

The Potential of Wide Green Dikes along the Dollard

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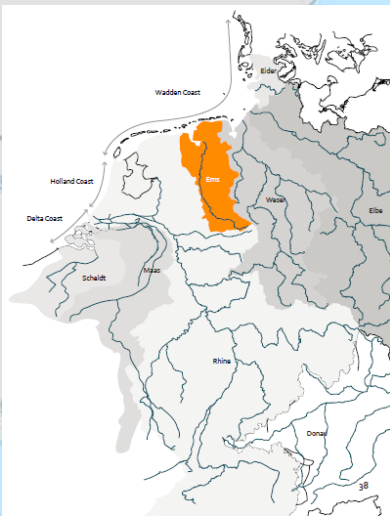


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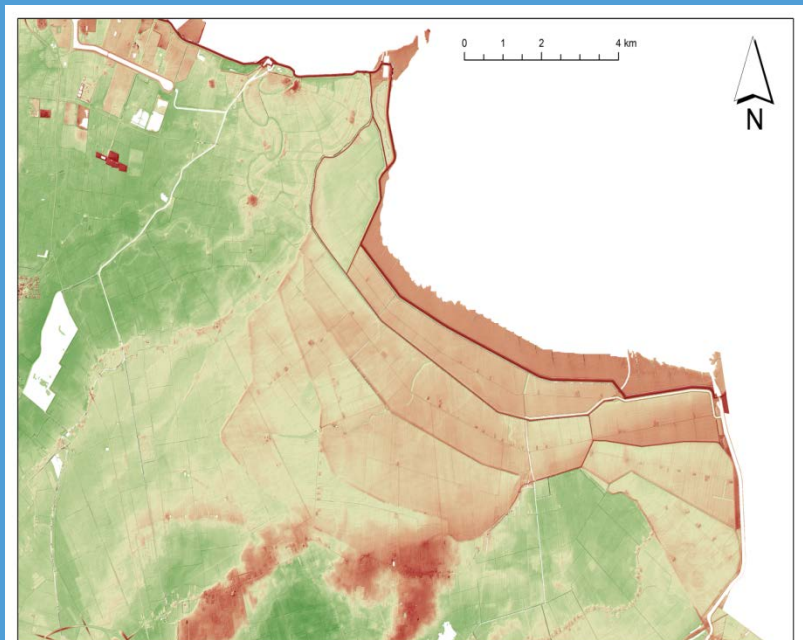




North Sea



This is a historical map of the North Atlantic Ocean, titled 'Mappa Marinae Atlantici Oceani' (Map of the Maritime Atlantic Ocean). The map is oriented with North at the top, indicated by a compass rose. It shows the Gulf Stream flowing from the southwest towards the northeast. The map is filled with numerous sea monsters, including the Scylla, the Kraken, and the Leviathan. The map is labeled with 'D. N. V. N. O. L. D. E. A. M. P. T.' and 'H. W. B. R. I. C. I. E. N. S. I. A.'.





