


Understanding the Tide

Crucial for joint management of the Scheldt estuary


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IAHR, 29/06/2015

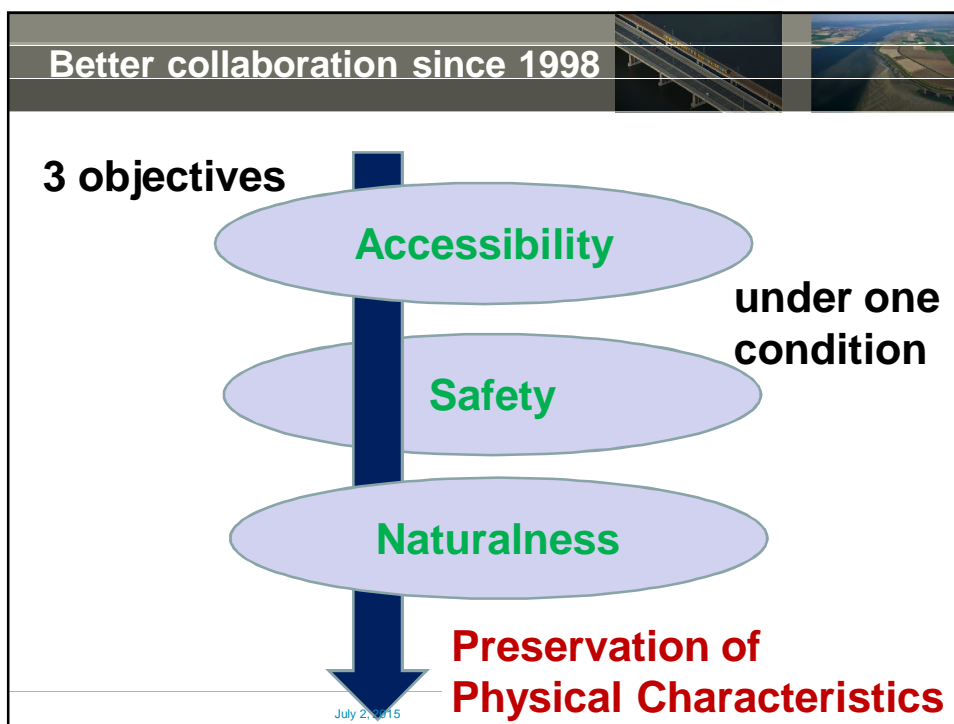
2 juli 2015

The Scheldt has been a source of conflict



After request 3rd deepening:
development Long Term Vision,





Better collaboration since 1998

- After request 3rd deepening -> development Long Term Vision, with agreement on :
 - * **threefold objective: Accessibility, Safety, Nature,**
 - * **preservation physical characteristics**
- Measures agreed on in 2005: treaties, also **'treaty on collaboration in management and policy'**, joint monitoring, research and effect-evaluation

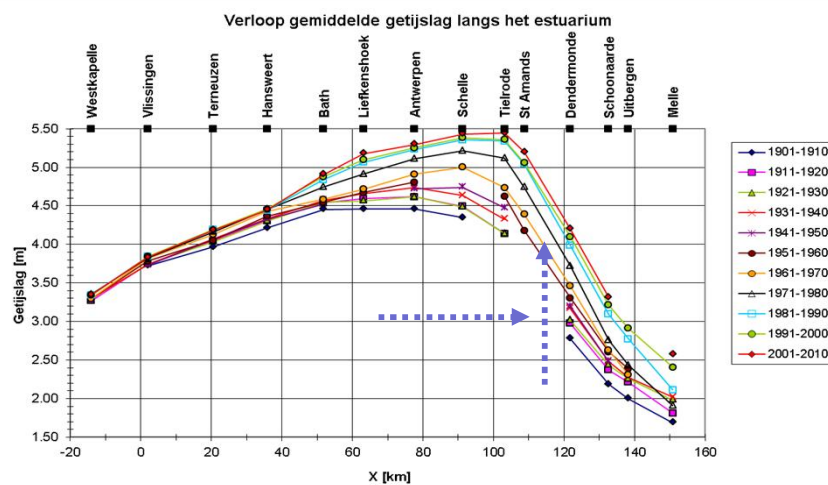
!! Collaboration breaks with 300 year tradition of conflict over Scheldt

