



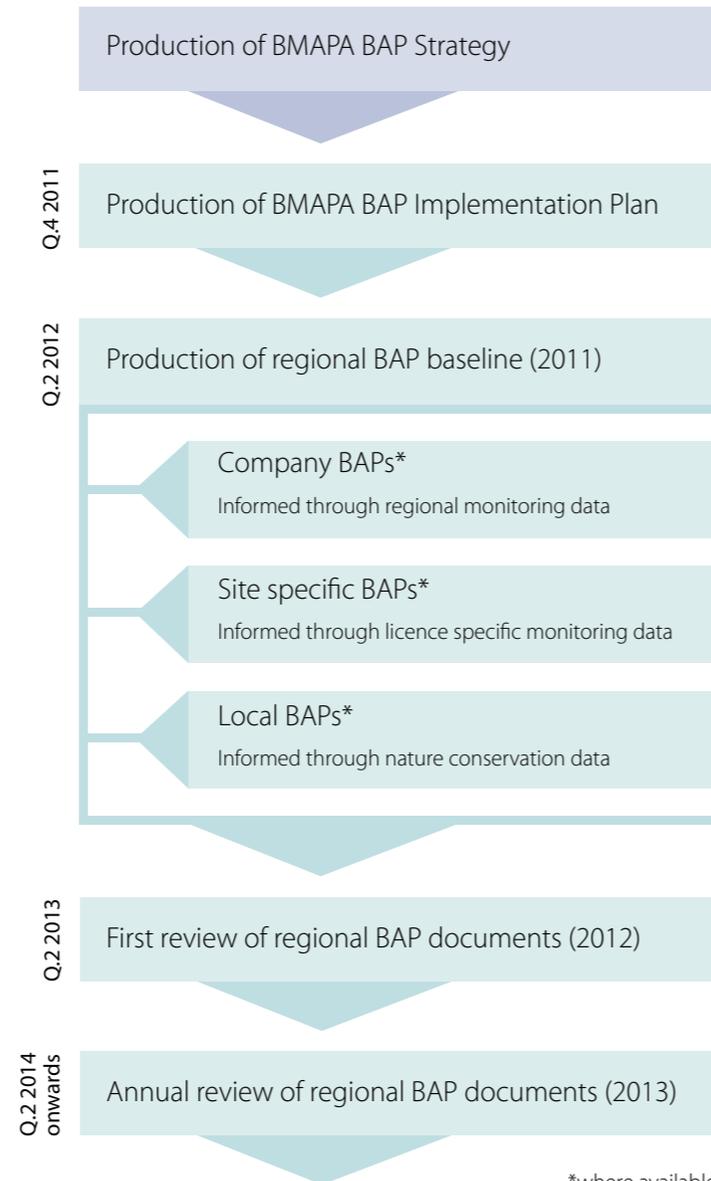
Biodiversity Action Plan (BAP)

for the UK marine aggregate industry

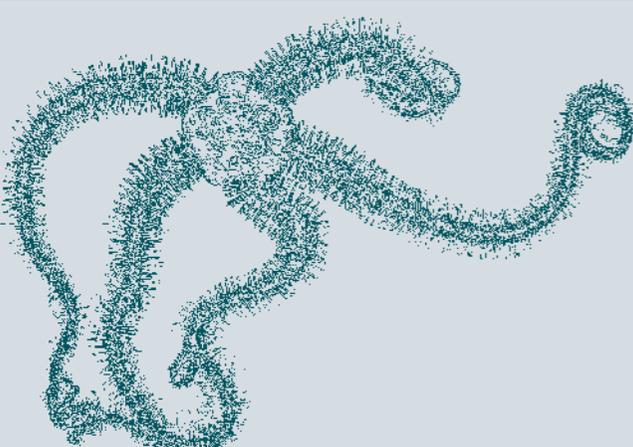
a summary

As an industry that is responsible for managing a significant portion of the UK seabed, the marine aggregate sector recognises that it has an important role to play in protecting the biodiversity of the sea around our shores. The British Marine Aggregate Producers Association (BMAPA) is the trade association for the marine aggregate industry in the UK, representing eleven members who between them supply around 90 per cent of the marine sand and gravel produced from our waters. The sector already has a well established sustainable development strategy and is now setting out a Biodiversity Action Plan (BAP) that will sit at its heart. This document is a brief summary of BMAPA's BAP strategy and the plans to deliver it. The full documents, together with the baseline figures and reviews that will follow can all be accessed from our website www.bmapa.org

The process



*where available



Forewords

Maintaining a steady supply of marine aggregate is essential to our way of life. The challenge is to harness the substantial resource that exists around our shores while protecting all that is best about our marine environment.

