

# Scheldt

## MOVING SEDIMENT ACROSS BORDERS

The Scheldt is a 355 km long river flowing across France, Belgium and the Netherlands. It can be divided into the non-tidal Upper Scheldt and the tidally influenced Lower Scheldt which includes the Flemish Sea Scheldt (from Gent to the Belgian-Dutch border) and the Dutch Western Scheldt (from the border to the mouth at Vlissingen). The Flemish Sea Scheldt is further divided in the Lower Sea Scheldt (from the border to upstream Antwerp) and the Upper Sea Scheldt (from Antwerp to upstream Gent).



Source: Report 'Systeemanalyse Natuur schelde-estuarium' (Illustrations by Zuidhof A., rvo.nl)

### Current Situation in the Scheldt Estuary

At the moment, sandy material is dredged from the Lower Sea Scheldt to ensure maritime access for the harbor of Antwerp. This material is relocated to the location 'Schaar van Ouden Doel' where the sand is commercially exploited to maintain the capacity of this site for future sediment relocations. However, reducing the amount of sand in the estuary results in an increase of water volume and an amplification of the tidal range.

This creates less favourable hydrodynamic conditions and impacts estuary uses, safety and environmental conditions:

- Navigation conditions are impacted due to lower water levels at low water;
- Flood risk is increased due to higher water levels at high water;
- The capacity for photosynthesis is decreased due to higher turbidity caused by higher current velocities.

For these reasons, commercial sand exploitation in the estuary is seen as a pressure which should be eliminated.

### Long-term sediment strategy

As part of a new long-term sediment strategy, Scheldt estuary management authorities and associated stakeholders are searching for solutions to address this pressure. A proposed solution is to search for new locations to relocate the dredged sediment to eliminate the need for commercial sand exploitation and thus keep all sediment in the estuary. One new relocation site was found in the Lower Sea Scheldt (Flanders) and introduced in 2017. In a next step, cross-border solutions for the continued maintenance dredging of the Sea Scheldt (Flanders) were investigated in the Western Scheldt (Netherlands). A pilot project for cross-border relocation of sandy material was set-up to determine the feasibility of this approach.

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## CROSS-BORDER SEDIMENT STRATEGY PILOT

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### Cross-border Pilot Project

The objective of this cross-border relocation pilot (GrensOverschrijdende ProefStorting - GOPS) is to find an alternative relocation site for the dredged sandy material. Several locations have been considered and evaluated, out of which two final locations were selected.

The pilot aims to study the effects on the environment such as how estuary morphology may change and how ecosystems will be impacted, resulting from the relocation of dredged sandy material. The dredged material will originate from maintenance dredging works in Flanders and will be relocated just across the border at two selected sites in the Netherlands. An extensive monitoring program is set-up to measure influences on the morphology and ecosystems surrounding the relocation sites

### Role of IMMERSE

This pilot is an initiative of the Flemish Department of Mobility and Public Works, division Maritime Access as part of and funded by the Interreg North Sea Region Project IMMERSE (IMplementing MEasuRes for Sustainable Estuaries). The participation within IMMERSE offers the opportunity to improve the pilot and future sediment management in the Scheldt estuary through the exchange of knowledge and results between partners and stakeholders.



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