



**SID 5** **Research Project Final Report**

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## Executive Summary

7. The executive summary must not exceed 2 sides in total of A4 and should be understandable to the intelligent non-scientist. It should cover the main objectives, methods and findings of the research, together with any other significant events and options for new work.

The project took forward the developments made in Phases 1 and 2 of the Estuaries Research Programme since 1998 on estuary processes and morphology. It provided an update to the Enhanced Estuary Impact Assessment System (EIAS) and the scope of the integrated Estuary Management System (EMS). Consultation with key members of the estuary management community was completed and the outcomes of the consultation were presented in a report (FD2119/TR2) which was used to inform the research carried out in the project.

The EIAS has been developed and delivered in the form of a web-based resource called the Estuary Guide: [www.estuary-guide.net](http://www.estuary-guide.net). This provides a readily accessible and comprehensive resource for anyone undertaking work in estuaries and provides help in selecting appropriate methods for evaluating and predicting morphological behaviour. The website provides easy access to outputs from Phases 1 and 2 of the Estuaries Research Programme (ERP). Training has been provided in the use of the Estuary Guide and associated resources arising from the ERP. These events took place in November 2007 and the presentation materials are available for reference from the Estuary Guide website.

The recommendations from ERP2 projects have been brought forward and synthesised in terms of further developments and research required over the next 3 to 5 years. The research is required to underpin the delivery of the EMS and associated modelling tools. The scope of an EMS which can support existing initiatives on flood risk assessment and recommendations for a programme of work in ERP3 are presented. This includes links which can be made to the Modelling and Decision Support Framework project (MDSF2).

The project has referenced the developments for the next generation of modelling tools and datasets that are required for the EMS, both in support of flood risk assessment and also in relation to the needs of environmental studies in estuaries.

A final seminar workshop of the project was held in March 2008. Presentation material from that event is also hosted on the Estuary Guide website.

## Project Report to Defra

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8. As a guide this report should be no longer than 20 sides of A4. This report is to provide Defra with details of the outputs of the research project for internal purposes; to meet the terms of the contract; and to allow Defra to publish details of the outputs to meet Environmental Information Regulation or Freedom of Information obligations. This short report to Defra does not preclude contractors from also seeking to publish a full, formal scientific report/paper in an appropriate scientific or other journal/publication. Indeed, Defra actively encourages such publications as part of the contract terms. The report to Defra should include:
- the scientific objectives as set out in the contract;
  - the extent to which the objectives set out in the contract have been met;
  - details of methods used and the results obtained, including statistical analysis (if appropriate);
  - a discussion of the results and their reliability;
  - the main implications of the findings;
  - possible future work; and
  - any action resulting from the research (e.g. IP, Knowledge Transfer).

See R&D Report FD2119/TR3 of which the following is an outline summary.

The following scientific objectives were set out in the contract:

1. To define and specify the components of an enhanced Estuary Impact Assessment System (EIAS) as the means by which results and tools arising from ERP2 are delivered to users.
2. To scope out the form of an integrated Estuary Management System (EMS).
3. To scope out the next generation of estuary modelling tools necessary to deliver the EMS.
4. To assess the needs of Operating Authorities, the flood management industry and other organisations involved in estuary management, to understand who wants/needs to know about the outputs and the best way to disseminate the tools that the programme is producing.
5. To disseminate these via a website and face-to-face at a workshop and two training events.

These objectives have been met in full during the course of the project work and reporting. A full scientific report (FD2119/TR3) has been completed with the following list of contents.

Possible future work in developing the EMS and supporting tools has been summarised in Section 7 of the report. The needs for future work have been based on consultation carried out in the project (Section 3), the synthesis of recommendations from previously completed Estuaries Research Programme projects (Section 5), and analysis of the links with other R&D work on flood risk and environmental management (Section 6).

The content of the two training events is described in Section 4 and after further development within the project that information formed the basis for the final seminar workshop of the project. Feedback from the training and final project workshop has been summarised in Appendix 5.

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## References to published material

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9. This section should be used to record links (hypertext links where possible) or references to other published material generated by, or relating to this project.

The project has compiled a comprehensive set of information on the internet web site [www.estuary-guide.net](http://www.estuary-guide.net)

Three reports have been published:

Whitehouse, R.J.S., Beech, N.W., Jackson, C.D. and Townend, I.H. (2007). Inception Report. Development and dissemination of the Estuaries Research Programme. R&D Technical Report FD2119/TR1 prepared for the joint Defra/EA Flood and Coastal Erosion Risk Management R&D Programme. April 2007.

Beech, N.W. and Whitehouse, R.J.S. (2007). Report on initial consultation. Development and dissemination of the Estuaries Research Programme. R&D Technical Report FD2119/TR2 prepared for the joint Defra/EA Flood and Coastal Erosion Risk Management R&D Programme. September 2007.

Whitehouse, R.J.S., Beech, N.W., Townend, I.H, Jackson, C.D., Williams, A. and Surendran, S. (2008). Final Report. Development and dissemination of the Estuaries Research Programme. R&D Technical Report FD2119/TR3 prepared for the joint Defra/EA Flood and Coastal Erosion Risk Management R&D Programme. April 2008.

