

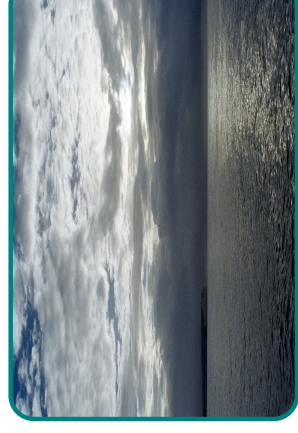
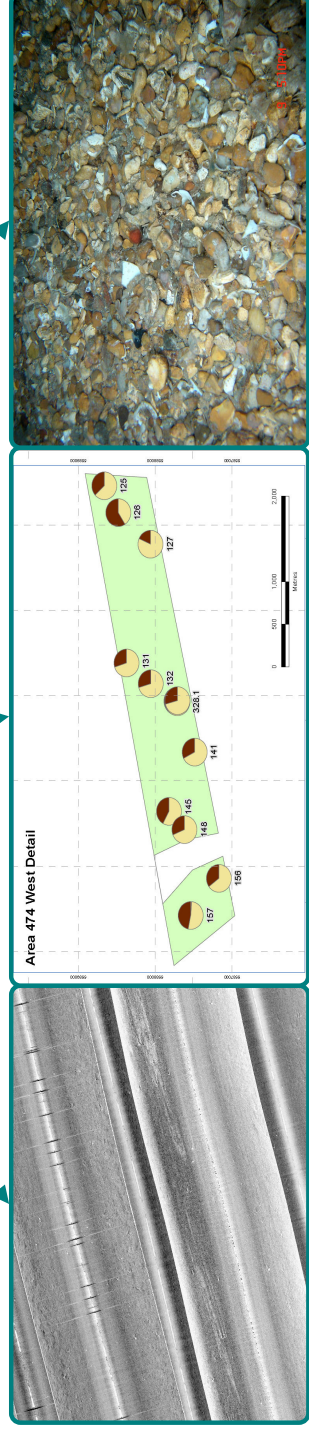
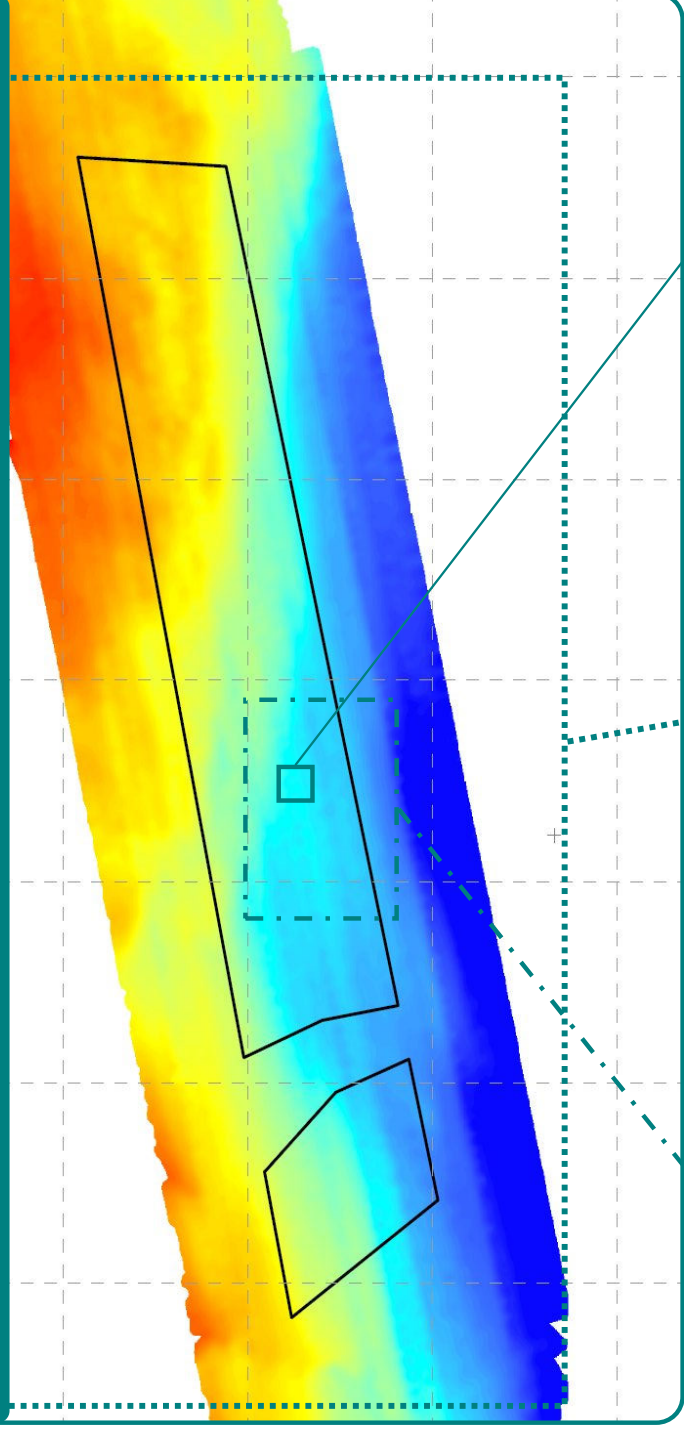
### 1.1 Review of ECR Biodiversity Action Plan in the Context of Regional Monitoring Results

#### The Aims of the ECR BAP

The ECA Regional Monitoring Blueprint v0.3 describes the aims of the ECR BAP as:

- 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.

