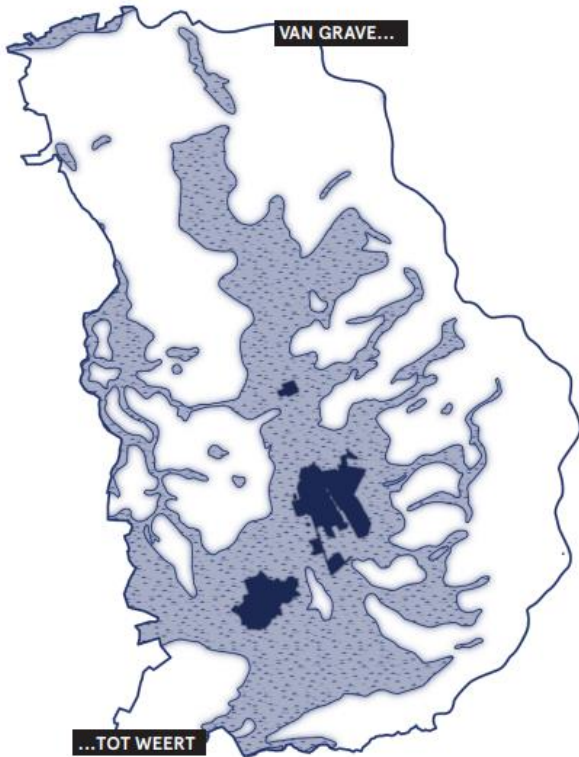




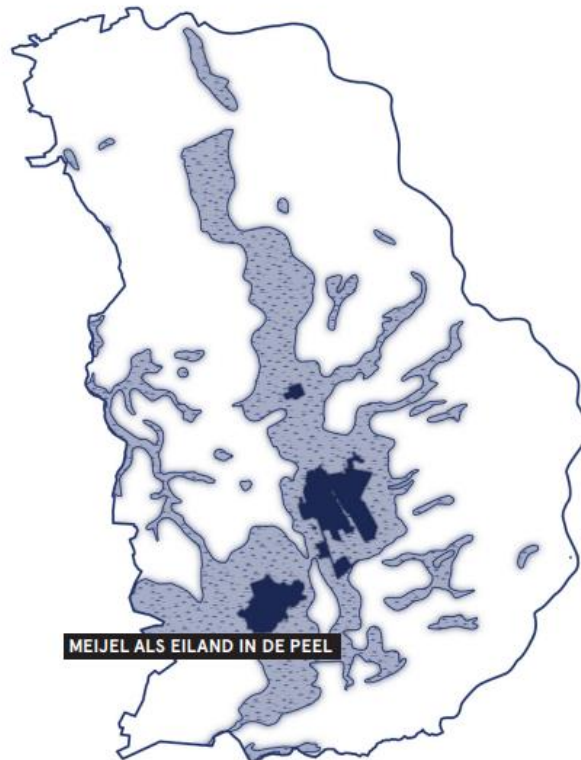
# Waterstromen, bodemsystemen en waterkwaliteit in Noordoost-Brabant

23 februari 2023  
Jos Kruit

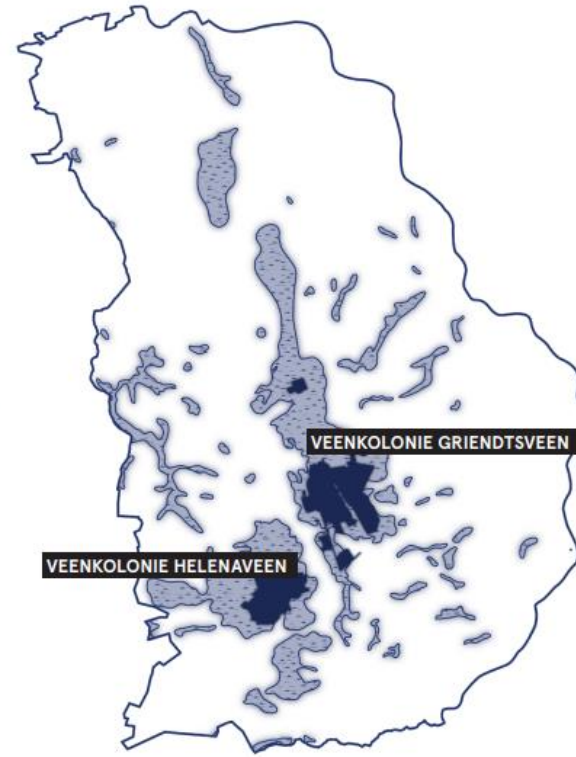
# De Peel door de eeuwen heen



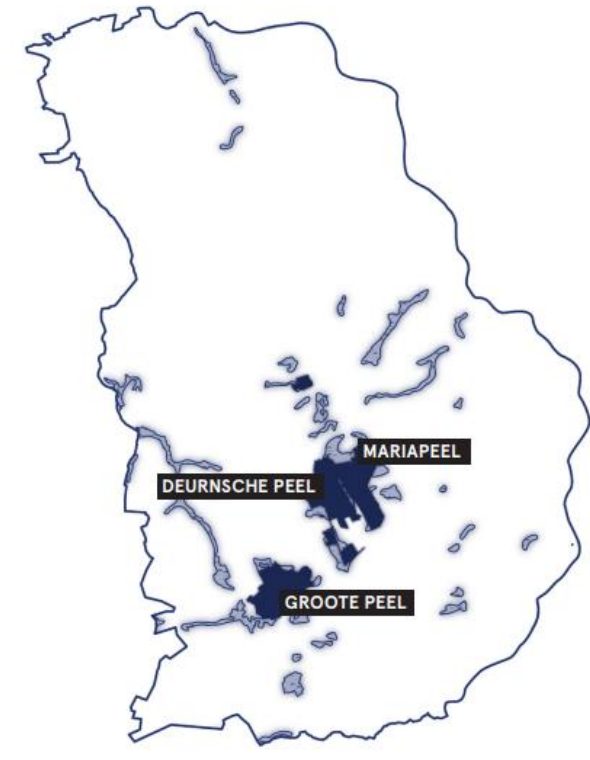
Het hoogveengebied de Peel  
500 v. Chr



Het hoogveengebied de Peel  
1250 n. Chr

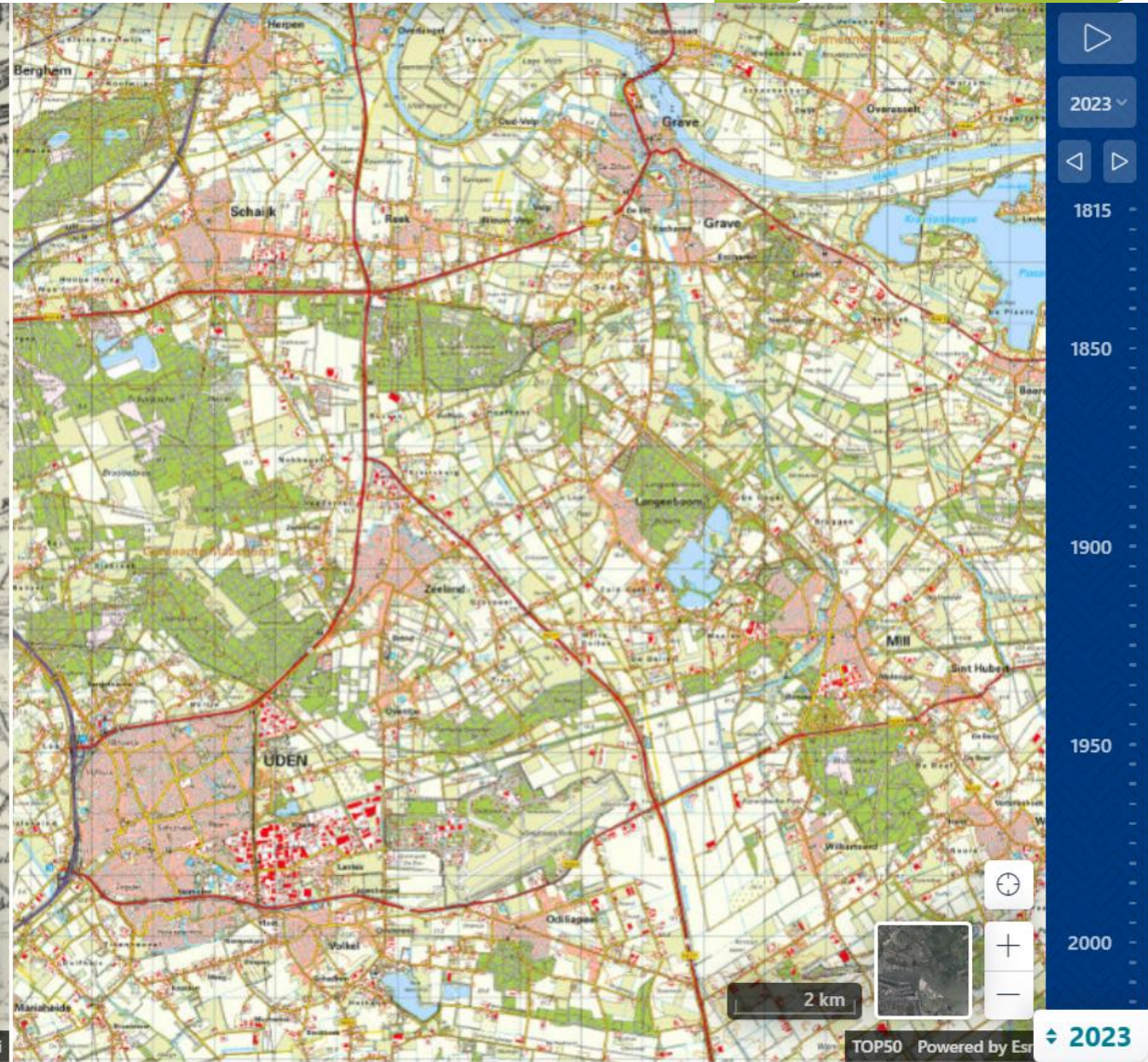
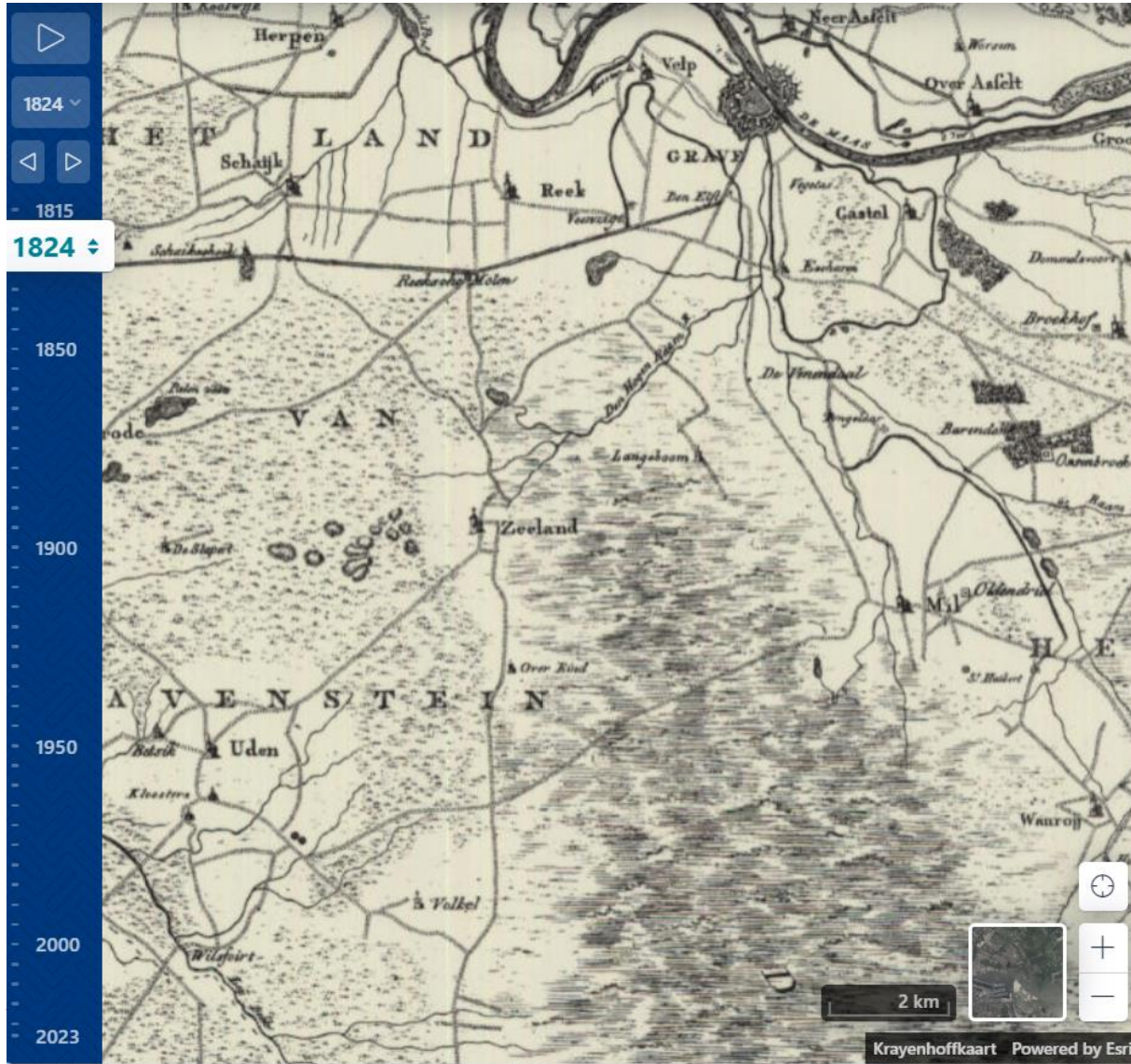