Current dikes along the Dutch part of the Dollard

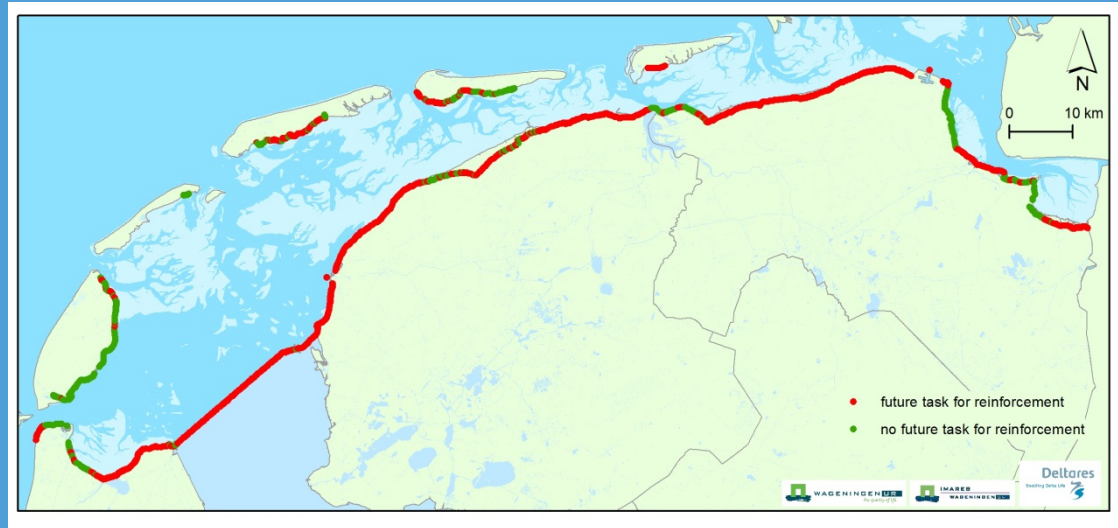


Task to improve flood protection

Flood defences along Waddencoast: several stretches in Wadden area do not meet current standards



Future task (under sea level rise)







**Jungviehweide
Schafbeweidung**

Das Mitführen von Hunden ist verboten!
Benützung der Anlagen auf eigene Gefahr!

Betriebshof Kanalpöden
NLWKNL



Anlieger
frei

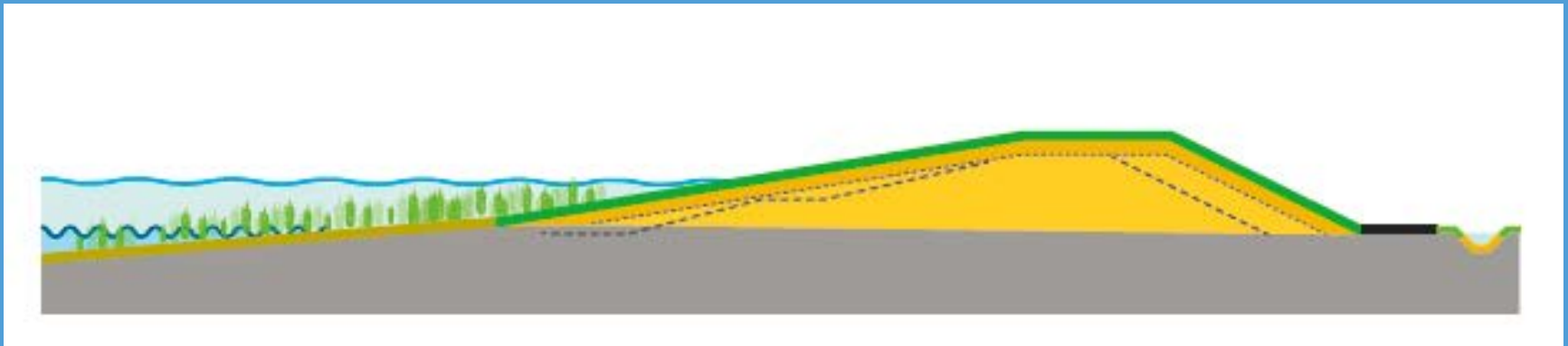
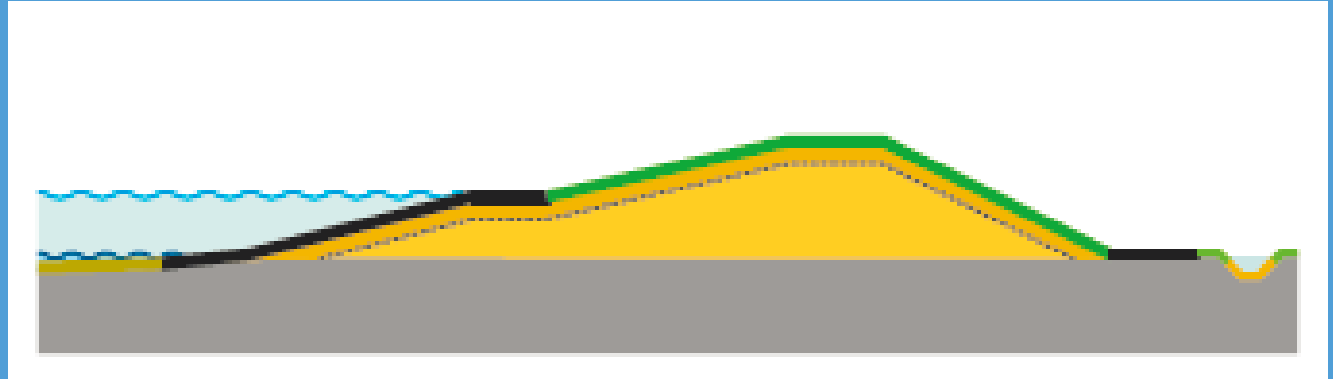


