPA)			25				0	0	
RAMSAR Site			25				0	0	
Site of Special Scientific Interest (SSSI)			25				0	0	
Area of Outstanding Natural Beauty (AONB)			15				0	0	
National Nature Reserves (NNR)			15				0	0	
County & City Wildlife Site			10				0	0	
County & City Nature Reserve			10				0	0	
RSBP Reserve			10				0	0	
WWF Reserve			10				0	0	
Woodland			10				0	0	
Ancient Woodland, Fens & ESAs (Natural England)			10				0	0	
World Heritage Site			10				0	0	
Heritage Coast			10				0	0	
English Heritage Battlefield Site			10				0	0	
National Park			10				0	0	
County Park			10				0	0	
Parks and Gardens of Special Historical Interest			10				0	0	
Scheduled Ancient Monuments (SAMs)			10				0	0	
Grade 1 Agricultural Land			5				0	0	
Grade 2 Agricultural Land			4				0	0	
Grade 3 Agricultural Land			2				0	0	
Grade 4 Agricultural Land			0				0	0	
Grade 5 Agricultural Land			0				0	0	
Non-Agricultural Land			0				0	0	
							0	0	