Het hoogveengebied de Peel  
1850 n. Chr

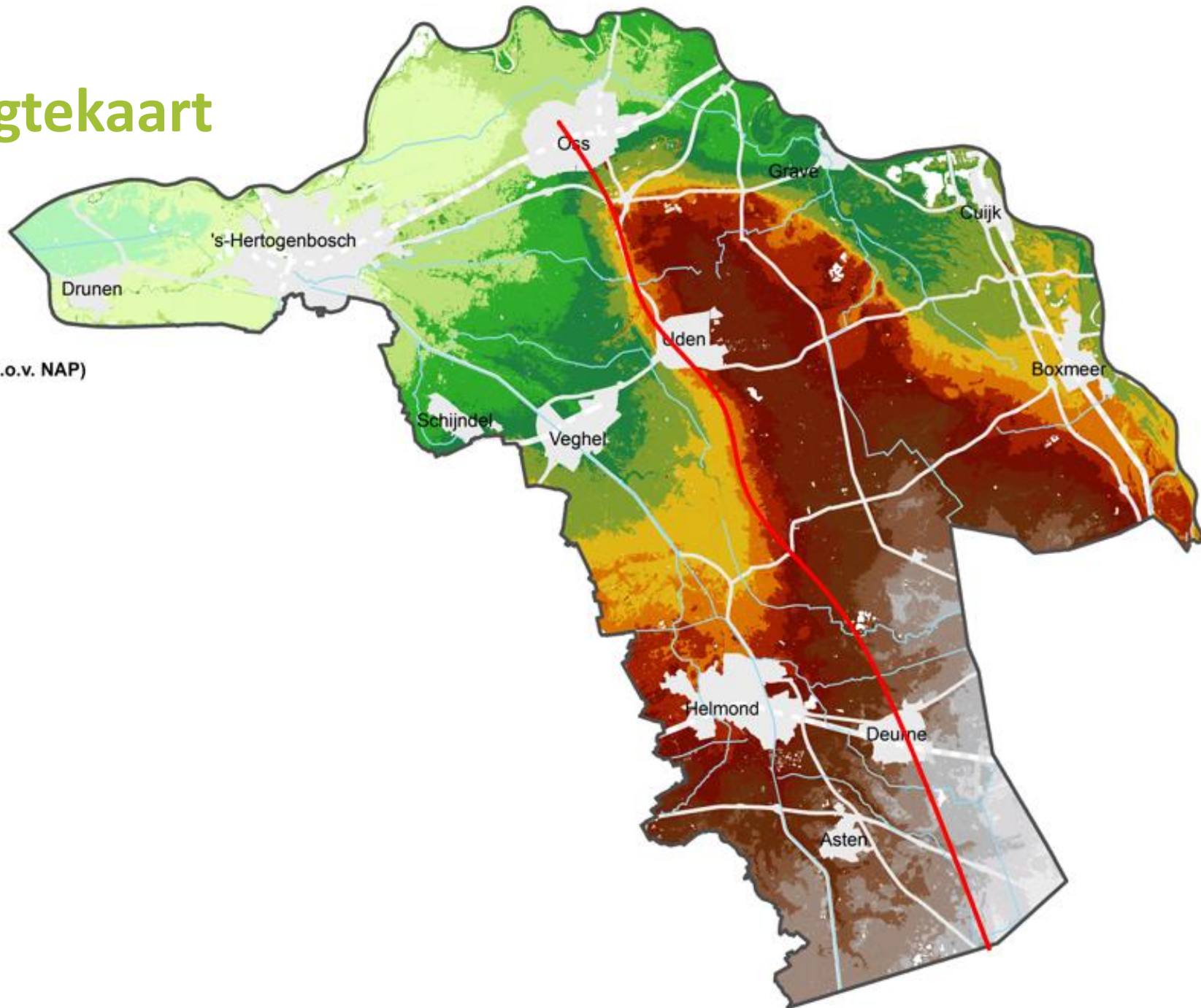


Het hoogveengebied de Peel  
2000 n. Chr

# 200 jaar terug en nu

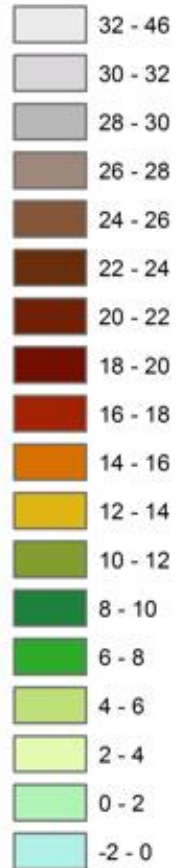


# Hoogtekaart

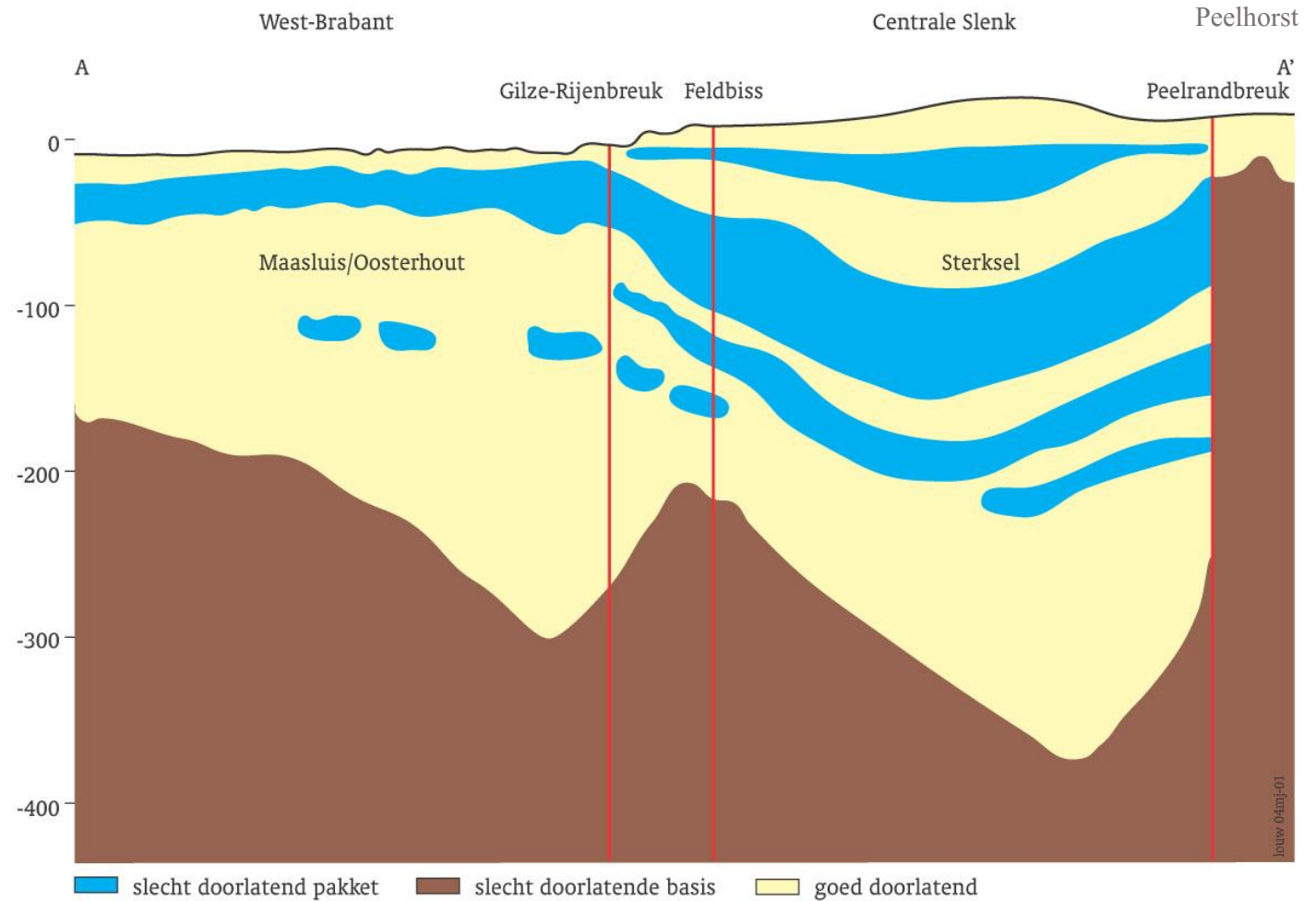
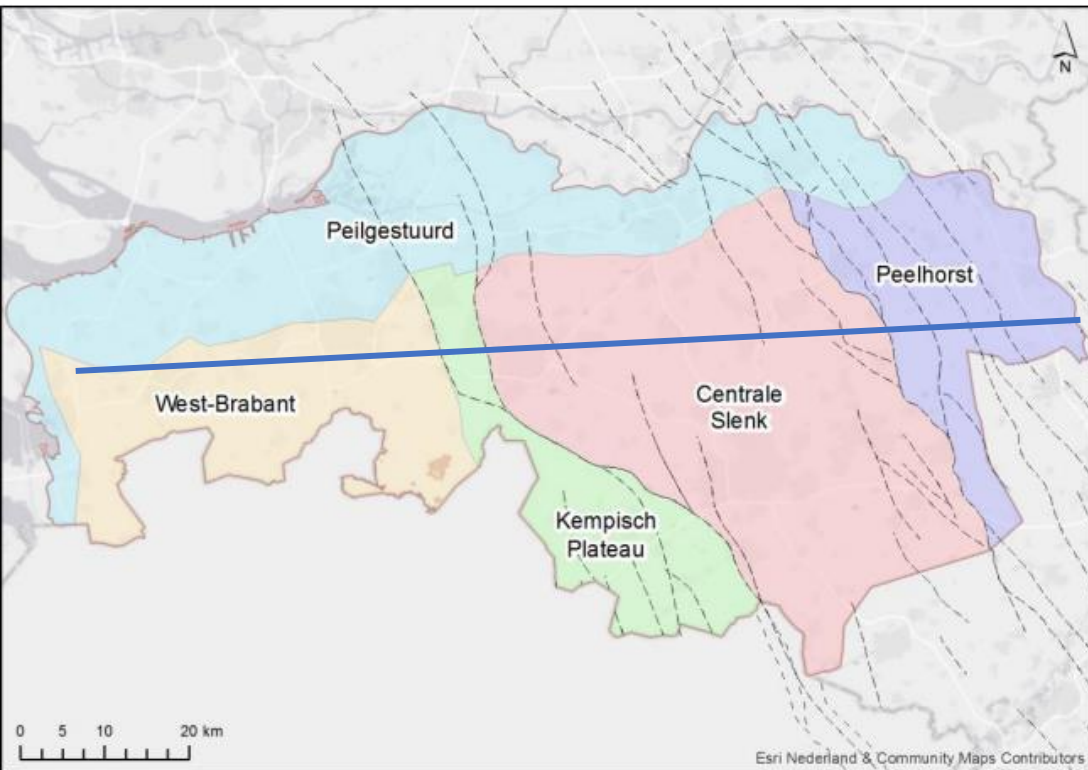


## Legenda

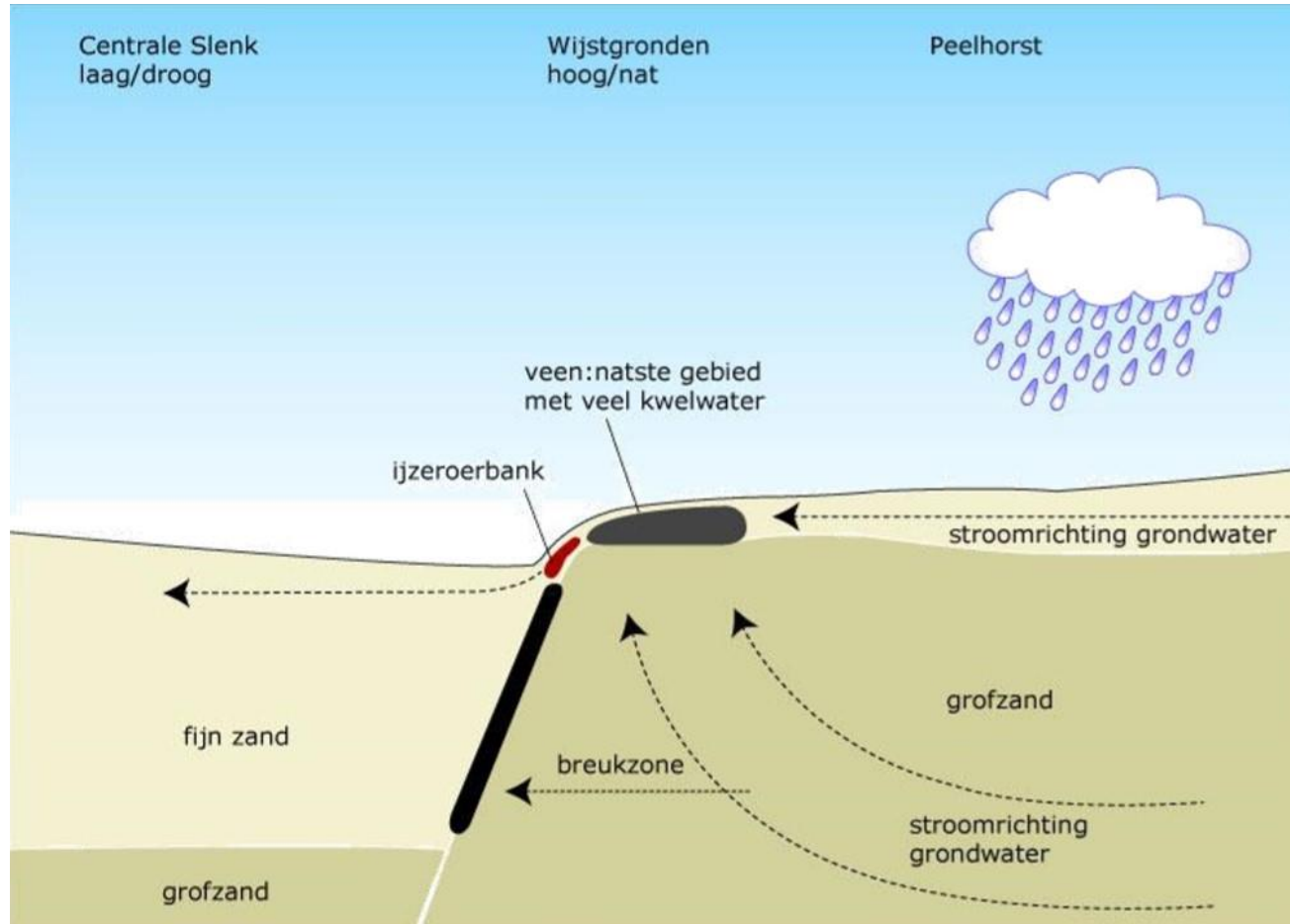
### Terreinhoogtes (m t.o.v. NAP)