Anlieger
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Wide green dike along the German part of the Dollard



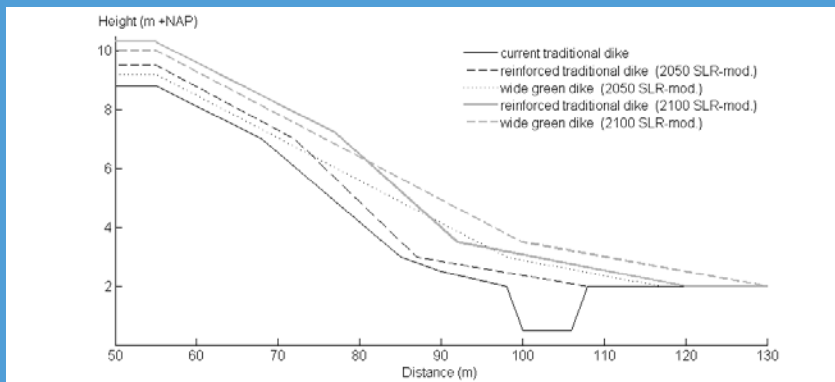
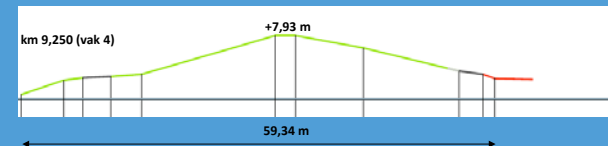
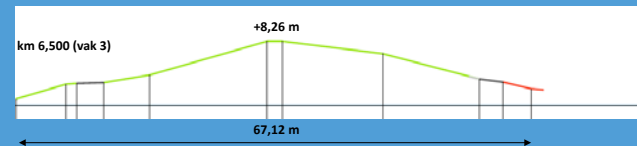
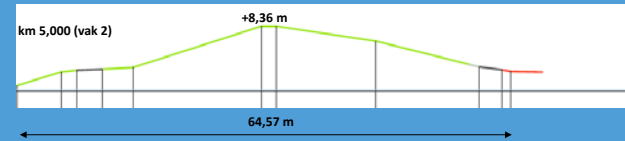
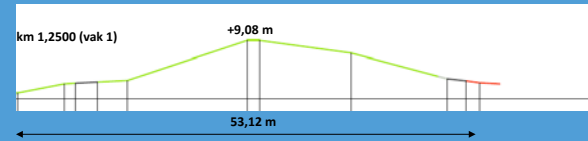
Wide green dike with shallow seaward slope







