

### Definitions and rationale

1. Disposal of wastes at sea can pose a threat to marine life and is controlled internationally by means of Conventions to which the UK is a contracting party. The OSPAR Convention<sup>1</sup> applies in the waters of the North-East Atlantic and the London Convention and its Protocol<sup>2</sup> apply worldwide. Measures under these conventions limit the types of waste which may be considered for disposal at sea, the main categories being confined to uncontaminated dredged materials, inert natural material of geological origin and fish wastes. They also outline the assessments that need to be undertaken in order to determine whether such material should be disposed of at sea.

### Arisings, trends and projections

2. There were 26.2 million tonnes wet weight dredging spoils deposited at marine disposal sites in England in 2004, of which 7,200 tonnes were hazardous. There are approximately 100 marine disposal sites in use around the coasts of England and Wales at any one time.

3. In line with international obligations under the OSPAR and London Conventions, most types of waste are no longer permitted to be disposed of at sea:

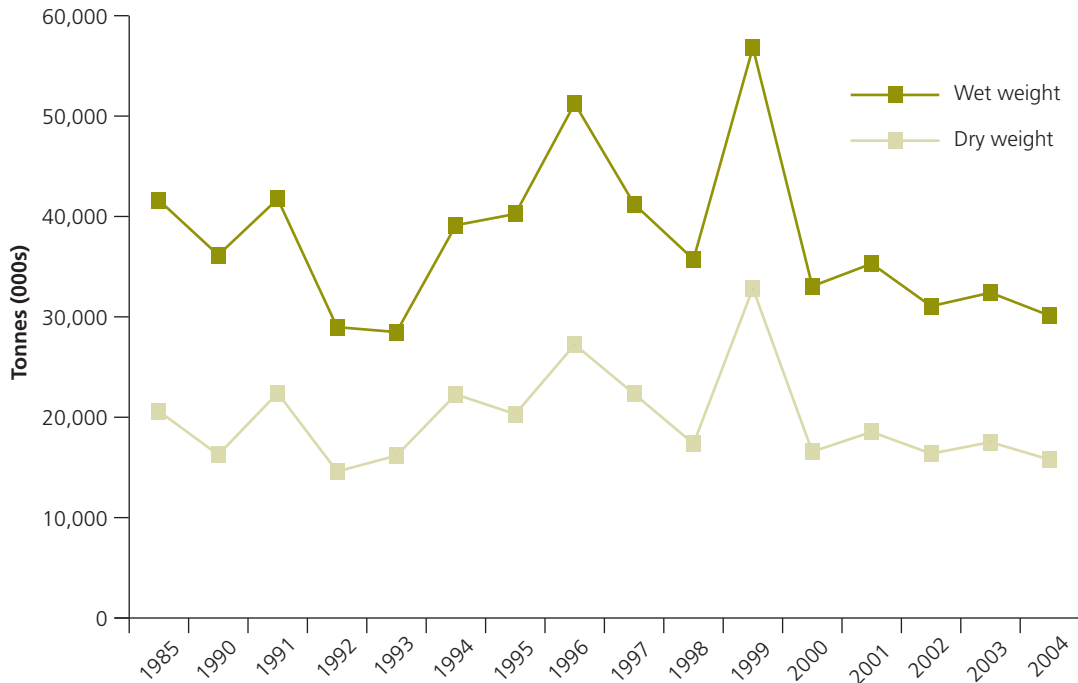
- radioactive wastes stopped at the end of 1982;
- industrial waste terminated at the end of 1992;
- colliery minestone ceased at the end of 1995;
- sewage sludge dumping was phased out during 1998; and
- incineration of waste at sea has not been permitted since 1990.

4. Waste licensed for marine disposal is now predominantly materials dredged at sea or within estuaries, primarily to excavate new or deeper navigational channels and berths or associated with construction projects (capital dredgings) or to remove sediment accretions to maintain navigational access (maintenance dredgings). Materials excavated during trenching operations to lay cables or pipelines or in connection with construction of, for example, foundations for wind turbines or bridge piers may also be permitted for disposal. In addition, small quantities of fish waste, comprising around 1,500 tonnes of clean crushed shell, have been authorised for disposal in recent years.