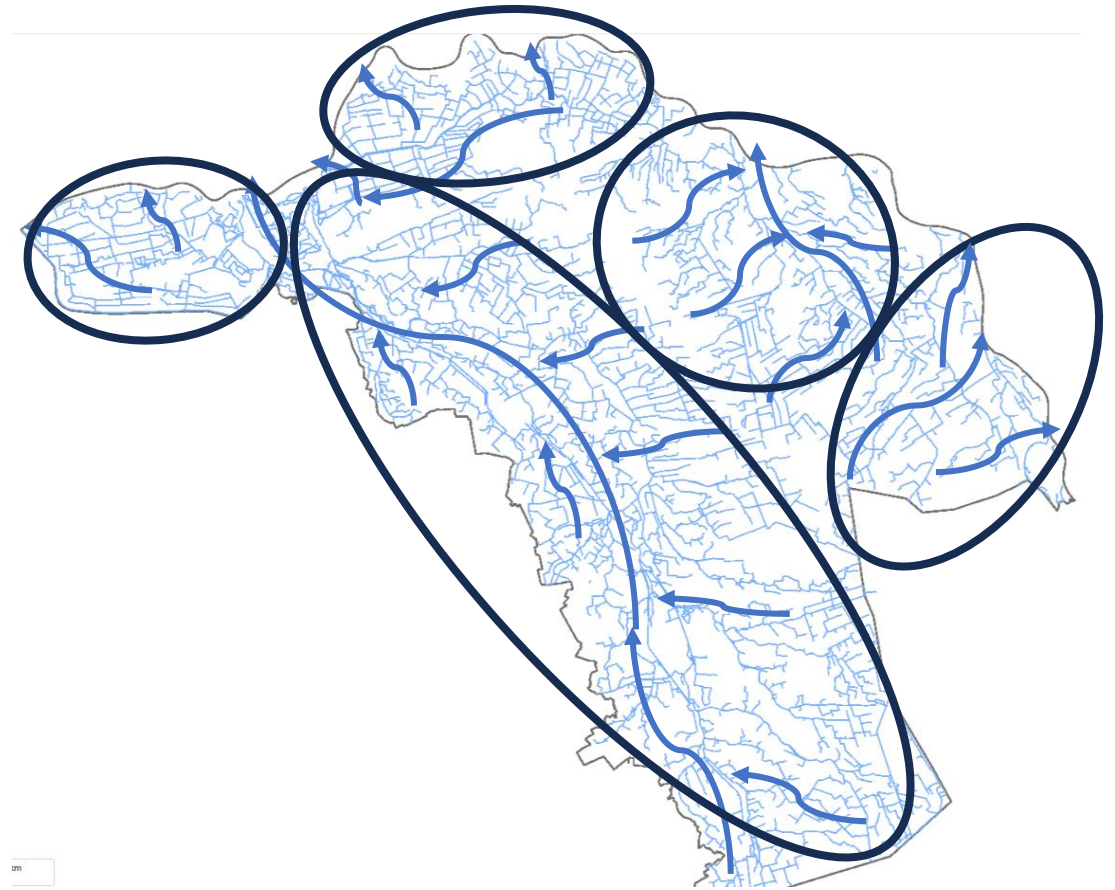
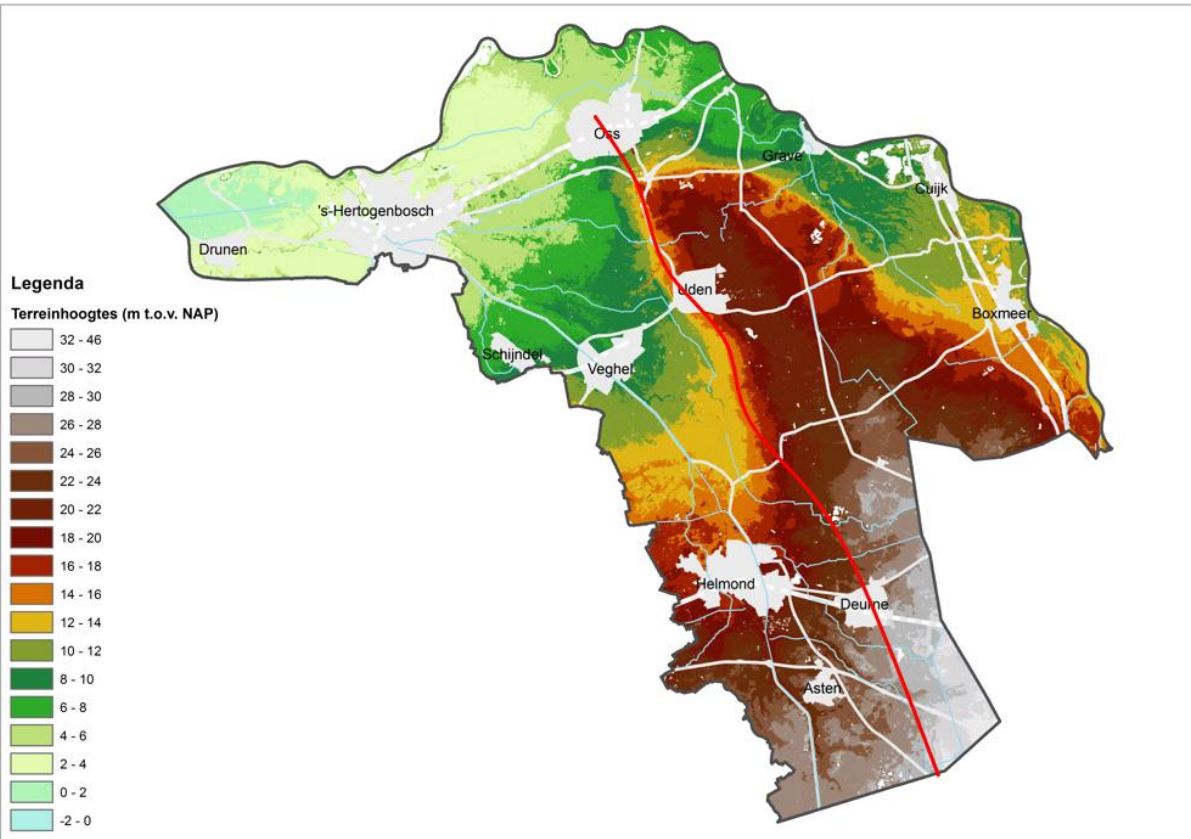
# Geologische dwarsdoorsnede Brabant



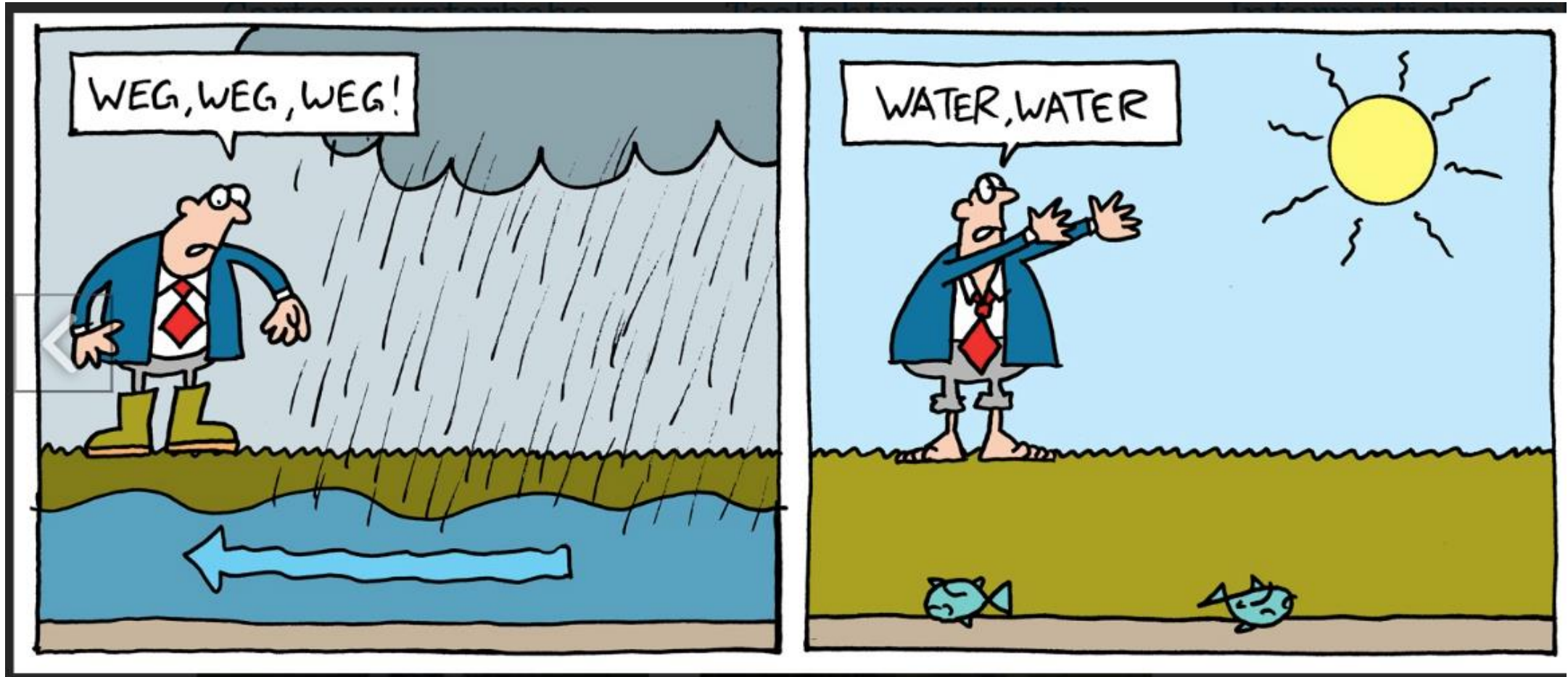
# Peellandbreuk



# Waterlopen & hoe stroomt het naar de Maas

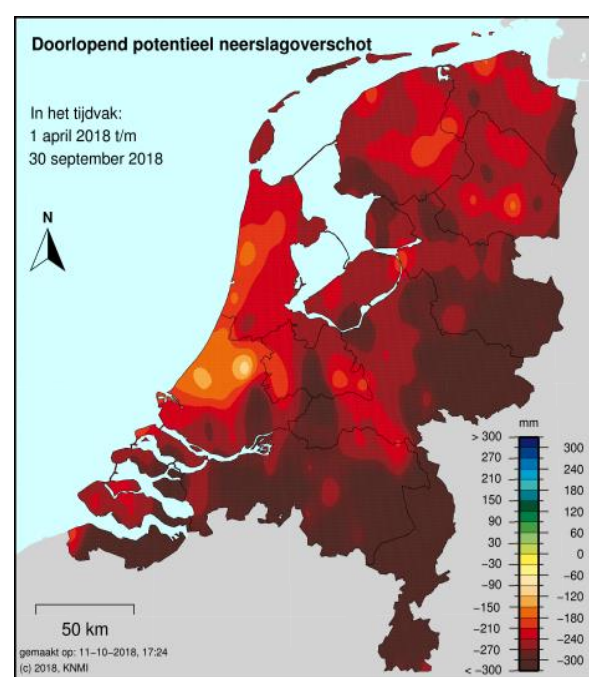


# Weersextremen grootste uitdaging in een regenwater afhankelijk watersysteem?

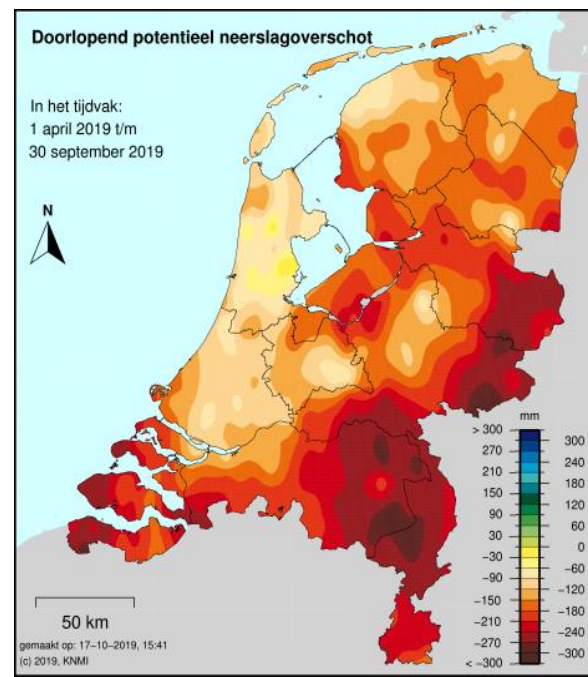




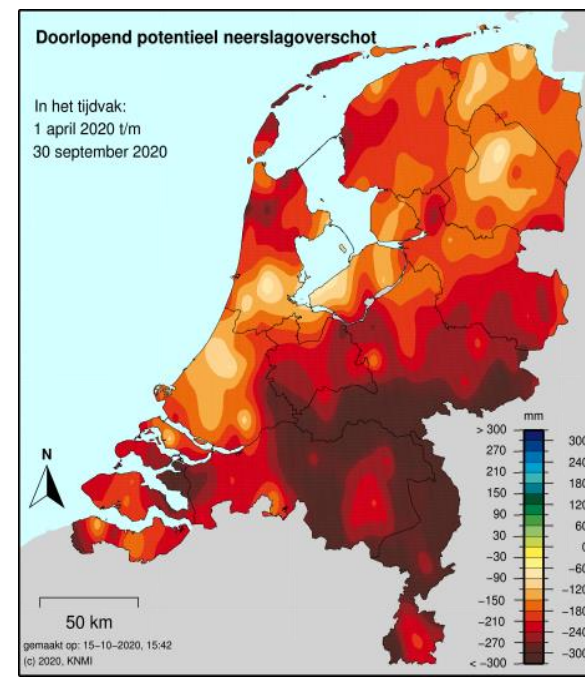
# Zeer droge jaren: neerslagtekort in Nederland (periode april-september)