**Monitoring at varying spatial scales using a variety of techniques will help describe the habitats and species within and immediately surrounding dredging permission areas. This will assist in developing understanding of the minimum scale of survey operations required that are capable of adequately monitoring the biodiversity features of a site.**



### 1.2 Objectives and Targets of the ECR BAP

The ECR BAP provides a number of objectives and targets that are being pursued during the life of extraction activities in the ECR. To fulfill the aims of the ECR BAP the following objectives will be pursued.

#### 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.

## Progress Towards Fulfillment of the Objectives of the ECR BAP in the Context of Regional Monitoring Activities 2005-6

Since the issue of the Blueprint v0.3, progress towards fulfillment of the ECR BAP objectives is summarised below:

<p><b>Objective 1</b></p>	<p>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.</p>
<p><b>Target</b> Baseline description prior commencement of extraction</p>	<p><b>Recent Activity</b> Baseline regional biological and habitat surveys completed Analysis of samples complete with the exception of epibenthic fauna component of grab samples Preliminary regional habitat description available based on results of drop camera, grab, trawl and scallop dredge surveys Preliminary regional habitat and biotope identification results available and licence specific conservation assessments being completed and input to ECA GIS</p>
<p><b>Objective 2</b></p>	<p>Produce ECR specific Habitat and Species Action Plans, in support of relevant UKBAP plans.</p>
<p><b>Target</b> Completion of ECR HAPs and SAPs relevant to key habitats and species</p>	<p><b>Recent Activity</b> Final drafts of HAPs and SAPs complete and presented with this report – Appendix 7.1. Update of HAPs and SAPs to be completed and reported in next version of Blueprint</p>
<p><b>Objective 3</b></p>	<p>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.</p>
<p><b>Target</b> Agree ECR BAP and related review procedure with statutory nature conservation bodies. Agree ECR conservation/habitat survey procedures.</p>	<p><b>Recent Activity</b> First review of biological data due June – July 2006 Recommendations of review to be incorporated into subsequent versions of monitoring blueprint</p>
<p><b>Objective 4</b></p>	<p>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.</p>
<p><b>Target</b> Review annual monitoring survey data and update ECR baseline biotope and habitat description.</p>	<p><b>Recent Activity</b> Preliminary habitat description available from 2005 monitoring surveys Further review of seabed photographs required to complete baseline description of region Annual reviews and update to go ahead as required</p>

<p><b>Objective 5</b></p>	<p>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.</p>
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<p><b>Target</b> Review annual monitoring survey data and identify areas of no, primary and secondary impacts. Identify nature and scale of identified impacts.</p>	<p><b>Recent Activity</b> Physical monitoring baseline survey undertaken Biological baseline monitoring undertaken Preliminary analysis of data provides basis for comparison with future data sets</p>
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<p><b>Objective 6</b></p>	<p>Provide a comparison of baseline description of habitat with habitat status at cessation of dredging.</p>
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<p><b>Target</b> Complete annual collations and review of nature, quality and extent of habitats in order to fulfil comparison of start and end habitats.</p>	<p><b>Recent Activity</b> Baseline surveys completed to provide basis for comparison with future monitoring surveys Preliminary description of regional habitats complete</p>
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<p><b>Objective 7</b></p>	<p>Monitor the recovery of biotopes, habitats and associated species within licence areas following cessation of extraction activities.</p>
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<p><b>Target</b> Completion of pre-dredge, annual and post-dredge monitoring and comparison with pre-dredge baseline.</p>	<p><b>Recent Activity</b> Pre-dredge monitoring surveys complete Analysis complete with the exception of epifaunal component of grab samples, detailed analysis of seabed photography and 2m beam trawl surveys Complete data set to be available prior to commencement of aggregate extraction operations</p>
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<p><b>Objective 8</b></p>	<p>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.</p>
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<p><b>Target</b> Formalise the scope of reporting, methods of dissemination and discussion forums.</p>	<p><b>Recent Activity</b> Update of timings for reporting necessary due to delays in analysis of baseline date All aspects to be reported prior to commencements of aggregate extraction operations Scope and methods of reporting/review developed and agreed with TWG members Website and GIS being developed to provide dissemination mechanism for regional monitoring data Annual East Channel Environmental Network meeting planned for 2006 to initiate wider dissemination of information to stakeholders</p>
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## 1.4

### ECR Habitat and Species Action Plans

Part of the requirement of the ECR BAP is provision of habitat and species action plans (HAPs and SAPs) relevant to the environmental conditions of the region and significant species. The first set of HAPs and SAPs were developed during 2005-6 and issued with the draft regional report in May 2006.

The HAPs issued related to:

- Stony and Bedrock Reef**
- Sublittoral Sand and Gravel**
- Biogenic Reef**
- Sandbanks**
- Brittlestar Beds**

The SAPs issued related to:

- Cetaceans**
- Grouped Commercial Fish**
- Sharks and Rays**

Specific actions and targets were presented for each of the habitats and species highlighted above. A review of the targets and progress made towards achieving them is provided below.

