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## 6. Sediment discharge in the Scheldt estuary

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The environmental effects of erosion, movement and deposition of sediment can be serious. The variation in drainage basin and precipitation characteristics results in significant differences in the quantity of fluvial sediment. This difference requires the manager of the navigable waterways in Flanders (Administration of Waterways and Marine Affairs, AWZ) to monitor the suspended sediment transport at the upstream boundaries of its territory. This monitoring network provides sediment data that can be used to (1) evaluate the effects of landmanagement practices that will reduce erosion rates, (2) determine the morphological effects of riverbed enlargement measures, (3) estimate the quantities to be dredged (4) fulfill the monitoring aspects of the EU Water Framework Directive, (5) enlarge the knowledge of the watersystem and (6) provide basic information for treatment of dredging material.

The approach consists of a continuous hourly monitoring method completed with topographical cross section measurements, measurements of turbidity samples, calibration of the turbidity monitor and correlation between local turbidity and cross section turbidity. Finally sediment transport is calculated from turbidity and validated discharge measurements.

Sediment data were collected at eight stations from 1999. Data for 1999 and 2000 were published in the annual report.

Data collection at different locations and processing of sediment samples will continue. All data will be published in annual data-reports and in the future on the internet.