

# Delfland Coast

## Coastal strengthening and construction of nature area

[group/visit]

[date]



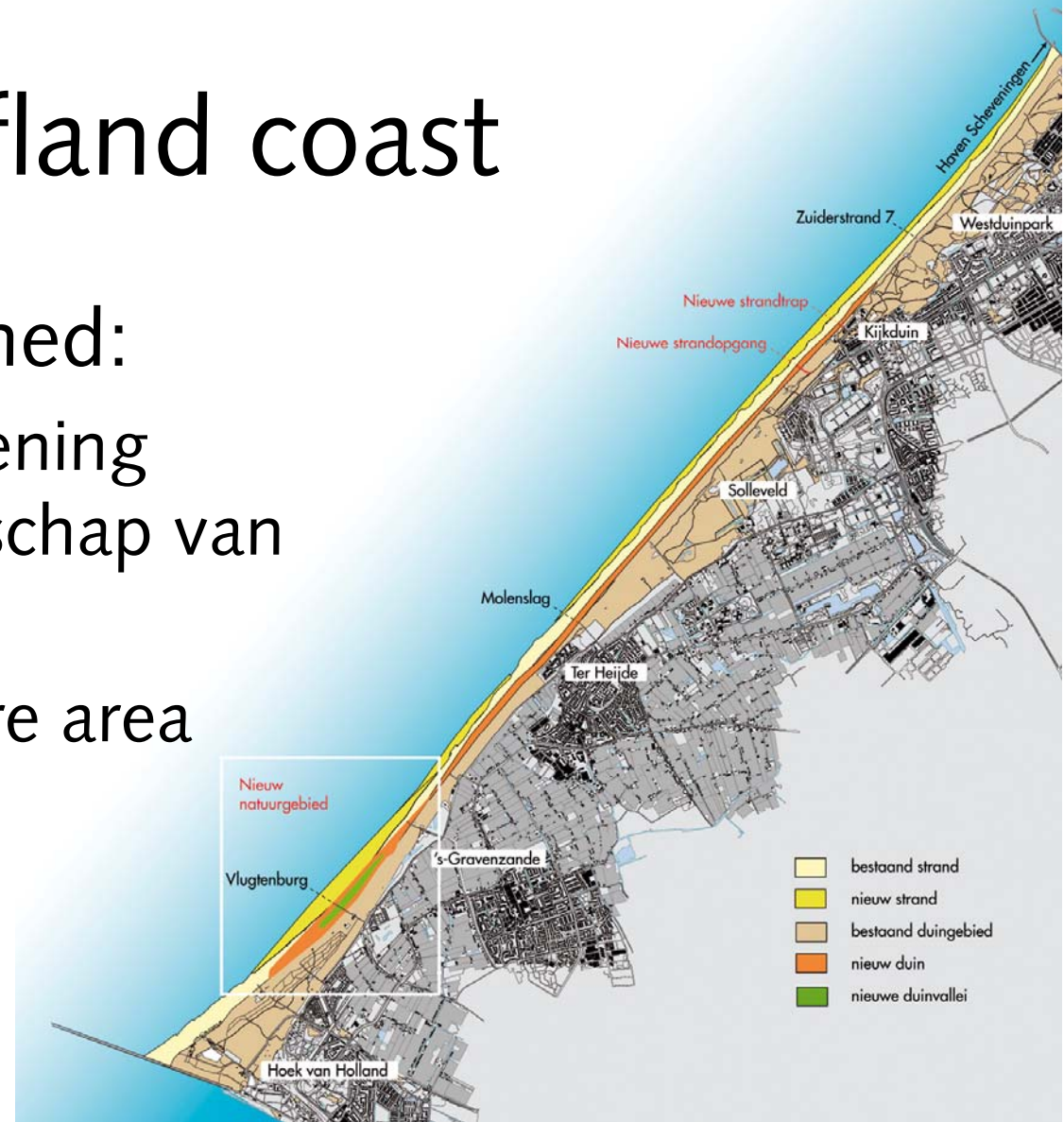
Rijkswaterstaat



Hoogheemraadschap van Delfland

# Delfland coast

- 2 Projects combined:
  - Coastal strengthening (Hoogheemraadschap van Delfland)
  - Creation of nature area (Rijkswaterstaat)