Calculations of crest height and footprint



Salt marshes



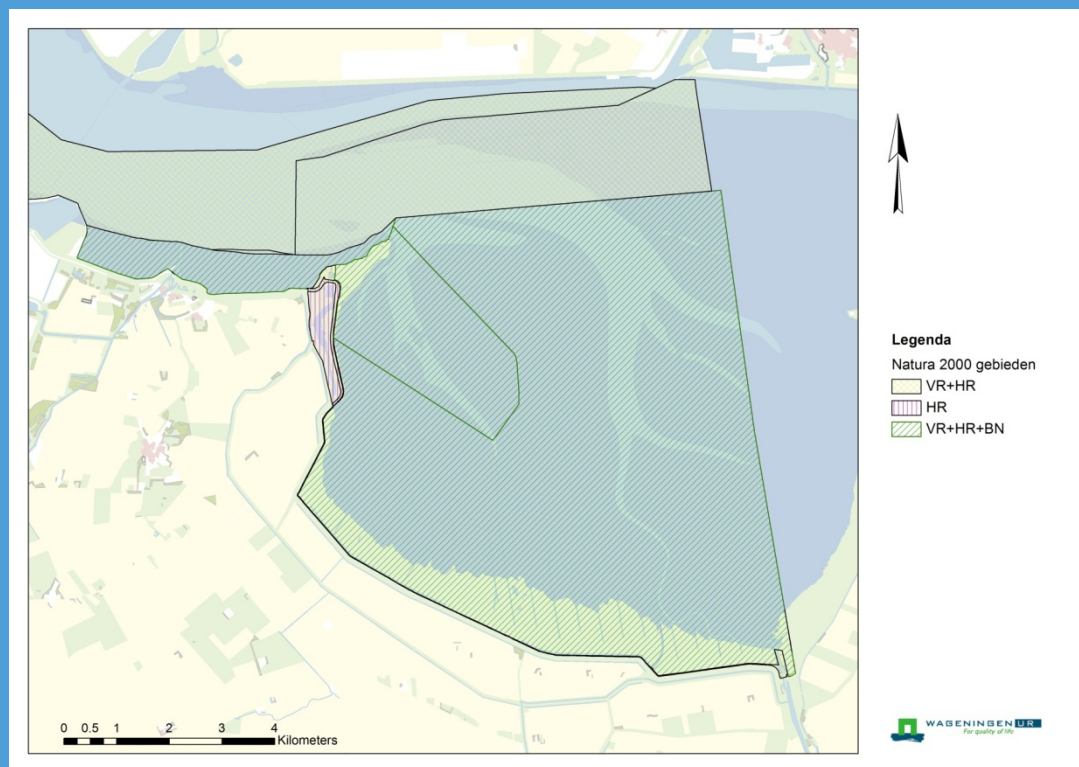
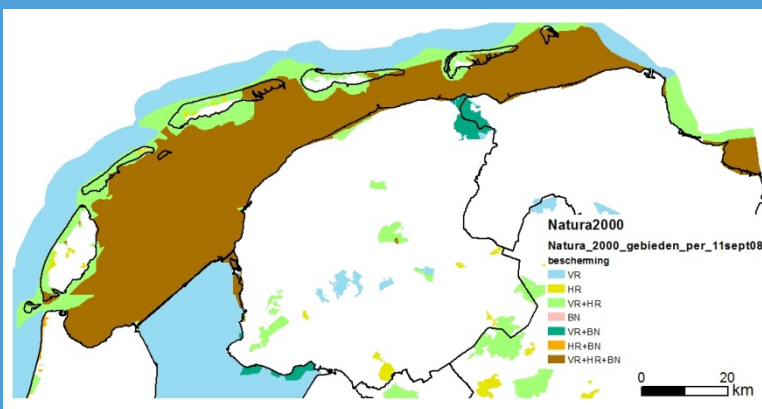
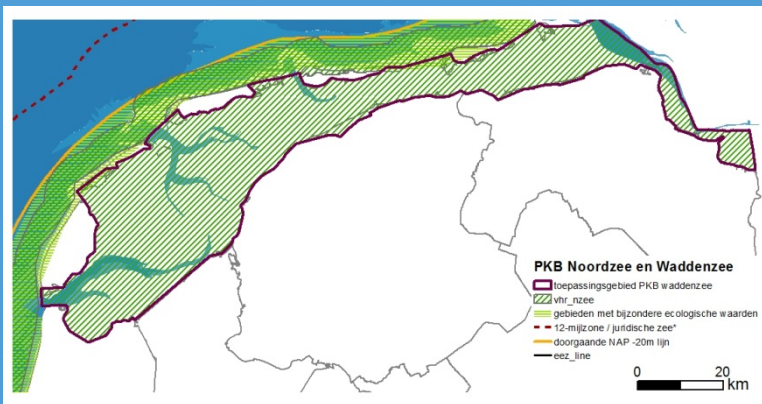
Punt van Reide: 50 ha
Zuidkant Dollard: 714 ha
Groninger Landschap: 450 ha
Particulieren: 263 ha

