



SID 5 Research Project Final Report

• Note

In line with the Freedom of Information Act 2000, Defra aims to place the results of its completed research projects in the public domain wherever possible. The SID 5 (Research Project Final Report) is designed to capture the information on the results and outputs of Defra-funded research in a format that is easily publishable through the Defra website. A SID 5 must be completed for all projects.

- This form is in Word format and the boxes may be expanded or reduced, as appropriate.

• ACCESS TO INFORMATION

The information collected on this form will be stored electronically and may be sent to any part of Defra, or to individual researchers or organisations outside Defra for the purposes of reviewing the project. Defra may also disclose the information to any outside organisation acting as an agent authorised by Defra to process final research reports on its behalf. Defra intends to publish this form on its website, unless there are strong reasons not to, which fully comply with exemptions under the Environmental Information Regulations or the Freedom of Information Act 2000.

Defra may be required to release information, including personal data and commercial information, on request under the Environmental Information Regulations or the Freedom of Information Act 2000. However, Defra will not permit any unwarranted breach of confidentiality or act in contravention of its obligations under the Data Protection Act 1998. Defra or its appointed agents may use the name, address or other details on your form to contact you in connection with occasional customer research aimed at improving the processes through which Defra works with its contractors.

Project identification

1. Defra Project code
2. Project title
3. Contractor organisation(s)
4. Total Defra project costs (agreed fixed price)
5. Project: start date
end date

6. It is Defra's intention to publish this form.
Please confirm your agreement to do so..... YES NO

(a) When preparing SID 5s contractors should bear in mind that Defra intends that they be made public. They should be written in a clear and concise manner and represent a full account of the research project which someone not closely associated with the project can follow.

Defra recognises that in a small minority of cases there may be information, such as intellectual property or commercially confidential data, used in or generated by the research project, which should not be disclosed. In these cases, such information should be detailed in a separate annex (not to be published) so that the SID 5 can be placed in the public domain. Where it is impossible to complete the Final Report without including references to any sensitive or confidential data, the information should be included and section (b) completed. NB: only in exceptional circumstances will Defra expect contractors to give a "No" answer.

In all cases, reasons for withholding information must be fully in line with exemptions under the Environmental Information Regulations or the Freedom of Information Act 2000.

(b) If you have answered NO, please explain why the Final report should not be released into public domain

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 aim of RACE (Risk Assessment of Coastal Erosion) was to develop, test and disseminate a robust and consistent probabilistic method for assessing the hazard and risk of coastal erosion. A method was required that could be supported by data and information from monitoring programmes and risk-based inspections and also be compatible with the RASP (Risk Assessment of flood and coastal defence for Strategic Planning) method used for flood risk assessment.

The methodology that has been developed is based on the source-pathway-receptor risk model. Thus, the various sources of the erosive forces and how they propagate to their point of impact are determined before the magnitude of the effect on receptors is assessed. A range of analytical techniques have been developed, with the choice of which to adopt dependent on the level of detail required for each assessment and the extent and quality of data that is available - this will ensure that proportionate effort is applied at all times, a basic principle of the methodology.

The source data is determined by a range of techniques of varying complexity, as appropriate to the level of analysis being undertaken. These techniques include approaches for assessing the potential failure of coastal defences over time and the unconstrained, natural erosion of the coastal landforms. The pathway stage brings together these two components to establish the hazard, i.e. the probability of erosion taking account of defence influence. The final receptor stage takes the erosion assessment and combines this with spatial (receptor) data to make the risk assessment. The latter stage is being taken forward at a national level by the Environment Agency to produce the National Coastal Erosion Risk Map for England.

The project team, led by Halcrow, included the University of Plymouth, Terry Oakes Associates, and Mark Lee (independent consultant). The Client Steering Group was made up of representatives from Defra, the National Assembly for Wales, the Environment Agency, Local Authorities and Academia.

End-users were consulted at various stages throughout the project. At the start of the project, an initial stage

of consultation was undertaken in order to establish the needs of end-users. Further consultation was conducted later on to disseminate what had been produced to end-users and also to request their participation in trials of the final deliverable. A review of existing knowledge was undertaken at the start of the project to determine any information of relevance to the project, with this exercise including published reports and technical papers as well as erosion assessment methods, tools and available data sets.

Although not a project deliverable, spreadsheets were developed in order to validate the methodology that had been developed, its result and individual components. This exercise also proved that software could be developed for the entire methodology. Internal testing of the overall methodology was undertaken as far as possible by the project team using data available to them. Volunteer end-users also tested the methodology with their own site specific information - as such, the methodology has thus been subject to industry review.

Project Report to Defra

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).

References to published material

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.

'Risk Assessment of Coastal Erosion'; KA Burgess, A Hosking, F Loran, R Moore (Halcrow Group Ltd), M Lee (Consultant), D Reeve, A Pedrozo-Acuña (University of Plymouth), T Oakes (Terry Oakes Associates), DEFRA 41st Flood & Coastal Erosion Risk Management Conference, 4th – 6th July 2006.

'A Consistent Approach to Coastal Erosion risk Assessment'; K Burgess, A Hosking (Halcrow Group Ltd), M Lee (Consultant), D Reeve, A Pedrozo-Acuña (University of Plymouth), ICCE, 3rd – 8th Sept 2006.