# Coastal Strengthening







# The Netherlands in future?

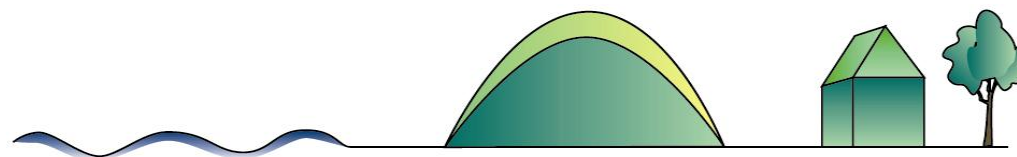




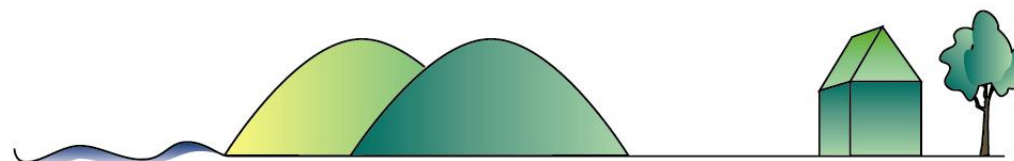


# Coastal strengthening: 3 alternatives

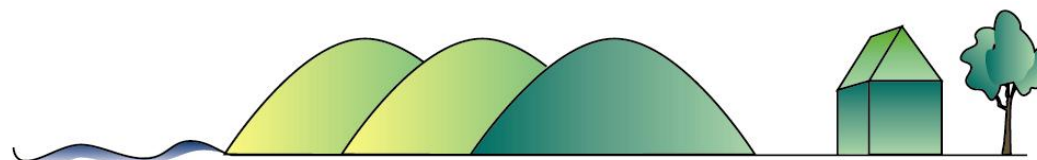
- increase of dune height:



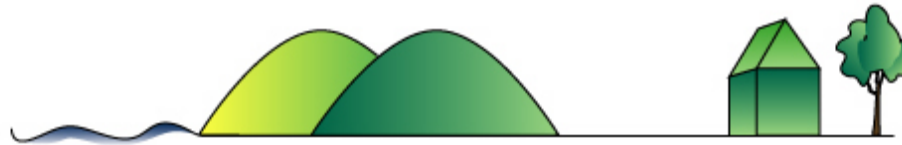
- seaward extension:



- wide seaward extension:



# Why a seaward extension?



- natural dune accumulation
- more opportunities for development of nature
- better opportunities for tourism





# What will be done ?

- additional dune ridge in front of the existing dunes
- backfilling and widening the beach
- straightening of the coastline
- extension of access routes to the beach
- seaward replacement of recreation facilities

# Realization of nature area



# Why is a new “nature area” necessary?

- Construction Maasvlakte 2
- increased levels of NOx caused by increasing shipping transport
- quality of dune vegetation will be affected in a wide area around Maasvlakte 2
- 35 ha of “new nature” along the Delfland Coast to compensate for loss in quality in the wider area





# What needs to be done ?

- new dune ridge on old beach
- shallow between existing and new dune ridges
- new beach 160 - 200 m wide
- seaward replacements of recreational facilities
- Time frame development nature area: 10 - 20 years



# What is a dune slack?

- a shallow in the dunes which is seasonally wet (winter) and dry (summer)
- a habitat for many rare vegetation types and animals



Dune slack on the island of  
Goeree

# Implementation of works

- Sand is extracted from the North Sea floor
- Combinatie Delflandse Kust: Van Oord & Boskalis







# Activities

- dredging and backfilling of sand of specific grain size
- forming of beach & dunes by dozers en excavators
- work continues 24/7



