

wonderlijk water
waardevol werk

Waterschap
Rivierenland

Climate Robust Dikes

Waterschap Rivierenland
The Netherlands

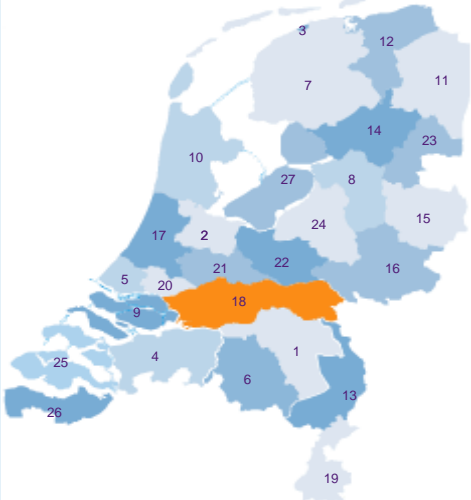
Ton Drost, area development manager

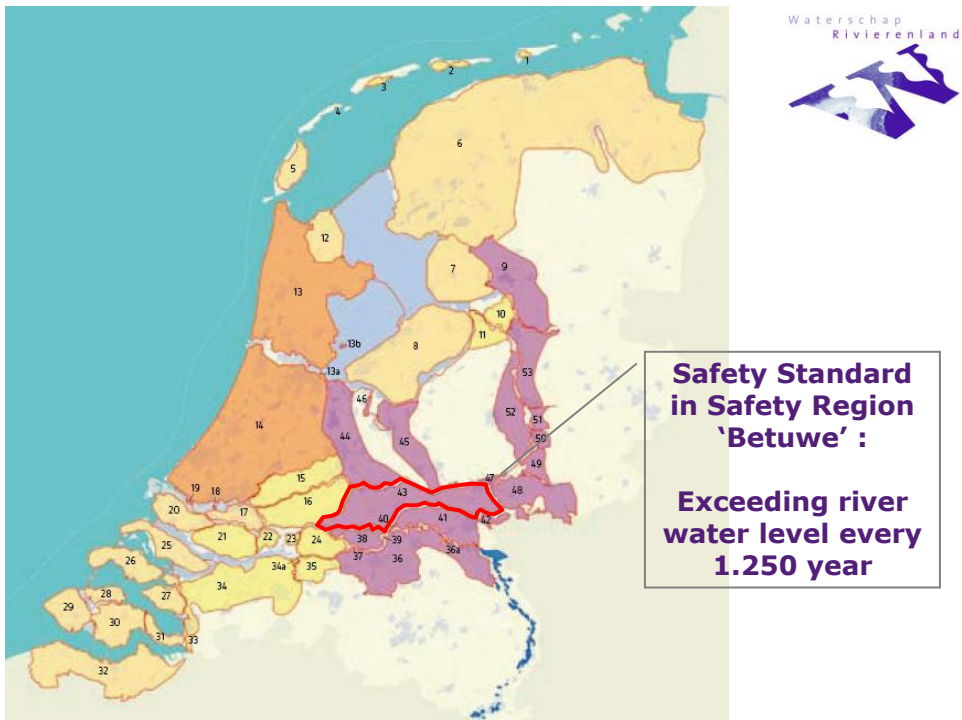


COP15
COPENHAGEN
UN CLIMATE CHANGE CONFERENCE 2009

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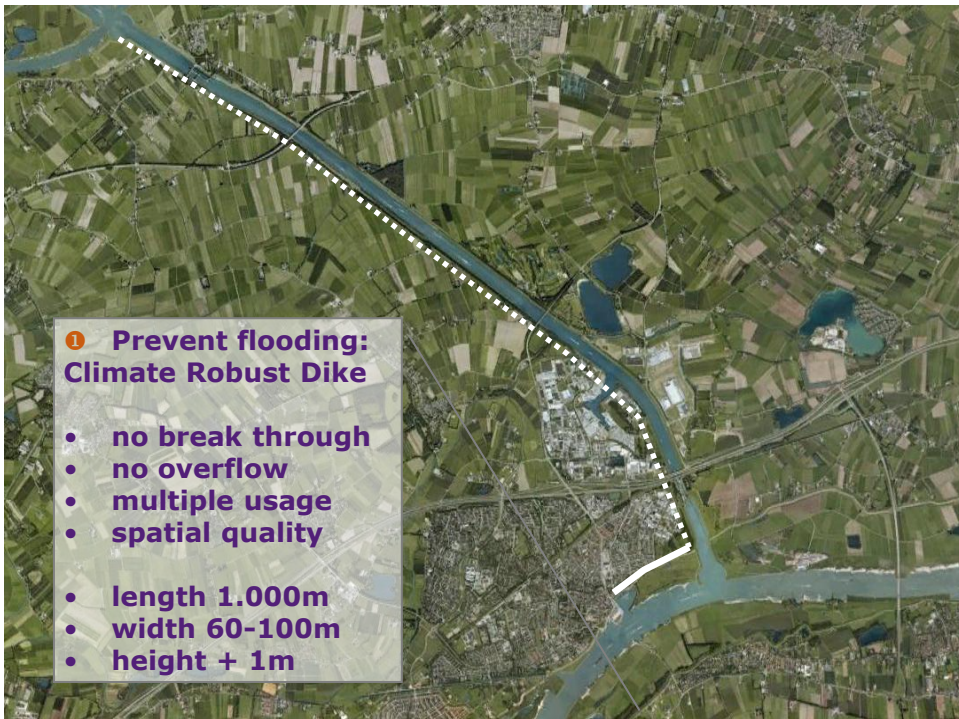
① Prevent flooding by strong dikes:

