Section 6

Reporting and Review

6. Reporting and Review

6.1. Overview

A schematic of the reporting and review process flow is shown in **Figure 13**.

The data generated by the studies described in **Sections 4 and 5** will be collated by the ECA dredging companies through three ECA teams. Team A will be responsible for physical process data, Team B will concentrate on biological data and conservation data, and Team C will deal with the dredging, fisheries and shipping activity data.

Each team will be responsible for aspects of contractor management, data input, production of relevant sections for technical reports that describe the surveys undertaken, their outcomes and suggested future actions. Where independent consultants undertake the work on behalf of the ECA then they will provide survey report to the ECA teams within the timescales described below. Baseline comparison will be carried out where appropriate.

A Regional Development Manager (RDM) has been appointed by the ECA to manage the monitoring programme. The RDM is responsible for ensuring that survey field work is completed within the required timescales, that the data from the field work is to the required standard and that survey reports are submitted to the required recipients by the required deadlines.

The ECA teams, through the RDM, will circulate reports to East Channel Environmental Network (ECEN) members prior to the Annual meeting in February each year. The timing of the annual ECEN meeting is the main constraint determining the completion and issue of the survey and interpretation reports.

6.2. East Channel Environmental Network (ECEN)

6.2.1. Terms of Reference

A major fundamental process in ensuring that the works undertaken during regional monitoring are utilised to their full potential will be review and comment by a variety of technical specialists and relevant stakeholders. To enable this review process to take place the ECA propose that a network relevant of organisations is developed and tasked with undertaking the review and discussion process.

It has been shown that similar networks and associations (eg The Atlantic Frontier Environmental Network) can provide a mechanism for developing a holistic view of regional environmental conditions in order that anthropogenic activities can be managed with due consideration of their impacts.

6.2.2. The Purpose of the East Channel Environmental Network

The East Channel Environmental Network (ECEN) is proposed as a mechanism by which the results of monitoring can be interpreted and discussed and recommendations made regarding the ongoing management of extraction operations in the ECR.

The ECEN will be the mechanism by which monitoring reports of surveys and studies undertaken in the ECR will be reviewed, and dredging activities and impacts discussed.

Box 28 The Purpose of the East Channel Environmental Network

The purpose of the ECEN is;

'A partnership dedicated to understanding the impacts of dredging in the ECR.'

6.2.3. Members of the ECEN

The ECEN will be formed of:

1. The ECEN Chairperson

The ECEN will be chaired by an independent person agreed by the ECA and Defra. Administration will carried out by ECA companies and the ECA Regional Development Manager. All ECEN activities will be funded by the ECA companies.

2. The ECEN Stakeholder Group

The ECR Stakeholder Group will be formed of a predetermined number of individuals who will be asked to review and comment on the findings of the ECEN Technical Working Group (TWG – see below), to offer wider relevant opinion and data (regarding commercial fishing, archaeology, shipping and conservation issues) and to provide input to the review of operations.

It has also been suggested that trans-boundary discussion of monitoring is undertaken. This might be best achieved by involvement of the IFREMER group tasked with determining the impacts of extraction in the ECR. The ECA would seek to canvass the views of specialists from France where appropriate.

The Stakeholder Group will discuss the findings of the TWG and make recommendations regarding scale, scope and management of both monitoring and dredging.

The Stakeholder Group will consist of representatives from:

- **Companies licensed, or applying, to extract minerals from the ECR**
- **CEFAS/JNCC/EN**
- **MCA/CNSS**
- **English Heritage**
- **The Crown Estate**
- **Fishing industry**
- **ODPM and Defra**

NB Some of the proposed members of the Stakeholder group are also members of the TWG and may not have sufficient time and resources to provide input to both groups. Therefore, the recommendations of those organisations not able to provide input to the Stakeholder Group meetings will be incorporated during TWG meetings.

3. The ECEN Technical Working Group

The TWG exists to assess and evaluate the environmental findings of the Blueprint monitoring studies.