#### Stony and Bedrock Reef

Target	Action	Progress
1	Undertake monitoring of dredging to determine the nature of impacts and the recovery of habitats after dredging has ceased.	Ongoing
2	Employ responsible and transparent operating practices that are precautionary and that can be influenced by the outcomes of monitoring.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
3	Employ monitoring and management practices capable of identifying, and preventing damage to, regionally important examples of stony and bedrock reef habitats and communities in the ECR.	Ongoing - complete for companies that have begun extraction through pre-dredge reporting and identification of sensitive sites
4	Provide monitoring data to the wider stakeholder community related to the significance, health and status of regionally important rock reef habitats and communities in the ECR and provide information to Nature Conservation bodies in support of MNCR activities.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
5	Seek to raise awareness of the ECR's habitats and species, improve understanding of wider MNCR designations for offshore sediment habitats and encourage development of sustainable practices in the region accounting for its environmental, social and economic importance.	Ongoing
6	Work with nature conservation and fisheries stakeholders to better understand the combined impacts of activities that impact stony and bedrock reef habitat.	Ongoing

#### Sublittoral Sand and Gravel

Target	Action	Progress
1	Undertake monitoring of dredging to determine the nature of impacts and the recovery of habitats after dredging has ceased.	Ongoing
2	Employ responsible and transparent operating practices that are precautionary and that can be influenced by the outcomes of monitoring.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
3	Employ monitoring and management practices capable of identifying, and preventing damage to, regionally important examples of SSG habitats and communities in the ECR.	Ongoing - complete for companies that have begun extraction through pre-dredge reporting and identification of sensitive sites
4	Provide monitoring data to the wider stakeholder community related to the significance, health and status of regionally important SSG habitats and communities in the ECR and provide information to Nature Conservation bodies in support of MNCR activities.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
5	Seek to raise awareness of the ECR's habitats and species, improve understanding of wider MNCR designations for offshore sediment habitats and encourage development of sustainable practices in the region accounting for its environmental, social and economic importance.	Ongoing
6	Work with nature conservation and fisheries stakeholders to better understand the combined impacts of activities that impact SSG habitats.	Ongoing

### Biogenic Reef

Target	Action	Progress
1	The ECA will produce a habitat map for the ECR that will identify areas where biogenic reef may exist.	Complete - no significant areas of biogenic reef identified
2	Pre-dredge, the ECA will develop a survey designed to confirm location and extent of any potential biogenic reef identified in the habitat map.	Complete - no significant areas of biogenic reef identified
3	The results of this survey will be disseminated to JNCC and other key stakeholders for full review.	Ongoing
4	An operational dredge management plan will be developed based upon the findings of this survey. The plan will include appropriate mitigation measures to reduce the risk of any adverse effects arising upon known or potential areas of biogenic reef.	Ongoing - complete for companies that have begun extraction through pre-dredge reporting and identification of sensitive sites
5	Undertake monitoring of dredging to determine the nature of impacts and the recovery of habitats after dredging has ceased.	Ongoing - baseline surveys complete
6	Employ responsible and transparent operating practices that are precautionary and that can be influenced by the outcomes of monitoring.	Ongoing - stakeholder engagement initiated to elicit views on monitoring
7	Employ monitoring and management practices capable of identifying, and preventing damage to, regionally important examples of biogenic reef habitats and communities in the ECR.	Ongoing - complete for companies that have begun extraction through pre-dredge reporting and identification of sensitive sites
8	Provide monitoring data to the wider stakeholder community related to the significance, health and status of regionally important biogenic reef habitats and communities in the ECR and provide information to Nature Conservation bodies in support of MNCR activities.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
9	Seek to raise awareness of the ECR's habitats and species, improve understanding of wider MNCR designations for offshore sediment habitats and encourage development of sustainable practices in the region accounting for its environmental, social and economic importance.	Ongoing
10	Work with nature conservation and fisheries stakeholders to better understand the combined impacts of activities that impact biogenic reef habitat.	Ongoing

### Sandbanks

Target	Action	Progress
1	Undertake monitoring of dredging to determine the nature of impacts and the recovery of habitats after dredging has ceased.	Ongoing
2	Employ responsible and transparent operating practices that are precautionary and that can be influenced by the outcomes of monitoring.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
3	Employ monitoring and management practices capable of identifying, and preventing damage to, regionally important examples of Sandbank habitats and communities in the ECR.	Ongoing - complete for companies that have begun extraction through pre-dredge reporting and identification of sensitive sites
4	Provide monitoring data to the wider stakeholder community related to the significance, health and status of regionally important Sandbank habitats and communities in the ECR and provide information to Nature Conservation bodies in support of MNCR activities.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
5	Seek to raise awareness of the ECR's habitats and species, improve understanding of wider MNCR designations for offshore sediment habitats and encourage development of sustainable practices in the region accounting for its environmental, social and economic importance.	Ongoing
6	Work with nature conservation and fisheries stakeholders to better understand the combined impacts of activities that impact Sandbank habitats.	Ongoing

### Brittlestar Beds

Target	Action	Progress
1	During the operational stage of the dredging licence, monitoring will be undertaken to determine the nature of any impacts upon this habitat.	Ongoing
2	Undertake monitoring of dredging to determine the recovery of habitats after dredging has ceased.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
3	Employ responsible and transparent operating practices that are precautionary and that can be influenced by the outcomes of monitoring.	Ongoing - complete for companies that have begun extraction through pre-dredge reporting and identification of sensitive sites
4	Employ monitoring and management practices capable of identifying, and preventing damage to, regionally important examples of brittlestar beds and communities in the ECR.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
5	The ECA will disseminate the results of all surveys to key stakeholders, including JNCC, so the nature conservation importance of this site can be fully described.	Ongoing
6	Work with nature conservation and fisheries stakeholders to better understand the combined impacts of activities that impact brittlestar bed habitat.	Ongoing

