

Section 2

ECA Biodiversity Action Plan

2. ECA Biodiversity Action Plan

The following section provides basis for management of the ECA's activities in the ECR with reference to the biodiversity and conservation interests in the region.

Box 9 *ECA Biodiversity Statement*

- In accordance with the advice of the JNCC, the ECA wishes to ensure that the habitats and species listed in the Statutory Nature Conservation Advice are not significantly impacted by aggregate extraction operations.
- In agreement with Defra's Framework (Defra, 2004) for Aggregate Dredging in the ECR, the ECA will at all times employ a precautionary approach to nature conservation issues.
- The ECA acknowledge that while understanding of the habitats and species that exist in the ECR is better than the majority of the UK continental shelf, it is relatively limited in detail.
- The ECA concur that whilst survey data from individual application contribute to the regional understanding of habitats and species in the ECR, further regionally planned surveying and mapping of the region is necessary to allow the significance of the effects of dredging to be assessed.

2.1. The National and International Context

In recent years, biodiversity management, spatial planning and integrated environmental management, have become recognised as important techniques of the ecosystem approach to management and sustainable development in the UK.

During the UN Conference on Environment and Development in 1992, the UK noted the importance of sustainable development and signed up to Agenda 21 and the Biodiversity Convention. The Government subsequently published Sustainable Development - A UK Strategy (1994) and Biodiversity - the UK Action Plan (UKBAP, 1994).

Further development of these initiatives now ensure that UK national policy dictates the need to promote, protect and enhance biodiversity through developments to meet the needs of the present without compromising the ability of future generations to meet their own needs.

Box 10 UK Approach to Maintaining Biodiversity

The UK Strategy promotes a sustainable approach to maintaining biodiversity through three key objectives for the protection of wildlife and habitats:

- **To conserve, as far as is possible, the wide variety of species of flora and fauna found in the UK, particularly those populations that are of international significance**
- **To ensure that the UK's objectives in landscape and wildlife conservation are given full weight in policies for other sectors;**
- **To ensure that commercially exploited species, and ecosystems resources in general, are managed in a sustainable way.**

In pursuit of these objectives, the UKBAP provides targets for the protection and enhancement of habitats and species populations. These are, in turn, translated into specific targets through action plans for species and habitats at the local level (see www.ukbap.org.uk).

In addition to the objectives of the UKBAP, the EU Habitats Directive seeks to provide protection for European species and habitats of conservation significance. The Habitats Directive lists specific habitats and species that are protected under the terms of the law. Since the Habitats Directive was first implemented there have been amendments that require EU member states to apply its terms to the marine environment.

As such, the UK, through Defra and the Joint Nature Conservation Committee (JNCC), English Nature (EN) and other statutory nature conservation bodies has sought to apply the Habitats Directive to the marine environment under the terms of Offshore Natura 2000. The project seeks to protect offshore sites of conservation significance and provide a clear framework under which sites can be monitored, managed and protected.

In addition to the guidance provided by the UKBAP and the requirements of the Habitats Directive, the OSPAR Convention also provides information on commitments for signatories to consider threatened and/or declining species and habitats under Annex V.

Statutory advice on management of conservation and biodiversity interests in the ECR has been provided by the JNCC (2004) and is included in **Annex 4**. The advice provides specific guidance to the ECA regarding the relevant legislation and also the species and habitats that require consideration in management of activities in the ECR.

In addition the statutory advice provided in **Annex 4** relevant ECR conservation species and habitats are summarised below.

The UKBAP

The UKBAP provides action plans for priority habitats and species identified as being of importance in the management of biodiversity conservation. Habitats and species listed on the UKBAP website that may possibly be found in the ECR are shown below.

Box 11 *UK Biodiversity Habitat Plans*

Habitats listed under the UKBAP that may be relevant to biodiversity conservation management in the ECR:

- **Sublittoral sands and gravels**
- ***Sabellaria spinulosa* reef**
- **Modiolus beds**

Whilst not specifically referred to in the UKBAP, brittlestar beds have recently been identified as a habitat that may require consideration in biodiversity management plans.

