

Regulator Assessment: Qualifying Regulatory Provisions

Title of proposal	Improvements to marine licensing - Regional Seabed Monitoring Plan for benthic ecology
Lead Regulator	Marine Management Organisation
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Date of assessment	April 2017
Commencement date	2016
Origin	Domestic
Does this include implementation of a Cutting Red Tape review?	No
Which areas of the UK will be affected?	The English marine area.

Brief outline of proposed new or amended regulatory activity

The Marine and Coastal Access Act 2009, provides the regulatory framework for determining marine licences. The MMO has co-funded a project with Defra, Natural Resources Wales, the Crown Estate and the British Marine Aggregate Producers Association to develop Regional Seabed Monitoring Plans (RSMP) for the Aggregates Industry. This RSMP covers 60 Licence areas across the five major English aggregate dredging regions (Humber, East Coast, Thames, Eastern English Channel and South Coast). The RSMP assess changes in seabed sediment composition in aggregate dredge sites and will be used by the MMO and marine aggregate industry to fulfil site specific marine licence monitoring requirements for benthic ecology and seabed recovery.

Prior to the development of the RSMPs, each aggregate dredging licence holder was required to monitor their environmental impacts of their activity on Benthic Ecology. This required expensive benthic sampling and analysis to be undertaken and was undertaken at a site specific level. The approach applied under the RSMP will mean that licence holders can use less expensive sampling methods and analysis, which will provide a higher quality of data and their monitoring can be co-ordinated at regional level, reducing duplication of effort.

Which type of business will be affected? How many are estimated to be affected?

This change will affect businesses in the aggregate dredging sector, totalling 11 operators who operate in English Waters. The change will be positive for businesses, allowing them to co-ordinate their monitoring requirements, reducing survey effort, analysis and costs, as well as simplifying and phasing reporting, which will spread time, effort and cost over time.

Summary of costs and benefits						
Price base year	Implementation date	Duration of policy (years)	Net Present Value	Business Net Present Value	Net cost to business (EANDCB)	BIT score
2015	2016	10	3.27	3.27	-0.4	-2.0

Please set out the impact to business clearly with a breakdown of costs and benefits

The following figures have been calculated using estimates provided from MMO, Defra and businesses.

Benefits

- Licence Monitoring fees saving

Marine licences will often include conditions that the licence holder must comply with when undertaking their licensable activity. Complex activities will often need specific monitoring requirements included as conditions in the marine licence that the licence holder will need to submit to the MMO. Where a marine licence includes these conditions, the licence holder will be charged by the MMO when that report is assessed.

Because of the complexity with aggregate licences, both the MMO and the Government's scientific research and advisory centre for fisheries management, environmental protection and aquaculture (Cefas) assesses monitoring reports associated with aggregate licences. This assessment is a chargeable service and the licence holder will be charged for MMO time at the hourly rate of £94 and the CEFAS time at an hourly rate of £86. It follows that the longer and more complex the monitoring report is, the more it will cost the licence holder to demonstrate compliance with the marine licence. Initiatives that can reduce the number of monitoring reports required and the effort needed to produce and assess them, will result in significant savings.

The benefit to the MMO would be in assessing more meaningful monitoring results and reducing its regulatory burden, whilst the industry stands to benefit through more robust monitoring results and reduced costs from aligning monitoring and survey schedules across potentially 60 licence areas over the period of the 15 year marine licences.

Before this change:

- Average number of aggregate benthic ecology monitoring reports each year = 12
- Estimated average number of MMO hours to assess a monitoring report = 7
- Estimated average number of Cefas hours to assess a monitoring report = 15
- MMO hourly cost = £94
- Cefas hourly cost £86

Over a 10 year period under the old model, this means that the cost to industry for the MMO and Cefas to undertake assessments is estimated at:

12 monitoring reports x ((7 MMO hours @ £94) + (15 Cefas hours @ £86)) x 10 years = £233,760 of fees paid
(Equivalent to £23,376 of fees paid each year).

After the implementation of this change:

- Average number of aggregate benthic ecology monitoring reports each year = 12
- Estimated average number of MMO hours to assess a monitoring report = 4
- Estimated average number of Cefas hours to assess a monitoring report = 7
- MMO hourly cost = £94

- Cefas hourly cost £86

Over a 10 year period under the new model, this means that the cost to industry for the MMO and Cefas to undertake assessments is estimated at:

12 monitoring reports x ((4 MMO hours @ £94) + (7 Cefas hours @ £86)) x 10 years =
£117,360 of fees paid
(Equivalent to £11,736 of fees paid each year).