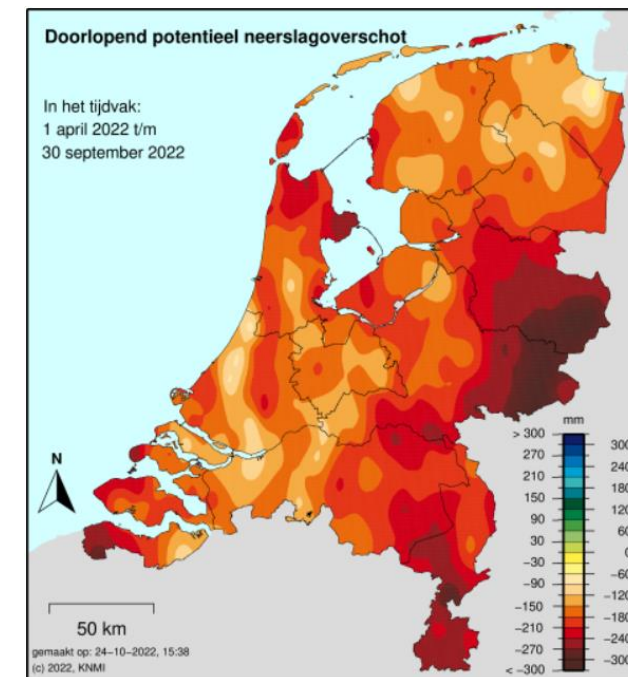
2018



2019



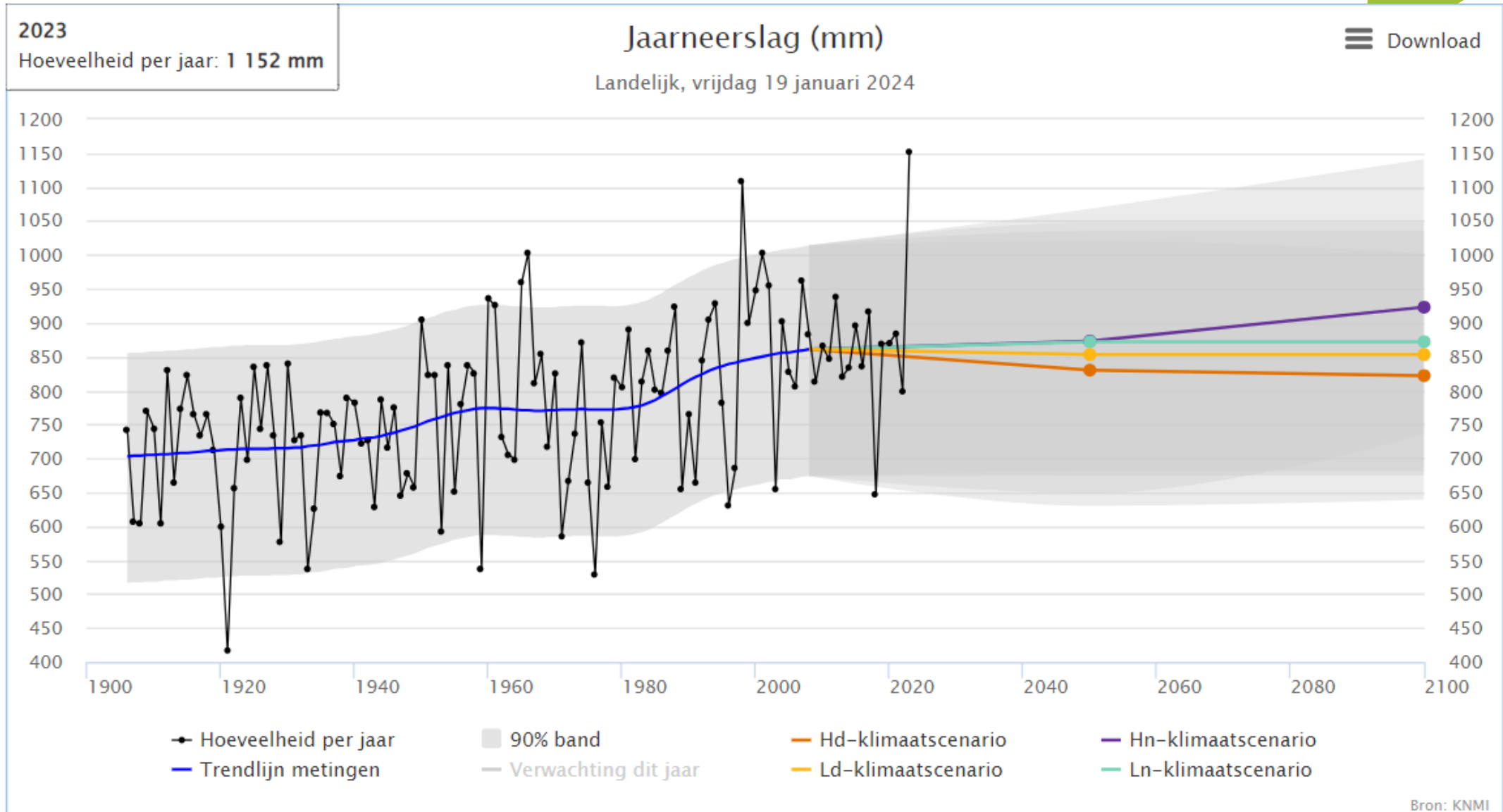
2020



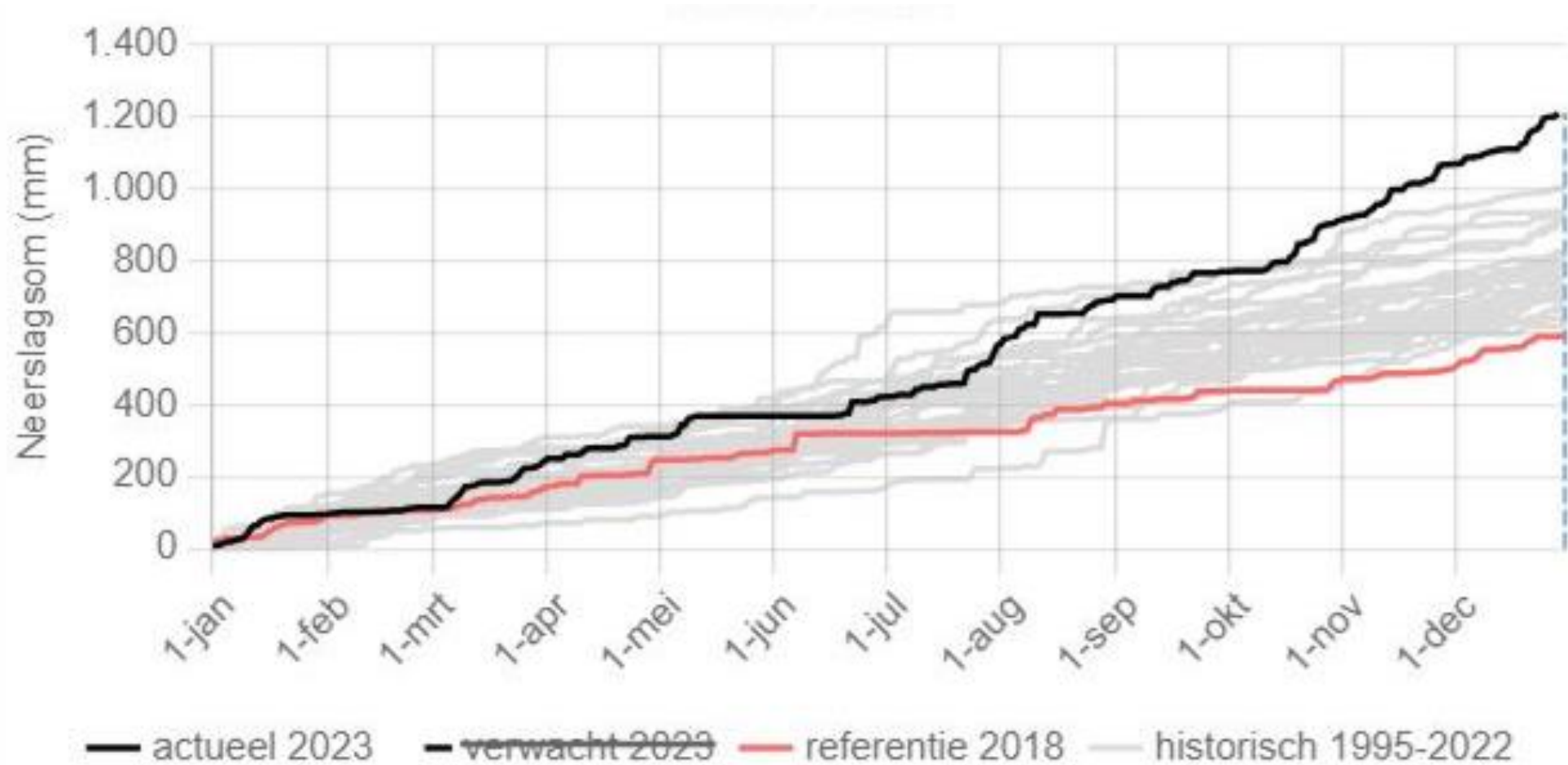
2022

# 2023 landelijk natste jaar sinds start meting

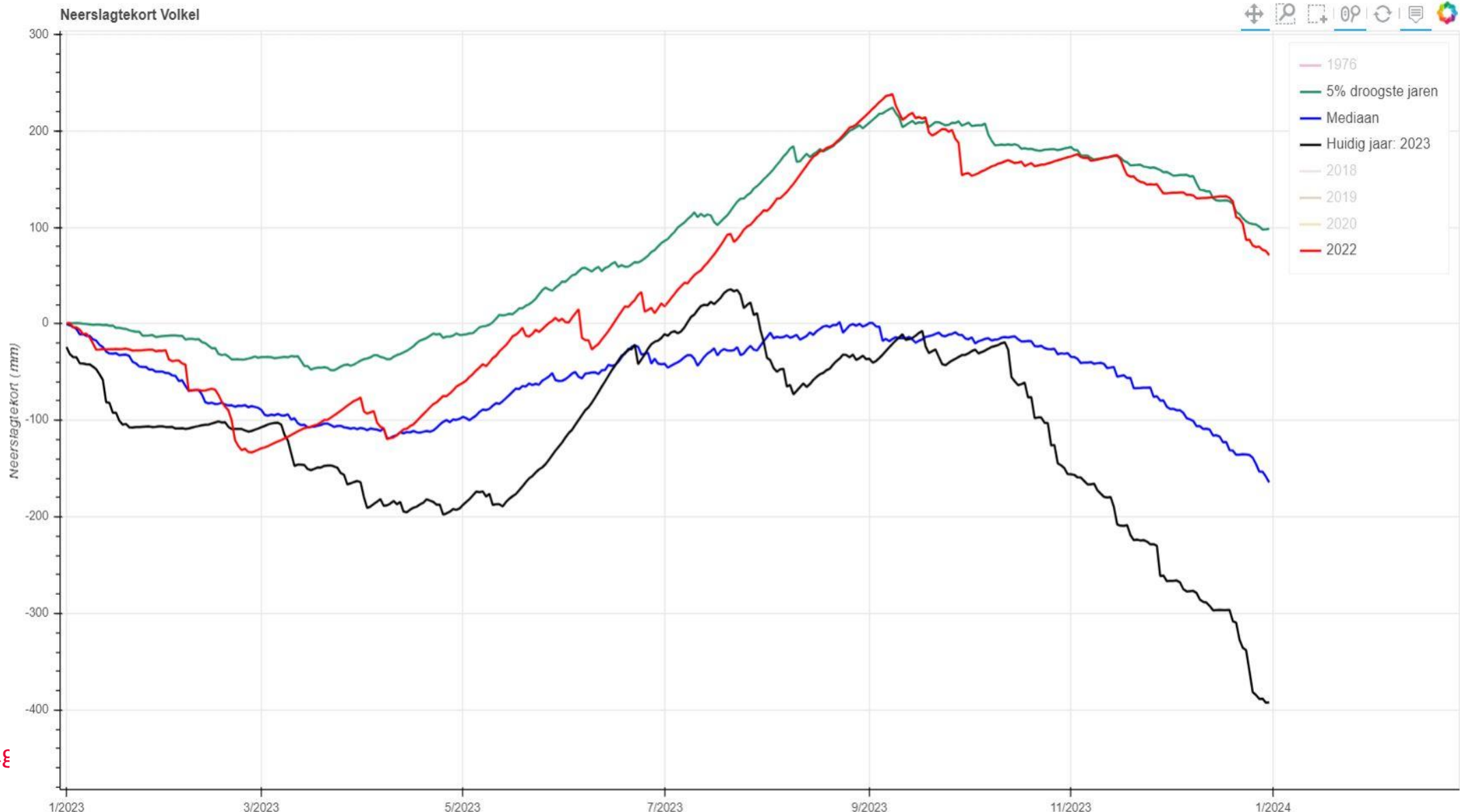
1  
0



# Gevallen neerslag 2023 Aa en Maas in historisch vergelijk

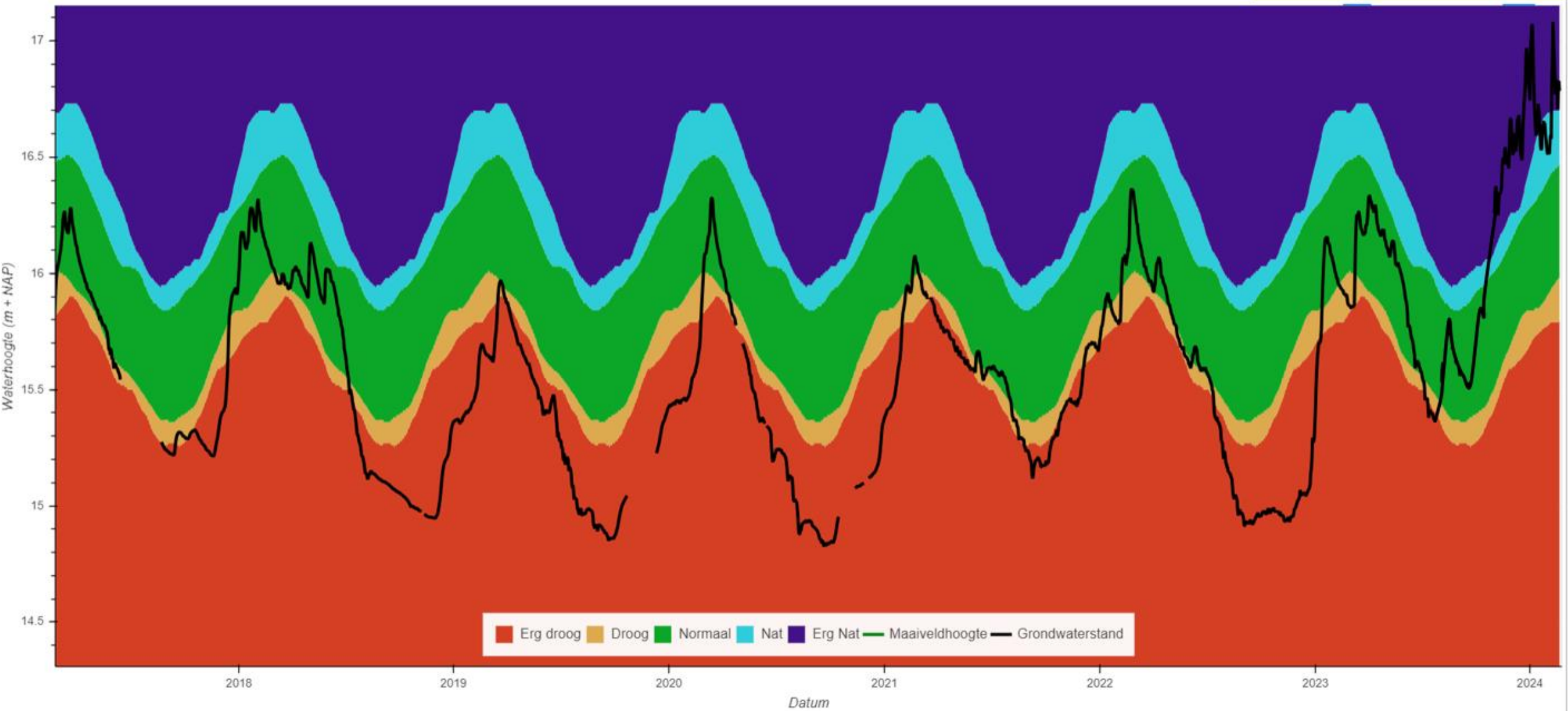


# Neerslagtekort over het gehele jaar 2023 vs 2022 te Volkel

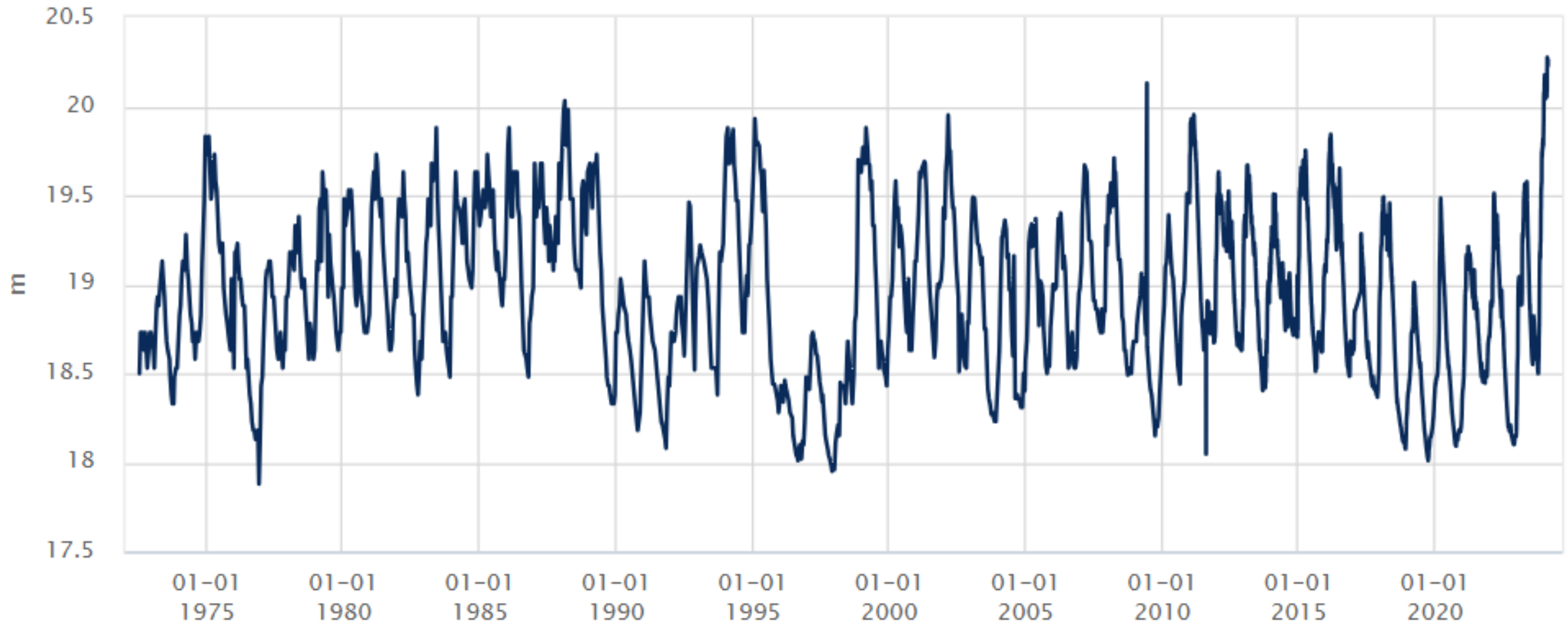


veilig

