

WEAK LINK CADZAND-BAD

DESIGN SEA DEFENCE AND MARINA

The West Zeeuws-Vlaanderen weak link runs from Breskens to the Zwin. It's such a large area, the weak link is split into five sub-areas. One of them is Weak Link Cadzand-Bad. Cadzand-Bad is located in the south-western part of the Netherlands at the entrance of the Western Scheldt.

A weak link is a part of the sea defence that will no longer comply with the safety standards in the maximum scenario for sea level rise by now and 2020.

Svašek Hydraulics has written the design report of the sea defence and has derived detailed design conditions using the numerical wave model SWAN. One important part of the coastal defence is the extension and reinforcing of the existing jetties. By moving one of jetties there is the space for realising a marina between the two jetties. The feasibility of the combination of sea defence and creating a marina is carried out.

Wave penetration between the jetties has been simulated with HARES. Numerous HARES simulations were made to study different layouts and for the optimisation of the marina and effects for wave-overtopping at the sea defence.

FINEL2D is applied to forecast morphological development for different layouts of the marina. Next to it, current predictions are made in relation with the safety for swimmers.

The marina and the dike will be under construction in 2015.

CLIENT

Scheldestromen water board,
Zwakke Schakel project office

LOCATION

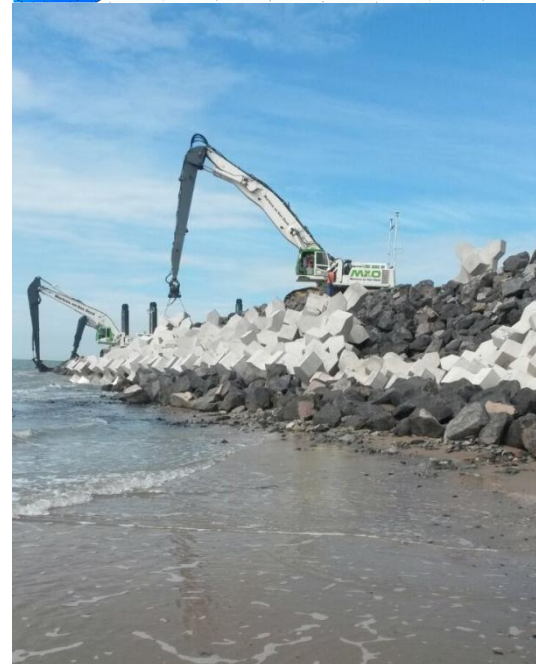
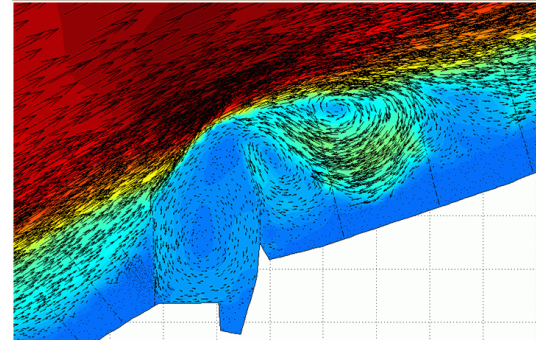
Cadzand-Bad, the Netherlands

DATE

2011 - 2015

SERVICES

SWAN and HARES wave modelling,
FINEL2D morphological simulations,
Optimisation and design sea defence,
Design marina layout.



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