Box 12 *UK Biodiversity Species Plans*

Species listed under the UKBAP that may be relevant to biodiversity conservation management in the ECR:

- **Skate**
- **Harbour porpoise & Bottlenose dolphin**
- **Basking shark**
- **Pink sea-fan**

Box 13 *UK Biodiversity Grouped Species Plans*

Grouped species plans provided by the UKBAP that may be relevant to biodiversity conservation management in the ECR

- **Commercial marine fish**
- **Small dolphins**

The ECR BAP will refer specifically to the habitats, species, and grouped species listed above.

In addition to those species already listed under the UKBAP, the JNCC and other nature conservation bodies are currently undertaking a review of the species and habitats listed. The context of the ECR BAP may change depending on the outcome of this review.

The Habitats Directive

The Habitats Directive identifies specific habitats and species that qualify for protection under EU law. The habitats and species identified in the Habitats Directive that may be relevant to biodiversity and conservation management of activities in the ECR are shown below.

Box 14 Habitats Directive relevant Habitats

- *Sabellaria spinulosa* and other biogenic reef
- Sandbanks partially covered by seawater at all times
- Bedrock/cobble/boulder reef

2.2. The Regional Conservation Context

A comprehensive description of the Eastern Channel, its physical environment, habitats and species was provided in the Eastern Channel REA and is also provided by English Nature in their report of the East Channel Marine Natural Area (Jones *et al*, 2004). The habitats and species, noted in conservation directives and guidance, that occur in the area where dredging applications are being pursued, can be summarised as follows.

2.2.1. Regional Conservation Habitats

The benthic habitats of the Eastern Channel Marine Natural Area are defined primarily by the seabed substrate. Within the region as a whole, a wide variety of seabed types are present, ranging from the fine muds of low-energy areas to bedrock exposures of sandstone, limestone, chalk and mudstone.

In general, the nearshore seabed is an assortment of mixed sediments (especially gravel and shells) with sand and, in sheltered locations, mud. Large areas of sand and gravel are present further offshore. Where mixed sediments are consolidated and stable, an associated fauna more characteristic of rocky areas can develop. Biogenic reefs formed of *Sabellaria spinulosa* may be present within the region.

The seabed of the ECR dredging application areas is almost entirely composed of mixed sand and gravel sediments. In some areas to the west of the ECR, the seabed is composed of cobble dominated sediments that may constitute reef. To the east of the dredging application areas the seabed becomes progressively more sandy and some sandbank features exist. Areas of outcropping and subcropping chalk substrate are present within the wider region although not within the immediate vicinity of the application areas. Whilst boulders have been noted on the seabed in the region, it is not thought that their concentration or distribution constitute formations that could be described as reef.

2.2.2. Regional Conservation Species

Important species may occur within the region, including bottlenose dolphin and harbour porpoise, in the western part in particular. These species are covered by UK Action Plans. There are populations of commercial marine fish within the region as a whole for which a grouped SAP also exists. There is also a Species Action Plan for harbour porpoise. Other BAP species which may occur within the region include basking sharks and other shark and ray species may also be present.

2.3. Habitats and Species within the East Channel Region Dredging Permission Areas

2.3.1. Baseline Understanding

As part of the process for the East Channel aggregate extraction applications baseline surveys of the seabed and associated benthic flora and fauna have been carried out by the applicant companies. The findings of these baseline studies, and subsequent technical reports, have been used as a basis to describe the current biotopes, habitats and species that exist in the region.

The area to which this ECA Biodiversity Action Plan relates is shown in **Figure 1**.

The first stage of the ECA BAP process will be to provide an audit of the species habitats and physical environment and completion of a priority list. The priority list will identify High, Medium and Low priority species and habitats:

High Priority

Those species and habitats identified as being of prime importance to the health and productivity of the region (see Conservation Advice) and the regions biodiversity and that may be threatened by unmanaged activities in the Eastern Channel.