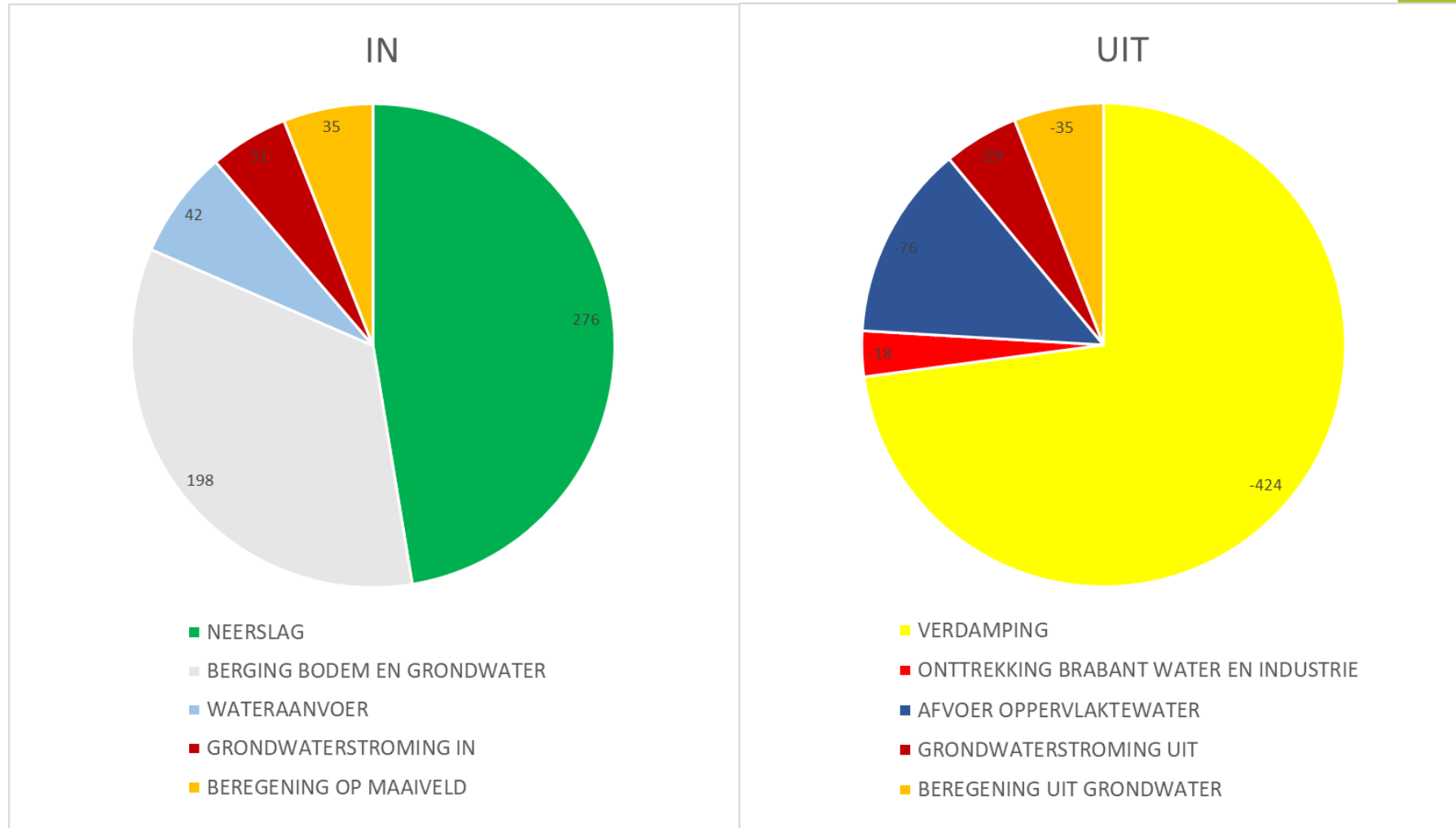
# Grondwaterstanden afgelopen 6 jaar. Meetpunt op de Maashorst



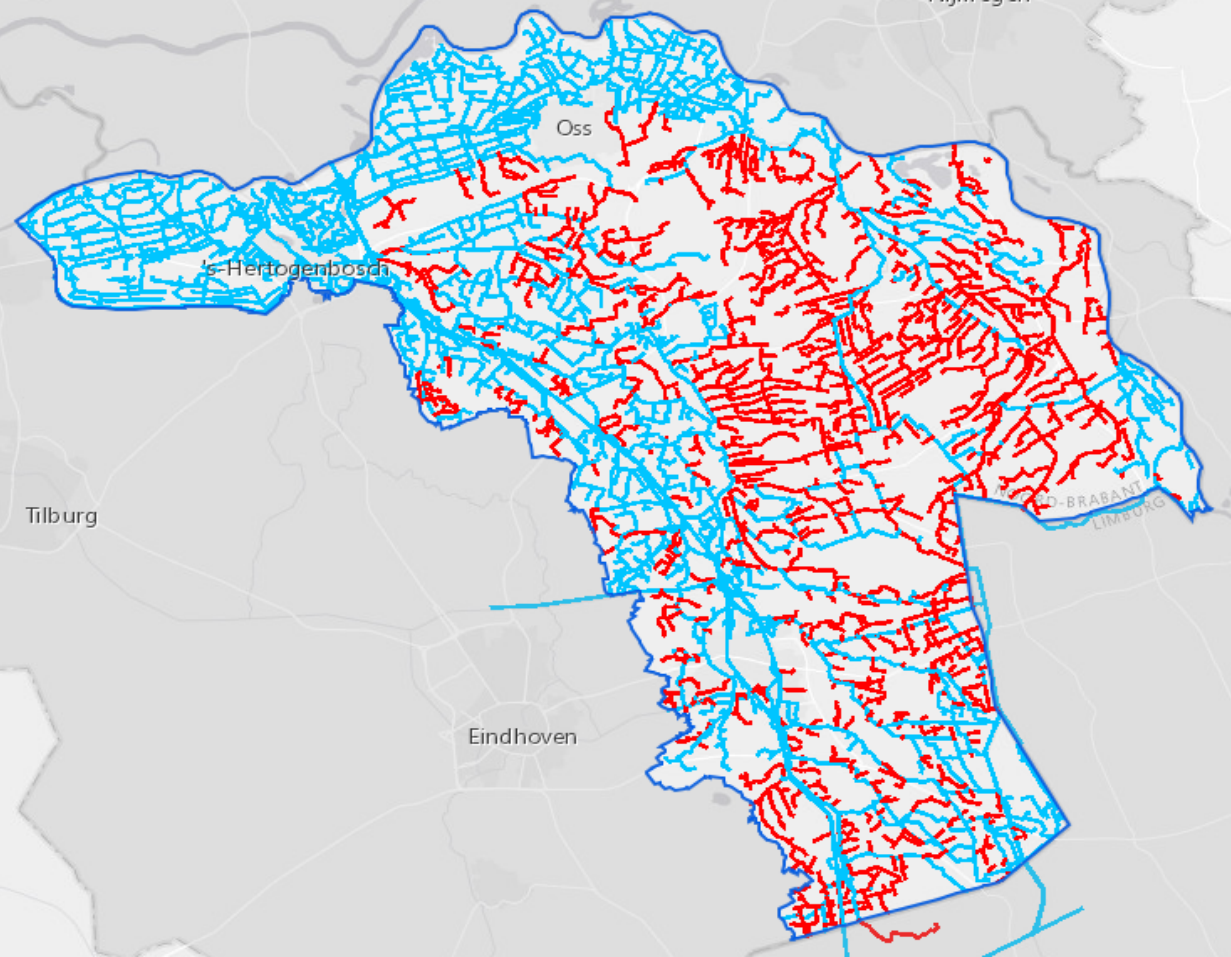
# Grondwaterstand: historisch gezien (zuidelijk deel Maashorst)



# Waterbalans Aa en Maas voor zomer halfjaar (in mm)

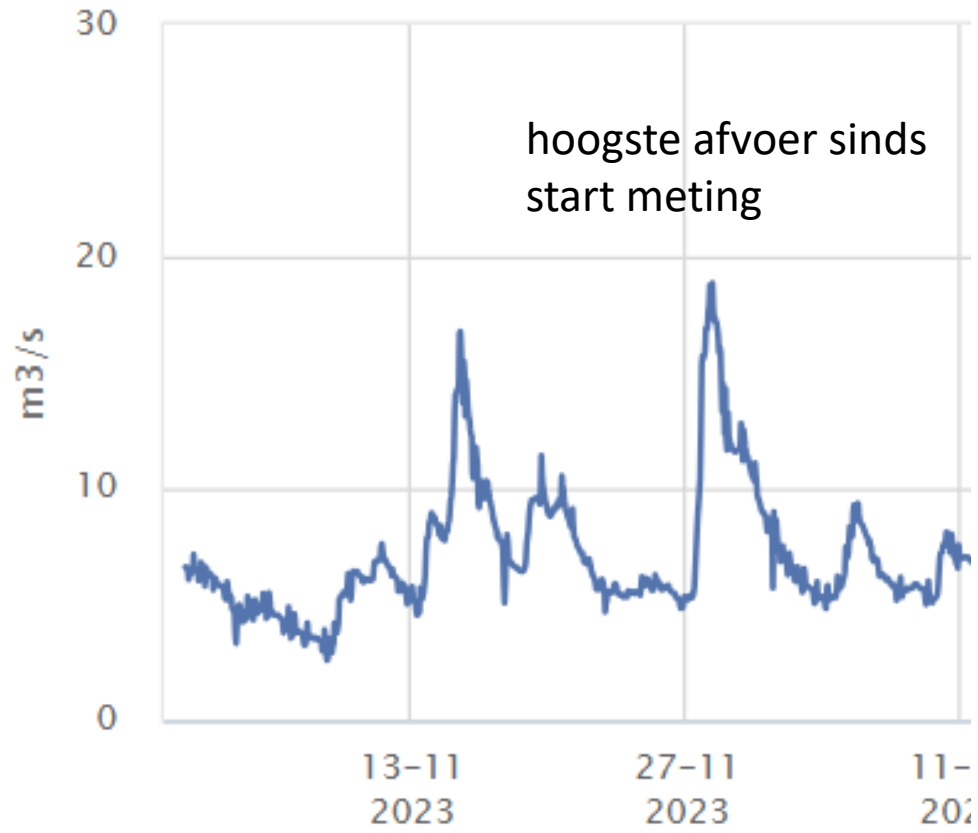


# Oppervlaktewater: droogval in zeer droge zomer





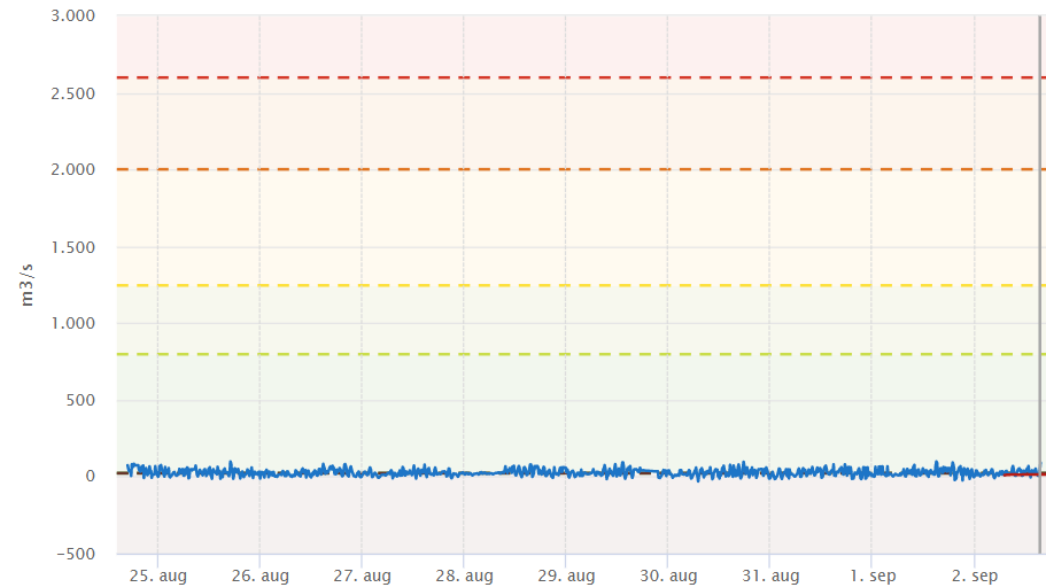
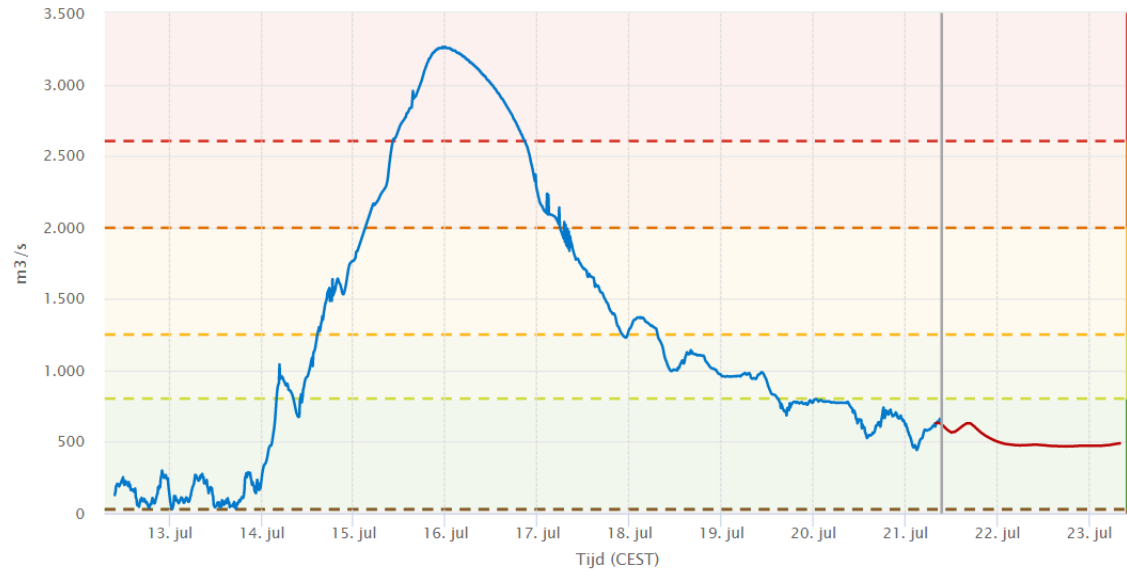
# afgelopen herfst/winter record afvoeren (Raam).



