

An aerial photograph of a wetland landscape in the Netherlands. The scene features a complex network of water channels and green fields. A small boat is visible in the water on the left side. The text is overlaid on the top portion of the image.

**Let's synergize and really start building with nature!
Three examples of sediment reuse in The Netherlands**

**10th International SedNet Conference
"Sediments on the move"**

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June 16th 2017**

**Sed
Net**

Why using sediments as a resource?

- Sustainability
- Lower costs
- CO₂ reduction
- Time
- Reduced nuisance for surroundings

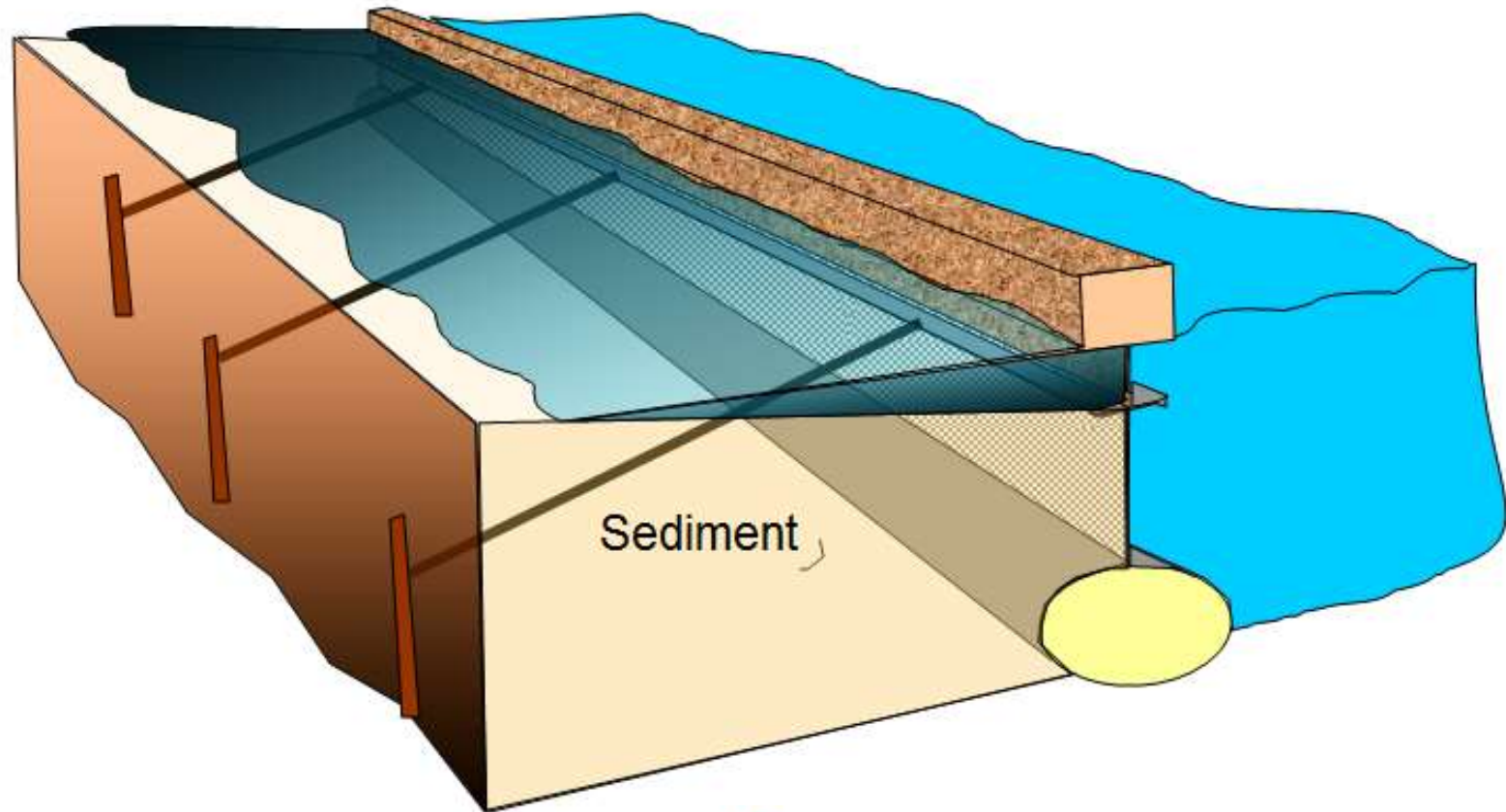


Shallow lakes of Wormer- and Jisperveld

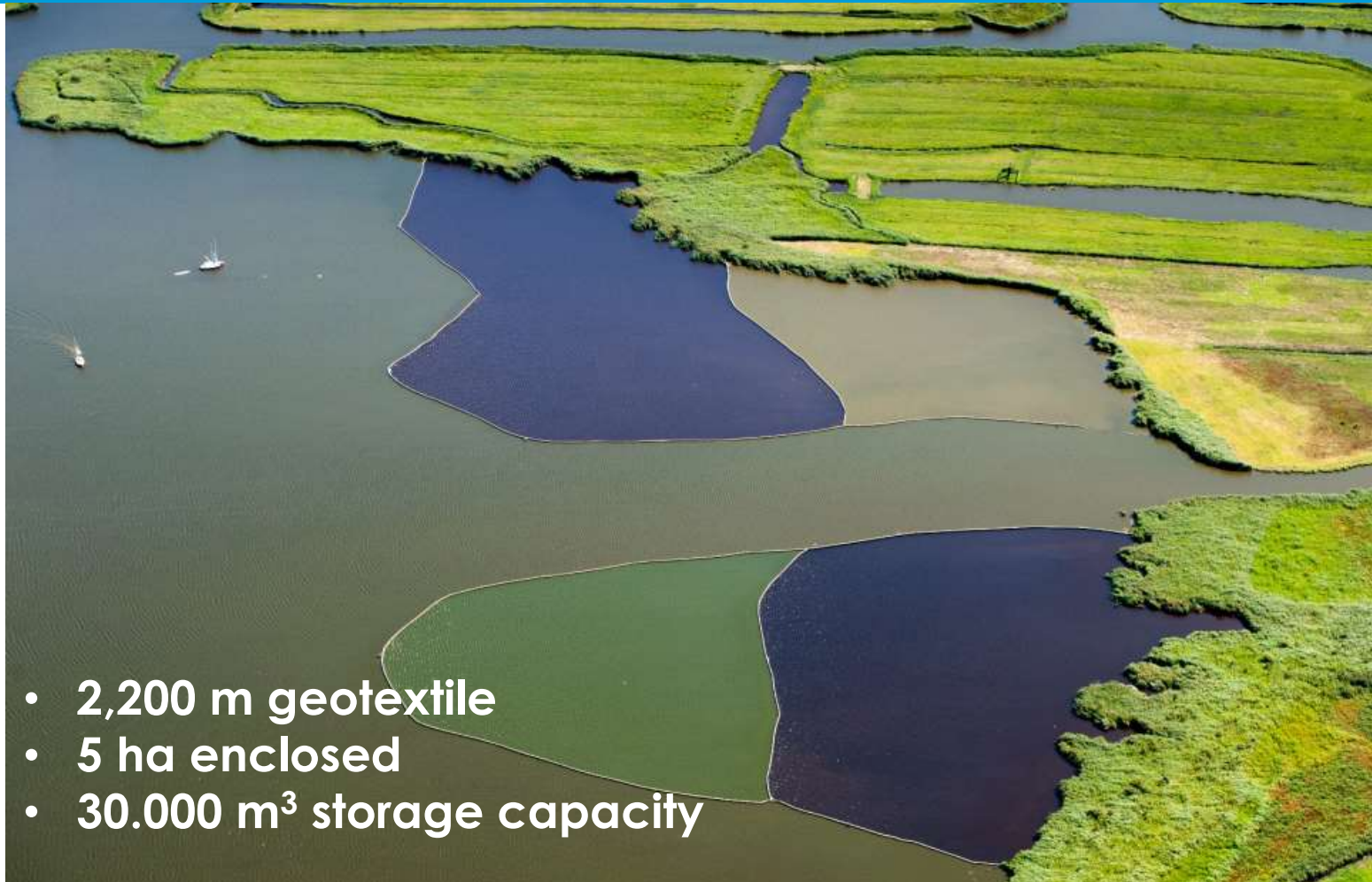
- Uninterrupted peaty grassland near Amsterdam
- Long history of different activities
- Need for sediment management