Medium Priority

Those species and habitats that contribute to the health, biodiversity and productivity of the region and may require protection but are not considered as common or anticipated to be under direct threat from activities in the Eastern Channel Region.

Low Priority

Those species that, whilst potentially present in the ECR, do not contribute significantly to the biodiversity of the region (or that may only be infrequent visitors) but which may require protection in the future and should be considered from the outset.

2.3.2. Key ECR Biodiversity Habitats and Species

As stated above in the general description of the ECR, the dredging application areas are principally characterised by sublittoral sands and gravels. Surveys of application areas have allowed MNCR biotope classifications to be ascribed to areas of seabed.

As per the statutory nature conservation advice (**Annex 4**) and following review of baseline habitat survey information from the proposed dredging permission areas the following high and medium priority habitats and species have been identified for consideration in the first instance.

Box 15 Key ECR Habitats

Habitat	Priority
Sublittoral sands and gravels	High
Stony (cobble/boulder dominated) reef	High
Biogenic (including <i>Sabellaria</i> and <i>Modiolus</i>) reef	High
Sandbanks	Medium
Brittlestar Beds	Medium
Bedrock (subcrop or outcrop) reef	Medium

Box 16 Key ECR Species

Species	Priority
Grouped Commercial Fish	High
Cetaceans	Medium
Grouped Sharks and Rays	Medium

It is proposed that action plans related to each of the habitats and species identified will be issued by December 2005. Further assessment of those species and habitats requiring consideration will be ongoing and revised lists and action plans will be issued annually.

2.4. Factors Affecting ECR Key Habitats and Species

Whilst the aim of the ECR BAP is to describe and formalise monitoring of the extent and health of habitats and species in relation to the effects of aggregate extraction it should be noted that natural changes and other anthropogenic activities may also affect the features being monitored. The following section contains a brief overview of non-dredging factors that may affect the communities and species within the region.

It is anticipated that monitoring of regional reference areas, outside the influence of dredging operations, may allow the effects of the factors described below to be accounted for during the monitoring. Data collected during the ECR Regional Monitoring programme will be used in order to achieve this and where possible reports of monitoring will identify non-dredging related impacts on the habitats and species in the region.

2.4.1. Natural Environmental Factors

Climate change

Changes in average annual sea temperature, the frequency and intensity of storms and changes in the volume of fresh water runoff to the sea may all potentially affect the communities that exist in a region. Whilst the underlying physical habitat character is likely to remain unchanged during such variation there is potential for the constituent species within communities to alter. In addition to this there is potential for species whose northern ranges are to the south of the region to become more prevalent as sea temperature increases.

Alien Species

The impact of accidental or deliberate release of alien species into an environment has been noted as a potentially significant threat to the health of marine communities. The ECR has commercially important populations of fish and shellfish that may be detrimentally affected if non-native species become established. As with climatic variation, the introduction of alien species will not significantly alter the fabric of the substrate upon which a community has developed but may significantly alter the structure of the community.

Fish community changes

It is known that fish populations vary naturally depending on recruitment success, competition with other species and large scale oceanographic variations. These natural variations should be considered when assessing the overall health of fish populations.

2.4.2. Anthropogenic Factors

Physical Disturbance

Of the human activities that currently take place in the ECR, only fishing has any significant effect on the habitats and species that exist on the seabed or within the water column. Review of sidescan sonar data, collected as part of the aggregate prospecting and application process, shows that the effect of fishing on the seabed is widespread. Trawl door scars and scallop dredge trails are evident over much of the area. In places there is evidence of the seabed being worked repeatedly by scallop dredges.

Over-exploitation

There is potential for over-exploitation of fish and shellfish resources to impact the wider marine habitat. Over fishing of important predator or prey species can have significant effect on those species that interact with it.

2.5. Current Management Framework

Other than the guidance provided by the JNCC, the requirements of the Habitats Directive, the UK BAP and the OSPAR Convention, there is no biodiversity management framework specific to the ECR. Whilst there are examples of marine, coastal and estuarine BAPs, the ECA BAP will be one of the first attempts to employ a marine BAP in the management of offshore operations in a region.



