



Rijkswaterstaat
Ministerie van Verkeer en Waterstaat



Bridge of John Frost

Introduction to the field visit to the floodplain Klompenwaard and the Bakenhof

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Margriet Schoor

RESTORE workshop

March 8, 2012



Rhine in the Netherlands



- Connects the port Rotterdam with the rest of Europe



Why side channels?

- Ecological rehabilitation
- Flood alleviation



fish



macro
invertebrates



water
plants



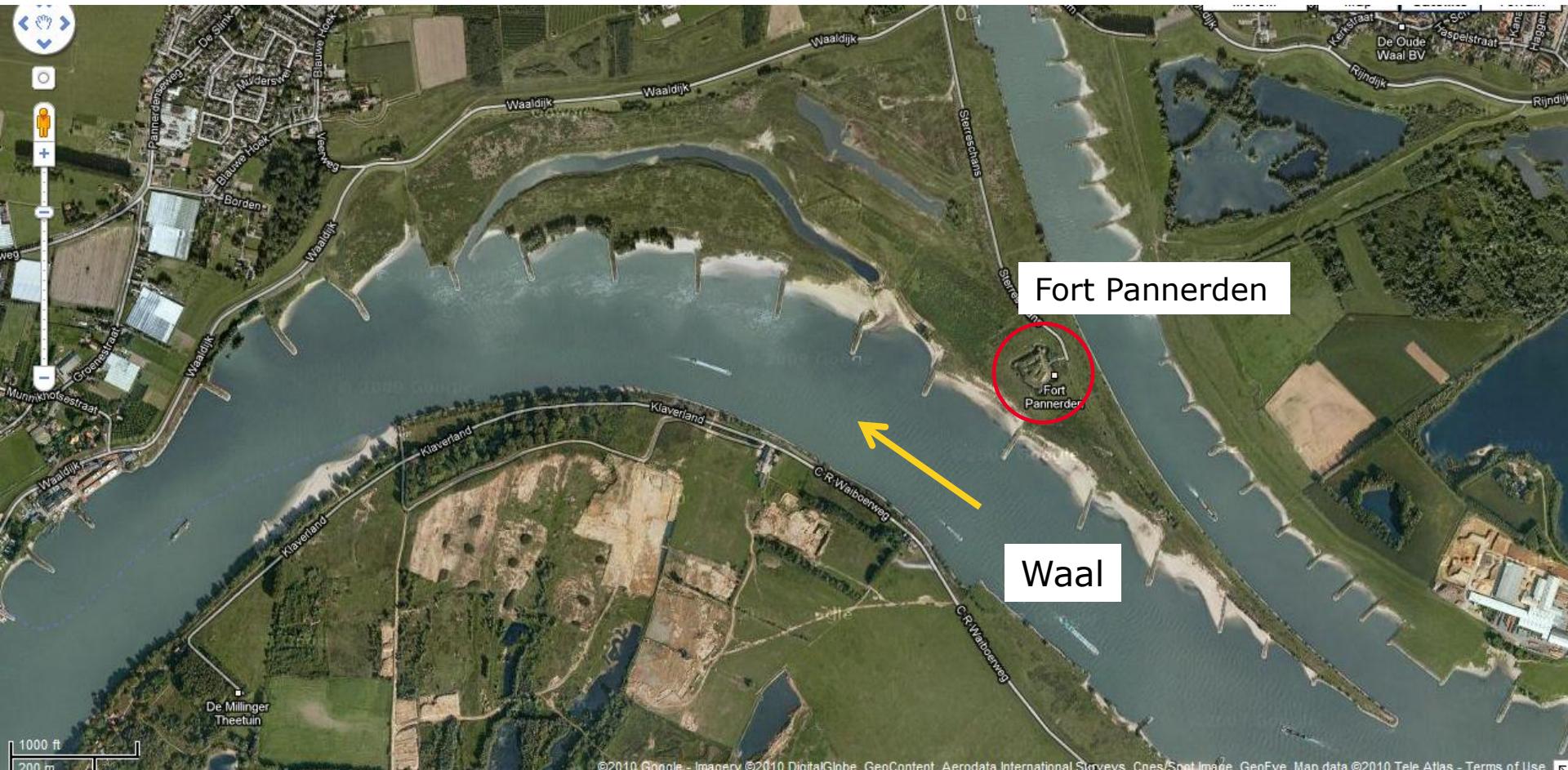
Challenges in design

- Navigation: no hinder due to sedimentation and side currents
- Maintenance side channel: manageable