Fees saving: £233,760 - £117,360 = £116,400 over 10 years
(Equivalent to annual savings of **£11,640** in fees paid)

- Administration saving to industry when producing monitoring reports

Before the RSMP adoption the industry has estimated¹ the traditional approach and cost of producing monitoring reports across the 60 licence areas before the RSMP of £773,000 per year

- Number of licence areas which need reports = 60
- Estimated annual cost of producing monitoring reports = £773,000

Over a 10 year period under the old model, this means that the cost to industry for producing monitoring reports is estimated at:

10 years x Monitoring reports @ £773,000 per year = £7.73m over 10 years
(and £11.6m over 15 years)

After RSMP implementation the Industry have estimated that change will save them £400,000 per year in monitoring costs over 15 years and this represents around a 50% savings on the traditional approach. Based on that estimate the following information can be surmised:

- Number of licence areas which need reports = 60
- Estimated annual cost of producing reports = £373,000 (£773,000 - £400,000)

Over a 10 year period under the new model, this means that the cost to industry for producing monitoring reports is estimated at:

10 years x Monitoring reports @ £373,000 per year = £3.73m over 10 years
(and £5.595m over 15 years)

Administration saving to industry: £7.73m - £3.73m = £4m over 10 years
(Equivalent to annual savings of **£400,000** in administrative costs)

Costs

Familiarisation cost – Because industry have participated in the development of the RSMPs and the data within the RSMPs will be accessible for use, we do not believe there will be any familiarisation costs with this change.

¹ Information from the “Cost/Benefit Statement on behalf of the marine aggregate sector” document – Annex 1

Transitional costs (e.g. changes to systems, training) -

There will be some initial transitional costs, as each licence area in each region will need to be assessed, to see how it can be aligned with the regional monitoring approach; and the licence conditions will need to be varied to capture the regional monitoring requirements.

The alignment of regional monitoring has already been trialled on the South Coast and cost the 7 licence holders operating in that region £4,000.

Therefore, to apply this approach to the other 4 regions would cost approximately: $4 \times £4,000 = £16,000$.

The variation of the existing licences to capture the regional monitoring requirements would be processed by variation, currently attracting a £200 fee paid upfront as set out by the MMOs statutory fees and charges². For all 60 licences in all 5 regions this would equate to: $60 \times 200 = £12,000$

Total costs = **£32,000**

Summary of calculations

Annual Benefits

Licence Monitoring fees saving = £11,640

Administration saving to industry for producing monitoring reports = £400,000

Total Benefits = **£411,640**

Annual Costs

Familiarisation Costs = £0

Transitional Costs = £32,000 (one off cost across 60 licences)

Total Costs = **£32,000**

Net Savings to Business = £379,640

² <http://www.legislation.gov.uk/uksi/2014/2555/contents>

Please provide any additional information (if required) that may assist the RPC to validate the BIT Score

In addition to the quantitative costs and benefits calculated above, we have been unable to quantify the following additional likely benefits:

Processing of reports for consultation: All the regional monitoring reports will likely be submitted at the same time, therefore the distribution of the reports for consultation can be undertaken all at once under one consultation, reducing any duplication of effort.

Review of reports: As all the reports will be received and consulted on at the same time, it means that the reports can all be reviewed at the same time, providing a contextual picture of the region rather than at a site specific level. This will reduce the need to cross reference between reports, making the review process more efficient and will also allow the source of impacts to be identified more easily.

Consistent Methods: Undertaking survey effort, analysis and reporting at the same time ensures that consistent methods are used across the board; ensuring data is undertaken to an industry wide standard and is comparable. This should reduce issues with the standard of reporting and remove the requirement to undertake additional work.

Resource management and workload forecasting: The regional monitoring approach allows workloads to be easily forecasted, as reporting for each region will already set and phased to control the volume of work being undertaken by licence holders and submitted to regulators and advisers, therefore reducing the impact on available resource.

MARINE AGGREGATE REGIONAL SEABED MONITORING PLANS (RSMP)

Cost/Benefit Statement on behalf of the marine aggregate sector

Background

Marine aggregate operators have increasingly been required to undertake marine surveys to monitor seabed benthos and sediments to fulfil the compliance conditions attached to site specific marine licences. Typically these surveys would be designed and commissioned by individual industry operators in consultation with regulators and advisors at a licence specific scale. Given the proximity of many marine licence areas to one another, this approach resulted in considerable duplication of time and effort by all parties involved in the process. This duplication of effort was also reflected in the costs expended by industry to undertake such work, as a consequence of multiple surveys being commissioned to acquire data from adjacent sites.

Introduction of Regional Seabed Monitoring Plans

In 2014, the marine aggregate industry commissioned a series of Regional Seabed Monitoring Plans (RSMP) to determine the baseline environmental conditions across five geographic regions; the Humber, the Anglian, the Outer Thames, the Eastern English Channel and the South coast.