<sup>1</sup> Convention for the Protection of the Marine Environment of the North-East Atlantic. See <http://www.ospar.org/> for further information.

<sup>2</sup> London Convention (1972). Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (and 1996 Protocol). See <http://www.londonconvention.org/> for further information.

**Chart C7.1: Dredging waste deposited at marine disposal sites in the UK, 1985–2004**



Source: Centre for Environment, Fisheries and Aquaculture Science (CEFAS)

## Management routes

5. The deposit of articles and materials in the sea or under the seabed, including the disposal or recovery of wastes for use at sea is regulated under Part 2 of the Food and Environment Protection Act 1985 (FEPA).<sup>3</sup> This requires that a licence be obtained before any waste materials are disposed of or placed for any beneficial purpose from a vessel, vehicle or aircraft of marine structure in the sea below the level of mean high water spring tide. In determining whether or not to grant a licence, the licensing authority (the Secretary of State for Environment, Food and Rural Affairs) must have regard to safeguarding the marine environment, protecting human health, avoiding noise, nuisance and odours and minimising any interference to others using the sea.

6. In addition to a FEPA licence, consent from the Secretary of State is also required under Part II of the Coast Protection Act 1949 (CPA) where the disposal (or recovery) of waste in the sea or under the seabed may present a risk to the safety of navigation.

7. Some harbours and marinas have areas of sediments that contain legacy contaminants which can have a detrimental impact on the local marine environment if disturbed. Dealing with contaminated marine sediments, while protecting the marine environment and maintaining the functioning of industries such as harbours and marinas poses a particular challenge.

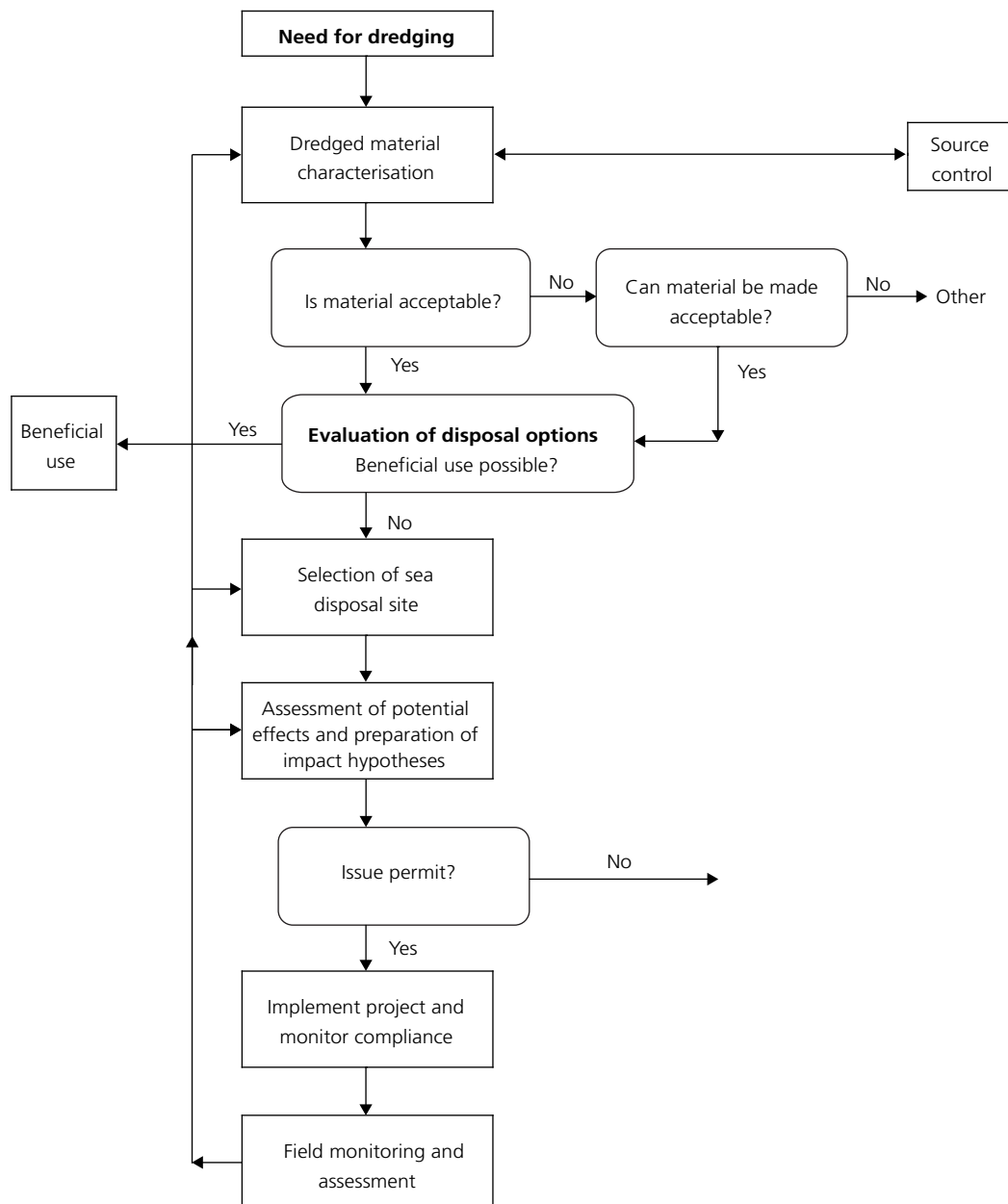
<sup>3</sup> FEPA is the statutory mechanism by which effect is given to compliance with the UK's obligations under both the OSPAR and London Conventions. The Act has also been amended by the Waste Management Regulations 1994 to give effect to the provisions of the Waste Framework Directive (2006/12/EC).