There has been a seismic shift in our understanding of the effects of marine aggregate extraction, enabled through a range of industry investigations and assessments, as well as wider research initiatives. The resulting improvements in evidence and understanding have in turn allowed more robust measures to be developed to manage and mitigate the pressures created by extraction. The enhanced levels of understanding that have resulted, particularly in terms of marine habitats and their distribution, have made a significant contribution to the ongoing development of the national Marine Protected Area network.

This strategy represents an important part of our wider commitment to sustainable development. Through our BAP, we hope to demonstrate the positive contribution the sector can make towards protecting and enhancing biodiversity. This should be achieved not only through the responsible management and stewardship of the areas where we operate, but also through the improved understanding made possible by the high quality survey data we acquire.

Kevin Seaman, Chairman, BMAPA



Marine aggregate producers have long been at the forefront of efforts to achieve better understanding of marine biodiversity. Our knowledge of the species and habitats in the seas around England has increased significantly in the last few years, in no small part due to evidence provided by the sector. This has allowed designation of marine protected areas (MPAs) to proceed in partnership with development of aggregate extraction activity. Implementation of the BMAPA BAP is a logical next step to progress the core values of sustainable development for the sector. By linking the BAP to the wider sustainability goals of its members, BMAPA will ensure that suitable and

appropriate information can be used to manage operations and be provided to other seabed users, regulators, other relevant authorities and advisers. Marine aggregate producers are leading the way in demonstrating marine environmental stewardship.

James Marsden, Director Marine, Natural England



The Wildlife Trusts believe that the seas around the UK have the potential to be among the most productive and wildlife-rich on Earth. Sustainable use of our seas resources is vital if our seas are to recover from past declines.

This means development at sea that has minimal impacts on wildlife and habitats. We welcome the development of Biodiversity Action Plans by the marine aggregates industry and hope they will help the industry to minimise

the impacts from aggregates extraction whilst helping to increase our knowledge of marine habitats.

Stephanie Hilbourne, Chief Executive, The Wildlife Trust



Our aims

The BMAPA BAP aims not just to protect and enhance marine biodiversity but to put in place a structure which ensures that its members deal with the many issues robustly and consistently. At a time when renewal of dredging licences is important, it will also help to ensure that regulators and those who advise them receive more robust and consistent information that enables them to make informed, balanced judgements.

The BAP is intended to complement other BMAPA sustainability initiatives that: report on the area dredged over previous years (produced with The Crown Estate); chart active dredge areas for the benefit of fishermen in particular; and ensure archaeology discovered on the seabed is properly reported.

The BMAPA BAP has been developed to dovetail with wider biodiversity initiatives covering the UK as a whole plus those specifically for England and Wales. It also works in tandem with internationally and nationally recognised designations such as Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Sites of Special Scientific Interest (SSSIs), as well as the forthcoming network of Marine Conservation Zones.

The guiding principles that underpin the strategy include:

- Ensuring that BMAPA members work to a common biodiversity framework
- Describing the potential effects of marine aggregate dredging on biodiversity
- Defining priority species and habitats that may be affected
- Identifying operational best practice for mitigation and promoting benefits
- Formalising a reporting and review process.

Understanding the effects of our work

The environmental effects of marine aggregate extraction have been extensively studied over the past two decades and there is now a robust understanding of the nature of impacts, and in particular their scale, significance and longevity. The effects are essentially physical and biological, and may be positive as well as negative.

Physical impacts may result, for example, from removal of the surface of the seabed, increases in water depth and deposition of fine sediment. Changes in water depth can in turn affect tides and currents at a local scale and, therefore, the types of habitats and their associated species that may be present. Other effects may result from noise and vibration and from sediment returned to the seabed after on-board processing.

Biological effects generally result from physical changes and may include a reduction in numbers of some species and in food for fish and shellfish. There might also be a reduction in spawning and nursery grounds, while marine mammals and birds may be displaced.