Sediment Storer



Sediment Storers in lake De Marken



- 2,200 m geotextile
- 5 ha enclosed
- 30.000 m³ storage capacity



Results



Tauw

Results



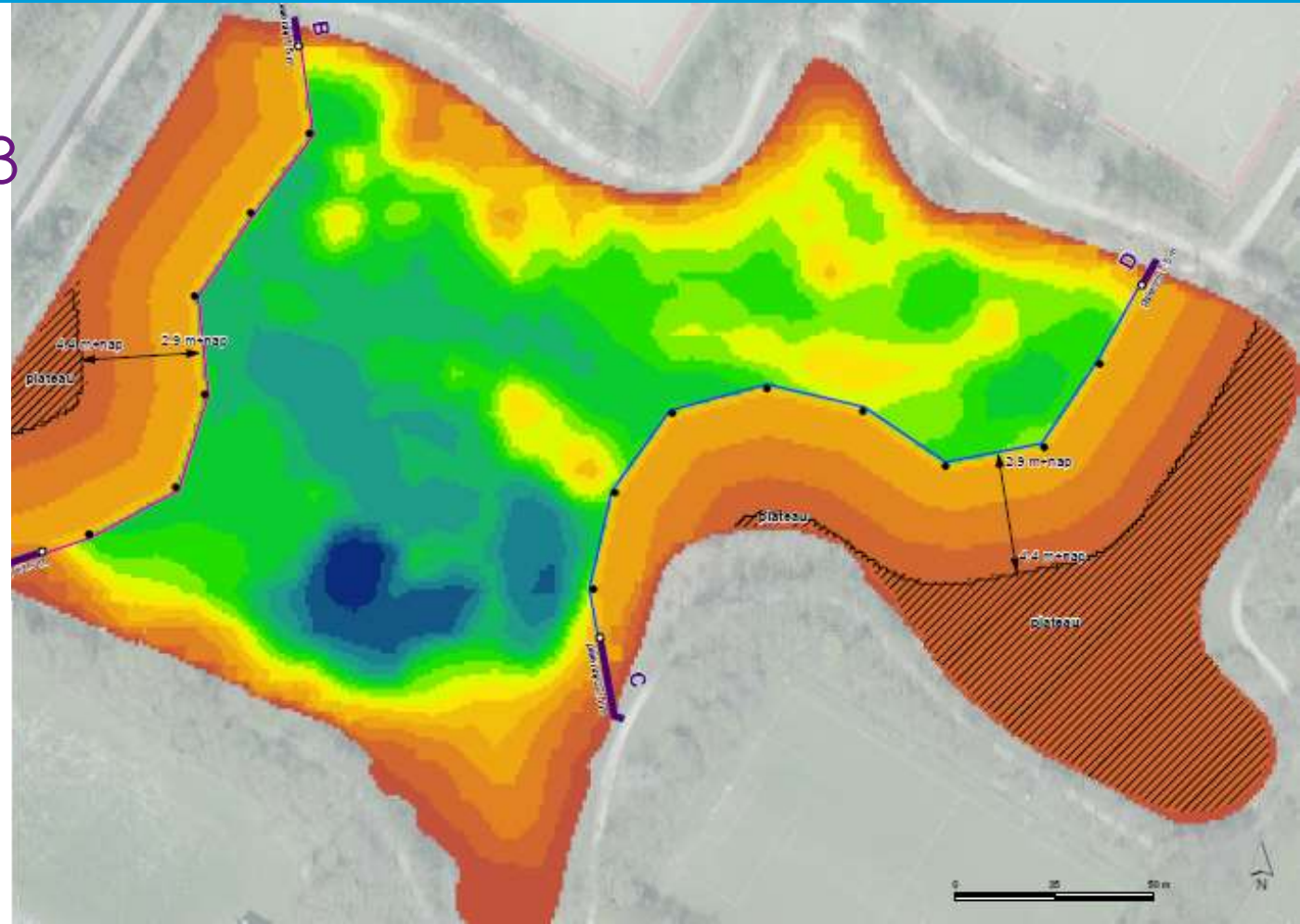
Deep lake

- Urban area
- Steep shores
- Poor water quality
- Lack of vegetation

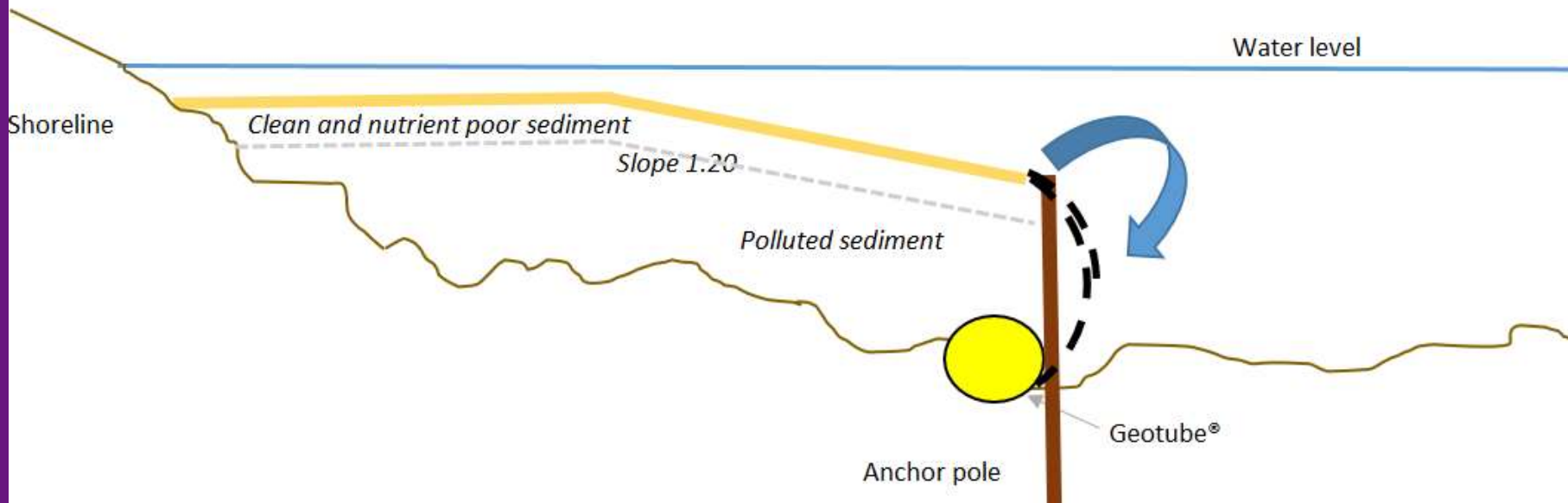


Design

- 1,7 ha
- 34.000 m³ storage



Phased approach



Anchor poles



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 **TENCATE**
materials that make a difference

Geotextile construction



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 **TENCATE**
materials that make a difference

Sediment on its way!