# Water, water, water.....



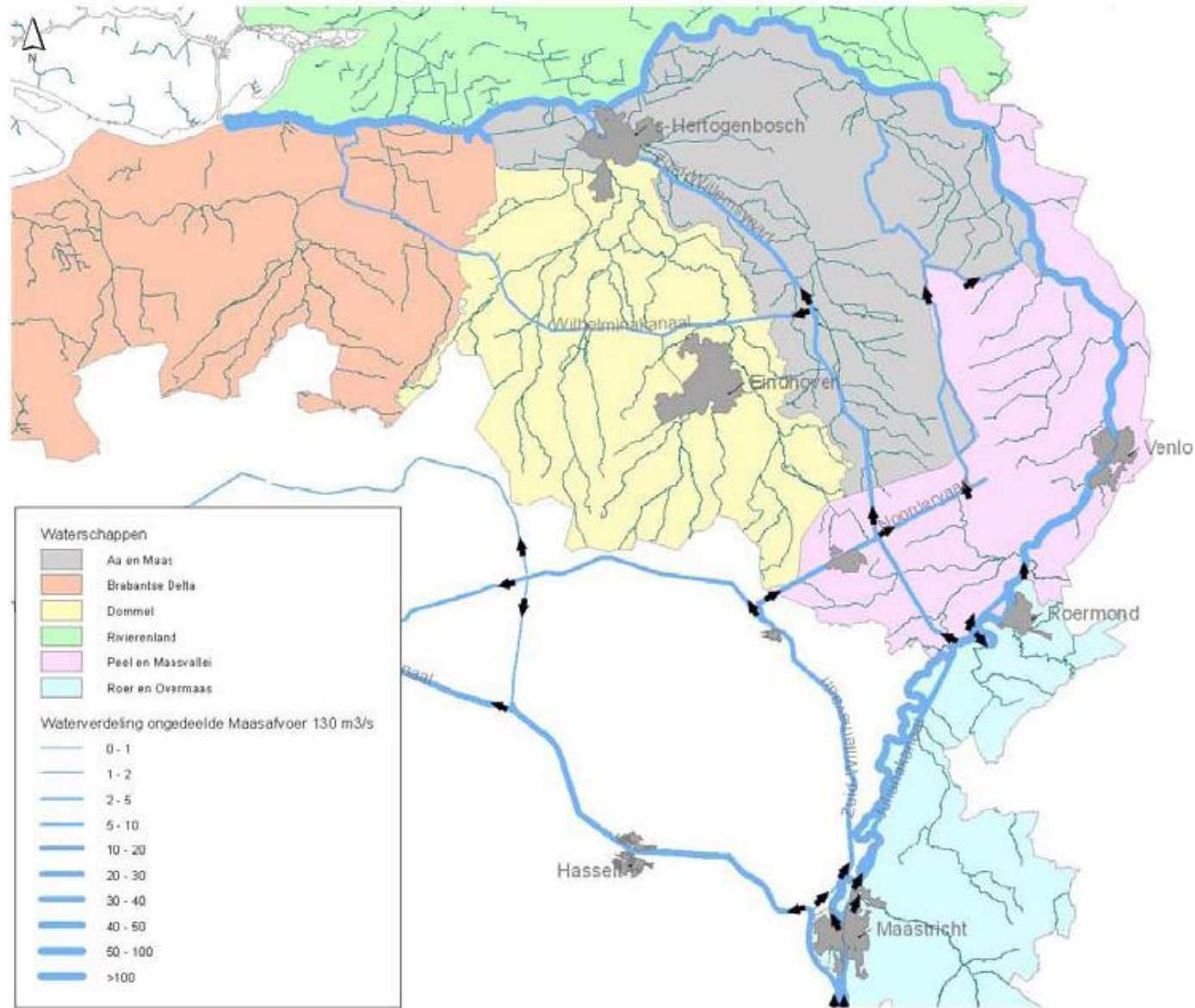
# De Maas zomer 2021 en zomer 2022 bij Sambeek



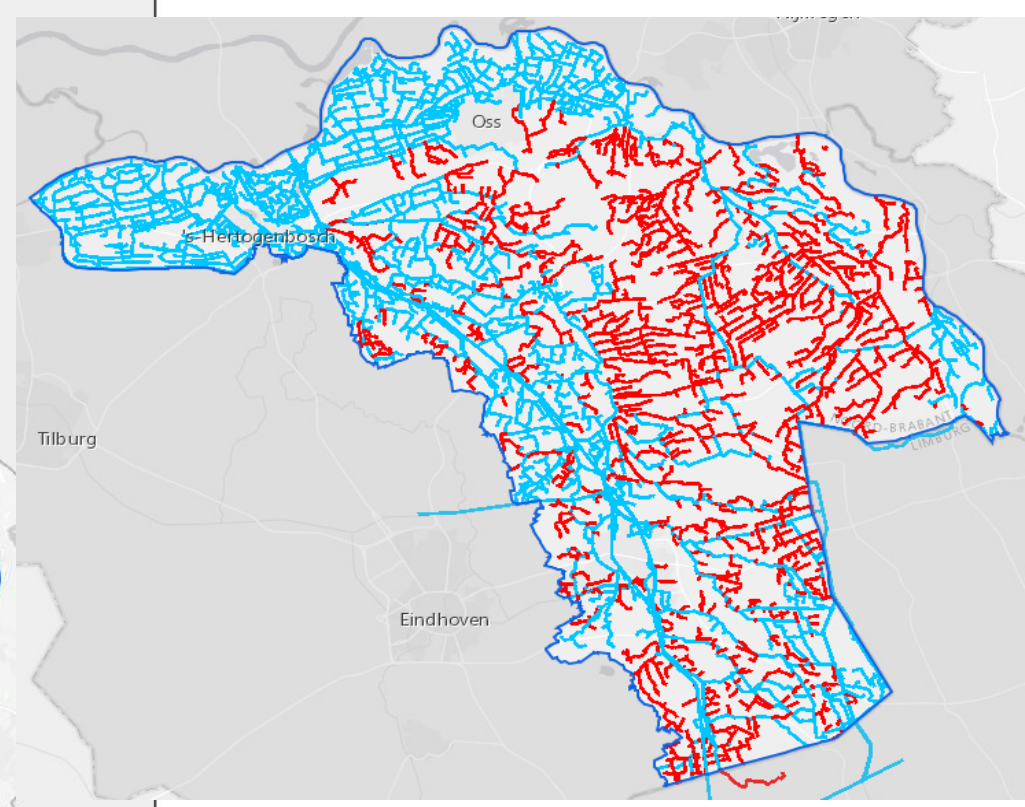
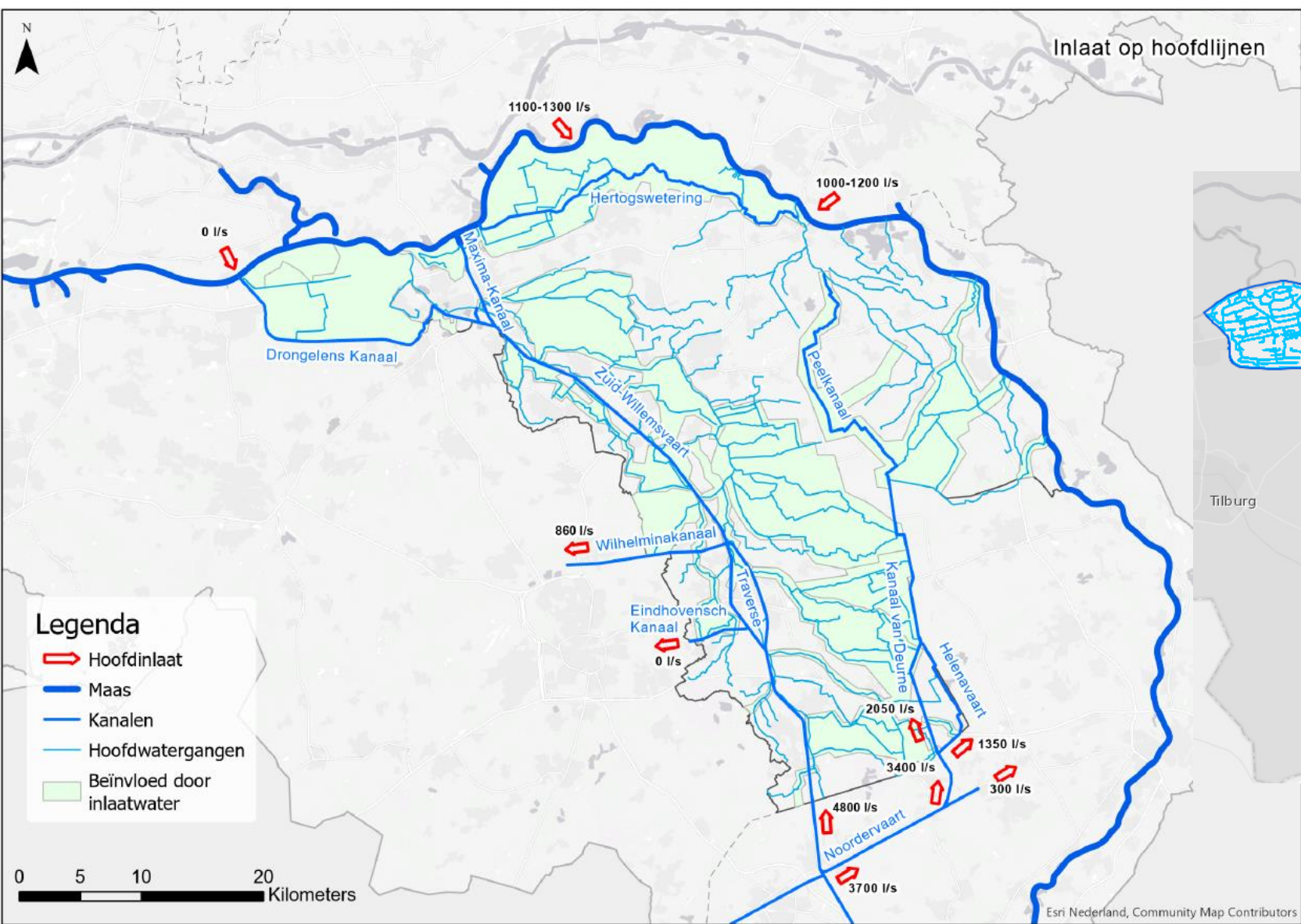
# wateraanvoer vanuit de Maas