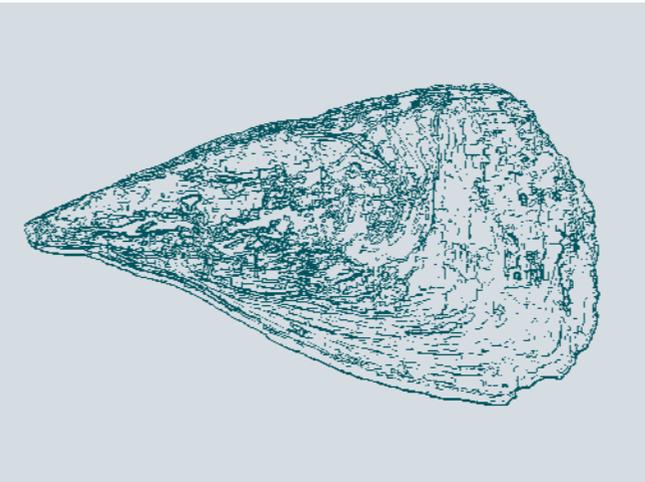
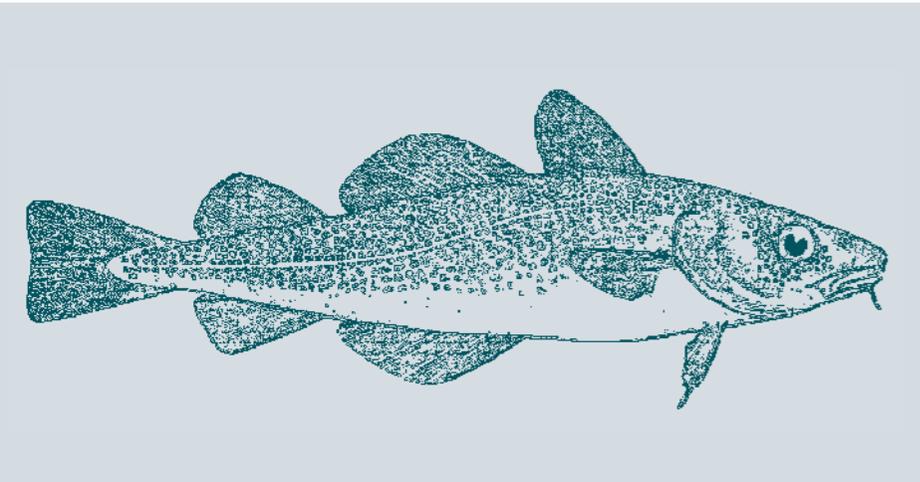
It is through understanding all these potential effects that operators can consider appropriate mitigation and future action. Regular surveys, for example, can ensure that sediment similar to that which existed before dredging took place remains to encourage re-colonisation. The area of

seabed dredged can be managed to minimise the area of seabed directly impacted by extraction, while on-board screening can be minimised to reduce the scale and extent of indirect impacts.

Habitats and species

Identifying priority species and habitats is a key element of the BMAPA BAP. Habitats affected by dredging vary around the shores of the UK. Sand is the main target in the Irish Sea, Bristol Channel and Severn Estuary; fluviially derived gravel and sand are sought in the eastern English Channel, Thames estuary and off East Anglia; glacio-fluvial sediments of gravel and sand prevail in the Humber region.

The BMAPA BAP list of priority habitats and species has been built using references provided by statutory nature conservation advisers. To date, the main list covers six broad habitats and, within them, a total of 28 priority habitats ranging from coastal saltmarsh to deep-sea sponge communities. In addition, the *Marine Protected Area* project and *Natura 2000* identified further species and habitats, all of which are listed in the BAP.



Action

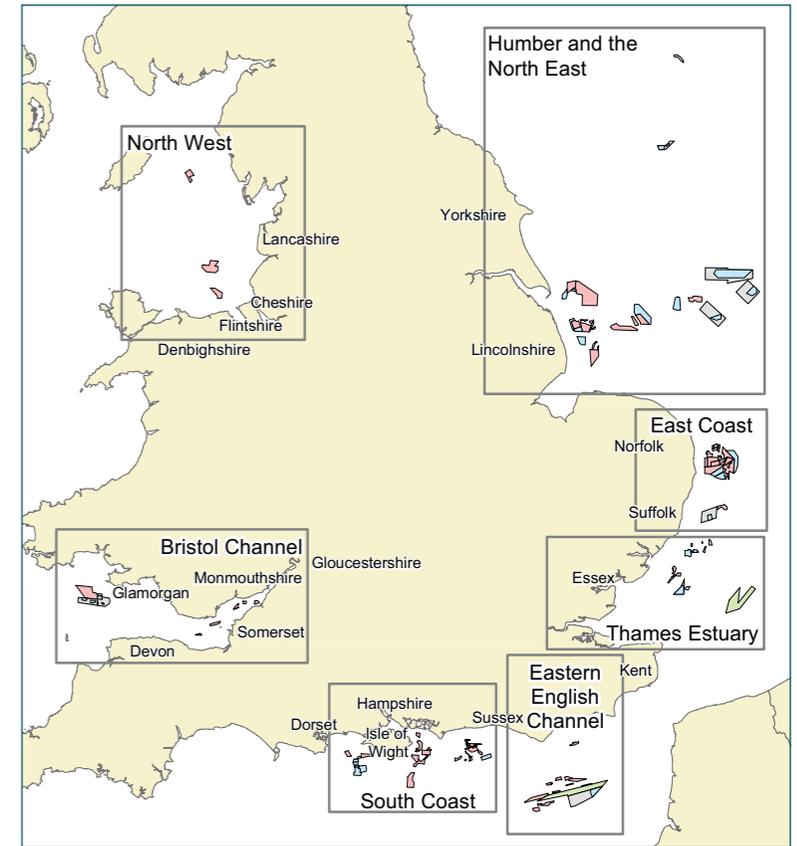
Based on the priority species and habitats, the BAP defines a series of aims, supporting activities and actions for each, which include common mitigation measures for marine aggregate extraction. An extract is presented here:

