

# First steps towards the implementation of a creekridge infiltration system



TOPSOIL Partnermeeting  
Dieter Vandeveld  
18/11/2020

# Topsoil project Belgium



Google earth

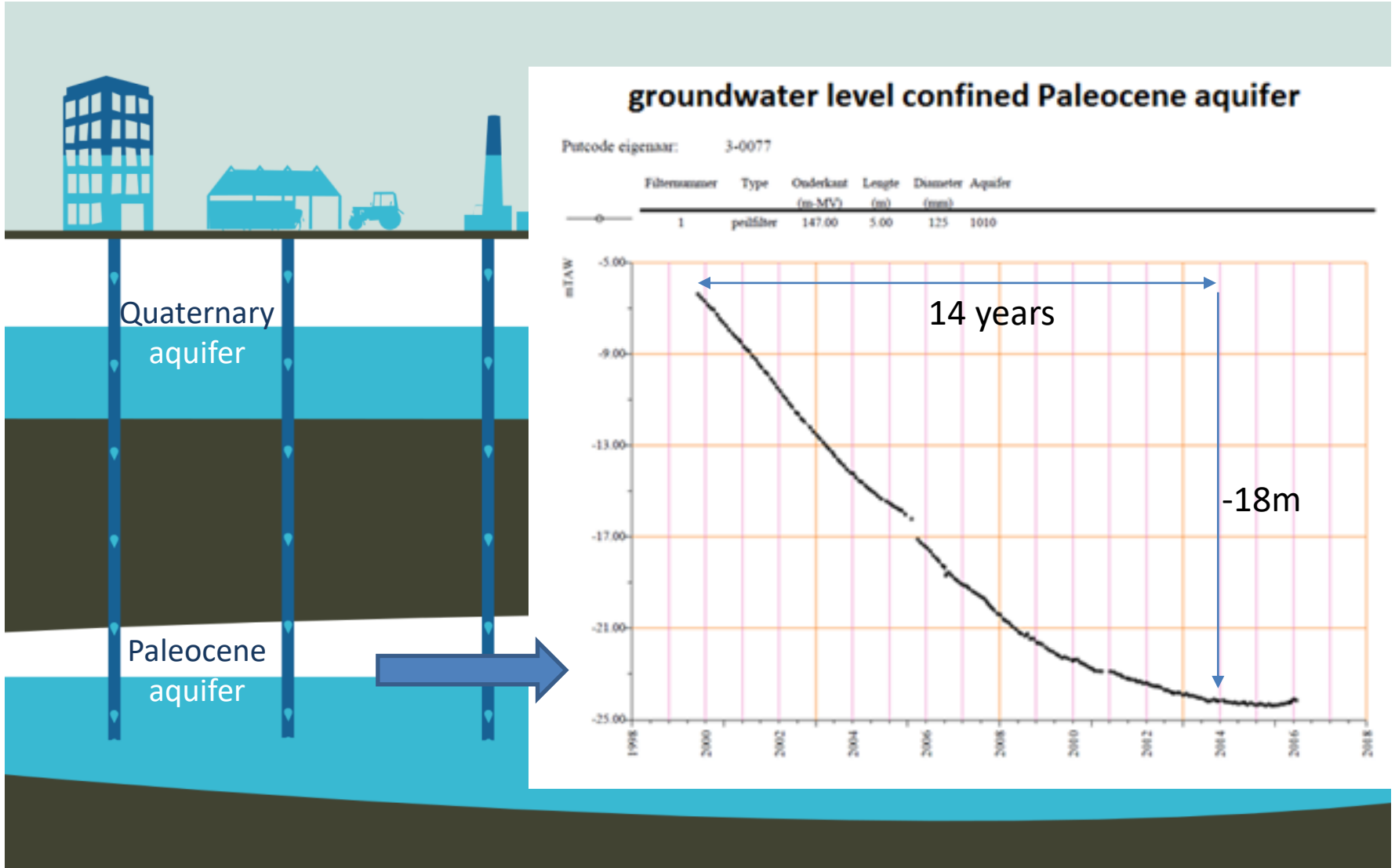
© 2016 Google  
US Dept of State Geographer  
© 2009 GeoBasis-DE/BKG  
Image Landsat