The members of the ECEN TWG will be:

- **CEFAS**
- **JNCC/English Nature**
- **The Companies of the East Channel Association and their Consultants**
- **English Heritage**
- **ODPM and Defra Observers**

The role of the TWG will be:

- **To review interpretive reports and if necessary suggest revisions/modifications to the monitoring.**
- **To review the monitoring programme and its effectiveness with regard to the aims and hypotheses being tested.**
- **Where possible, to reject or accept hypotheses, or to recommend changes to the hypotheses for subsequent years monitoring.**
- **Reporting to ECEN Stakeholder Group on the progress and results of monitoring.**

Comments made by members of the TWG shall be available to the ECEN Stakeholder Group in time for the annual meeting. To enable sufficient time (8 weeks) for TWG members to review the results of monitoring prior to the ECEN annual review, all monitoring study reports shall be submitted to the relevant organisations by the first week of March.

4. Representatives of the ECA Dredging Companies

A representative of each company licensed, or applying, to extract minerals from the ECA will attend all meetings of the ECEN Stakeholder Group and Technical Working Group.

5. The ECA Regional Development Manager

A Regional Development Manager (RDM) will be appointed by the ECA to coordinate the monitoring and reporting activities required. The RDM will be responsible for:

- **Overall administration of the ECA monitoring activities in the ECR.**
- **Scheduling of survey activity.**
- **Collation and coordination of reporting activity.**
- **Circulation of reports to members of the ECEN.**
- **Coordination of review meetings.**

6.3. Monitoring Reporting and Review Framework

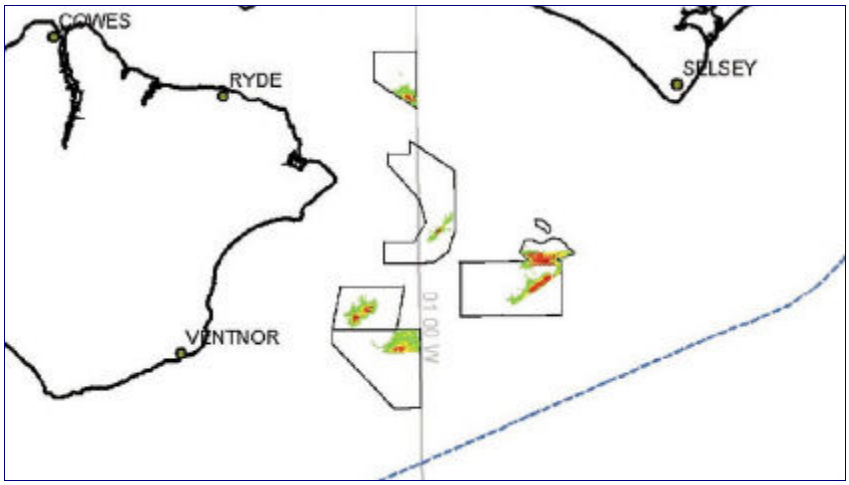
Reports of monitoring activity will in the first instance consist of:

6.3.1. Annual Dredging Activity Report

The Annual Dredging Activity Report will provide a basic description of the dredging undertaken across the ECR for a given year. The dredging activity report is a fundamental component of the overall regional monitoring. It will provide information that will be utilised in all regional monitoring studies.
It will describe:

- **Licensed area**
- **Active area**
- **Area dredged (km^2)**
- **Total regional production (tonnes)**
- **Dredging intensity (tonnes loaded/m^2)**

Reporting Framework	
Data Collection	Ongoing throughout year – data summarised on a monthly basis.
Report Timing	Annual report that covers the twelve months up to December 31 in any given year.
Report Submission	Report submitted annually to TWG members for review before end March of the following year.



The ships' electronic monitoring systems will be used to provide data on extraction activity – the value of the system has recently become evident when comparing the results of repeat benthic surveys in the context of dredging activity. The example plot above is from BMAPA/Crown Estate Dredging Activity report 2002.

6.3.2. Annual Screening Report

The Annual Screening Report will provide input to the Plume and Seabed Sediment Reports. In Year 1 the screening report will include an analysis of the screening and spillway sampling work undertaken in support of the Plume and Seabed Sediment studies. Thereafter, unless further sampling work is undertaken, the Screening Report will provide an overview of the areas in the region where screening was employed and the levels to which it was employed.

The Screening Report will provide the following information:

- **Areas where screening was employed.**
- **Duration of loading carried out using screening.**
- **Types of screening employed.**
- **Volumes of sediment screened and overspilled.**
- **PSD of screened sediment (year 1 only).**
- **PSD of overspilled sediment (year 1 only).**

Reporting Framework	
Data Collection	Ongoing throughout year – data summarised on a monthly basis.
Timing	In Year 1 a report will be produced that describes the results of the screening and spillway sampling study. This report will be available 2 months after the field work. There will also be an annual report that covers the twelve months up to December 31 in any given year.
Report Submission	Report submitted annually to TWG members for review before end March of the following year.