!! No (or less) delay!, much faster than 2nd deepening

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Joint Research: analyse, explain, communicate



**Tidal Range -> agreement on its importance:
'system integrity on the large scale'**

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An attractive indicator / policy objective

Not good for naturalness

- Influence on intertidal areas, more energy upstream
- Tidal asymmetry and mud import tidal river

Not good for accessibility

- dangerous currents during springtide
- lower levels low water

Not good for safety

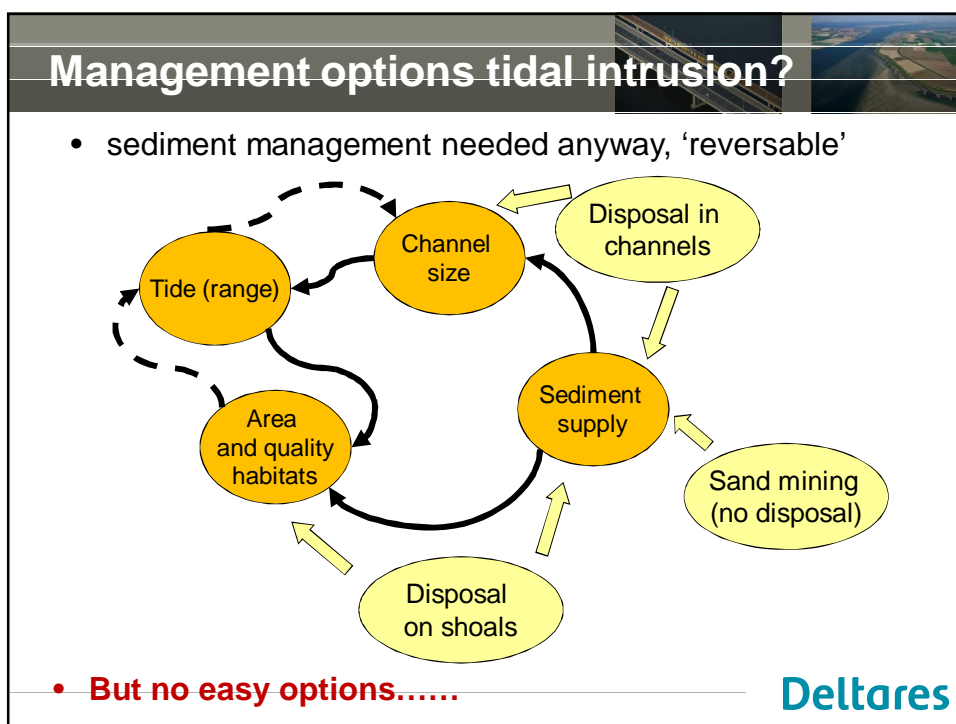
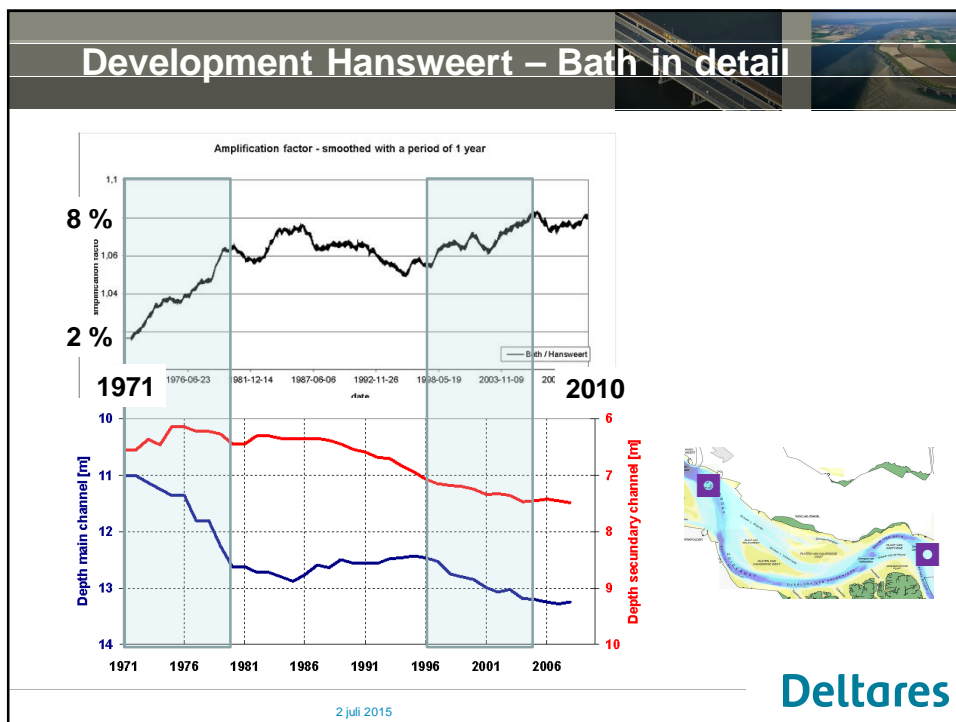
- High waters -> higher dikes
- Eroding channels -> extra defences