Target	Action	Progress
1	The Applicants will initiate and maintain working practices and reporting to account for the requirements of the BAP.	Ongoing
2	The Applicant will seek to develop links with groups undertaking similar monitoring work in the region for information exchange and collaboration where appropriate.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
3	The Applicant will feedback data to the JNCC to develop the understanding of the species within the SAC.	Ongoing - complete for companies that have begun extraction through pre-dredge reporting and identification of sensitive sites
4	The Applicant will agree operational management practices that minimise any adverse impact on the nature conservation value of the site, in relation to these two species this will relate directly to sighting and recording of all individuals and groups.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
5	The Applicant will follow the standard industry reporting methodology that is used to record sightings of animals when at sea. Sightings data is recorded during transit voyages as well as operation on site. All data will be forwarded to an agreed partner - Seawatch Foundation.	Ongoing
The applicant will contribute monitoring data and interpretive reports where relevant in order to promote improved management of conservation and biodiversity interests within the ECR and contribute to the knowledge and understanding of the potential presence of Annex II species within the ECR in order to:		
6	Maintain the current geographic range.	Ongoing
7	Maintain the current abundance.	Ongoing
8	In the long term ensure that no anthropogenic factors inhibit a return to waters that it previously occupied.	Ongoing

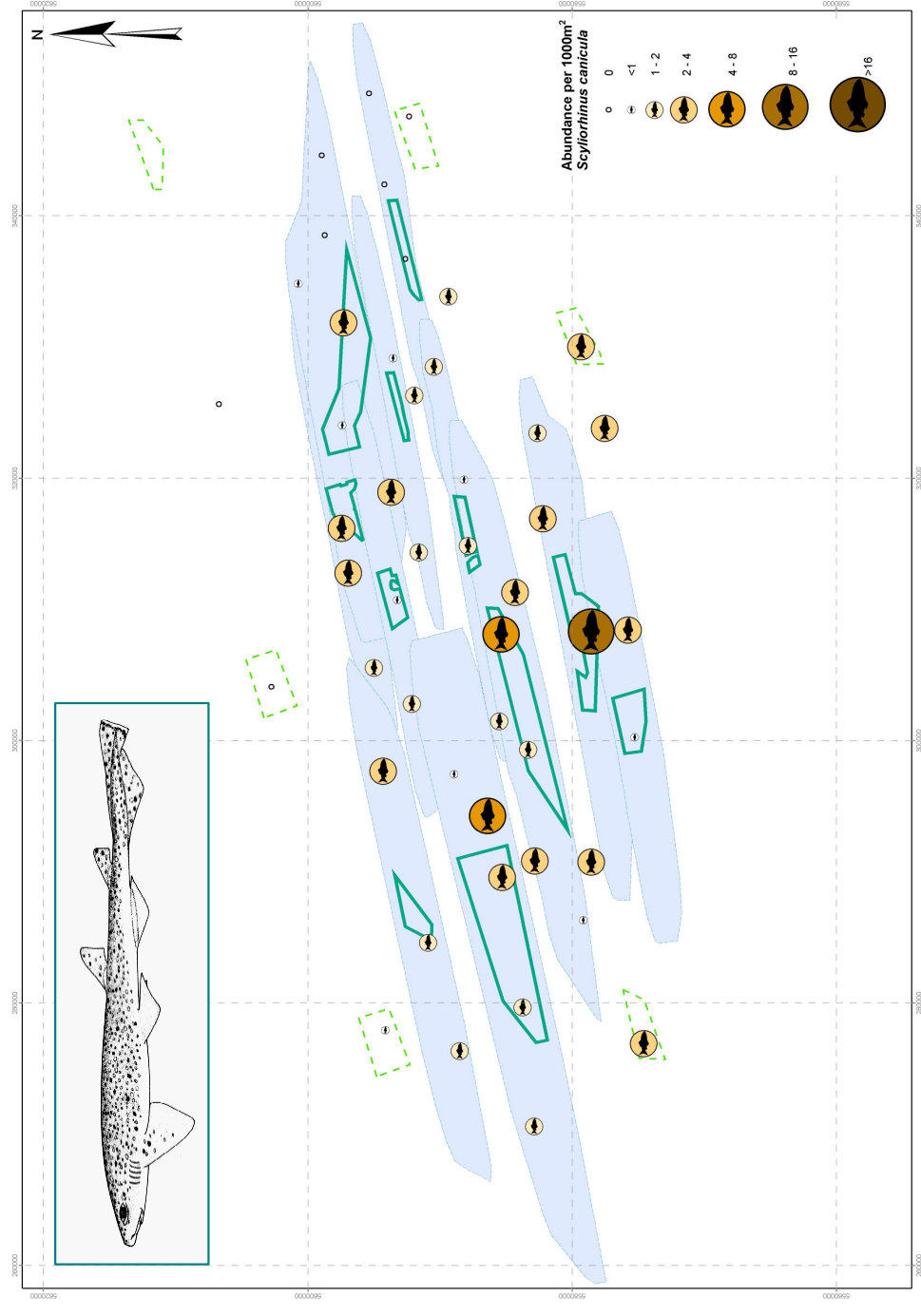
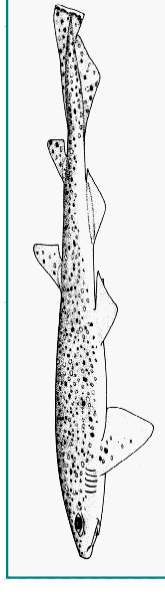
### Grouped Commercial Fish