Impacts from beam trawling and scallop dredging are thought to be widespread in the ECR (Image – FAO).

2.6. Aims of the ECR BAP

The ECA BAP has been developed to provide a description of the ECR, inform management decisions and to ensure dissemination of conservation information to a wide and varied audience.

Box 17 *Aims of the ECR BAP*

Specifically, the aims of the ECA BAP are:

- To provide a description of the habitats and species with the ECR dredging area against which the significance of the impacts of dredging can be assessed.
- To guide work that seeks to improve understanding of the specific biotopes that exist in the ECR and where necessary initiate dredging management practices that seek to preserve rare or unusual areas.
- To formalise the reporting of changes in the extent and quality of habitats and the existence of species within the ECR dredging areas and surrounding region.
- To ensure dissemination of information on the ECR environment to a wider audience in order to assist management of regional activities and improve public awareness.
- Where applicable, to ensure that regional management is informed in order to conserve and enhance habitats, species diversity and local distinctiveness.
- To ensure that monitoring data is provided to statutory nature conservation bodies in support of their remit to comply with relevant nature conservation legislation and commitments.

2.7. Objectives of the ECR BAP

To fulfil the aims of the ECR BAP the following objectives will be pursued. Review and revision of objectives will occur on an annual basis as described later in the document.

Objective 1	Provide a baseline description of key species and habitats that exist within the ECR against which the significance of the impacts of dredging can be assessed.
Objective 2	Produce ECR specific Habitat and Species Action Plans, in support of relevant UKBAP plans, and report and review annually the status of habitats and species in the ECR.
Objective 3	Initiate, maintain and improve working practices and reporting to account for the requirements of the UKBAP, Habitats Directive and marine nature conservation in general. Seek to develop links with groups undertaking similar monitoring survey work in the region for information exchange and collaboration where appropriate.
Objective 4	Work to improve understanding of the specific biotopes that exist in the ECR and increase understanding of the nature and extent of expanded MNCR biotope classifications. Where necessary initiate dredging management practices that seek to preserve rare or unusual areas.
Objective 5	Identify areas where no impact from dredging will occur and monitor to assess health of such representative areas. Monitor the health of species identified during baseline benthic monitoring surveys in areas surrounding licence areas where secondary impacts may occur. Monitor the effect of extraction on species identified during baseline benthic monitoring surveys within the licence areas.
Objective 6	Provide a comparison of baseline description of habitat with habitat status at cessation of dredging.
Objective 7	Monitor the recovery of biotopes and associated species within licence areas following cessation of extraction activities.
Objective 8	Provide environmental data to stakeholders, wider public and regional management frameworks for review and comment. Raise awareness of the characteristic habitats and species of the ECR, their status and the nature of threats to their health.

2.8. Objectives, Actions and Targets

It is proposed that fulfilment of the initial ECR BAP objectives listed above be achieved through the following target and action plan.

Objective 1

Provide a baseline description of key species and habitats that exist within the ECR against which the significance of the impacts of dredging can be assessed.

Target

Habitat and species baseline description prior to start of dredging.

Action	Applies to	Target Date	Lead	Partners
Issue baseline ECR habitat and species audit	ECA	Dec 2005	ECA	JNCC
Produce assessment of dredging impacts and revised habitat and species audit	ECA	Dec 2005	ECA	JNCC EN Defra CEFAS

Objective 2

Produce ECR specific Habitat and Species Action Plans, in support of relevant UKBAP plans, and report and review annually the status of habitats and species in the ECR.

Target

Completion of ECR HAPs and SAPs relevant to key habitats and species. Completion of annual ECR BAP Review. Annual issue of revised ECR BAP.

