

C.1 SUDS ANALYSIS

The table below is based on available large scale data sources. It is known that infiltration rates are sensitive to local conditions and these must be assessed further using local data when designing SuDS systems.

This data is displayed on Map 11.

Area of development	Soil Characteristics ¹	Soil WRAP class ²	Groundwater vulnerability ³	Appropriate SuDS Technique
Manningtree	Slightly acid loamy and clayey soils with impeded drainage.	1	Intermediate - High	Infiltration and attenuation
Thorpe-le-Soken	Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils to Slightly acid loamy and clayey soils with impeded drainage.	4	Low	Attenuation preferable
Walton-on-the-Naze	Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils.	4	Low – High	Attenuation preferable
Clacton-on-Sea	Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils to slightly acid loamy and clayey soils with impeded drainage.	2 / 4	Intermediate – High Majority high	Attenuation preferable
Little Clacton	Slowly permeable seasonally waterlogged clayey soils.	4	Low	Attenuation preferable
Point Clear	Loamy and clayey soils of coastal flats with naturally high groundwater to slightly	2	Intermediate – High Majority intermediate	Infiltration and attenuation

Area of development	Soil Characteristics ¹	Soil WRAP class ²	Groundwater vulnerability ³	Appropriate SuDS Technique
	acid loamy and clayey soils with impeded drainage.			
St Osyth	Slightly acid loamy and clayey soils with impeded drainage.	2 / 4	Intermediate	Attenuation preferable
Brightlingsea	Loamy and clayey soils of coastal flats with naturally high groundwater to slightly acid loamy and clayey soils with impeded drainage.	2	High – Intermediate	Infiltration and attenuation
Great Bentley	Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils to slightly acid loamy and clayey soils with impeded drainage.	1	Intermediate – High Majority intermediate	Infiltration and Attenuation
Alresford	Slightly acid loamy and clayey soils with impeded drainage.	1	Intermediate	Infiltration and Attenuation
Ardleigh Reservoir	Slightly acid loamy and clayey soils with impeded drainage.	1	Intermediate	Infiltration and Attenuation
Elmstead Market	Slightly acid loamy and clayey soils with impeded drainage.	1	Intermediate	Infiltration and Attenuation

¹ Source: National Soil Resources Institute, Cranfield University (2009). Available from: <http://www.landis.org.uk/> (Accessed 9 March 2009)

² Note: WRAP (*Winter Rainfall* Acceptance Potential), has been used as a simple guide to the suitability of an area to infiltration type SUDs. Classes are as follows: 1 – Very High, 2 – High, 3 – Moderate, 4 – Low, 5 – Very Low.

³ Note: this data set provides an assessment of the vulnerability of ground-waters to diffuse sources of pollution. This could be used to infer possible interactions with groundwater and hence support the permeability suggested by the soil characteristics.