- Coagulant (FeCl₃)
- P/Fe < 0,055
- P < 1,36 (g/kg)
- P < 0,68 (g/kg)



Canal Gramsbergen

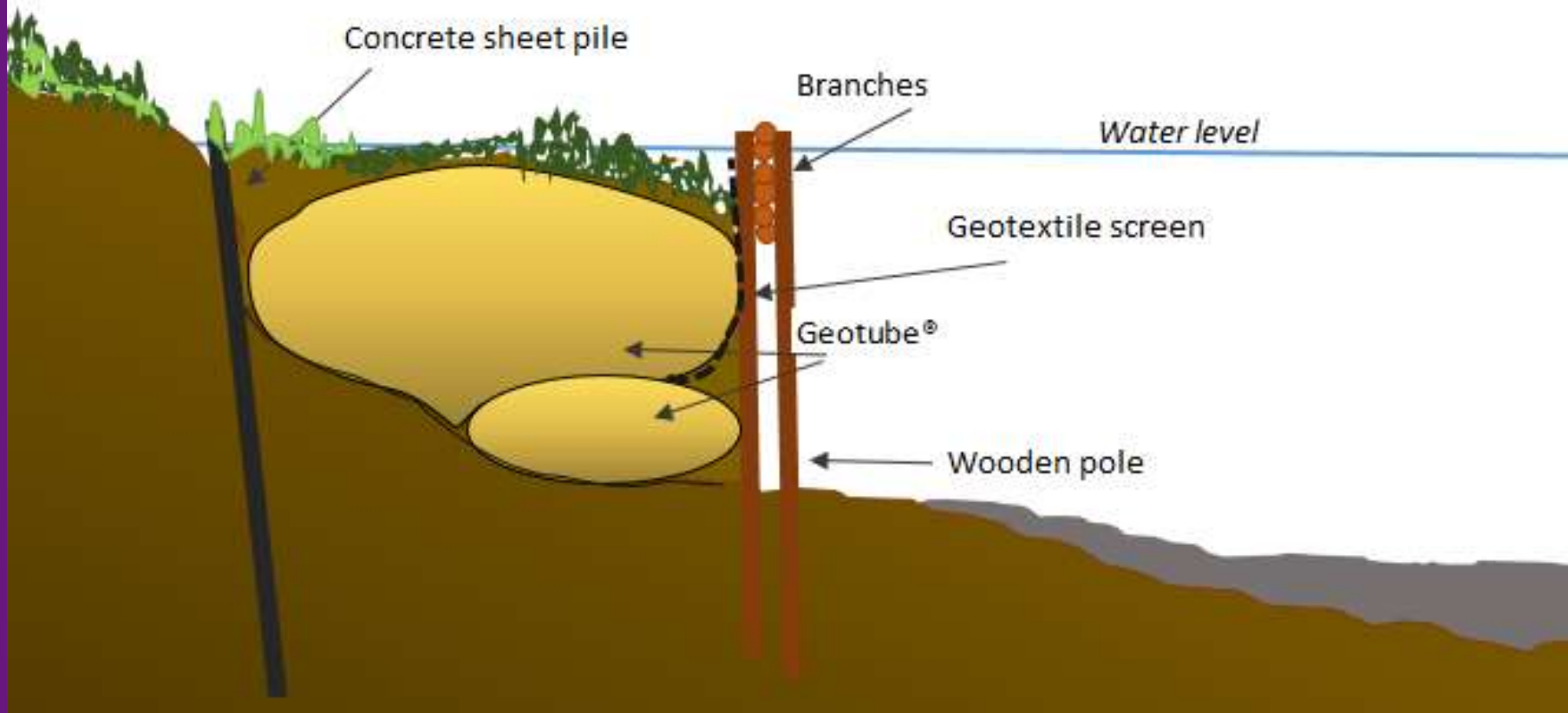


Tauw

Concrete sheet pile



Construction



Willow branches



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Take home message

- Make more use of nature's services!
- Both physical and chemical sediment characteristics are important to define reuse possibilities
- Material choice is crucial





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