These works were undertaken to fulfil the seabed sampling conditions attached to marine licences for marine aggregate extraction issued by the Marine Management Organisation (MMO) from 2013 onwards. Additionally, marine aggregate operators chose to apply this new approach to a number of existing marine aggregate licence and application areas that were present in each region. In total the RSMP programme applies to over 60 marine aggregate production licence and application areas operated by 10 operating companies, and has required seabed data to be collected from 3,500 sample stations.

In each case, the scope and specification for each regional baseline survey commissioned was defined by Cefas (the scientific advisor to MMO) under a research project co-funded by the marine aggregate industry, The Crown Estate, Defra and the MMO. The scope and specification for each regional baseline survey was also approved by the other statutory advisors to the MMO (Natural England, JNCC and English Heritage).

The RSMP concept builds on the findings of previous research funded through a range of sources, including the Marine Aggregate Levy Sustainability Fund. The evidence and understanding around the impacts associated with marine aggregate extraction from this wider research effort has allowed the compliance requirements to shift towards the conditions necessary for the marine environment to recover once production operations have ended. In turn, this has led to monitoring effort moving away from the traditional analysis of benthic communities, to instead focus more upon changes in seabed sediment type over time.

For each region, a baseline array of sample stations focussing on primary and secondary impact zones of the licence/application areas being surveyed has been defined, together with a supporting array of regional context sample stations and regional reference areas.

Industry Cost/Benefit Statement

The RSMP approach is intended to apply across the full term of all marine aggregate production licences for which data has been acquired – typically 15 years. This will typically require follow-up interval RSMP surveys to be commissioned around 2018, 2023 and 2028 to inform the substantive reviews for site specific marine licences undertaken by regulators every 5 years. The RSMP approach is also intended to apply to any new licence areas that may be permitted in each of the five geographic regions during this period.

The integrated approach used to define each regional array allows individual sample stations to apply across multiple licence areas, therefore reducing duplication of sampling effort. This approach also increases the robustness and consistency of the baseline data that is being acquired, and any monitoring data obtained thereafter.

The principle cost/benefit savings derived through this new approach arise through a combination of factors:

- i. ***Reduction in benthic analysis costs*** - The analysis of benthic samples represents one of the single largest cost components of a monitoring survey – with benthic analysis typically costing between £400-500 per sample. Although there is a significant upfront cost to industry obtaining the benthic samples required to define a set of baseline conditions, the subsequent compliance surveys required through the remainder of the term of a marine licence will principally focus on sediments alone. Particle size analysis (PSA) of sediments typically cost c.80-90% less than benthic analysis.
- ii. ***Reduction in number of sample stations*** – The regional scale sampling array has been designed to take into account the direct and indirect impact footprints from all of the licence and application areas that are present. Due to their proximity to one another, these can often overlap with one another – therefore an individual RSMP sample station can fulfil a function for multiple licence areas, reducing the total number of sample stations required. This reduces survey time, weather risk and analysis costs.
- iii. ***Reduction in reference and context stations*** – The regional approach has allowed a standard set of reference and context stations to be defined for each region, which all individual licence areas are able to draw upon. Previously, these data had to be defined for each licence area (or group of licence areas) being covered by a licence area. Again, this reduces survey time, weather risk and analysis costs.
- iv. ***Reduction in survey costs*** – By commissioning a single regional survey rather than multiple site specific surveys, savings are realised by reducing the number of costs associated with mobilisation and general management. A larger survey also enables economies of scale to be realised when booking vessel time.

- v. ***Simplified reporting*** – the development of Thresholds of Acceptable Change from the baseline survey data should significantly simplify the time, effort and cost associated with reporting subsequent compliance surveys.

A number of these factors were already being developed to a degree by individual operators/groups of operators, such as sharing reference stations and designing surveys that covered multiple licence areas. Consequently it is almost impossible to assign the costs savings that will be solely realised through the adoption of the RSMP programme for each of these components.

Nevertheless it is possible to quantify the total savings made possible through the adoption of the RSMP programme. Scaled across 60 licence areas, it is estimated that the total cost to industry to deliver the lifetime RSMP benthic/sediment compliance monitoring requirements over a 15 year term will be c.£5.8 million. This represents a 50% saving over the estimated costs for delivering the same requirements under the traditional compliance methodology for benthic monitoring.

There will also be further significant savings in time, effort and resources to industry operators, regulators and advisors that arise from the more coordinated approach to compliance monitoring delivered through the RSMP programme. These though have not been quantified

Wider Cost/Benefit Implications

The regional scale of the data being acquired offers the potential for significant added value, by contributing to other marine monitoring requirements associated with the network of marine protected areas, marine planning and the requirements of the Marine Strategy Framework Directive.

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