## Annex C7: Dredged material of marine/estuarine origin

8. It is Government policy that waste will only be permitted to be disposed of at sea after rigorous scientific assessment of its chemical and physical characteristics and its potential impact on the marine ecosystem.

9. Licences are not normally granted where practicable alternative means of disposal exist or the material is contaminated to a level unacceptable for sea disposal. Moreover, there is a presumption that materials to be dredged will be diverted into or recovered for alternative or beneficial uses, such as for construction use on land, soft-engineered coastal defences, nourishment of beaches or inter-tidal mudflat enhancement, rather than entering the waste stream. The generally accepted international guidance (London and OSPAR Conventions) for assessing dredged material for disposal at sea is outlined below in Figure 2. If an alternative use requires deposit in the sea, then a licence would be required before such use could be allowed.

**Figure C7.1: Steps to be considered in assessing applications for sea disposal permits<sup>4</sup>**



<sup>4</sup> See Appendix for a schematic guide to mitigation and beneficial uses for dredged materials.

### Policies and targets

10. Although the large majority of dredged materials are suitable for disposal in the marine environment, there are instances where sediments are encountered which, due to the legacy of previous activities, are too contaminated to be considered as appropriate for the normal disposal mechanisms.

11. The Government is working with stakeholders to build on its current procedures to develop a UK strategy for managing such contaminated marine sediments, the main focus of which will be on dredged materials. The main objectives of the strategy are to:

- provide a holistic, ecosystem-based structure within which practical management of dredged contaminated sediment can be achieved;
- promote objective, transparent assessment of all dredging and disposal options through the Best Practicable Environmental Option (BPEO), reflecting the scale and extent of contaminated marine sediments (CMS), including the implications and impacts on the environment;
- act as a focus for existing work and good practice (not to duplicate work being done elsewhere, e.g. the London and OSPAR Conventions, PIANC, Central Dredging Association, etc.) including investigating the need to have a contingency plan in place that will, for example, promote the requirement to have considered potential treatment and re-use options for CMS;
- define a simultaneous and inclusive consultation process rather than deciding on disposal solutions by approaching one regulator at a time;
- identify where regulations are preventing the BPEO being used and the risks imposed by the regulations on the marine environment and establish an understanding of the relevant regulations and their interpretation;
- define the nationwide scale of the problem and disposal solutions at sea, as well as beneficial uses and disposal options on land.