6.3.3. Tracer Study Reports

As stated previously, the principal aim of the tracer study is:

To provide data and as a result advance knowledge and understanding in the following key areas: settling of discharged sediment through the water column (specifically, the manner in which sediment released from a dredger as a result of screening / overflow is distributed at the seabed following settling under particular conditions); sediment movement at the seabed (specifically the way in which the distribution of discharged material at the seabed alters through time as a consequence of the complex interaction of processes such as dispersion, advection and burial).

Although it is a study in its own right, the Tracer Study will be also be used to inform the Seabed Sediment Process Report. As an initial position, Tracer Study reports will be produced in Years 1 and 2 - 3. Following review of the results from the initial Tracer Study, further work may be required.

Reporting Framework	
Data Collection	During each seabed sampling exercise.
Timing	Brief interim reports to be produced describing each individual injection and sampling programme. Interim reports will be issued in Years 1 and 2 only. Final tracer study interpretation report to be produced following completion of analysis and interpretation of data (year 2 – 3 depending on when in year 2 the fieldwork campaign is completed).
Report Submission	Individual field reports (interim reports) due within 3 months of injections and sampling. Each field report to be submitted to TWG members for review within 3 months of survey completion. Final collation and interpretation report due for submission to TWG members for review within 3 months of completion of sediment sample processing.

6.3.4. Regional Plume Study Reports (screened and unscreened conditions)

The Regional Plume Study will describe the nature and extent of plumes generated by dredging, specifically providing the following:

- **A description of the spatial extent of plumes generated by screened and unscreened loading operations.**
- **A description of the longevity of plumes generated by dredging.**
- **A description of the re-suspension potential of sediment deposited from the plume.**
- **An assessment of the ultimate fate of plume sediments.**
- **A description of the 3 dimensional character of plumes in the ECR.**
- **A comparison with plume models described in the REA dispersion studies.**

Reporting Framework	
Data Collection	During Plume Study field work in Year 1.
Timing	Interpretation of findings due within 3 months of survey completion.
Report Submission	Field report to be submitted to TWG members for review within 3 months of survey completion. Final interpretation report due by December 31 of Year 1.

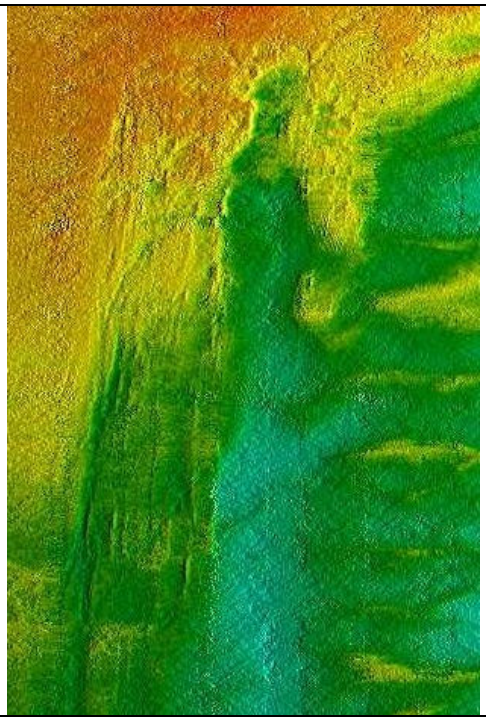
Hanson vessel Arco Dijk (Photo – Hanson/BMAPA) – characterisation of plumes generated by activities in the Eastern Channel will be a major part of the regional monitoring programme.

6.3.5. Annual Seabed Sediments, Part 1 – Process Report

The Seabed Sediment Process Report will draw on the findings of the Screening, Tracer and Plume Studies, and specific geophysical and ground truth data, in order to describe:

- **The sediment deposition and transport processes at the Regional type site (473 East).**
- **An assessment of measured extent of seabed sediments deposited and an assessment of the likely future extend of these seabed sediments.**
- **Discussion of the validity of applying the results to other ECR licence areas.**

Reporting Framework	
Data Collection	Seabed sampling and geophysics to be carried out at 6 monthly intervals in Years 1 and 2.
Timing	Annual report due within 1 month of December 31.
Report Submission	Field report describing sediment sampling and geophysics to be submitted to TWG members for review within 3 months of survey completion. Interpretation report due by end March for submission to TWG.



