

PUTMOR field measurements at a temporary sand pit

Between October 1999 and March 2000 an extensive measuring campaign was held to collect data in and around a large sand pit (1300m x 500m x 10m) at the North Sea some 10 km off the Dutch coast near Hook of Holland. The aim of the measurements was to assess the impact of a large-scale sand pit on water movement, water quality and morphology.

The measurements include bathymetry, flow velocities, water levels, temperature, conductivity, turbidity, oxygen content and sampling and analysis of seabed material.

The study comprises the processing and validation of the raw measured data, as well as analysis of the measurements and verification of a number of hypotheses.

Data processing included salinity computations, air pressure correction on water level observations and ADCP signal corrections.

Examples of applied methods for the data analysis are Fourier analyses, harmonic analyses, flow model simulations (FINEL) and correlation analyses.

Apart from the findings on the impact of the pit, the study has also resulted in recommendations in monitoring practise and in indications on the hydrodynamic conditions in the surroundings of the sand pit in general.

Client RIKZ and DNZ of the Directorate-General for Public Works and Water Management (RWS)

the Netherlands

Location North Sea

Date 2001

Services data processing data validation data analysis flow model simulations