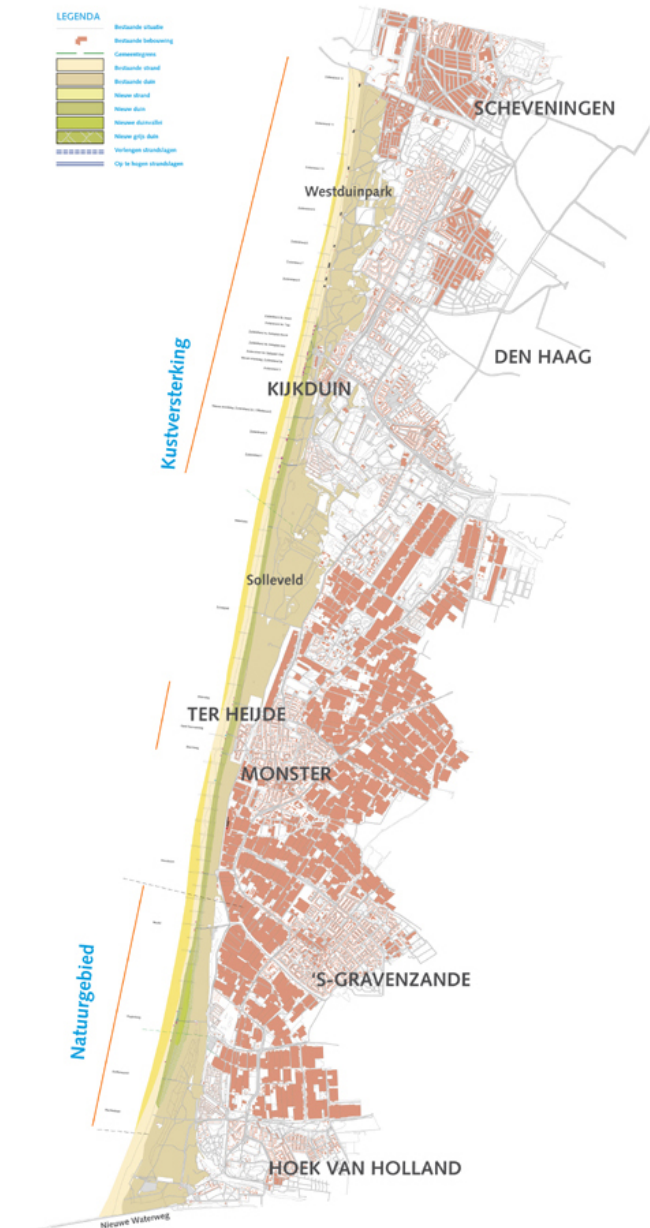






# Planning

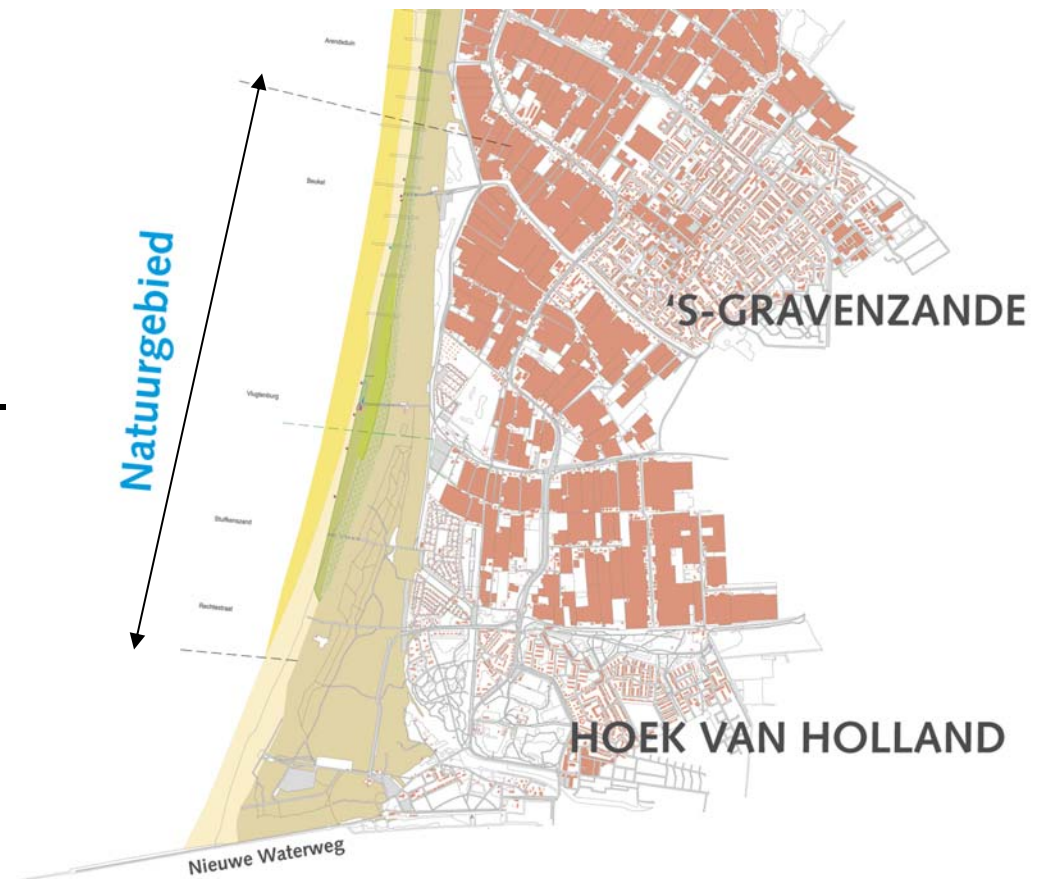
- End of 2008 – end of 2011
- During spring and summer no construction work on the touristy beaches