Use of acoustic survey methods such as swath bathymetry and sidescan sonar will provide valuable data regarding the effects of extraction and interactions between active areas and the surrounding seabed (Example Swath Image – Hanson).

6.3.6. Annual Seabed Sediments, Part 2 – Status and Dredging Operations Report

This section of the Seabed Sediments report will act as a synthesis of the findings of Reports 1 – 5. It will also provide an analysis of the effects of dredging on seabed sediments across the region.

Reporting Framework	
Data Collection	As part of the field work related to reports 1 – 5.
Timing	Report is annual collation of all data and interpretation relevant to seabed sediments in the region.
Report Submission	Final collation and interpretation report due by end March of each year for submission to TWG.

6.3.7. Annual Regional Ecological Monitoring Report

The benthic survey report will be composed of three sub-sections:

- **Benthic infaunal and epifaunal communities.**
- **Benthic biotopes and habitats.**
- **Fish and shellfish communities.**

Reporting Framework	
Data Collection	All sampling of biological communities is to be carried out between July and October inclusive.
Timing	Annual report.
Report Submission	Field report describing biological sampling to be submitted to TWG members for review within 2 months of survey completion. Final interpretation report due by end March of year following sampling for submission to TWG.

6.3.8. Annual ECA BAP Report

Whilst the benthic survey report will provide specific data and results related to conservation habitats and species, the Annual ECA BAP report will describe the nature conservation aspects of ECR operations within the framework of the ECA BAP (**Section 2**).

The report will review the status of habitats and species and also the actions and targets as specified in the BAP. The Annual BAP report will be provided to the TWG and ECEN for discussion at the annual meeting following which a revised BAP will be issued for the following year.

Reporting Framework	
Data Collection	Undertaken as part of biological sampling and associated geophysical surveys. Also incorporating licence specific data where relevant.
Timing	Annual report.
Report Submission	ECA BAP annual report submitted prior to TWG review period and ECEN annual review meeting in June. Revised ECA BAP to be issued following the annual review meeting before end of July each year.

6.4. ECEN Meetings

ECEN meetings will be held annually, unless otherwise noted, as described below however, extraordinary meetings may be called as required.

6.4.1. Initial Start-up Meeting

It is proposed a start-up meeting be held prior to commencement of operational dredging. This will provide an opportunity for members of ECEN to discuss planned activity and, where necessary, be introduced to current extraction plans, survey progress and planned survey programme.

In summary the purpose of the start-up meeting will be:

- **To review the baseline survey progress and description of the ECR that will provide the foundation for the monitoring programme.**
- **To review the scope of the survey activity for the year ahead.**
- **To discuss amendments, if required, to the proposed Year 1 surveys.**
- **Formally open lines of communication between the members of the TWG and ECEN.**
- **Introduce the proposed programme, structure and delivery dates for survey reports.**

6.4.2. Annual Meetings

Following Year 0 survey activity (and in subsequent years) and submission of the reports described above, Annual Review Meetings will be held as follows:

6.4.2.1. ECEN Technical Working Group Meeting

A meeting of the ECEN TWG will be held annually following the 8 week review period of monitoring reports.

It is planned that the meeting will be held in the last week of May each year.

6.4.2.2. ECEN Stakeholder Group Meeting

A meeting of the ECEN Stakeholder Group will be held annually 2-4 weeks following the annual TWG meeting. It is planned that the meeting will take place at some point in weeks 2-4 of June each year.

- **Representatives of the ECR Stakeholder Group**
- **ECA Licence holders**
- **TWG members (where available)**
- **Fisheries liaison representative(s)**
- **Navigational liaison representative(s)**
- **ODPM observers**

6.5. Annual Review Reporting

6.5.1. Annual Monitoring Interpretation and Summary Report

The Annual Monitoring Interpretation and Summary Report will provide a roundup of all the monitoring activity of the previous twelve months. It will be issued following review of reports 1 – 8 (when activity dictates production) by the TWG and the annual ECEN meeting. The Annual Monitoring Summary Report will be issued before the end of July in each year of dredging operations.

The Annual Monitoring Interpretation and Summary report will also contain recommendations for subsequent years dredging management and monitoring which will be fed back into the monitoring programme at all levels.