Target	Action	Progress
1	Undertake monitoring of dredging to determine the nature of impacts and the recovery of fish stocks after dredging has ceased.	Ongoing
2	Employ responsible and transparent operating practices that are precautionary and that can be influenced by the outcomes of monitoring.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
3	Employ monitoring and management practices capable of identifying, and preventing damage to, regionally important fish stocks in the ECR.	Ongoing - complete for companies that have begun extraction through pre-dredge reporting and identification of sensitive sites
4	Provide monitoring data to the wider stakeholder community related to the significance, health and status of fish stocks in the ECR and provide information to Nature Conservation bodies in support of their activities.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
5	Seek to raise awareness of the ECR's species and encourage development of sustainable practices in the region accounting for its environmental, social and economic importance.	Ongoing
6	Work with nature conservation and fisheries stakeholders to better understand the combined impacts of activities that impact fish stocks.	Ongoing

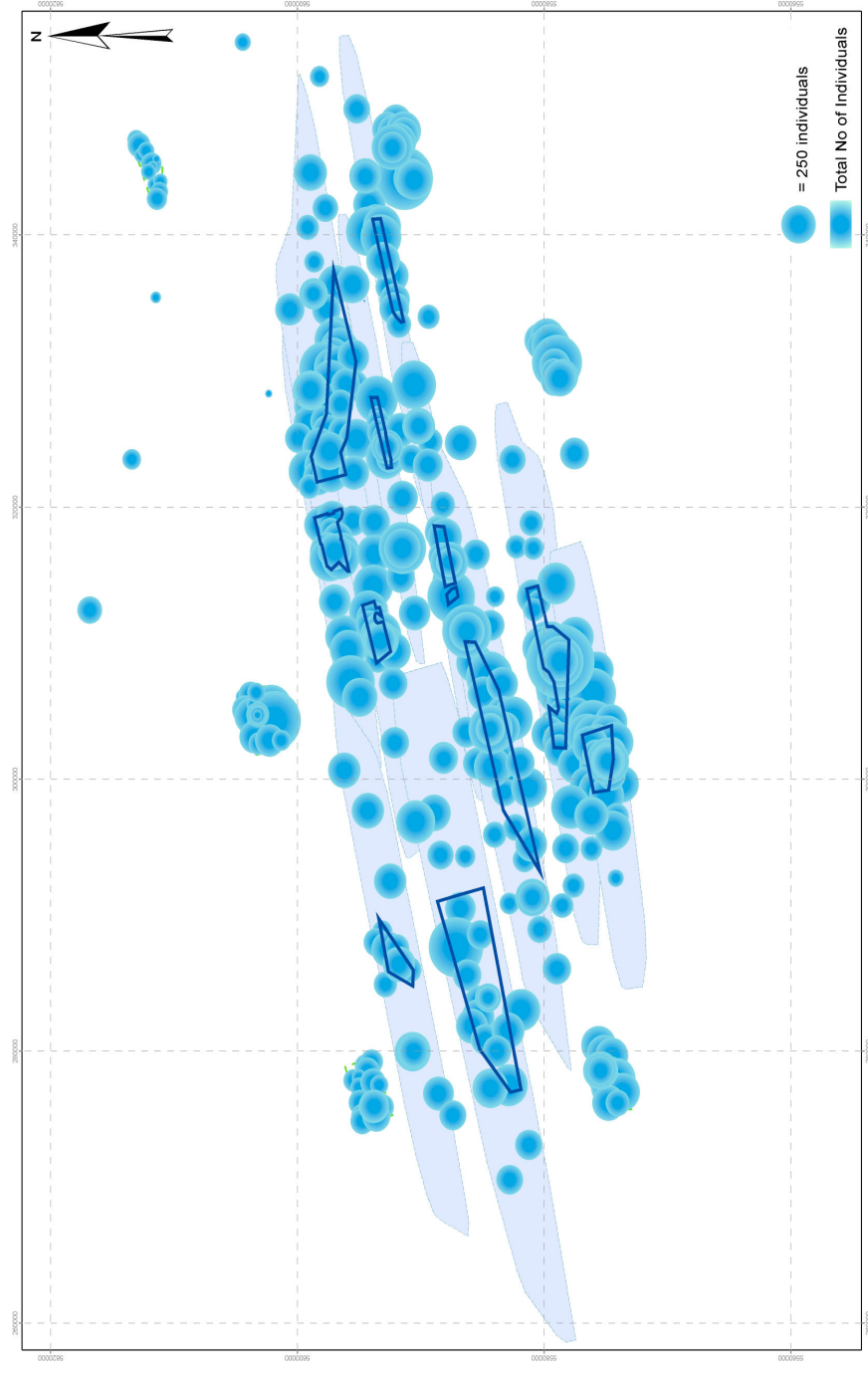
### Sharks and Rays

Target	Action	Progress
1	Undertake monitoring of dredging to determine the nature of impacts and the recovery of sharks and rays stocks after dredging has ceased.	Ongoing
2	Employ responsible and transparent operating practices that are precautionary and that can be influenced by the outcomes of monitoring.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
3	Employ monitoring and management practices capable of identifying, and preventing damage to, regionally important sharks & rays stocks in the ECR.	Ongoing - complete for companies that have begun extraction through pre-dredge reporting and identification of sensitive sites
4	Provide monitoring data to the wider stakeholder community related to the significance, health and status of sharks & rays stocks in the ECR and provide information to Nature Conservation bodies in support of their activities.	Ongoing - complete in the first year through provision of monitoring data to regulators and wider stakeholder community
5	Seek to raise awareness of the ECR's species and encourage development of sustainable practices in the region accounting for its environmental, social and economic importance.	Ongoing