# Planning (1)

**November 2008 –  
April 2009**

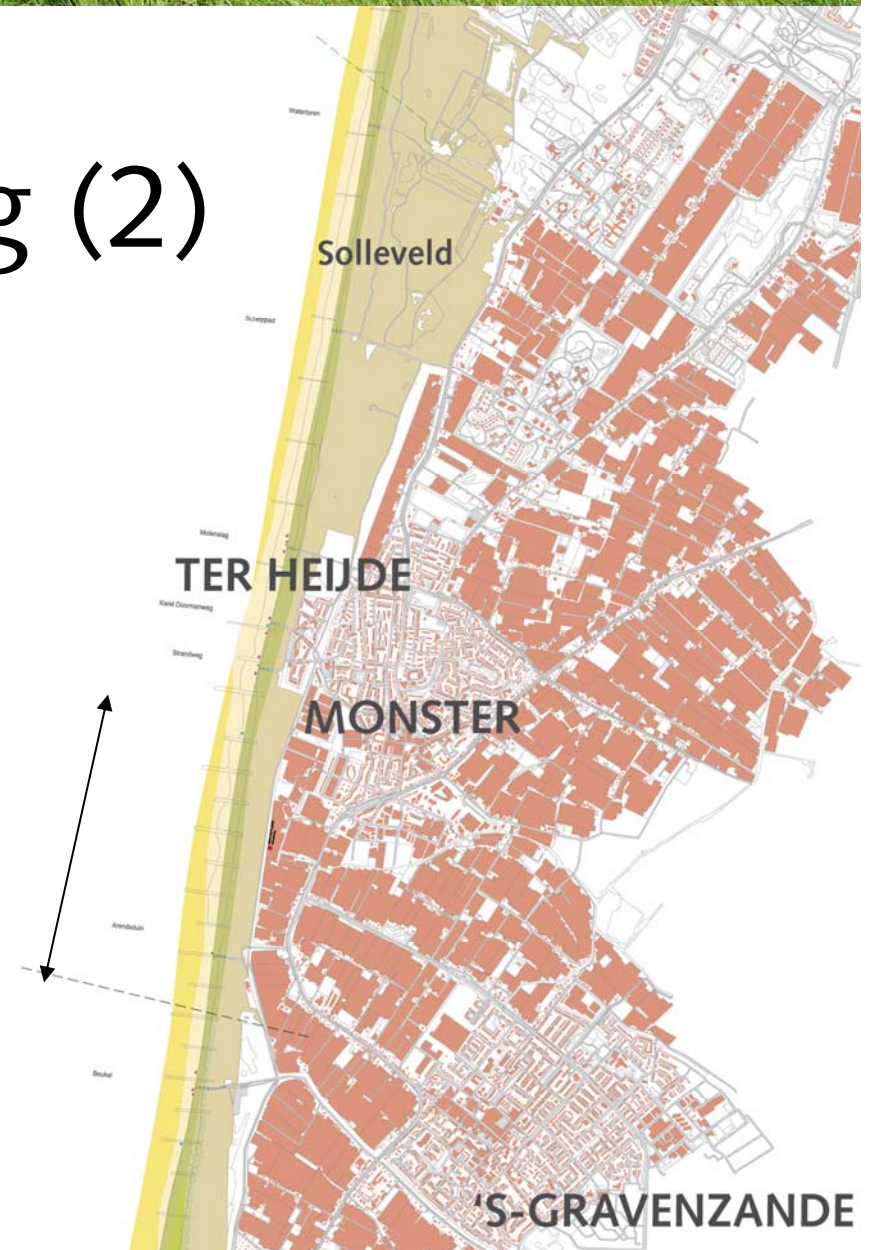
- Hoek van Holland -  
's-Gravenzande



# Planning (2)

February – May 2009

- South of Ter Heijde

