

2 Principles for sediment management

The Sediment Management Strategy objectives will be implemented in a sustainable manner, in line with a set of Guiding Principles outlined in the 2004 Broads Plan, particularly with reference to the following:

Whilst sediment obtained from dredging projects is a by-product of the activity, in many cases the material can be fully employed in reuse or recycling operations. This strategy provides the framework for considering all options before material is treated as waste.

By adopting current thoughts applied to general waste, sediment management practices are tested through a hierarchy of environmentally sound and sustainable principles, from reduction as a preferred option to disposal as a last resort. This leads to general principles that should be adopted as a baseline approach:

- **Reduce** – through both reducing sediment and nutrient input to waterways (and thus decreasing dredging need) and reducing removal volume by amending specifications where appropriate.
- **Reuse** – direct reuse options can be considered for dredged materials dependent upon the sediment properties. These options include habitat creation and restoration, flood protection works, combined schemes eg new riverbank creation as part of the Broadland Flood Alleviation Project, sediment replacement or movement into sediment-starved areas (the latter is not currently a reuse option within the Broads).
- **Recycle** – material can be used in wider construction schemes, but would usually require treatment/remediation. This could range from simple dewatering to complex industrial processes, eg the manufacture of novel materials such as lightweight aggregate volume concrete, and can therefore incur considerable extra costs. Recycling is also dependent upon the sediment properties.
- **Disposal** – disposal to landfill should only be considered as a last resort, and in any event minimised as much as is possible. Broads Authority-owned/managed sites should be considered before use of any commercial disposal options. From October 2007, no liquid wastes can go to landfill, and all wastes must be pre-treated.

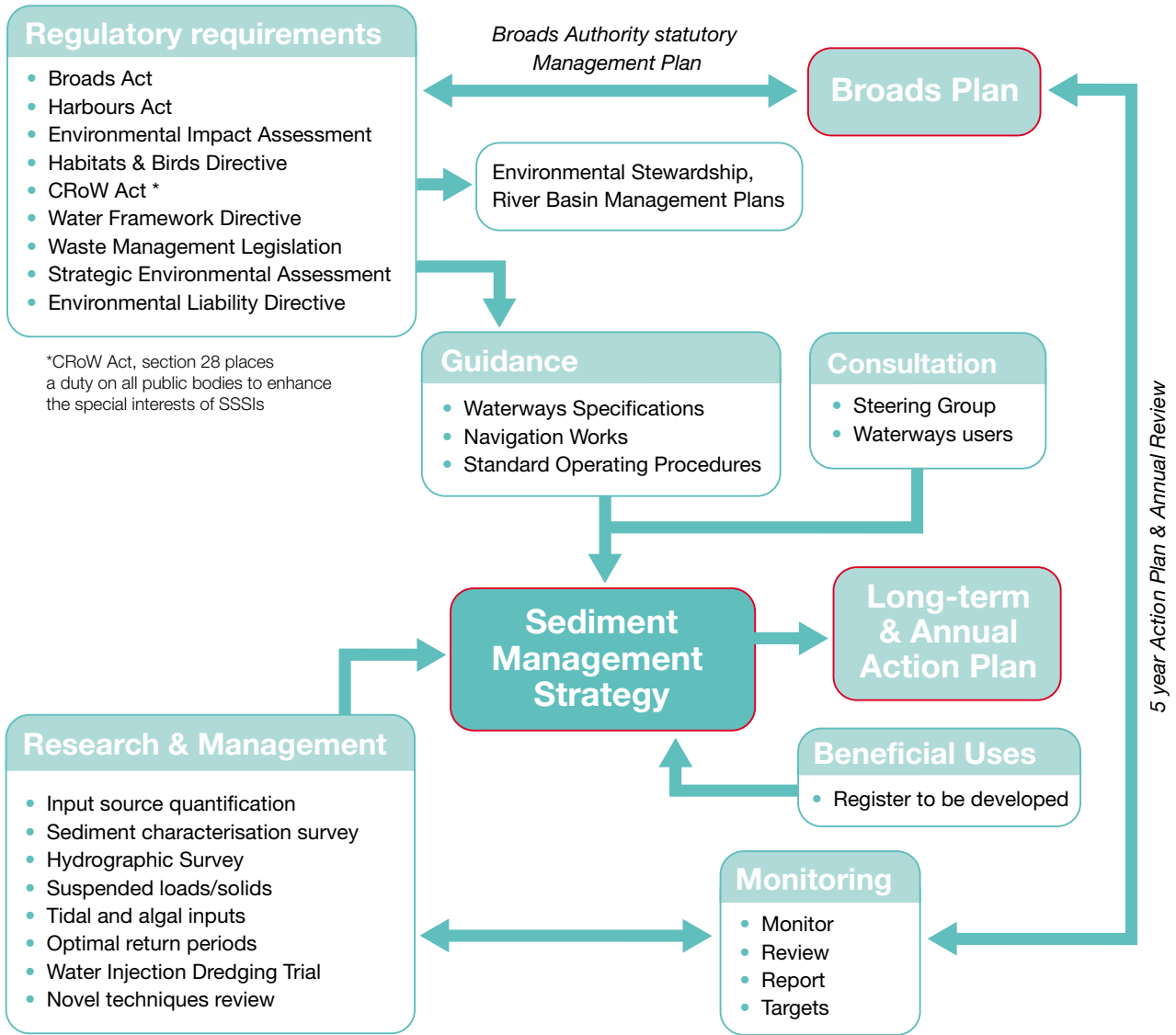
Beneficial sediment reuse within habitat creation project at Wroxham Island to restore eroded section at risk of breaching.



Broads Authority

Figure 2
 Framework for the
 Sediment Management
 Strategy

The following framework (Figure 2) has been developed to take account of the Broads requirements. In taking decisions on dredging, the Broads Authority needs to ensure a balance between meeting user expectations, discharging its responsibilities under environmental regulations, and ensuring cost-effective and efficient maintenance of the Broads.



This framework has been developed following consideration of all relevant factors relating to sediment issues. At an early stage a data-gap analysis was undertaken to identify the research needs to inform the strategy. Data subsequently gathered have provided an overview of the current situation regarding sediment inputs and management across the Broads. Other drivers such as legislation and catchment management links, along with appropriate responses, for example relevant environmental assessment, are also recognised. Sediment management decisions take these strategic issues into account, as well as considering site-specific factors.