**Monitoring simple community characteristic measures such as species abundance, numbers of individuals and biomass will be useful in determining the significance of impacts on biodiversity that result from aggregate extraction activities.**



**Significant information regarding the distribution of elasmobranch species in the ECR, such as *S. canicula*, has resulted from ECA monitoring activities. Repeat surveys may yield important information regarding changes in the population of such species.**



Some modification of the objectives of the ECR BAP has been necessary as extraction has now commenced. Further modification will be necessary as understanding of the impacts of aggregate extraction in the ECR improves.

The objectives actions and targets for the forthcoming twelve months are as follows (changes have been made to Objectives 1 & 2 compared with those presented in the Blueprint v0.3) :

#### Objective 1

Continue to develop an understanding of the baseline data acquired to improve the habitat description for the region and determine suitable comparative measures to inform assessment of aggregate extraction impact.

##### Action

Completion of epifaunal analysis and integration with baseline data set.

##### Target

Completion by March 2007

Determination of suitable comparative measures for habitat monitoring.

Completion by March 2007

#### Objective 2

Maintain 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.

##### Action

Annual review of habitat and species status in the region and necessary modification of HAP and SAP documentation.

##### Target

Completion by March 2007

#### 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.

##### Action

Develop links with ALSF and MESH programmes to integrate ECR and wider regional data sets.

##### Target

Ongoing to August 2007

#### 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.

##### Action

Initiate and maintain dialogue with key conservation stakeholders to ensure that biotope descriptions used in the ECR are relevant to national classification systems.

##### Target

Ongoing until August 2007

#### 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.

##### Action

Complete analysis of 2006 repeat survey data to develop understanding of the natural variability in seabed composition and associated faunal communities.

##### Target

Completion by March 2007

#### Objective 6

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

##### Action

Initiate dredging activity reporting in concert with regional environmental monitoring to inform descriptions of habitat change to the point of cessation.

##### Target

Ongoing to August 2007

#### Objective 7

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

##### Action

Continue to develop understanding of the distribution of regionally characteristic biotopes and species to assist in determination of recovery towards pre-dredge status.

##### Target

Ongoing to August 2007

#### 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.

##### Action

Continue to develop the ECA website and GIS as tools for provision of information to stakeholders.  
Review of terms of reference and timings for TWG and ECEN meetings to ensure best use of meeting time and output value.

