

Feasibility study of the impacts of a proposed tidal array installation in Alderney South Banks, by the University of Southampton.

Report overview.

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1. Project introduction

The aim of this work is to establish whether there is a possibility that the deployment of an array of tidal devices in Alderney waters could significantly alter the flow over the set of sandbanks known as the Alderney South Banks. In addition to hydrodynamic modelling a parallel sediment transport model will be developed and used to assess how changes to the flow regime will affect the sediment dynamics and morphology of the banks.

2. Project overview

The project outputs consist of five 'milestones' corresponding to work packages that detail project specifics. These are summarised below:

- MS1 (WP 1): Characterization of the sensitivity of the South Banks to changes in flow regime through analysis of hydrographic survey data.
- MS2 (WP 3): Description of the sources of data for the numerical model and its setup
- MS3 (WP 5): Numerical model results and validation report.
- MS4 (WP 6): Description of tidal device array parameterization.
- MS5 (WP 7): Report on changes in flow field as predicted by the model and the implications for the sandbanks, in the light of the work completed in WP1.