

**This Appendix provides specific information on the following subjects for North Dorset:**

- (1) Hydrology
- (2) Relevant local planning policy from the North Dorset District-Wide Local Plan, 2003-2011
- (3) Sewer flooding
- (4) Reservoirs
- (5) Key points from the SFRA specific to North Dorset

**(1) Hydrology**

North Dorset lies almost entirely within the Stour catchment. The River Stour enters the district at Bourton close to the headwaters of the Stour in neighbouring district of Salisbury. From Bourton the River Stour flows onto Gillingham where it is joined by Shreen Water from the north, and a short distance further downstream by the River Lodden. From Gillingham the River Stour flows in a south-westerly direction to the edge of the district, west of Marnhull, where the River Stour is joined by the River Cale. From here, the River Stour flows in a south-easterly direction through the district being joined by a series of watercourses, including Bibbern Brook, River Lydden and River Divelish prior to reaching Sturminster Newton. Between Sturminster Newton and Child Okeford, the Stour is also joined by Chivrick's Brook, Darknell Brook, Manston Brook and Fontmell Brook. At Stourpaine the River Iwerne flows into the River Stour. Prior to flowing out of the district the River Stour is joined by The Tarrant at Spetisbury.

**(2) North Dorset District-Wide Local Plan, 2003-2011**

There is a cautionary approach to the effect of development on local biodiversity. Policy 1.12 states that:

*“Development will not be permitted within the River Valley areas defined on the Proposals Maps where;*

- (i) the water quality of the river would be adversely affected by effluent pollution from the development.*
- (ii) the wildlife and their habitats, the vegetation and the landscape of the river valleys would be adversely affected by the development”.*

In addition the areas likely to flood are considered by Policy 1.13. This states that:

*“Development in a developed area within an Area Liable to Flood will only be permitted provided that criteria (i) and (ii) below are fulfilled.*

*Development in an undeveloped or sparsely developed area within an Area Liable to Flood will only be permitted if it is essential transport and utilities infrastructure, or a recreation, sport, amenity or conservation use, and that criteria (i) and (ii) below are fulfilled.*

*Development, whether in a developed or undeveloped area, within an Area Liable to Flood which is known to be sited where flood water frequently passes will only be permitted if it is essential transport and utilities infrastructure, or a recreation, sport, amenity or conservation use, and that criteria (i) and (ii) below are fulfilled.*

- (i) it can be demonstrated that there are no alternative sites for the development on other previously developed land with a lower probability of flooding;*
- (ii) and it can be demonstrated that after incorporating flood mitigation and, or, compensation, there would be an acceptable flood risk for the development and other land uses.*

*Development will not be permitted in the vicinity of any flood defence structure shown on the Proposals Map or in any subsequent Supplementary Planning Guidance on Flood Risk”.*

### (3) Sewer flooding within North Dorset

Wessex Water’s sewer flooding plan for North Dorset shows that the flooding within North Dorset is confined to Blandford Forum, Marnhull, King’s Stag, Motcombe, Gillingham and Bourton. It is likely these incidents are associated with network incapacity as a result of development or through poor performance of one of the many STW or pumping stations located in the area. The sewer network is combined and thus it is likely that the system is now under capacity as a result of greater surface water connectivity and /or storm intensity. The flooding events comprises 1 DG5AI’s (2 internal incidents in 10 years) and 7 DG5BI’s (1 internal incident in 10 years). Solutions comprising storage, diversion, local upsizing of sewers and upgrading of pumping stations may alleviate current flooding, and are considered appropriate for the areas which have already been extensively developed.

### (4) Reservoirs within North Dorset and their flood risk category\*

Grid reference	Reservoir	Location	Capacity (m <sup>3</sup> )	Flood category assigned under Reservoirs Act, 1975	Flood category assigned under EA review of South Wessex reservoirs (2007)
ST803015	Milton Abbas Lake	Blandford	-	Not under Act	A
ST774310	Bourton Factory Pond	Gillingham	6250?	Not under Act	A
ST76870275	Aller	Yeovil	-	Not under Act	C
ST79042560	Thorngrove (Culvers Farm) No.1 d/s	Mere	-	Not under Act	C
ST79042560	Thorngrove (Culvers Farm) No.2 mi	Mere	-	Not under Act	C
ST80091097	Okeford Fitzpaine	Blandform	-	Not under Act	B
ST86931779	Manor Fm, Fontmell Magna No.1 d/s	Shaftesbury	-	Not under Act	B
ST86931779	Manor Fm, Fontmell Magna No.2 u/s	Shaftesbury	-	Not under Act	B
ST86701942	Incombe Farm	Shaftesbury	-	Not under Act	D
ST80541977	Todber Manor No. 1 (Big Hayes)	Shaftesbury	45,000	Not under Act	C
ST80541977	Todber Manor	Shaftesbury	24,800	Not under	C

	No. 2 (Wadmill)			Act	
ST80541977	Todber Manor No. 3 (Park Lake)	Shaftesbury	-	Not under Act	C

\* This table details all reservoirs identified by the Environment Agency under their review of South Wessex reservoirs in February 2007.

#### **(5) Key points from the SFRA specific to North Dorset**

- Domestic and commercial properties, transport links and farmland have been subjected to damage and disruption by groundwater flooding.
- Eight properties are currently at risk of sewer flooding within North Dorset, but Wessex Water intends to implement solutions to alleviate flooding in these properties by March 2010.
- There are 12 reservoirs within North Dorset which pose varying levels of risk. If development is proposed downstream of any of these reservoirs a detailed breach and overtopping assessment will be required.
- Tile Set C shows several flood defences within North Dorset, particularly within Blandford Forum, Gillingham and at several locations along the River Winterborne. If development is proposed behind any of these defences a detailed breach and overtopping assessment will need to be carried out to inform the sequential test and to ensure that the potential loss of life can be safely managed throughout the lifetime of the development.
- The Environment Agency has flood warning procedures in place for the Stour catchment.
- Major Incident Plans (MIP) are in place for Blandford and Gillingham. MIPs describe the nature of flood risk, defences, flood warning procedures, roles and responsibilities before, during and after a flood incident. The MIP for Blandford is basic, whereas the MIP for Gillingham is of a good standard.
- In the application of SUDS techniques it is recommended that priority is given to the use of surface water drainage techniques due to the generally permeable soils throughout North Dorset. However prior to implementing these techniques, each site should confirm that the use of infiltration drainage will not increase the risks of groundwater flooding.
- The existing urban areas of Blandford Forum, Pimperne, Gillingham, Shillingstone, Milborne St. Andrew and Bourton intersect with Climate Change Flood Zones 3b and/or 3a . In allocating sites for development North Dorset District Council will be required to undertake the Sequential Test if proposing any sites that lie within Flood Zones 2, 3a and 3b at any point in the developments life. This will ensure the more vulnerable uses of land are allocated to the lowest risk sites.