

Fire & Flood

Climate Resilience
in a changing
Dutch Landscape

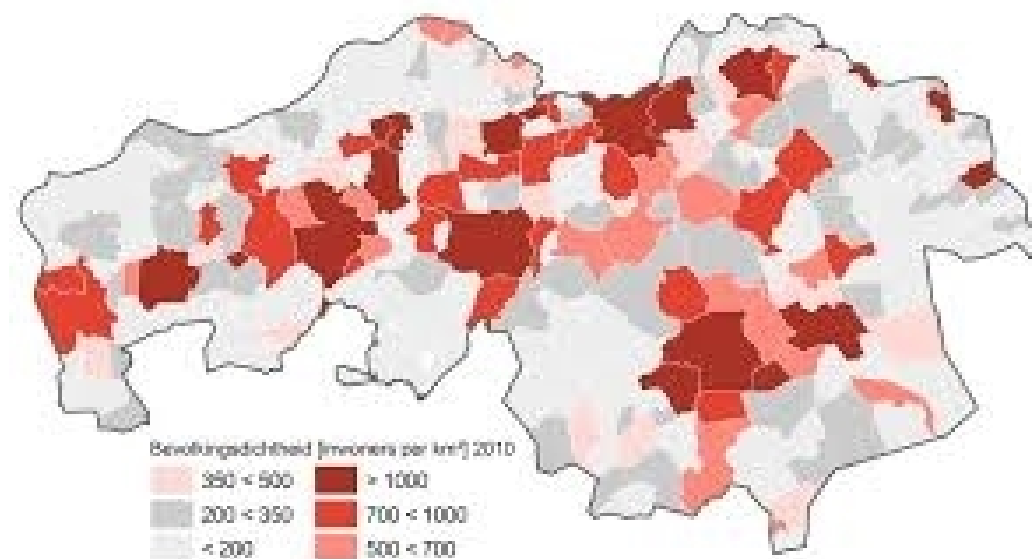


**By the King's Commissioner Ina Adema,
Province of Noord-Brabant**



The Dutch Challenge

- We are one of the most densely populated countries in the world
- Over 17 million people in 41,500 / km²
- Noord-Brabant: 2.6 million inhabitants (553/ km²)



Living Below Sea Level



A Nation Engineered Against Water

- Much of the Netherlands lies below sea level (NAP)
- Decades of water defense: dikes, dams, sluices
- Our Landscape shaped by our battle against water



The Climate is Changing

From Floods to Fires

- Rising drought due to climate change
- Forest fires increasingly frequent and intense
- Example: 2020 Deurnese Peel fire (800 hectares burnt)