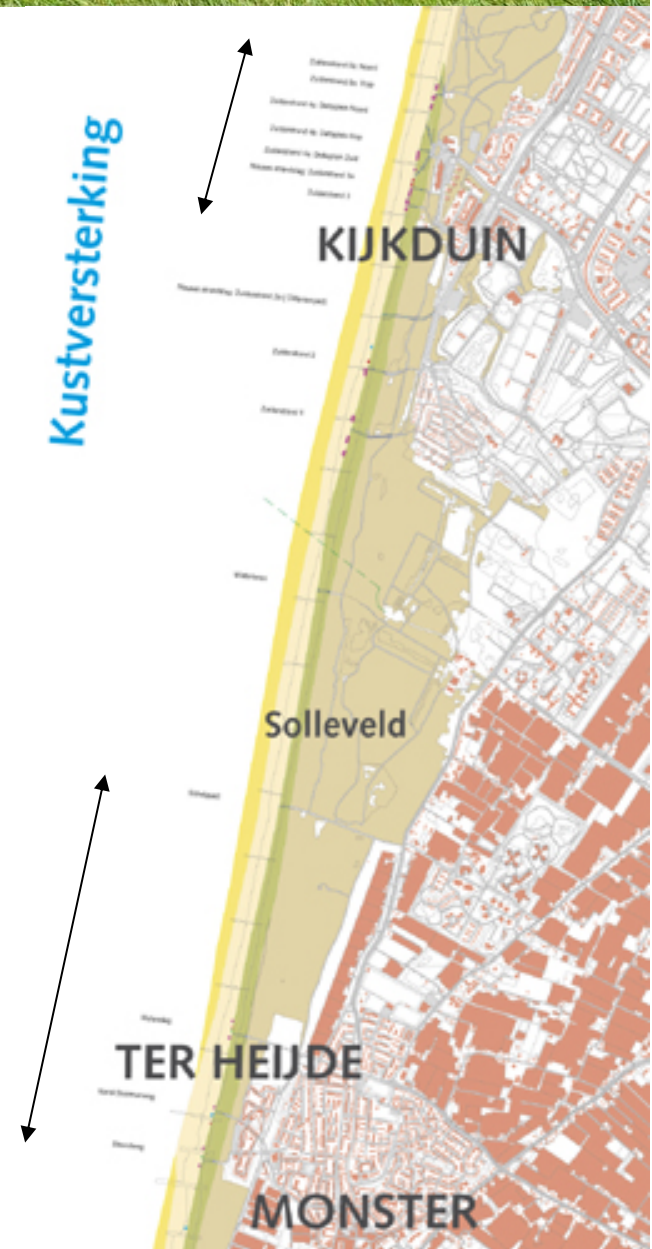




# Planning (3)

September 2009 –  
April 2010

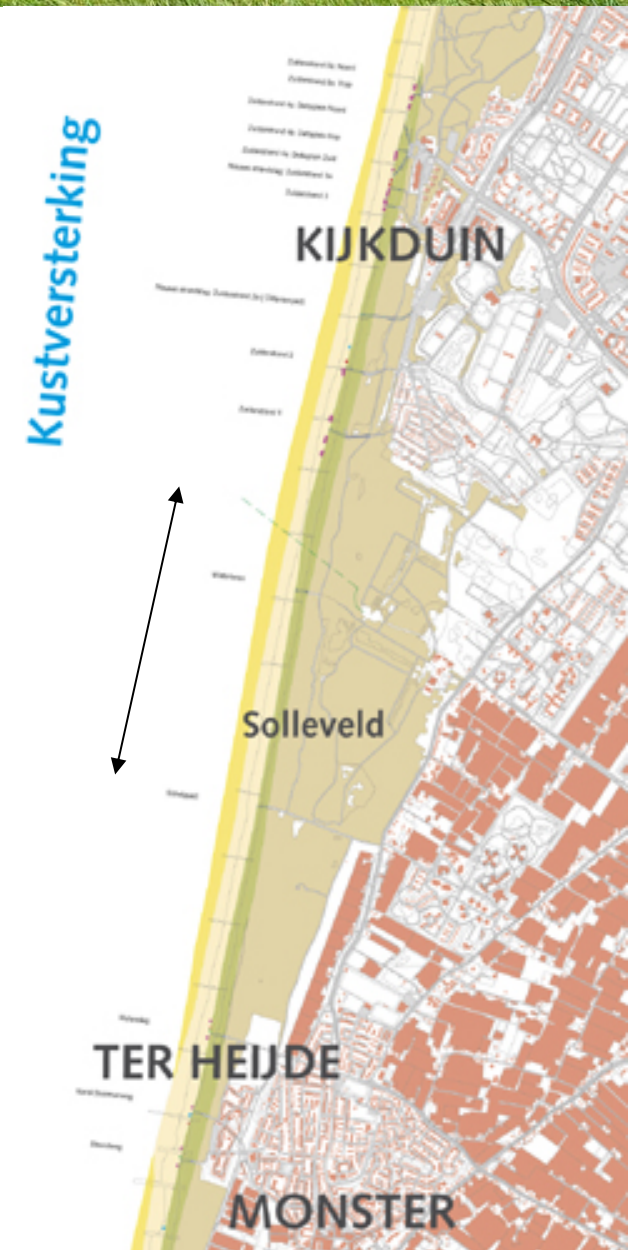
- Monster:  
Schelppad – Molenslag
- Ter Heijde
- Kijkduin:  
Deltaplein & boulevard