Action	Applies to	Target Date	Lead	Partners
Issue of key habitat and species action plans	ECA	Dec 2005	ECA	JNCC EN Defra CEFAS
Produce annual review of BAP	ECA	Mar 2006	ECA	JNCC EN Defra
Issue revised ECR BAP	ECA	April/May 2006	ECA	JNCC EN Defra

Objective 3

Maintain and improve working practices and reporting to account for the requirements of the UKBAP, Habitats Directive and marine nature conservation in general.

Seek to develop links with groups undertaking similar monitoring survey work in the region for information exchange and collaboration where appropriate.

Target

Agree ECR BAP and related review procedure with statutory nature conservation bodies. Agree ECR conservation/habitat survey procedures.

Action	Applies to	Target Date	Lead	Partners
Review draft ECR BAP	JNCC/EN	Jul 2005	JNCC	ECA Defra
Agree ECR conservation survey procedures	JNCC/EN	Jul 2005	JNCC	ECA Defra

Objective 4

Work to improve understanding of the specific biotopes that exist in the ECR and increase understanding of the nature and extent of expanded MNCR biotope classifications. Where necessary initiate dredging management practices that seek to preserve rare or unusual areas.

Target

Review annual monitoring survey data and update ECR baseline biotope and habitat description.

Action	Applies to	Target Date	Lead	Partners
Undertake regional and licence specific monitoring surveys	ECA/Individual licence holders	Oct 2005	ECA	JNCC Defra CEFAS Contractors
Undertake review of extent biotope and habitat	ECA/Individual licence holders	Dec 2005	ECA	JNCC Defra CEFAS Contractors

Objective 5

Identify areas where no impact from dredging will occur and monitor to assess health of such representative areas.

Monitor the health of species identified during baseline benthic monitoring surveys in areas surrounding licence areas where secondary impacts may occur.

Monitor the effect of extraction on species identified during baseline benthic monitoring surveys within the licence areas.

Target

Review annual monitoring survey data and identify areas of no, primary and secondary impacts. Identify nature and scale of identified impacts.

Action	Applies to	Target Date	Lead	Partners
Undertake regional and licence specific monitoring surveys	ECA and individual licence holders	Oct 2005	ECA	JNCC CEFAS Defra Contractors
Identify areas of no impact from dredging	ECA and individual licence holders	Dec 2005	ECA	JNCC CEFAS Defra Contractors
Provide description of nature and extent of primary and secondary impacts	ECA and individual licence holders	Dec 2005	ECA	JNCC CEFAS Defra Contractors

Objective 6

Provide a comparison of baseline description of habitat with habitat status at cessation of dredging

Target

Complete annual collations and review of nature, quality and extent of habitats in order to fulfil comparison of start and end habitats.

Action	Applies to	Target Date	Lead	Partners
Regional annual benthic and conservation monitoring assessment	ECA	Oct 2005 and annually thereafter	ECA	JNCC CEFAS Defra Contractors
Annual collation of licence specific monitoring studies	ECA and individual licence holders	Oct 2005 and annually thereafter	ECA	JNCC CEFAS Defra Contractors

Objective 7

Monitor the recovery of biotopes, habitats and associated species within licence areas following cessation of extraction activities.

Target

Completion of post-dredge monitoring and comparison with pre-dredge baseline.

Action	Applies to	Target Date	Lead	Partners
Undertake pre-dredge monitoring of benthic communities	ECA and individual licence holders	Oct 2005	ECA	JNCC EN Defra CEFAS
Annual monitoring of status of biotopes, habitats and species within the ECR	ECA and individual licence holders	Annual to be completed prior to Oct of each year	ECA	JNCC EN Defra CEFAS

Objective 8

Provide environmental data to stakeholders, wider public and regional management frameworks for review and comment - raise awareness of the characteristic habitats and species of the ECR, their status and the nature of threats to their health/

Target

Formalise the scope of reporting, methods of dissemination and discussion forums.