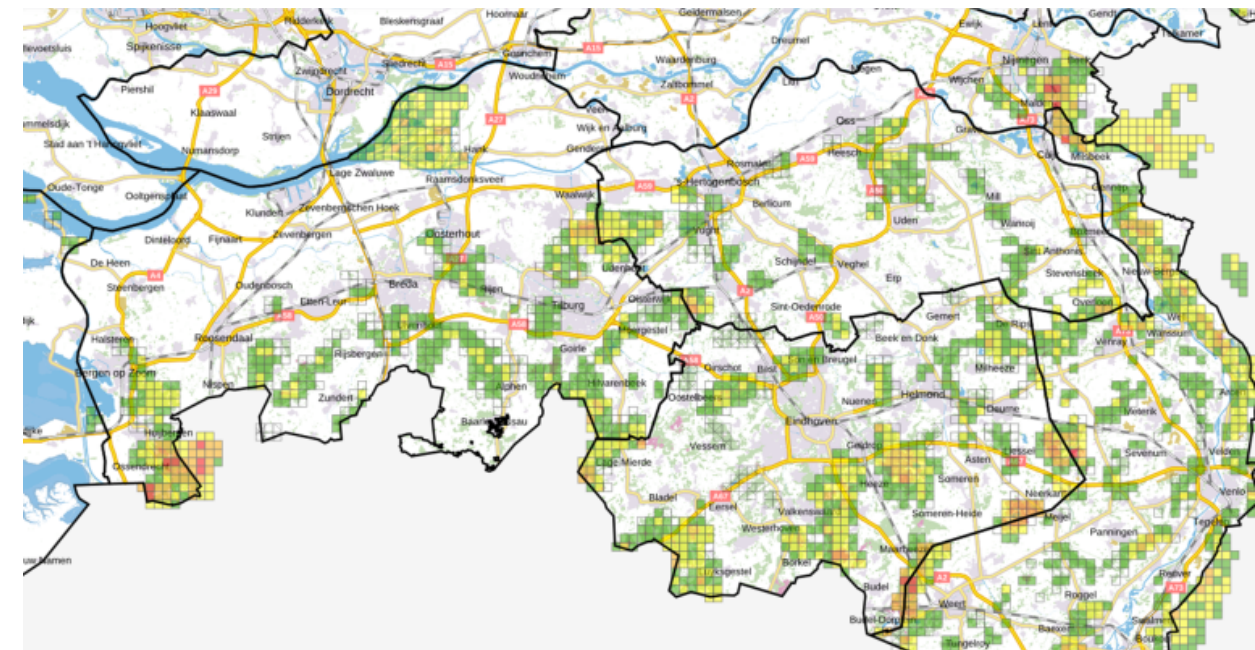


From drainage to retention



Rewriting the Playbook

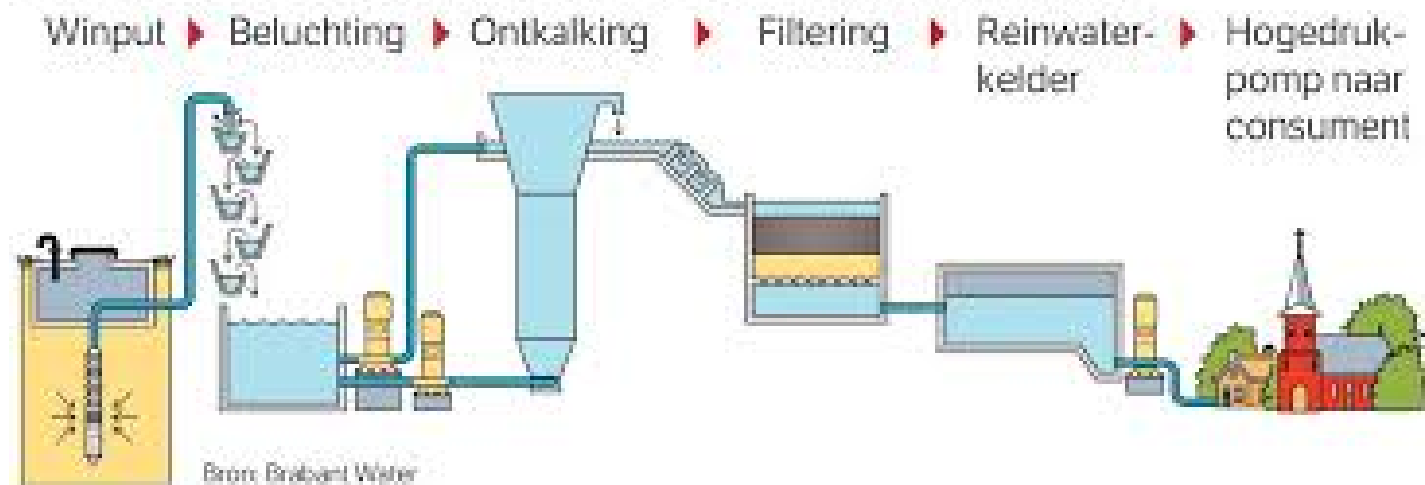
- Historic strategy: drain water quickly
- Now: retain and use water strategically
- Wetting nature Areas as Fire Prevention
- One Area one plan



Water as a precious resource

- Clean drinking water under pressure
- Pollution, overuse at f.a. agriculture & industry
- Province and water boards play key roles

