

5 Present condition

Navigation area

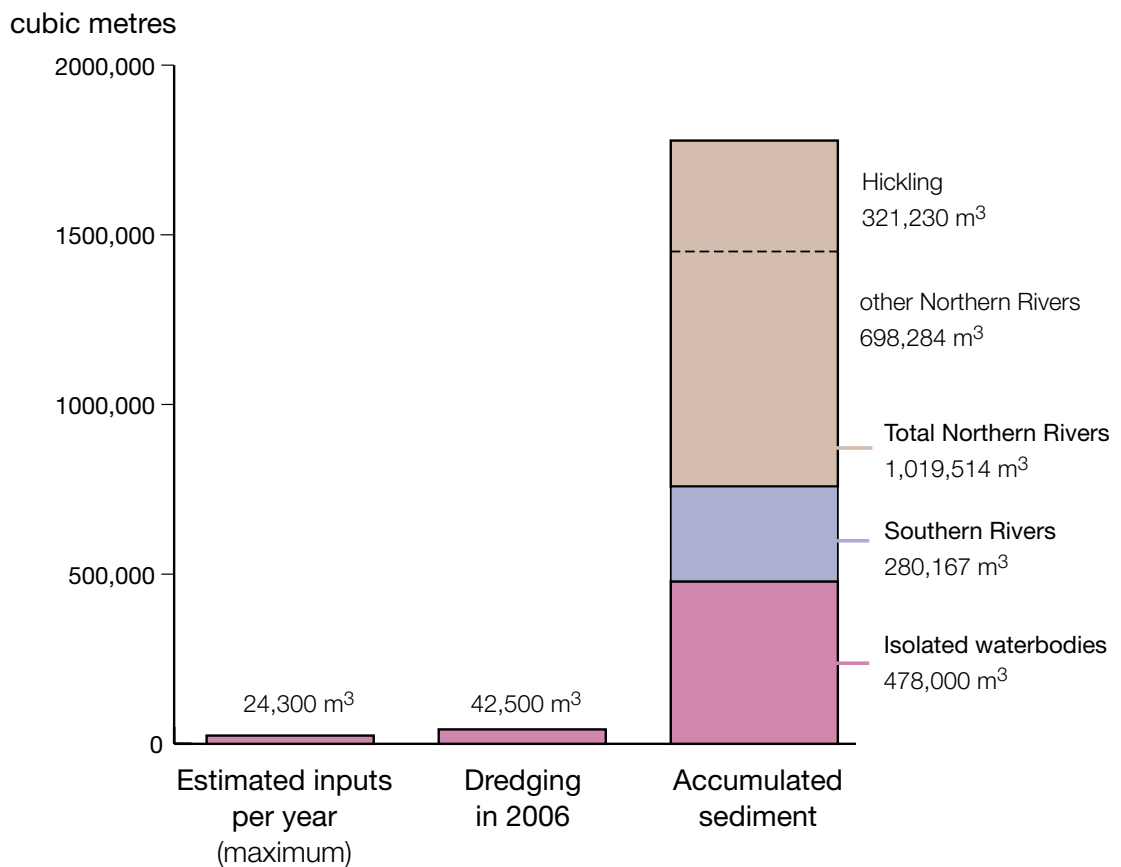
A comparison of the hydrographic survey data with the user defined waterway specifications for the navigation area has indicated that a large part of the system is currently non-compliant with user aspirations. Further analysis indicates the volume of sediment held as a backlog within the system, which can be represented by each management unit. A summary of this data is shown in Figure 9.

There is a clear distinction in levels of sediment present between northern and southern rivers, and this can be attributed to two factors. Firstly, there are a significant number of open waterbodies in the northern rivers which contribute a substantial proportion of the backlog. Secondly, tidal flow rates and volumes are lower in the northern rivers, which removes the potential for self scouring that exists in more dynamic water courses.

Isolated waterbodies

The hydrographic survey and expert information from the isolated waterbodies, combined with an assessment of the requirement to remove sediment to achieve targets for nature conservation and improved water quality for users, have been used to determine the requirement for sediment removal in those waterbodies not on the main navigation.

Figure 9
Accumulated sediment
present within the Broads
system
Broads Authority, BESL



Sediment removal outside the navigation area is required to minimise nutrient release from the sediment and increase water depth to allow aquatic plants to recover. However, sediment removal will not always lead to aquatic plant recovery or lower nutrient levels, the science is complicated and dependent on the existing water quality, flow rate and catchment inputs. Some isolated waterbodies, such as Ranworth Broad, may currently have poor water clarity and be vulnerable to surge salt water tides, thus it may not be desirable to invest in sediment removal. Some isolated broads have no survey data to assess if investment in sediment removal would be desirable (eg Snape's Water) and these will need to be added in the future as information is gathered.

The majority of the sediment currently required to be removed from isolated waterbodies is from Hoveton Great Broad, Fritton Lake and the Trinity Broads, for the purpose of nutrient control and water quality improvement.