# Wateraanvoer start in België



# Aanvoer bij Aa en Maas



# Waterkwaliteit

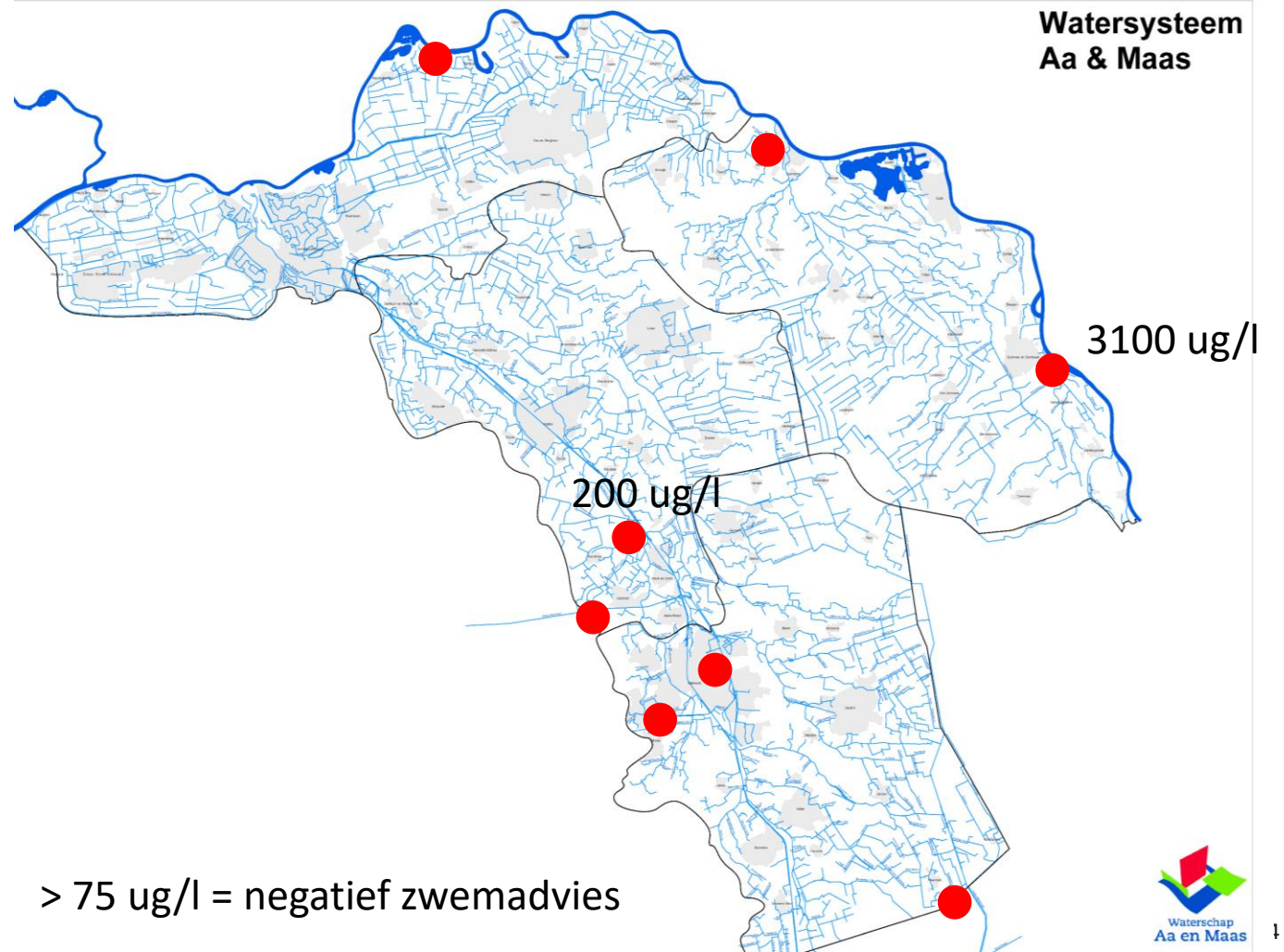
2  
3



# Waterkwaliteit: blauwalgwater inlaten?

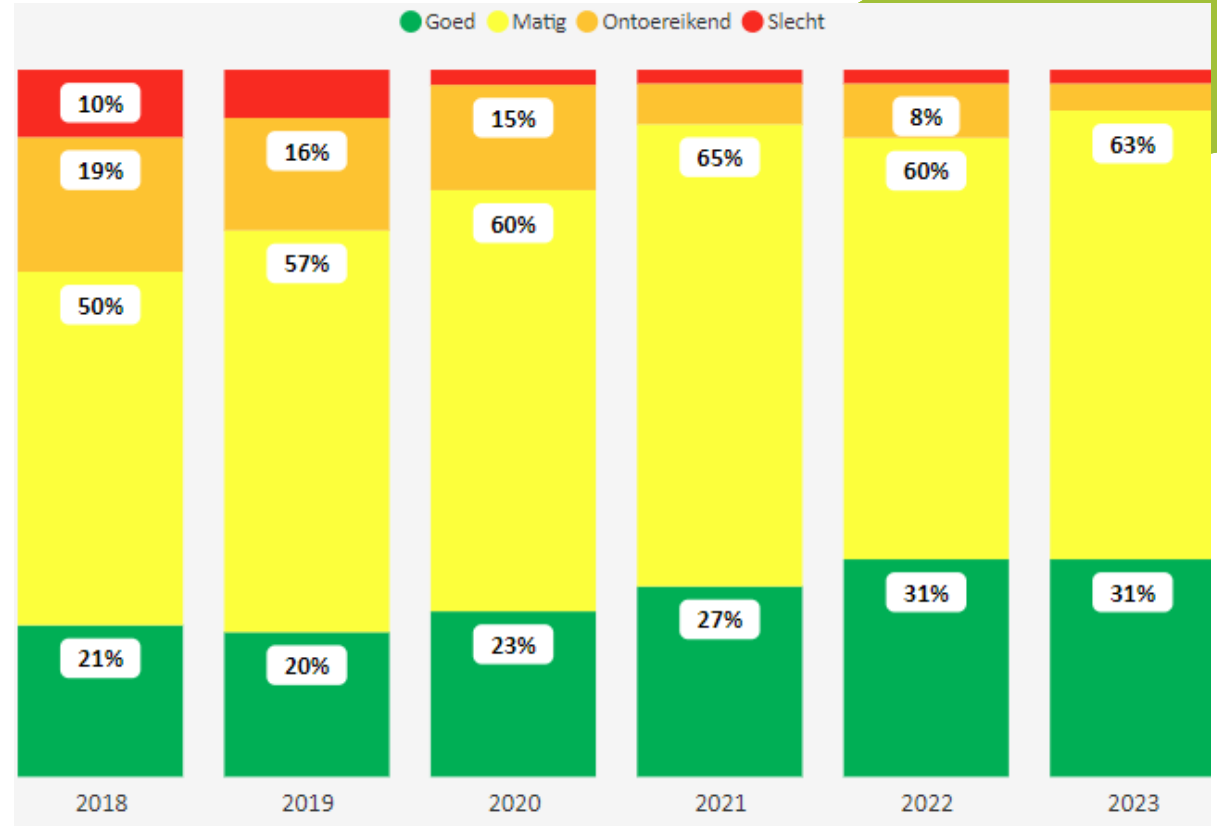
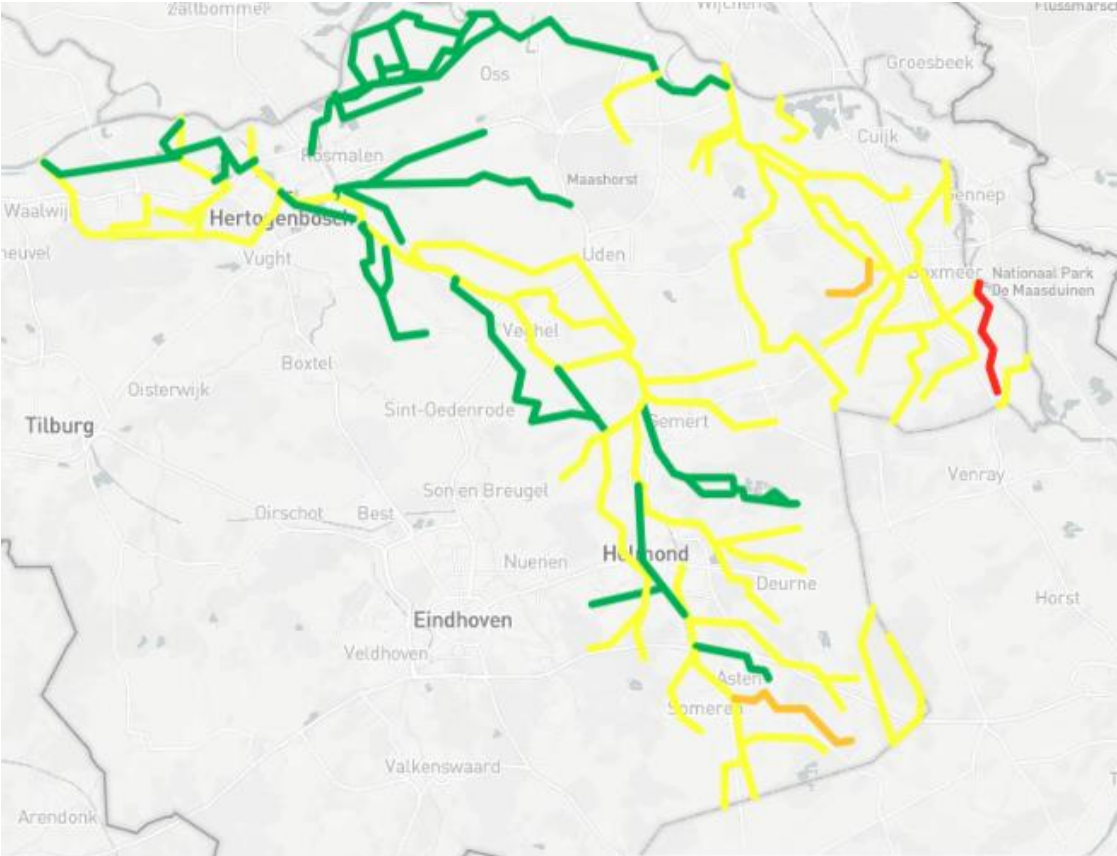


Monitoring bij inlaten vanuit Rijkswateren

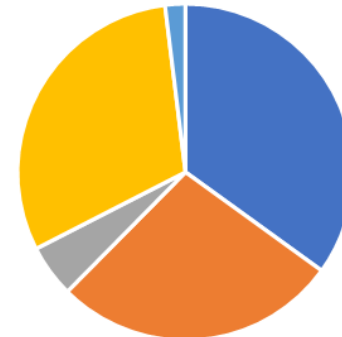
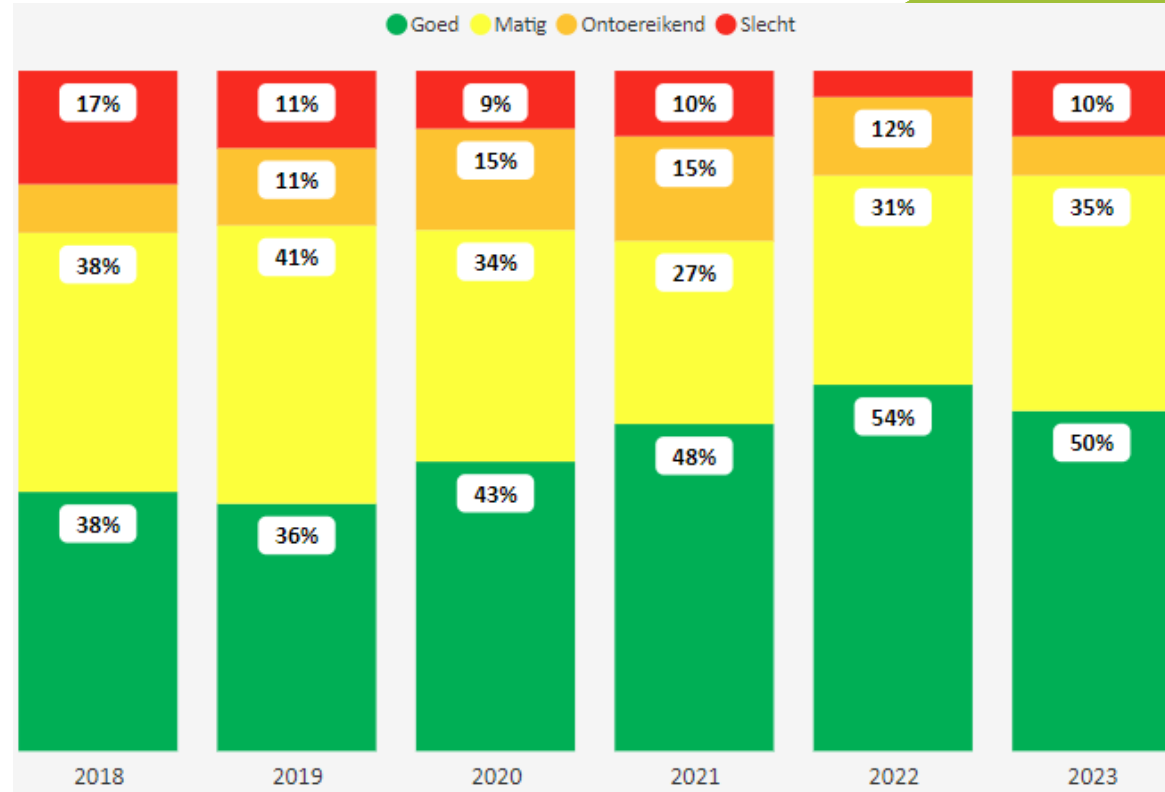
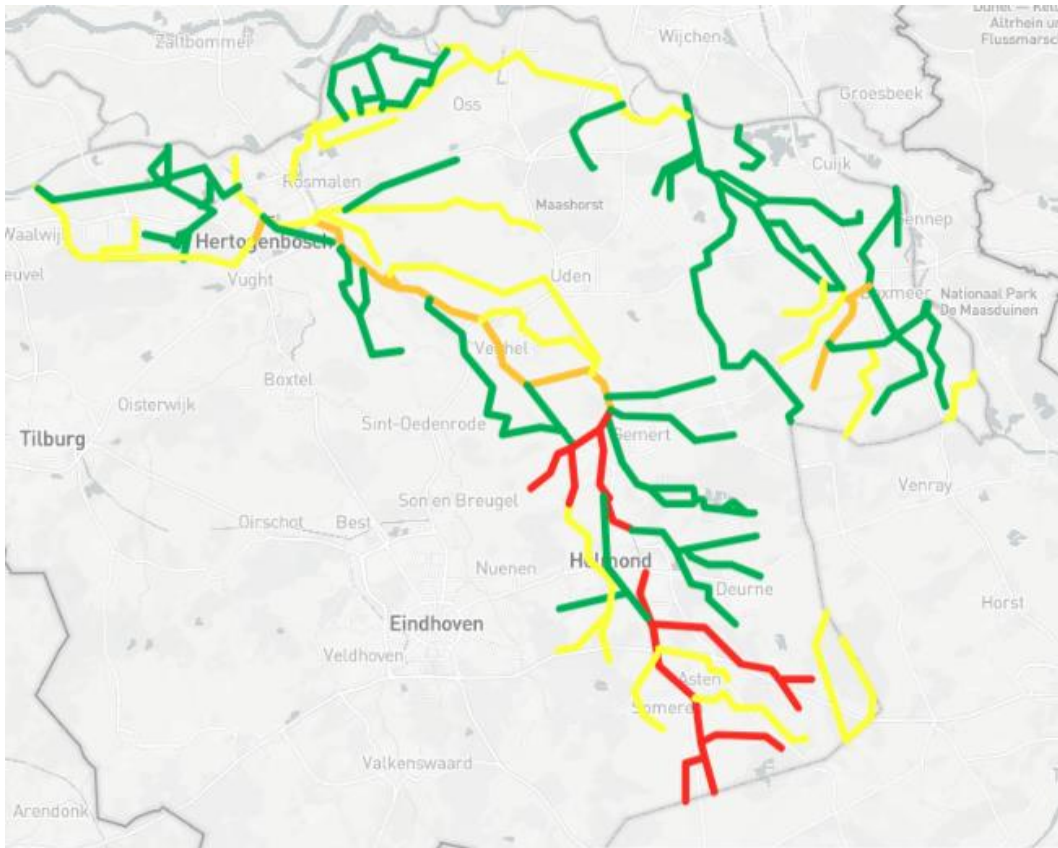