Schematische weergave van het proces van drinkwaterwinning



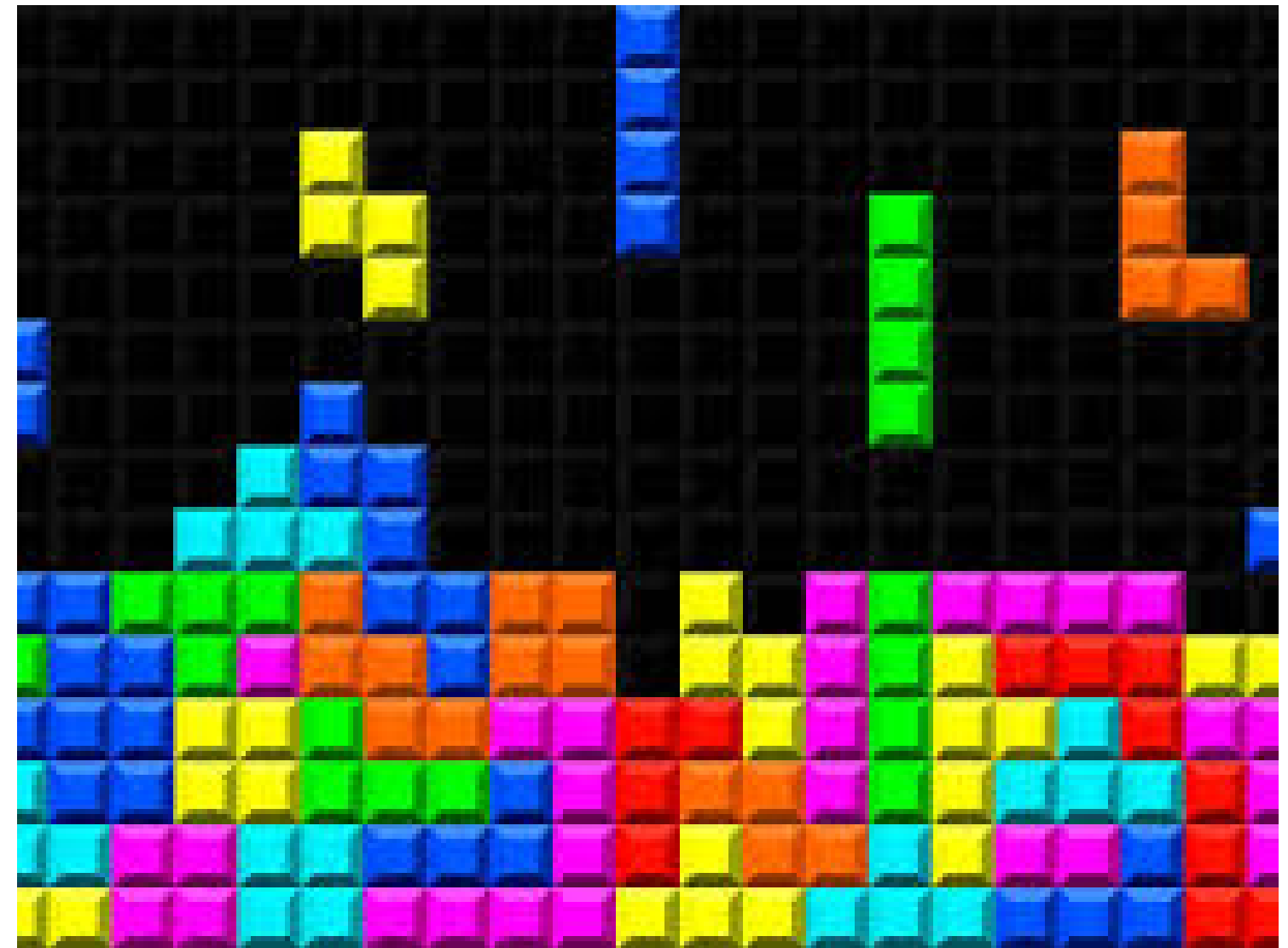
Water Quantity & Quality at risk



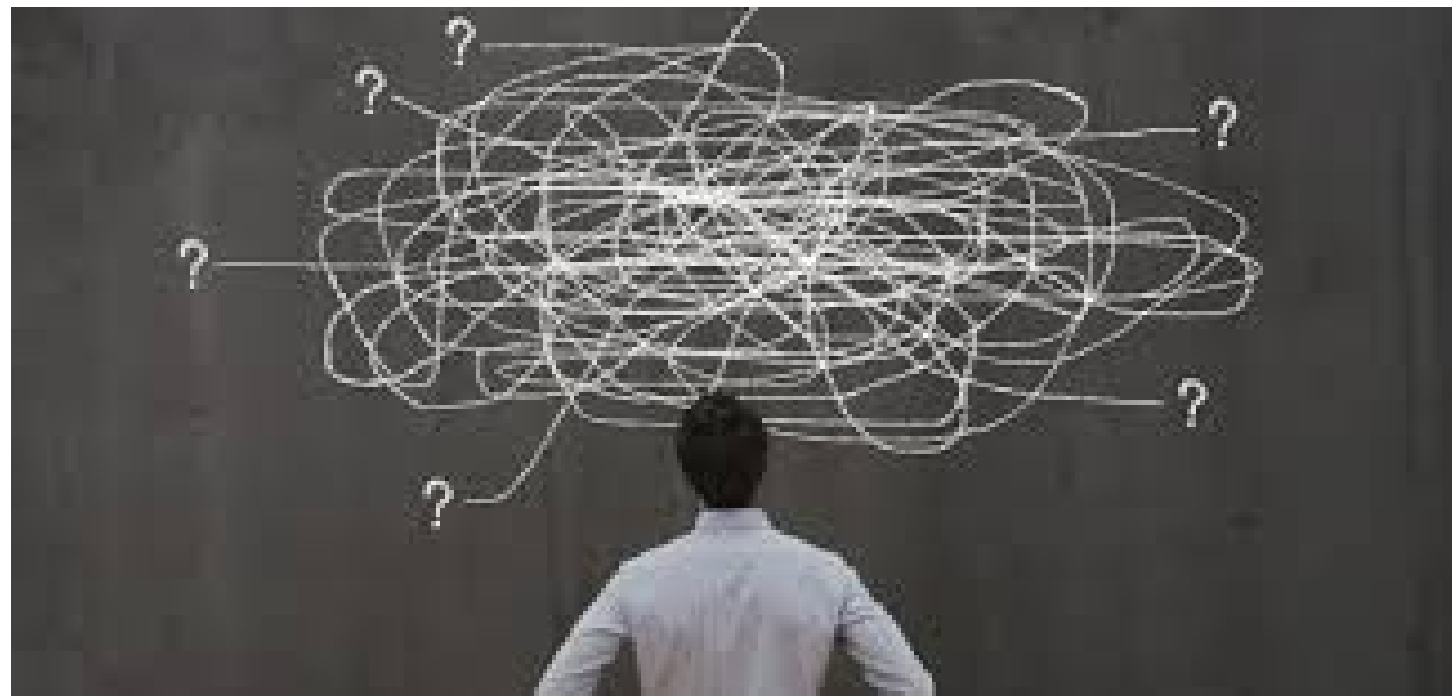
The Spatial Pressure Cooker

- If we fulfill all needs: we need 2 – 3 x the province's surface
- Key spatial pressures:
 - Housing
 - Schools
 - Defense
 - Economic growth
 - Energy transition
 - Leisure facilities
 - Nature
 - Agriculture

Stacking Spatial Demands



Governance in Spatial Planning



Who does what?

- **State = Architect (What)**
- **Province = Director (How & Where)**
- **Municipalities = Builders (execution)**
- **Constant coordination is essential**