Action	Applies to	Target Date	Lead	Partners
Agree monitoring reporting schedules	ECA	Dec 2005	ECA	ECEN TWG Defra ODPM
Develop ECR GIS	ECA	Dec 2005	ECA	GIS consultants ECEN TWG
Develop ECR website	ECA	Dec 2005	ECA	Web designers PR Consultants ECEN TWG
Agree timing of annual meetings	ECA and TWG Members	Oct/Nov 2005	ECA	ECEN TWG
Develop proposal for dissemination of environmental information to wider community	ECA	Oct/Nov 2005	ECA	JNCC EN Defra

2.8.1. Progress Update

Discussions have taken place between the ECA and statutory nature conservation bodies since Blueprint version v0.1 260405. These discussions resulted in several comments and recommendations regarding the structure of the ECR Blueprint and associated documentation.

Since the issue of the last version of the Blueprint, progress towards fulfilment of the ECR BAP objectives is summarised below:

Objective 1	Provide a baseline description of key species and habitats that exist within the ECR against which the significance of the impacts of dredging can be assessed.		
Target			
Target Date			
Recent Activity			
Forecast			
Baseline description prior commencement of extraction	Dec 2005	Baseline regional biological and habitat surveys completed Analysis of samples ongoing Interpretation of regional habitat surveys ongoing	Fulfilment of objective by target date
Objective 2	Produce ECR specific Habitat and Species Action Plans, in support of relevant UKBAP plans.		
Target			
Target Date			
Recent Activity			
Forecast			
Completion of ECR HAPs and SAPs relevant to key habitats and species	Dec 2005	Comments regarding format of HAP/SAP received from EN/JNCC Work commenced on review of relevant literature Format of ECR HAP/SAP being revised to ensure close association with UKBAP reporting format	Fulfilment of objective by target date
Objective 3	Initiate, maintain and improve working practices and reporting to account for the requirements of the UKBAP, Habitats Directive and marine nature conservation in general. Seek to develop links with groups undertaking similar monitoring survey work in the region for information exchange and collaboration where appropriate.		
Target			
Target Date			
Recent Activity			
Forecast			
Agree ECR BAP and related review procedure with statutory nature conservation bodies. Agree ECR conservation/habitat survey procedures.	Jun/Jul 2005	Comments regarding format of ECR BAP received from JNCC/EN - BAP revised accordingly. Discussions regarding the methodology for regional benthic and habitat surveys between ECA and JNCC/EN. Agreement of proposed methodology. Completion of regional habitat surveys.	Targets fulfilled. New targets to be developed related to information exchange and collaboration where appropriate.

Objective 4	Work to improve understanding of the specific biotopes that exist in the ECR and increase understanding of the nature and extent of expanded MNCR biotope classifications. Where necessary initiate dredging management practices that seek to preserve rare or unusual areas.
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Target	Target Date	Recent Activity	Forecast
Review annual monitoring survey data and update ECR baseline biotope and habitat description.	Oct–Dec 2005	Completion of pre-dredge regional habitat and benthic surveys. Analysis of survey data ongoing.	Target for completion of surveys fulfilled. Work towards baseline habitat description ongoing – completion of target by Dec 2005

Objective 5	Identify areas where no impact from dredging will occur and monitor to assess health of such representative areas. Monitor the health of species identified during baseline benthic monitoring surveys in areas surrounding licence areas where secondary impacts may occur. Monitor the effect of extraction on species identified during baseline benthic monitoring surveys within the licence areas.
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Target	Target Date	Recent Activity	Forecast
Review annual monitoring survey data and identify areas of no, primary and secondary impacts. Identify nature and scale of identified impacts.	Oct–Dec 2005	Completion of pre-dredge regional habitat and benthic surveys. Surveys included a number of reference areas outside the likely influence of extraction activities. Analysis of survey data ongoing. Initial habitat description due Dec 2005.	Targets for baseline surveys fulfilled. Completion of regional habitat description planned for Dec 2005. Work towards monitoring of impacts of extraction to begin when extraction begins.