Bron: Esselink et al., 2011



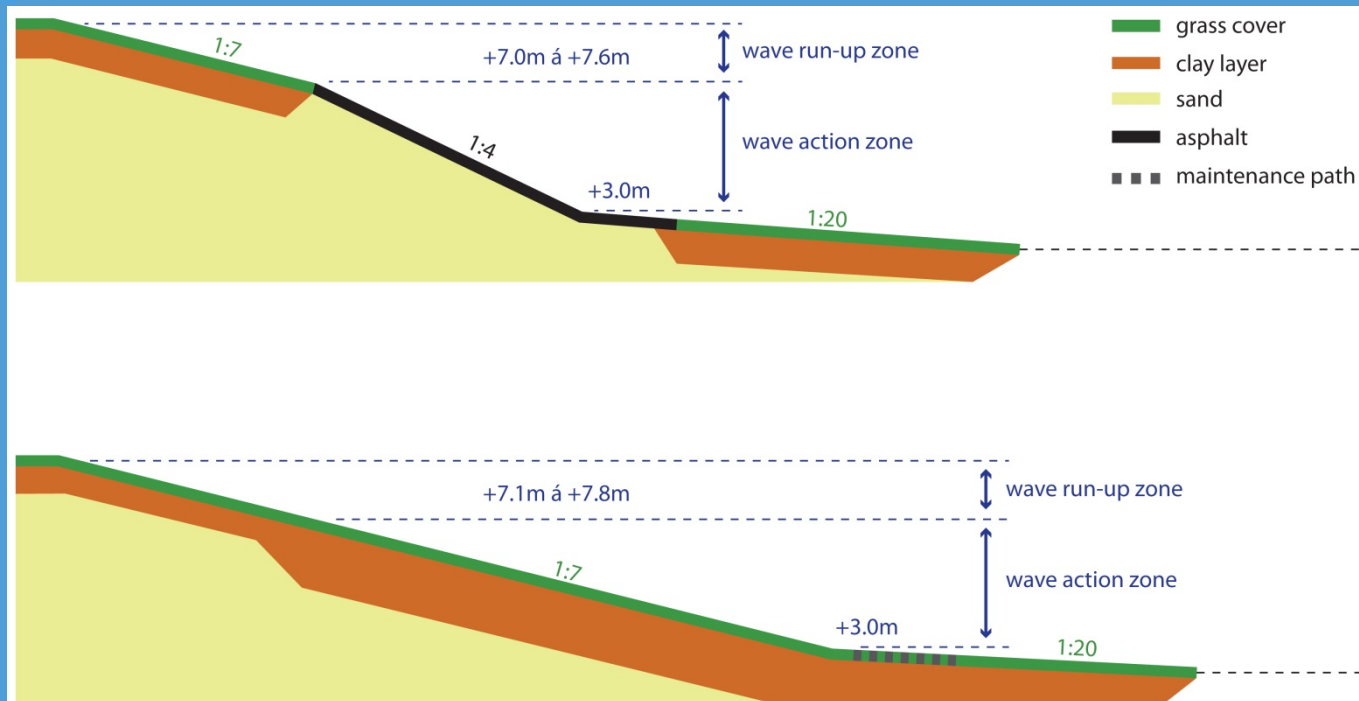
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Natura 2000





Clay demand



Experience in Jadebusen (Germany)



Salt-marsh protection and reclamation in Germany

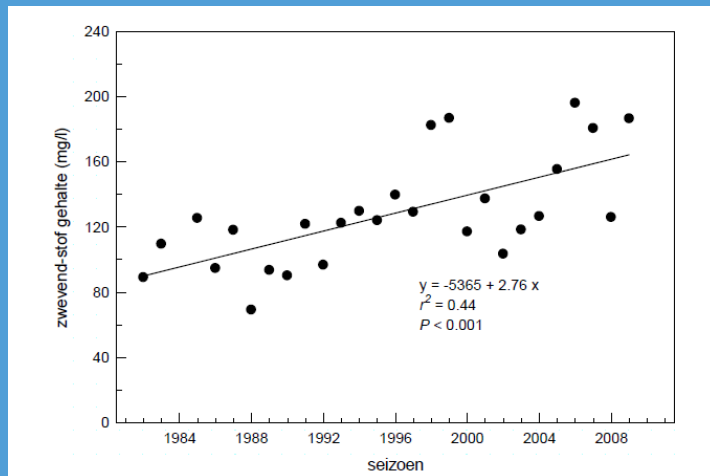


Waterquality

Shipping:

- barrier, canal, dam, sperrwerk
- Deepening and dredging

→ Effects on watermovement and sedimenttransport



Bron: Esselink et al., 2011 op basis data RWS



Future?



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