**INCREASE SAFETY STANDARD
1/12.500 a year**



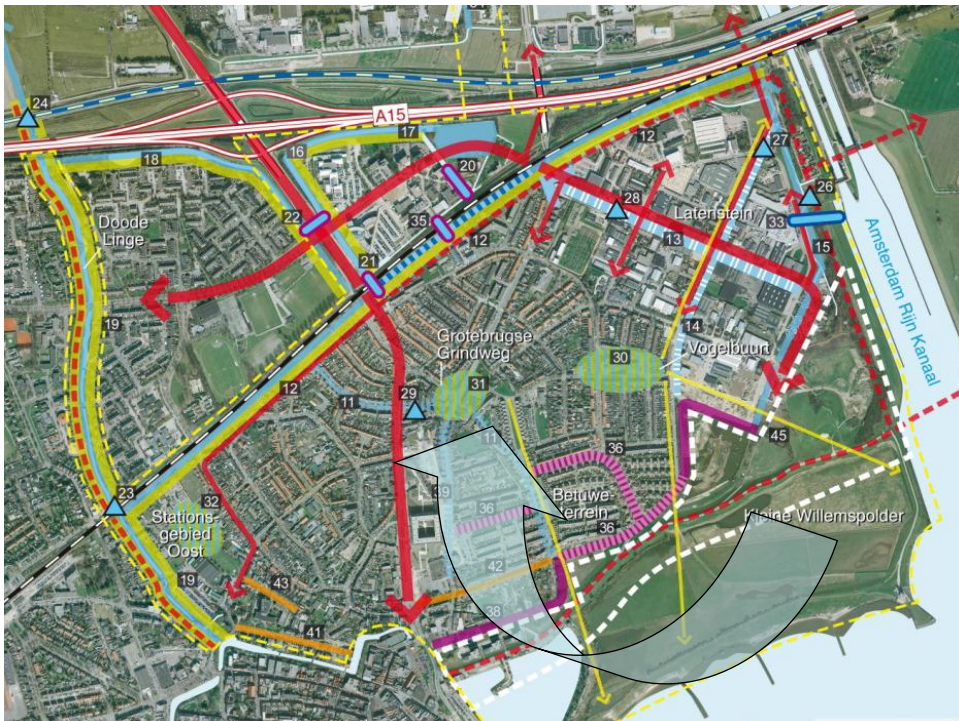
② Sustainable spatial lay out:

**COMPARTMENTING
safety region 'Betuwe'**

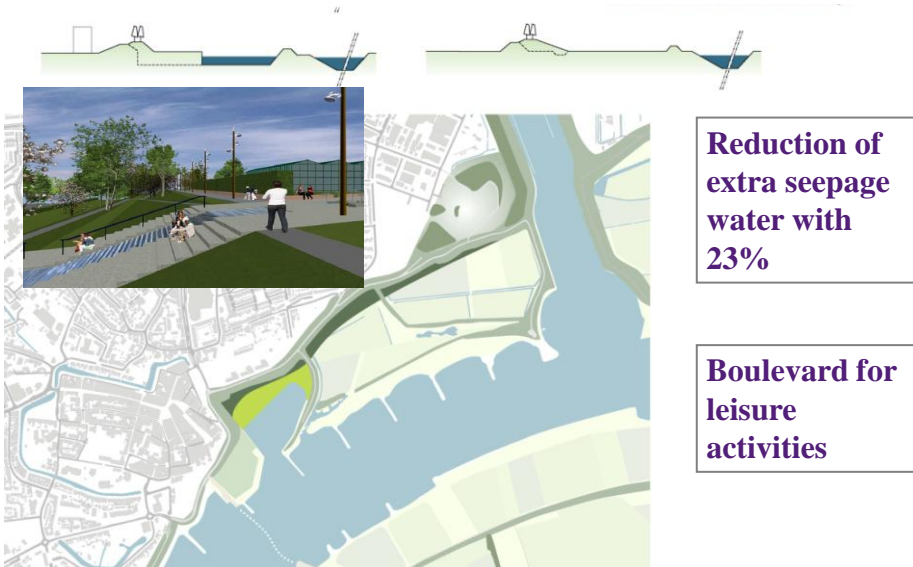


① Prevent flooding:
Climate Robust Dike

- no break through
- no overflow
- multiple usage
- spatial quality
- length 1.000m
- width 60-100m
- height + 1m



Use of Climate Robust Dike



Use of Climate Robust Dike





Use of Climate Robust Dike



Developing
real estate
upon the dike
inside

No compen-
sation of river
discharge

Use of Climate Robust Dike



Developing
real estate
upon the dike
outside

Compensation
of river
discharge

Use of Climate Robust Dike



Developing
real estate
on the island

Intense
compensation
of river
discharge




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Building a climate dike with 50 houses			
land acquisition	1.4 M€	real estate	9.4 M€
climate dike	12.7 M€	filling dredging spoil	1.7 M€
site preparation	2.3 M€	subsidies	8.0 M€
development costs	2.7 M€		
Total Costs	19.1 M€	Total Revenues	19.1 M€

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Building a climate dike with 70 houses			
land acquisition	1.4 M€	real estate	13.1 M€
climate dike	12.7 M€	filling dredging spoil	1.7 M€
site preparation	2.3 M€	subsidies	4.3 M€
development costs	2.7 M€		
Total Costs	19.1 M€	Total Revenues	19.1 M€