It reflects long term development

- Sustainability...!

Direct response to measures in geometry (next slide)

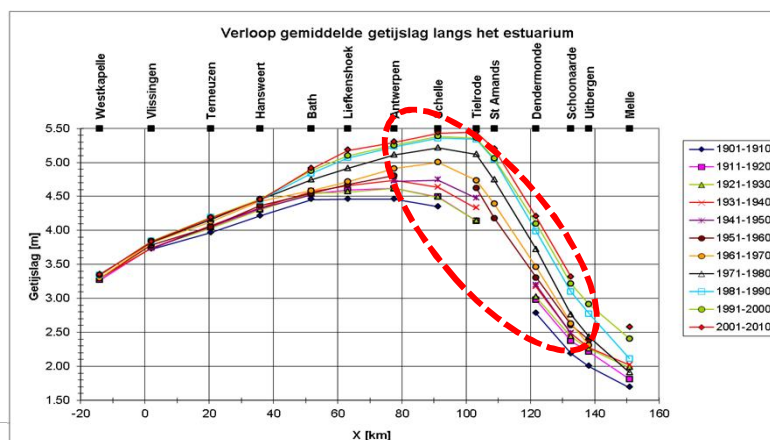
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How to move forward... Dilemma's

Most prominent challenge in the Sea Scheldt

- Hardly any space in the channels upstream Hansweert
- Shipping demands, preservation secondary channel



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How to move forward... Dilemma's

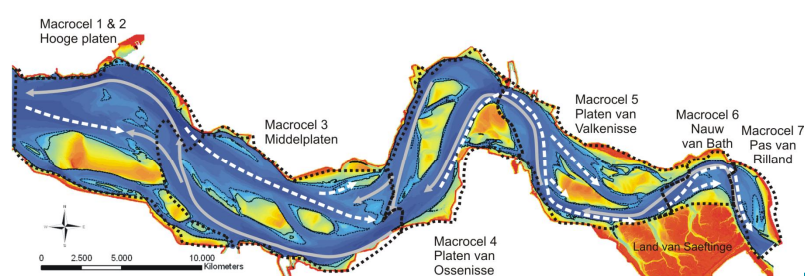
- Tidal intrusion is important (long term objective)
- But costs should also help short term objectives
 - Add sediment for extra safety
 - Improve ecological potential
- Still..... 'what do we want to preserve'
After 10 years we still haven't elaborated it to morphological objectives

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What is preservation of physical characteristics?

- Reducing tidal intrusion?
- Preservation multiple channel system Western Scheldt? Large 'ebb'- and 'flood' channels, smaller connecting channels, intertidal shoals and shallow water areas. ?
- **Morphology and hydrodynamics supporting all user functions? This will not be the same along the estuary**
- **How to link short and long term goals....**



Statements and food for thought

- We **cannot escape choices from the past**, harbours and embankments are there
- The estuary is **in transition** anyway, isn't it all about 'estuarine processes' and 'services'???
- **Science** can't give the unambiguous answer, but **it can and must be central** in the debate on the future of our estuary
- Estuaries with **one channel** and much intertidal area are **also regarded valuable**?
- Why is loss of secondary channel in Ems-Dollard not regarded as similar big issue?

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Questions

