Dré Maes

Bilateral water allocation agreements in the Meuse and Scheldt basins

Water allocation in transboundary basins: a global workshop on the status and good practices
Geneva 16-17 October 2017
Flanders inland water ways

Ghent-Terneuzen canal treaty

Meuse treaty
The Meuse treaty

°1995

Occasion: Drought → Economical equality, ecosystem Grensmaas
The Meuse treaty

- NL-supply of min. 8 m³/s to the Campine canals (BE)
- BE discharges max. 10 m³/s to Zuid-Willemsvaart (NL)
- equal water consumption (FL/NL) during dry conditions
- Joint modelling
- Maintaining a necessary ecological flow on the Border Meuse

<table>
<thead>
<tr>
<th>Undevided discharge [m3/s]</th>
<th>Grensmaas [m3/s]</th>
<th>VL/NL use [m3/s]</th>
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Scheldt water system
Supply and discharge

Lock complex Terneuzen

Weir Evergem
The treaty

°1960, revised 1985

**Occasion:** Upgrading the canal ↔️ + building sea lock

- **Canal Level** – 0.25 m, + 0.25 m
  - Balance supply-discharge
- **Salinity**
  - Fresh water supply: two month average > 13 m³/s
  - Salt-management lock complex Terneuzen
- **Guaranteed discharge capacity of 100 m³/s** at the downstream Terneuzen Locks
Complying with the treaty now

Dry

Wet
Future challenges: new lock + climate

New Lock: 427m (L) x 55 m(W) x 16 m (D)

Climate:
- Winter discharge ↗
- Summer supply ↘
- Sealevel ↗
with (near)future challenges

Decision Support System (DSS) for the Ghent-Terneuzen Canal

2017

**Occasion:** building the new lock WFD-compliant

**Goal:** salinity within WFD standards, treaty compliant water management with minimal disruption for shipping

→ anticipational mitigation, management guidelines based on expert advice group

**Framework:** Flemish-Dutch Scheldt Commission

**Method:** Joint Dutch-Flemish collaboration on defining content and technical specifications of the DSS
Decision Support System

Combining supply/discharge conditions and shipping schedules
Decision Support System

DSS input
Scheduled ships, lock planning, fresh water supply, salinity, water levels,…

DSS output
Compliance check: awareness
Lock use proposal: calculated advice and feedback
Thank you.