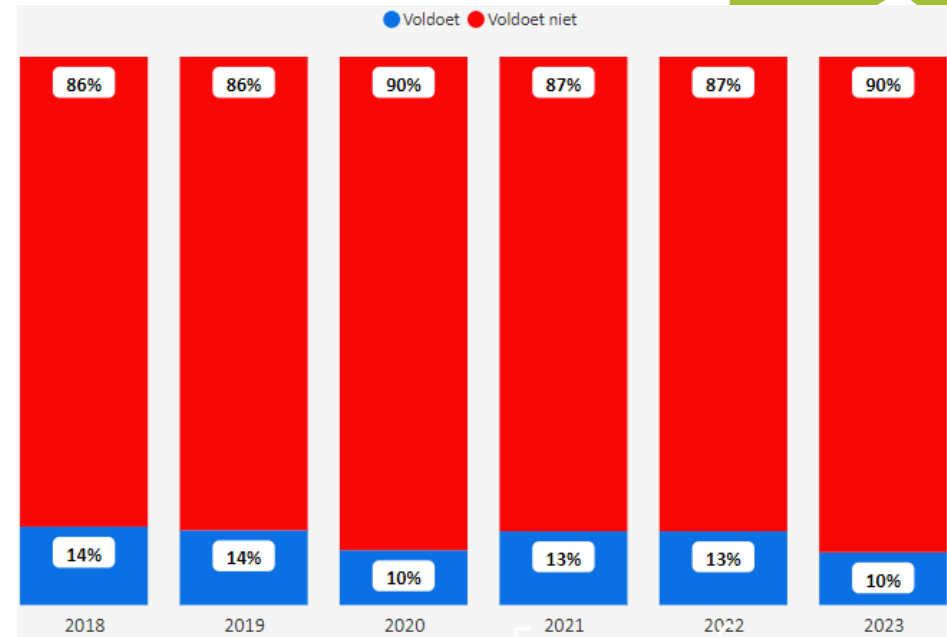
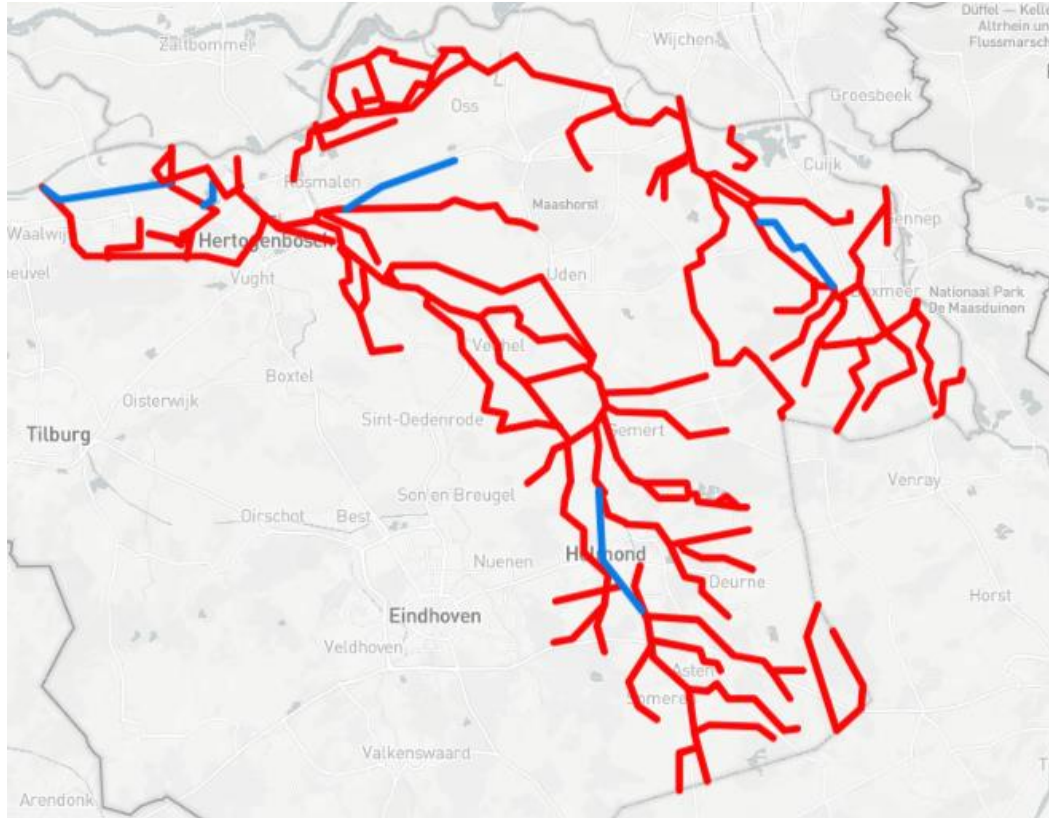
# Totaal stikstof



# Totaal fosfor



# Zwaar metaal: Zink



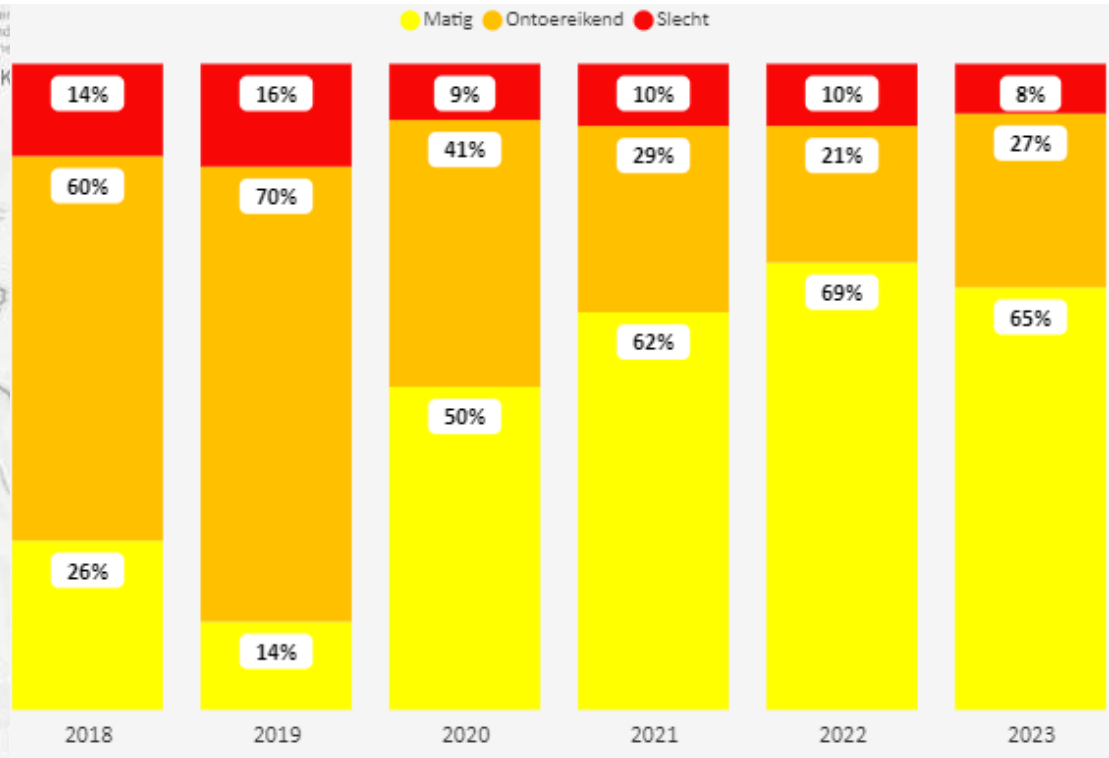
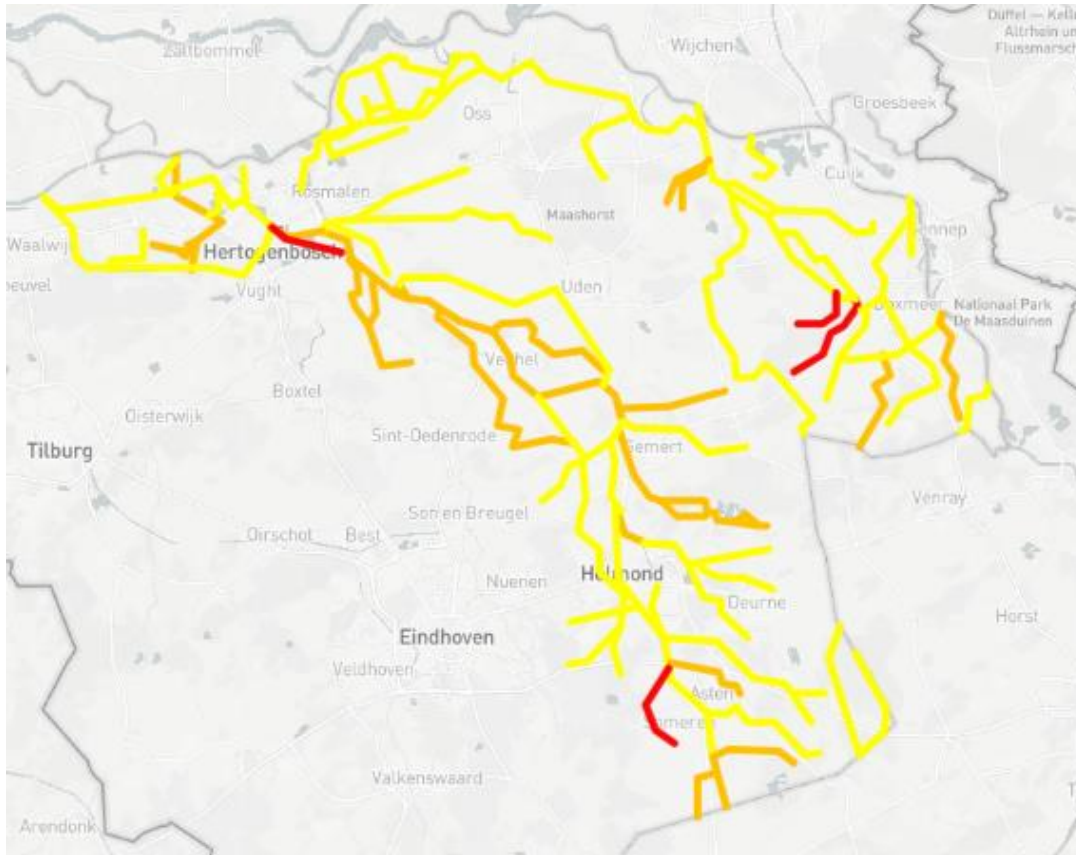
## Bronnen zink

1. Depositie
2. Industrie
3. Landbouwbodems
4. Natuurbodems
5. Overstort
6. RWZI
7. Verkeer en vervoer

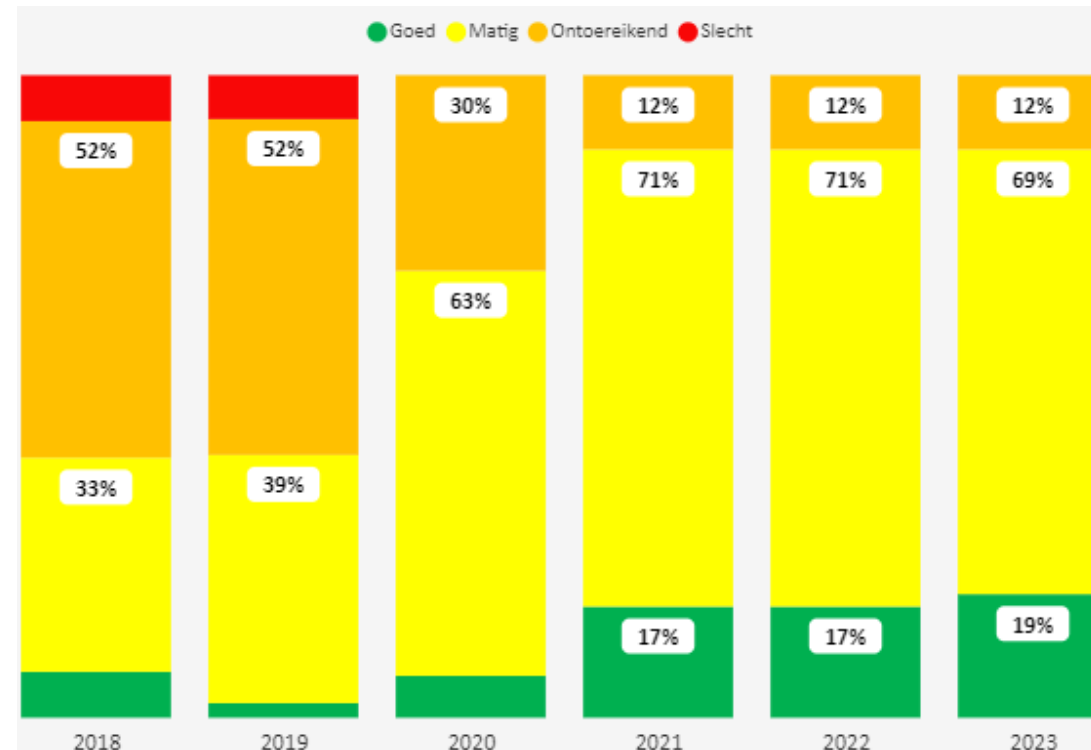
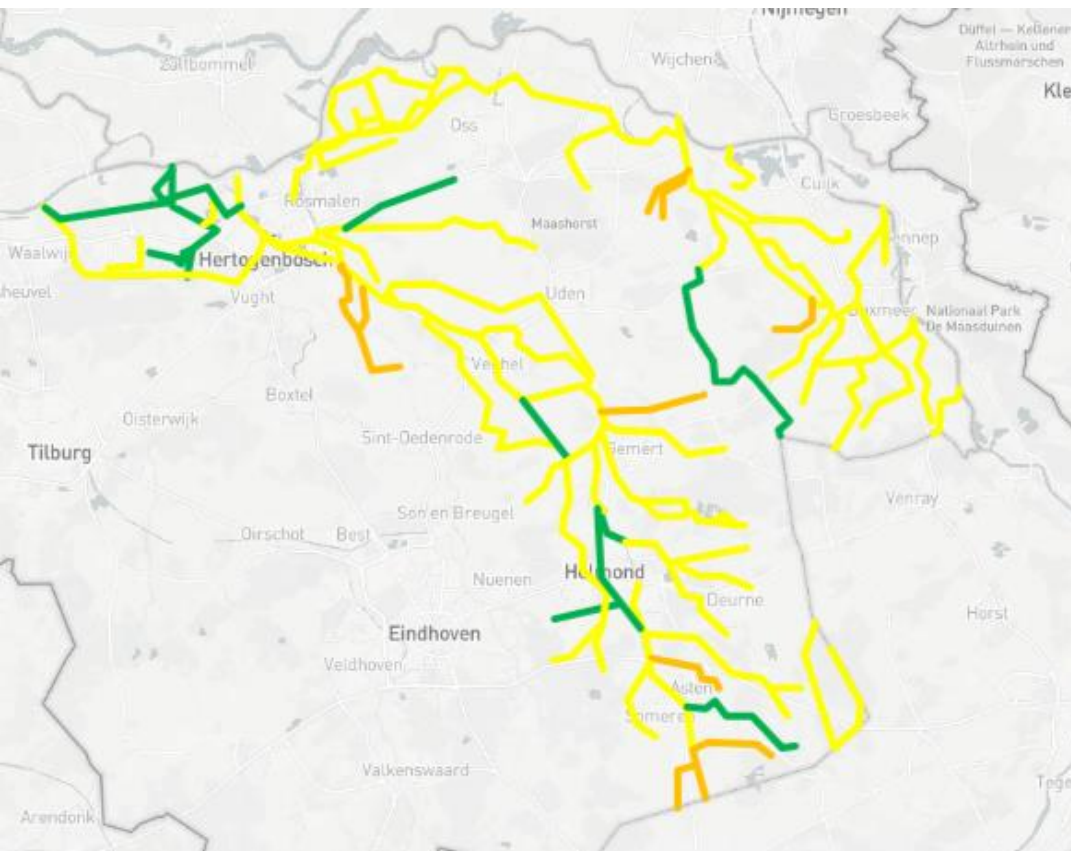
# Vissterfte



# Ecologie (macrofauna + waterplanten + vissen + fytoplankton)



# Macrofauna



Tot slot.



Bosbeekjuffer na 100 jaar terug in de Oeffeltse Raam