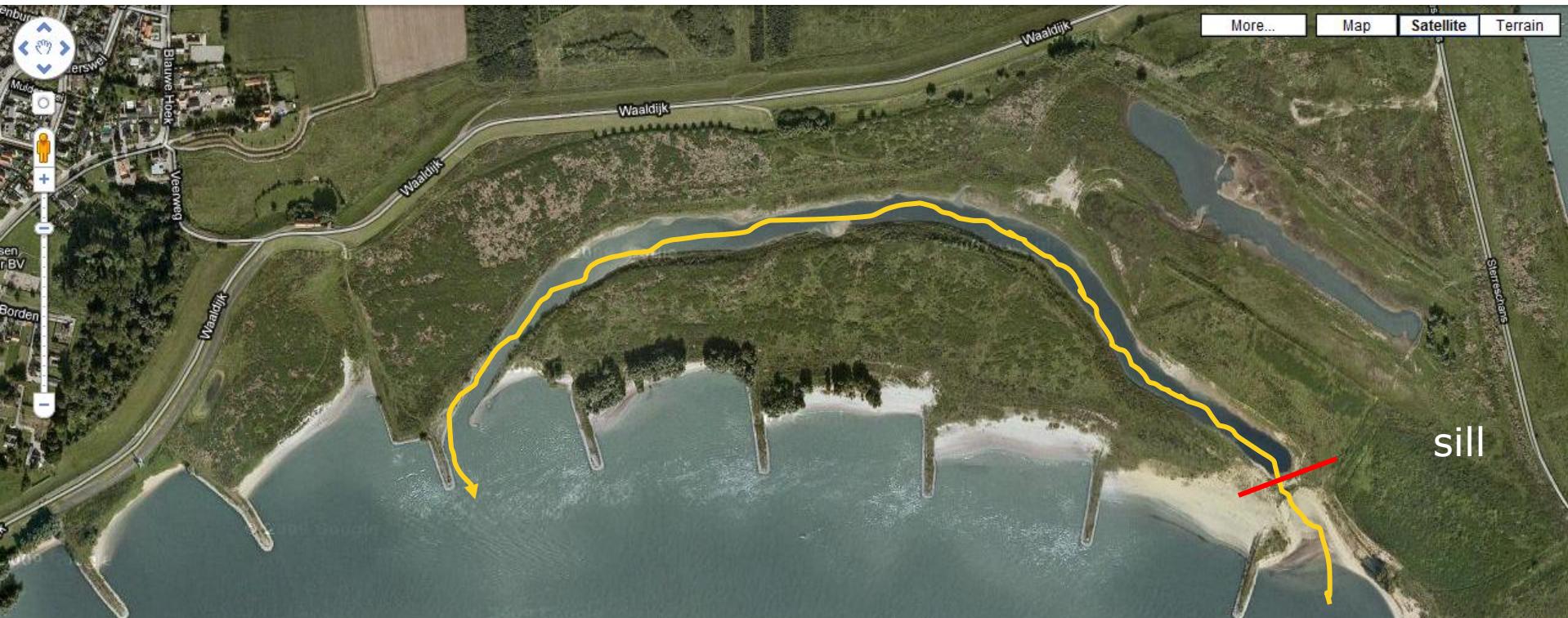
Kloppenwaard





Klompenwaard

clay used for dike reconstruction



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Klompenwaard





Klompenwaard



High sill (stones)
prevents sedimentation
in the navigation channel



High turbidity



when ships pass,



water flows in,



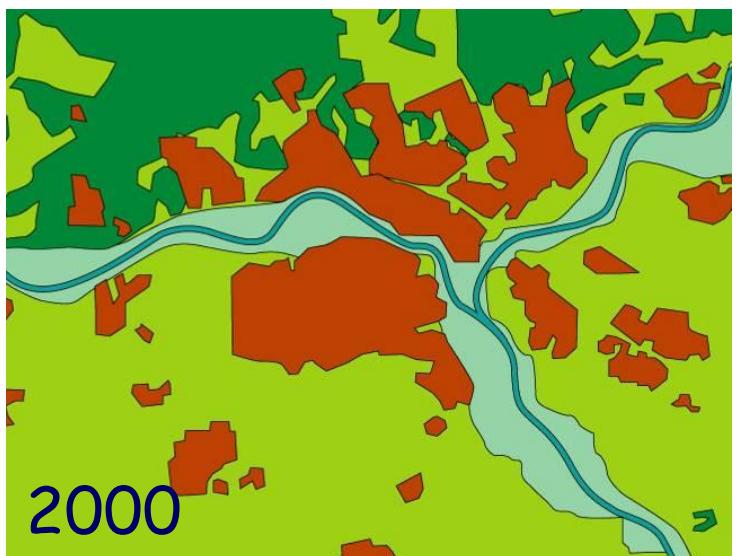
and out.



Bakenhof



City of Arnhem





Bakenhof

Dike relocation for flood alleviation in city of Arnhem



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June 2009

Bakenhof



Flooded, March 2010





Bakenhof



Construction in inlet



Nearly dry with extreme low water

June 2009



Mean water level

We wijzigen ons privacybeleid en onze voorwaarden. Dit is erg belangrijk. [Meer informatie](#) [Sluiten](#)





See you tomorrow. / Safe trip home.