Smart Water Use for Nature & Farming

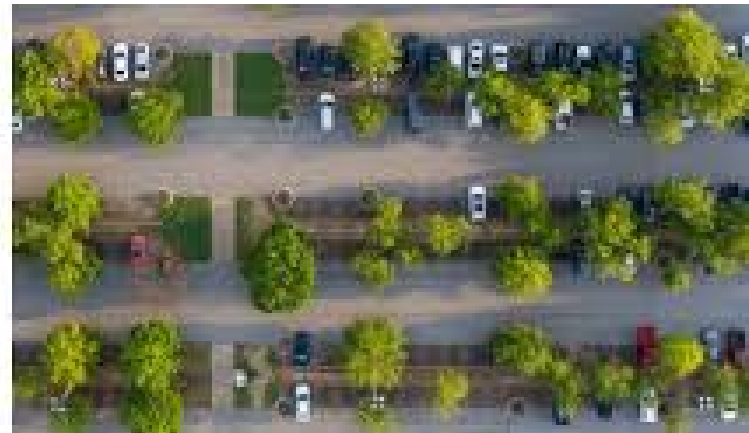
Example solution: Water between Wal and Schelde

- **30 million m³ of fresh water redirected from the sea**
- **Used for wetlands and agriculture**
- **Equivalent to 12,000 Olympic Pools**



Other innovative Solutions

- Greening urban areas
- Sustainable agriculture with advice & subsidies
- Industrial heritage reused
- Green business parks



Building Climate Resilience



Working on the future



- **Complex spatial puzzle**
- **Climate extremes: flood & drought**
- **Province as key player**
- **Strong cooperation with State and Municipalities**



