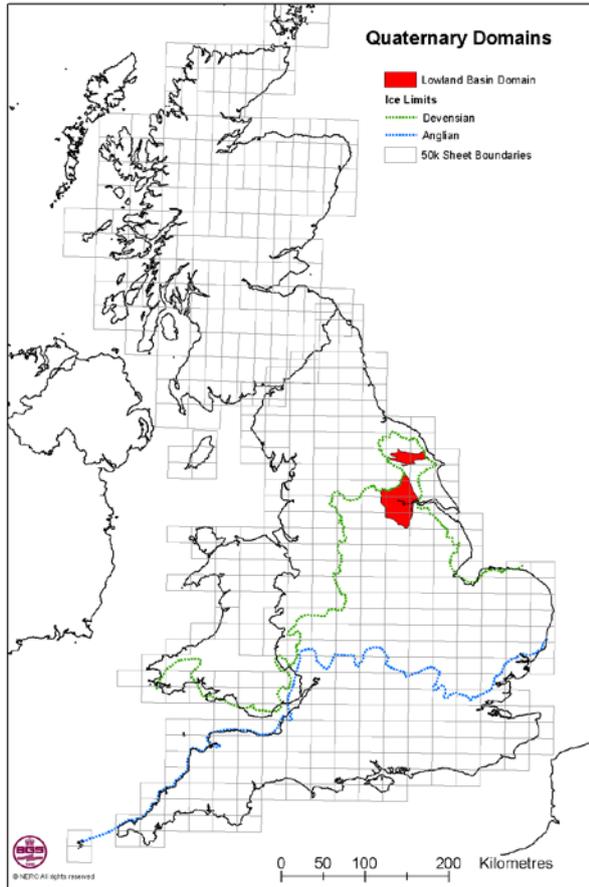
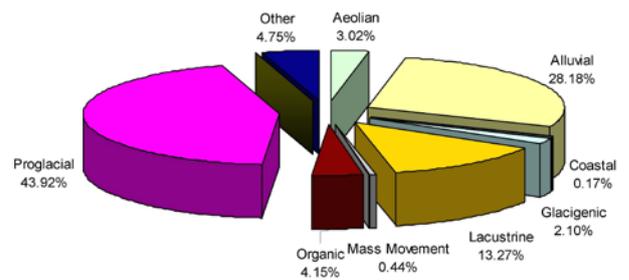
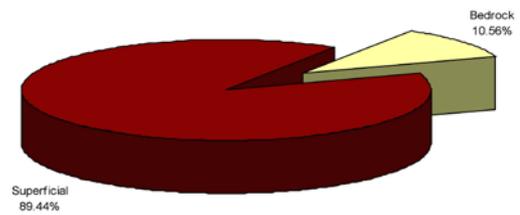


DOMAIN: LB

LOWLAND BASIN (with two sub-domains)



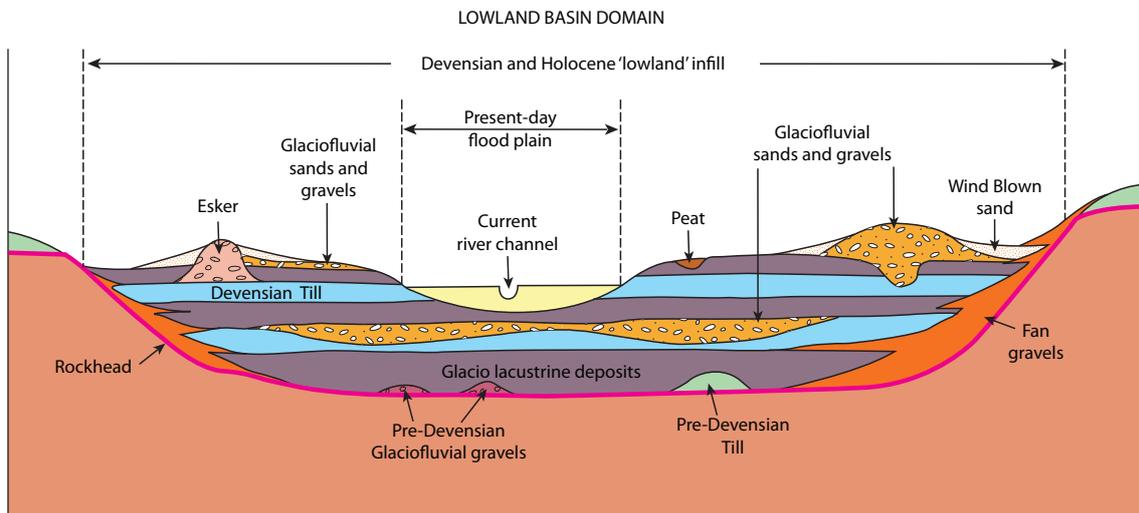
Bedrock/Superficial ratios



Superficial components

Pie chart proportions are based on an analysis of DigMapGB50 Version 2.

A schematic diagram showing elements of the lowland basin domain



Background information for project planning:

Landforms, deposits and processes

This domain includes several areas of low to very low relief, underlain by thick, stratified sequences of Devensian to Holocene age that are dominated by glaciofluvial sand and gravel and glaciolacustrine silt and clay.

Around the margins of parts of the domain, there are relict areas of till that may be Pre-Devensian. The deposits have yet to be formally defined on lithostratigraphical grounds, although they could equate with either the Lowestoft or Sheringham Cliffs formations of East Anglia.

For mapping guidance:

Primary approach

Office-based information search and landform analysis (LiDar or NextMap) are essential, followed by a preliminary field visit to confirm the model and appropriate methodologies. Ground truthing is very important. To understand the stratigraphical sequence, borehole, trenching, deep auger and shallow auger traverse information is essential. The daily average ground coverage is highly dependent on the mapping resolution and the methodologies chosen; will vary between $\frac{1}{4}$ and 5 km^2 .

Supplementary approach

- Detailed lithological analysis of sediments from boreholes, sections and trenches are invaluable aids to the understanding of Devensian-Holocene landscape evolution.

Specific problems

- NextMap data at c.1 m resolution is the ideal digital DTM; however, for some applications, the centimetre resolution provided by LiDar is required. This data is very expensive and not generally held by the BGS; projects should seek collaborative ventures where possible, e.g. with the EA as they hold much of the national floodplain, estuary and coastal coverage.
- Ground truthing is essential. Where deep augering is needed for stratigraphical purposes, it is labour intensive and time consuming.
- In some localities, distance from field accommodation may constrain the 'time on the ground'.
- GPS instruments are essential for location.
- Health and Safety issues, e.g. lone working and back-related injuries through augering.