6.5.2. ECR BAP Annual Revision

Following the Annual Review Meeting, a revised version of the ECA BAP for the ECR will be issued. This will provide an overview of the management performance of the ECA against the objectives, actions and targets specified in the initial ECA BAP and also provide a revised list of objectives, actions and targets for the following year.

6.6. Regional Environmental Assessment II

It is proposed that a second Regional Environmental Assessment (REA II) is produced in Years 4 and 5 of operational dredging in the ECR. The purpose of the REA II will be:

- **To review the first five years of dredging activity.**
- **To review the first five years of results from monitoring activity in the ECR.**
- **To discuss the outcomes of the monitoring and review process.**
- **To analyse the success or otherwise of the function of the ECEN and TWG.**
- **To provide a comparison with the environmental predictions of the initial REA.**
- **To discuss the impact of dredging on the ECR and the level at which dredging should be allowed to continue in Years 6-15 of licence terms.**
- **To suggest monitoring, mitigation and management of dredging impacts in Years 6-15.**

6.7. Storage and Dissemination of Information

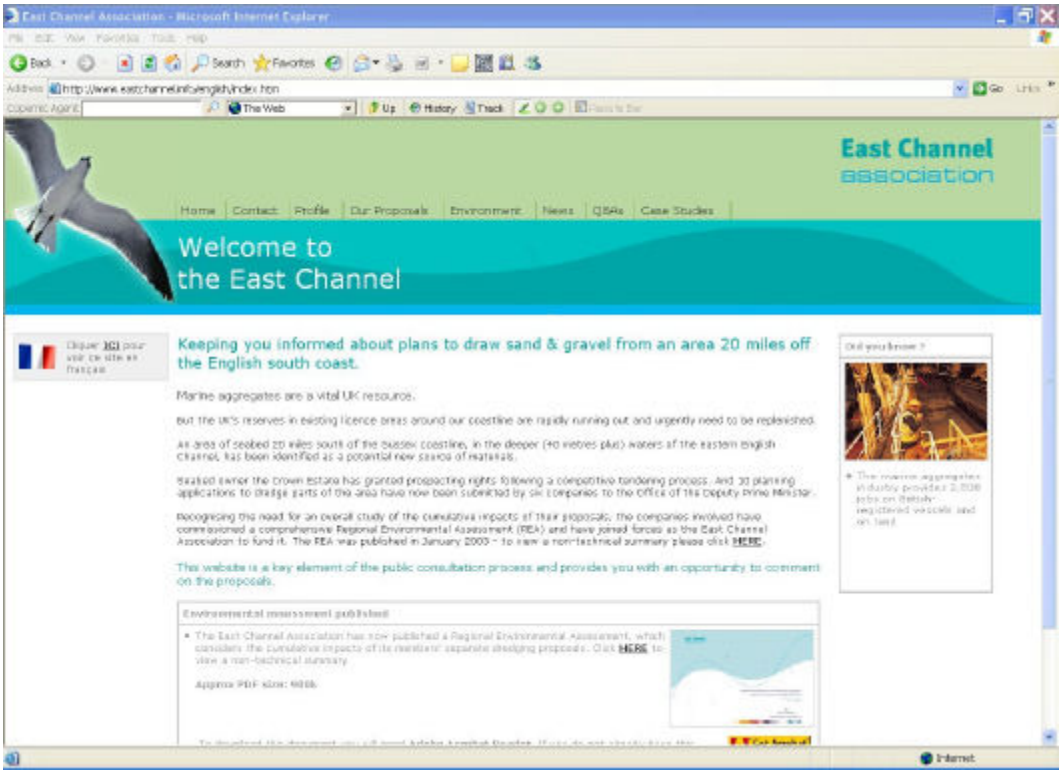
6.7.1. ECA GIS

The companies of the ECA understand the importance of robust data management. The ECA are committed to developing the ECA GIS to ensure that monitoring survey data and reports are collated and archived in a structure and format that ensures transparency. The design and function of the ECA GIS will be developed during the 6 months following agreement of the Blueprint Structure.

6.7.2. ECA Website

The ECA Website will be developed to provide ECR dredging and monitoring data to stakeholders.

The ECA GIS will link to the ECA website so that information is provided and disseminated online.



The ECA website will be developed to enable stakeholders to access data and reports from the regional monitoring programme. It is anticipated that the ECA GIS will be directly linked to the website to allow graphical representation of the results of the monitoring programme.