12. The ongoing development of the strategy is overseen by a steering group including representatives from stakeholders across government, industry and environmental organisations. Stakeholders will also be invited to participate and assist in working groups to take forward specific tasks that have been identified by the steering group.

### Implementation and timescales

13. The UK strategy is being developed through a number of project tasks. These are targeted for completion in 2010. Information and outputs from the strategy's development will be made available as they are produced.

### Roles and responsibilities

14. On 1 April 2007 the responsibilities of Defra's Marine Consents and Environment Unit (MCEU) to act on behalf of the Secretary of State as the licensing authority for disposal of waste at sea under FEPA and the CPA were integrated into the Marine and Fisheries Agency (MFA). The Agency is advised by the Department's marine scientists in the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) and consults with wide a range of external parties and stakeholders.

## Annex C7: Dredged material of marine/estuarine origin

15. Table C7.1 outlines the roles of some of the major parties who are included in consultations when determining whether to issue a licence for disposal at sea.

**Table C7.1: Roles and responsibilities**

Organisation/ Stakeholder	Roles and responsibilities
MFA	<ul style="list-style-type: none"><li>• Defra Agency Regulating marine works under the CPA and FEPA and providing fisheries advice</li></ul>
Ports industry	<ul style="list-style-type: none"><li>• Required to maintain safe navigation within their areas of operation and have a commercial interest in keeping navigational channels open</li></ul>
Trust/public ports	<ul style="list-style-type: none"><li>• Required to maintain safe navigation within their areas of operation on a charitable or public mandate</li></ul>
Marinas/small operations	<ul style="list-style-type: none"><li>• Dredging to keep berths operational for commercial reasons</li></ul>
CEFAS	<ul style="list-style-type: none"><li>• Defra Agency providing scientific advice</li></ul>
Other government departments including nature conservation agencies	<ul style="list-style-type: none"><li>• Provide scientific advice on impacts on wildlife and their habitats and information on impacts on other users of the sea</li></ul>

### Infrastructure and capacity needs

16. Waste considered suitable for disposal at sea is licensed to be deposited at the nearest site appropriate to receive both the quantity of material to be dumped and its physical characteristics, which largely determines the pattern of dispersion. A licence will commonly include conditions requiring the holder to provide the licensing authority with regular bathymetric and other data to assess the remaining capacity of the site. Should a site not be available at a reasonable distance, it will be necessary to investigate potential locations for establishing a new site for which a licence applicant will be required to provide supporting data to inform an environmental impact assessment.

17. Dredged materials are increasingly recognised as having a value in their own right, for example sands and gravels for which uses may readily be found in coastal defences, beach nourishment or other commercial use. Likewise, the retention of more silty sediments within the coastal sediment cell may play a vital role in mitigating the impact of sea level rise associated with climate change and isostatic readjustment. Frequently, clean sediments may be placed directly or through reintroduction to the water column such that they mitigate the loss of intertidal areas, particularly those designated as conservation sites. The licensing authority proactively encourages those expecting to produce such materials from forthcoming dredging operations to consult as early as possible with others who may be able to utilise them. With suitable planning this can offer benefits to both parties while significantly reducing the discard of waste to offshore sites.

## References and other information

### **The Marine and Fisheries Agency**

[www.mfa.gov.uk](http://www.mfa.gov.uk)

### **Centre for Environment, Fisheries and Aquaculture Science (CEFAS)**

[www.cefasc.co.uk](http://www.cefasc.co.uk)

### **International Conventions**

[www.ospar.org](http://www.ospar.org) (OSPAR)

[www.londonconvention.org/](http://www.londonconvention.org/) (London Convention)

### **Industry Associations**

[www.dredging.org/](http://www.dredging.org/) (Central Dredging Association)

[www.pianc.org.uk/](http://www.pianc.org.uk/) (The International Navigation Association)

# Annex C7: Dredged material of marine/estuarine origin

## Appendix

### Schematic guide to mitigation and beneficial uses for dredged materials

