LONG-TERM VISION WESTERN SCHELDT ESTUARY

The consortium "Long-term vision Western Scheldt" consists of Deltares, IMDC, Arcadis and Svašek Hydraulics. The goal of this project is to give advice on how the Western Scheldt can be managed with the focus on the long-term goals of safety, accessibility and ecology.

Within this project Svašek
Hydraulics has focused on longterm morphological computations
of the Western Scheldt estuary.
Advice is amongst others given on
the impact of sand mining,
influence of dumping strategies
and measures how to reduce the
tidal range.

The long-term morphological computations are carried out with the process-based FINEL2D model, which is developed by Svašek Hydraulics. The model is calibrated and validated on several long-term periods. The 1965-2002 period (38 year) showed good agreement between the calculated and observed morphological changes. A validation of the period 1860-1970

(110 year) also showed good

agreement between modelled bed changes and reality. The model shows good results with the historical morphological changes, which makes this model suitable for long-term simulations.

Western Scheldt estuary with 2011 bathymetry

385

386

375

30

40

50

X co-ordinates [km]

CLIENT

Dutch Ministry of public works and Antwerp Port authority

LOCATION

Western Scheldt Estuary, the Netherlands

DATE

2011 - 2013

SERVICES

FINEL2D modelling and advice





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