# Planning (4)

Spring/Summer 2010

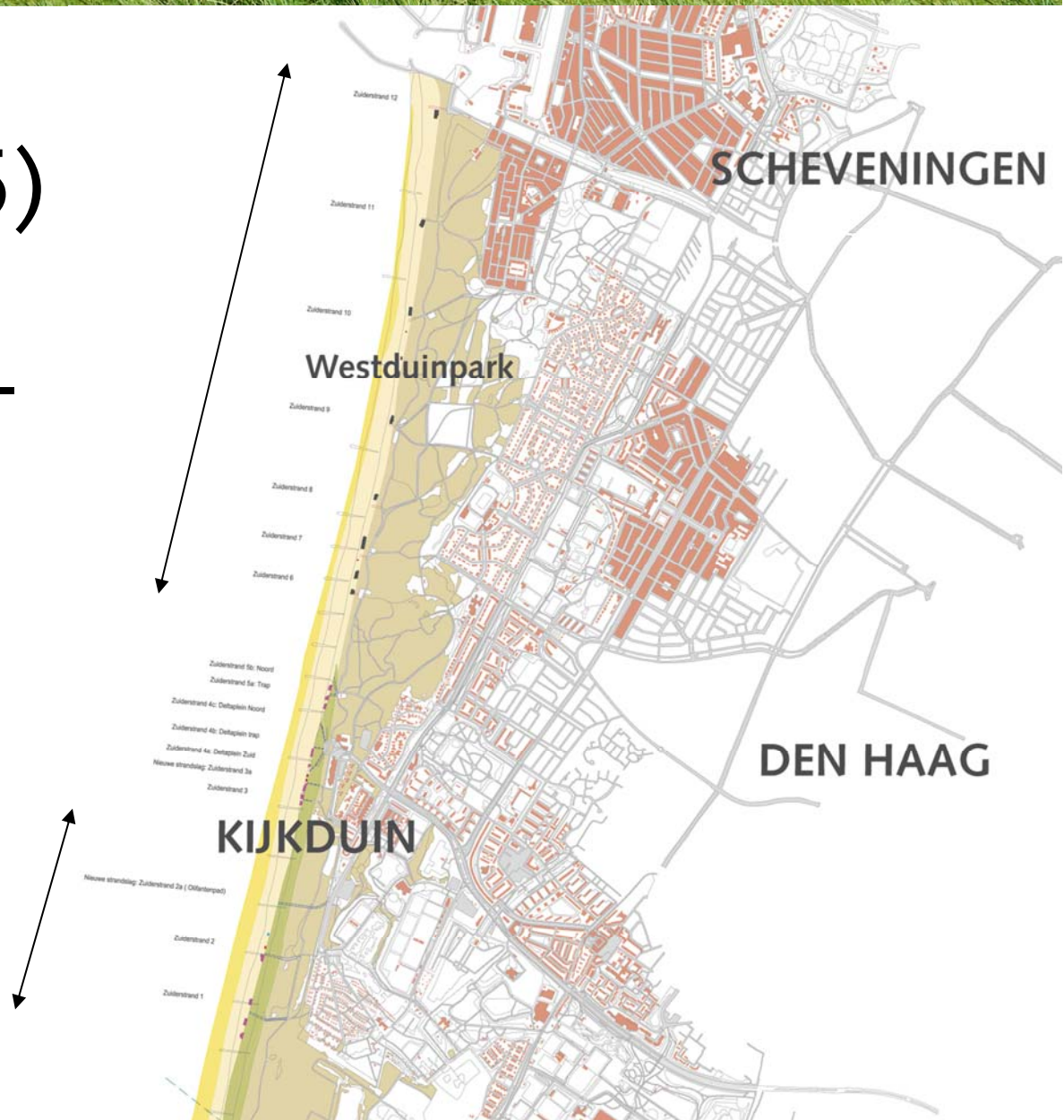
- Monster:  
Watertoren - Schelppad



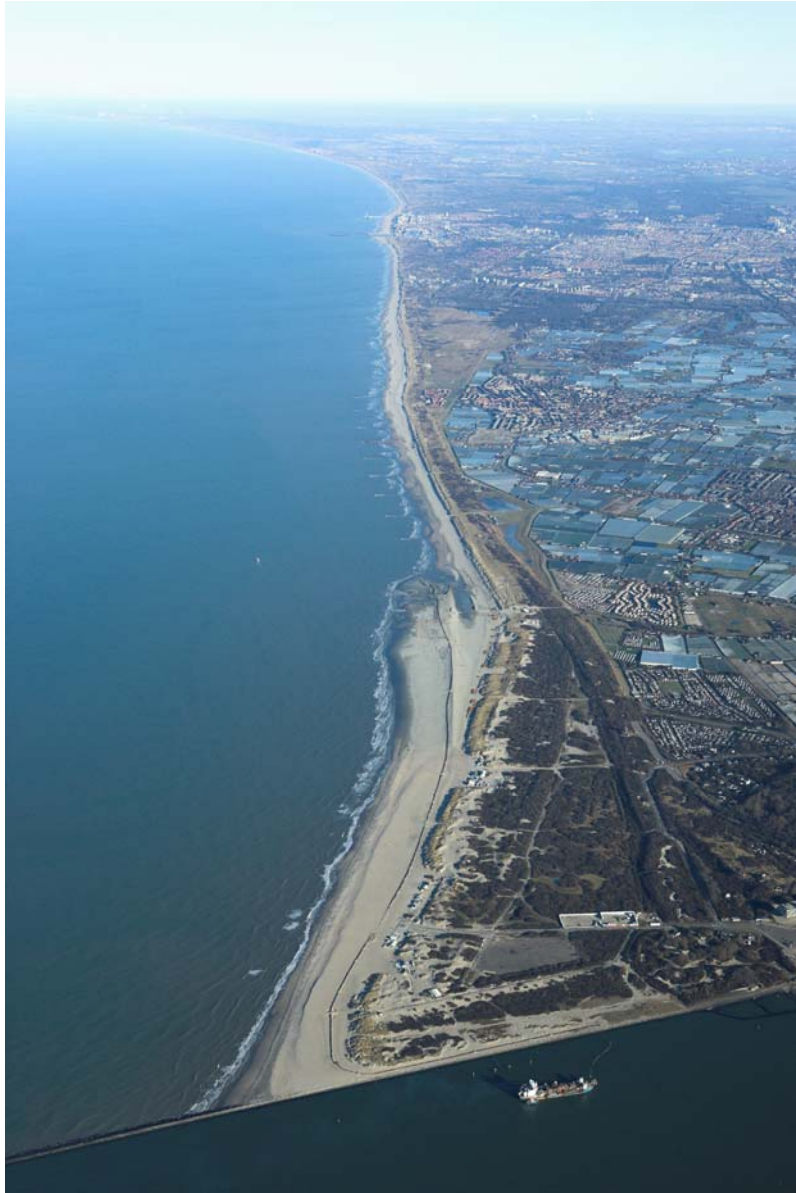
# Planning (5)

**Autumn 2010 –  
end of 2011**

- Kijkduin:  
Ockenburg,  
Kijkduinpark
- Westduinpark







# Questions ?