Objective 6	Provide a comparison of baseline description of habitat with habitat status at cessation of dredging.
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Target	Target Date	Recent Activity	Forecast
Complete annual collations and review of nature, quality and extent of habitats in order to fulfil comparison of start and end habitats.	Oct 2005 and annually thereafter	Completion of pre-dredge regional habitat and benthic surveys. Surveys included a number of reference areas outside the likely influence of extraction activities. Analysis of survey data ongoing. Initial habitat description due Dec 2005.	Initial activity fulfils annual requirement. Analysis of data to be completed in time for annual review.

Objective 7	Monitor the recovery of biotopes, habitats and associated species within licence areas following cessation of extraction activities.
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Target	Target Date	Recent Activity	Forecast
Completion of pre-dredge, annual and post-dredge monitoring and comparison with pre-dredge baseline.	Oct 2005 and annually thereafter	Completion of pre-dredge regional habitat and benthic surveys. Surveys included a number of reference areas outside the likely influence of extraction activities. Analysis of survey data ongoing. Initial habitat description due Dec 2005.	Initial activity fulfils annual requirement. Analysis of data to be completed in time for annual review.

Objective 8	Provide environmental data to stakeholders, wider public and regional management frameworks for review and comment - raise awareness of the characteristic habitats and species of the ECR, their status and the nature of threats to their health.
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Target	Target Date	Recent Activity	Forecast
Formalise the scope of reporting, methods of dissemination and discussion forums.	Oct-Dec 2005	Reporting format and timings discussed with CEFAS/DEFRA/JNCC/EN. Agreement of timings for 8 week review of annual reporting. Initial discussions regarding format and capability of ECR GIS and website ongoing.	Target for agreement of timings for annual review fulfilled. Proposal for format of data dissemination systems to be complete by end Oct/beg Nov 2005.



Example seabed image taken during the regional ecological monitoring survey, 2005.

2.9. Monitoring, Reporting and Review of the ECR BAP Objectives

The regional surveys and monitoring studies proposed as part of the monitoring regime for the ECR have been designed to provide information required to meet the objectives of the ECR BAP.

Advice from statutory nature conservation bodies currently states that survey techniques used to monitor the marine environment must account for the conservation concerns of a site and consider the potential for the survey sampling itself to damage habitats and species. As such, the design of benthic monitoring surveys, visual seabed monitoring and acoustic survey techniques has taken into consideration the need for survey data to be capable of describing the nature and extent of seabed habitats and species, without compromising the conservation interests of those features.

It is anticipated that annual reports will be produced that will describe the results of monitoring, in relation to the baseline habitat and species description that will be issued prior to commencement of dredging. It is also anticipated that reports will describe the area of dredging activity compared with baseline habitat description and annual monitoring data, with a view to determining the significance of the dredging impact on the ecosystem as a whole.

The reporting procedure related to conservation issues is outlined in **Section 6**.

Box 18 *ECR Biodiversity Review and Reporting*

In summary, the review process will be undertaken on the following basis:

- **Initial version of ECR BAP agreed with JNCC, Defra and English Nature prior to operational dredging.**
- **Habitat Action Plans and Species Action Plans issued by December 2005.**
- **ECR BAP, and component HAPs and SAPs, reviewed annually against objectives and targets resulting in an annual BAP update report.**
- **Amended ECR BAP, and component HAPs and SAPs, issued following annual review meeting.**

The assessment of significance is intended to be an ongoing process that will be developed in the first five years of dredging with the intention of designing conservation focussed thresholds, to inform dredging management, for use in the medium term (i.e. beyond 5 years).

2.10. Future Initiatives

In addition to the scope of the ECR BAP the ECA is also aware of the need to develop management of activities in the ECR as a whole. Utilisation of data from parallel research programmes, such as the ALSF Eastern Channel habitat mapping study, can provide broad-scale characterisation information that may be of value to the ECR regional monitoring programme. This will obviously require a significant input from other ECR stakeholders but will ultimately benefit all parties who have interests in the region.



Skates and rays are species that require consideration under the terms of UKBAP grouped plans. Thornback ray (*Raja clavata*) sampled during regional 2m beam trawl survey, 2005.