##### Target

Ongoing to August 2007

## 1.6

### Future Development of the ECR BAP

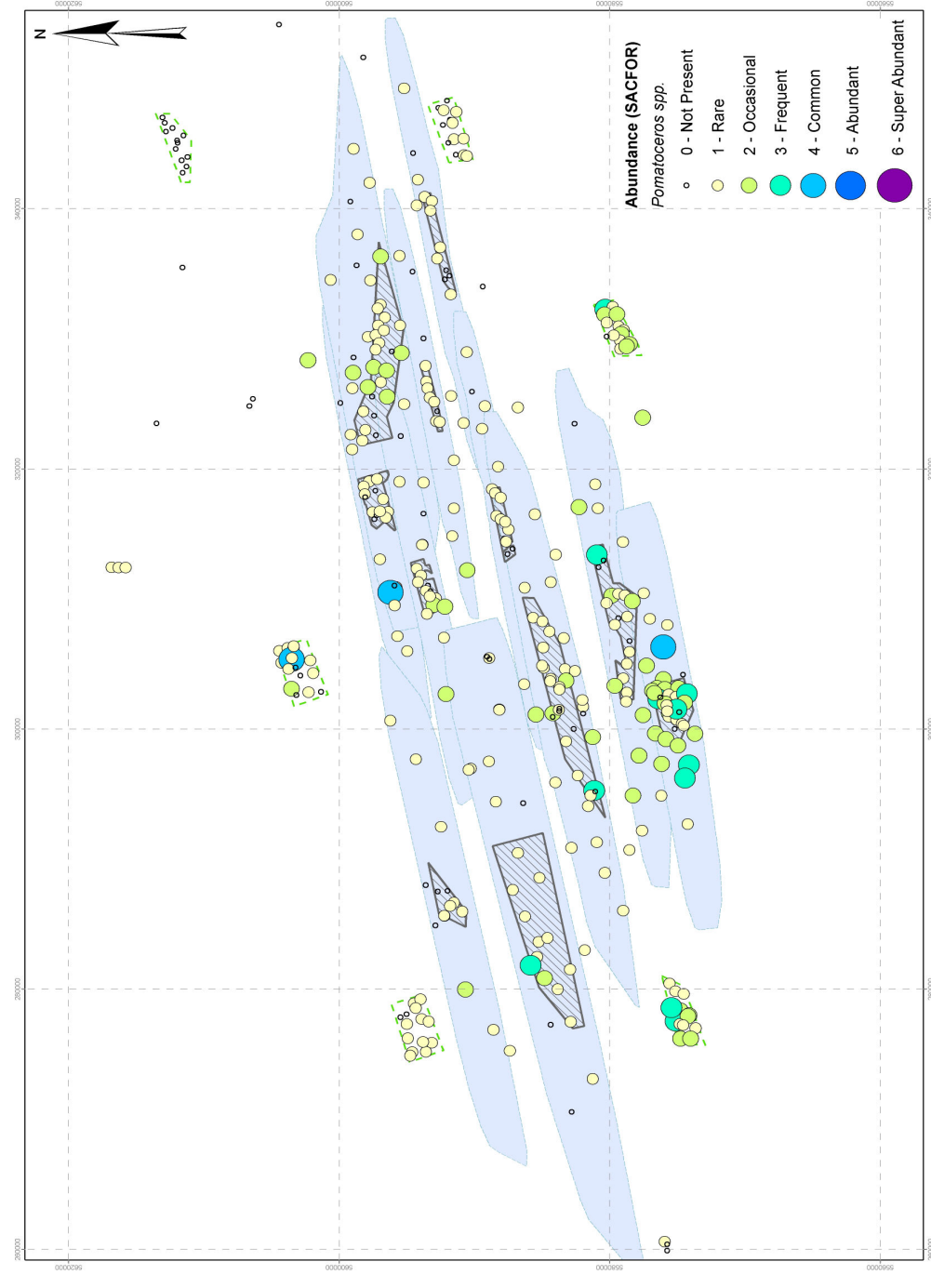
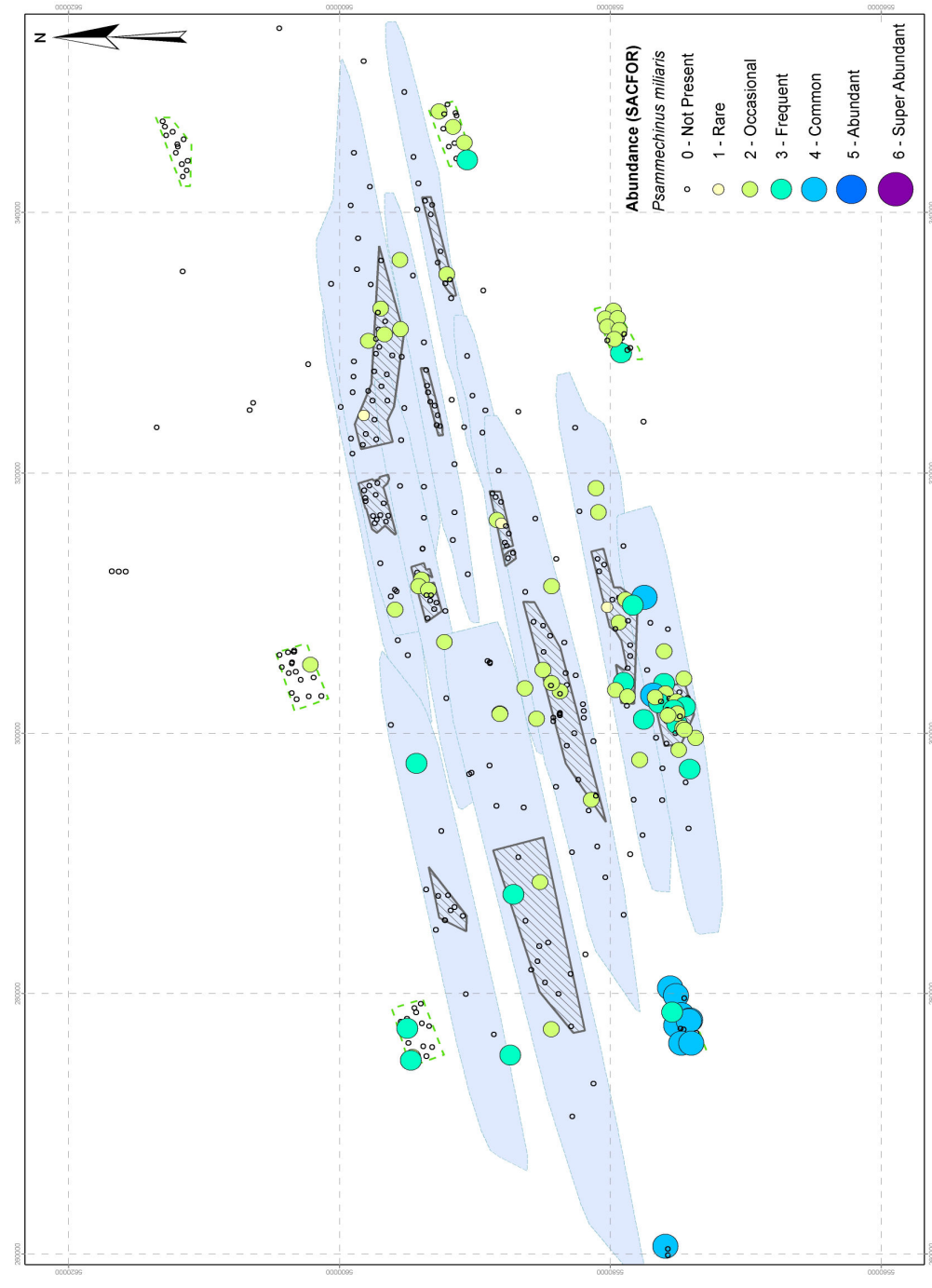
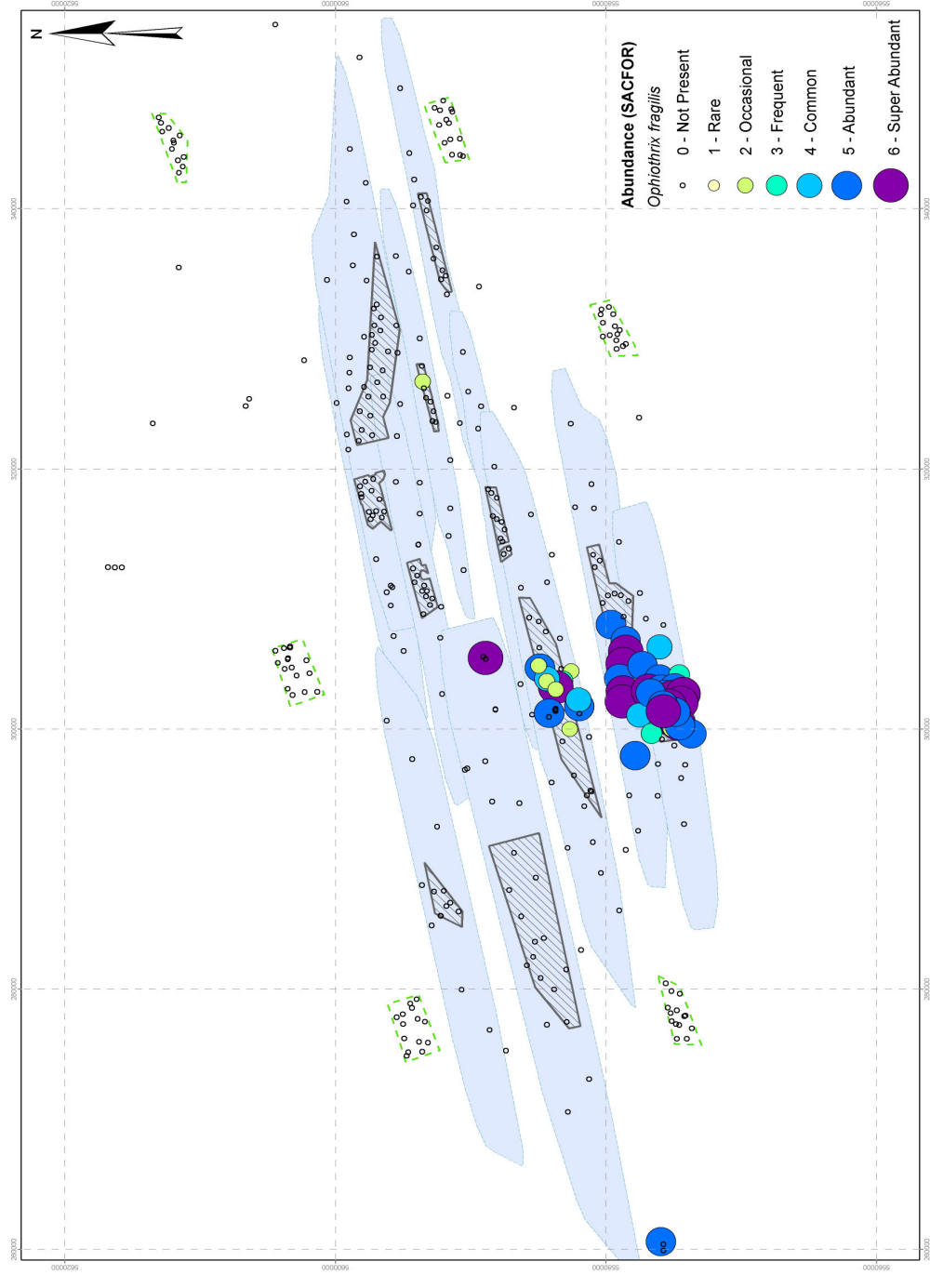
The baseline regional monitoring activities have been completed and will yield data that is capable of providing the information required for gauging progress towards the objectives of the ECR BAP. Some analysis of baseline monitoring data (grab epifauna) is outstanding and this will be completed in the following twelve months.

The description of seabed habitats and communities presented in the regional monitoring report will form the basis for determination of the significance of impacts of aggregate extraction in the future. The influence of aggregate extraction in the biodiversity of the region will be determined over the next 4 years up to the provision of the second REA in year 5 of operations.

The ECR BAP will now be fully reviewed over the following twelve months in light of the habitat descriptions resulting from the baseline regional biological monitoring and 2006 repeat biological monitoring. The objectives and targets for the following year (2007) have been revised. The revised objectives and targets presented above will now be monitored in light of extraction activity and natural change in habitats and associated faunal communities.

Another important component of the scope of the ECR BAP for the coming twelve months will be incorporation of habitat data from national and regional studies such as MESH and the ALSF funded Eastern English Channel Habitat Survey. The objectives of the ECR BAP have been amended accordingly to ensure that sufficient consideration is given to incorporating this wide-scale contextual information.

**Use of seabed photography, acquired during regional monitoring, may provide an important tool for comparative studies that investigate the significance of natural change in, and anthropogenic impacts across the ECR. The technique is also of value in identifying biotope defining species and physical conditions.**



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