Taxon	Aim	Supporting Activities	Action
bony fish	No significant adverse affect on populations and life cycles of bony fish species identified by the UK BAP during the extraction of marine aggregates.	Minimise the direct impact of dredging activities on bony fish identified by the UK BAP.	Minimise the spatial footprint of dredging operations through responsible and effective management and minimise the screening activity in the production process.
		Minimise the impact of dredging activities on potential bony fish spawning sites identified by the UK BAP.	Minimise the spatial footprint of dredging operations through responsible and effective management and minimise the screening activity in the production process.
		Map impact areas and potential spawning habitats from available data and ensure that regional spawning grounds for identified fish species are not adversely affected by marine aggregate extraction.	Minimise the spatial footprint of dredging operations through responsible and effective management and minimise the screening activity in the production process.
cnidarian	No significant adverse affect on populations and life cycles of cnidarian identified by the UK BAP during the extraction of marine aggregates.	Map the extent of regional populations of cnidarian species identified by the UK BAP from available data sources and minimise the effects of marine aggregate extraction on cnidarian populations and life cycle.	Minimise the spatial footprint of dredging operations through responsible and effective management and minimise the screening activity in the production process.
crustacean	No significant adverse affect on populations and life cycles of crustacean identified by the UK BAP during the extraction of marine aggregates.	Map the extent of regional populations of crustacean species identified by the UK BAP from available data sources and where overlaps exist, minimise the effects of marine aggregate extraction on crustacean populations and life cycle.	Minimise the spatial footprint of dredging operations through responsible and effective management and minimise the screening activity in the production process.

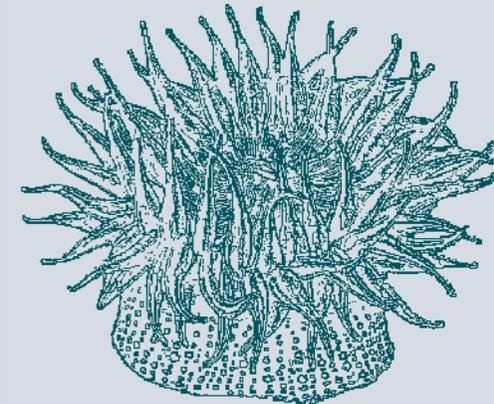
Regional and local action

While the BAP sets out high level aims for the UK as a whole, it also provides for more specific aims, actions and targets for each of the seven dredging regions around the English and Welsh shorelines. A great deal of further data collection and analysis is now required to assess which of the UK BAP habitats and species exist within each aggregate producing region as defined in the map shown here.

We will also be cross referencing our own work with that already being undertaken in the network of local BAPs in relevant coastal areas. For example, our work in the Humber and North East dredging region will complement local BAPs in Yorkshire and Lincolnshire. The overall gain in knowledge could be considerable.



The BAP Strategy and associated implementation plan has been produced by BMAPA in conjunction with MarineSpace Limited.





Reporting and review

BMAPA will report on its BAP on an annual basis, with the various tables being updated, and revised targets set as appropriate. You can view the BAP strategy and implementation plan on our website at www.bmapa.org. The baseline report and subsequent annual reports will be added to the website as they are produced.

Your comments

The BMAPA BAP is intended as a series of “living documents” that are regularly updated in line with new data and revised targets as a result of what we learn from delivering and implementing this process. It is an initiative that will benefit greatly from the interest and involvement of spectators, so do please send us your comments and suggestions.



essential materials
sustainable solutions

The British Marine Aggregate Producers Association is part of the Mineral Products Association, the trade association for the aggregates, asphalt, cement, concrete, lime, mortar and silica sand industries

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