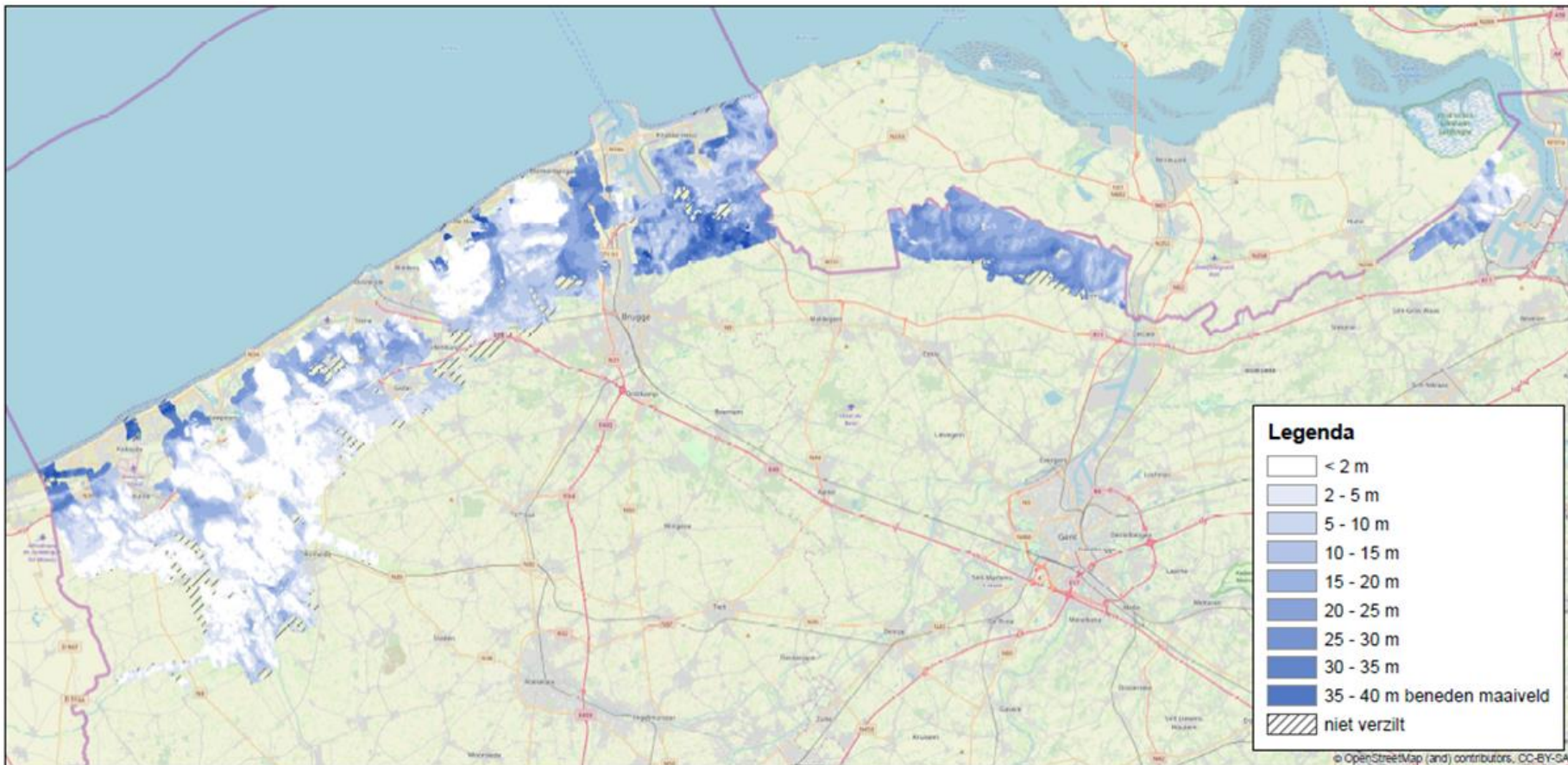
# Airborne EM (SkyTEM)



# Overexploited aquifer



# Salinity map



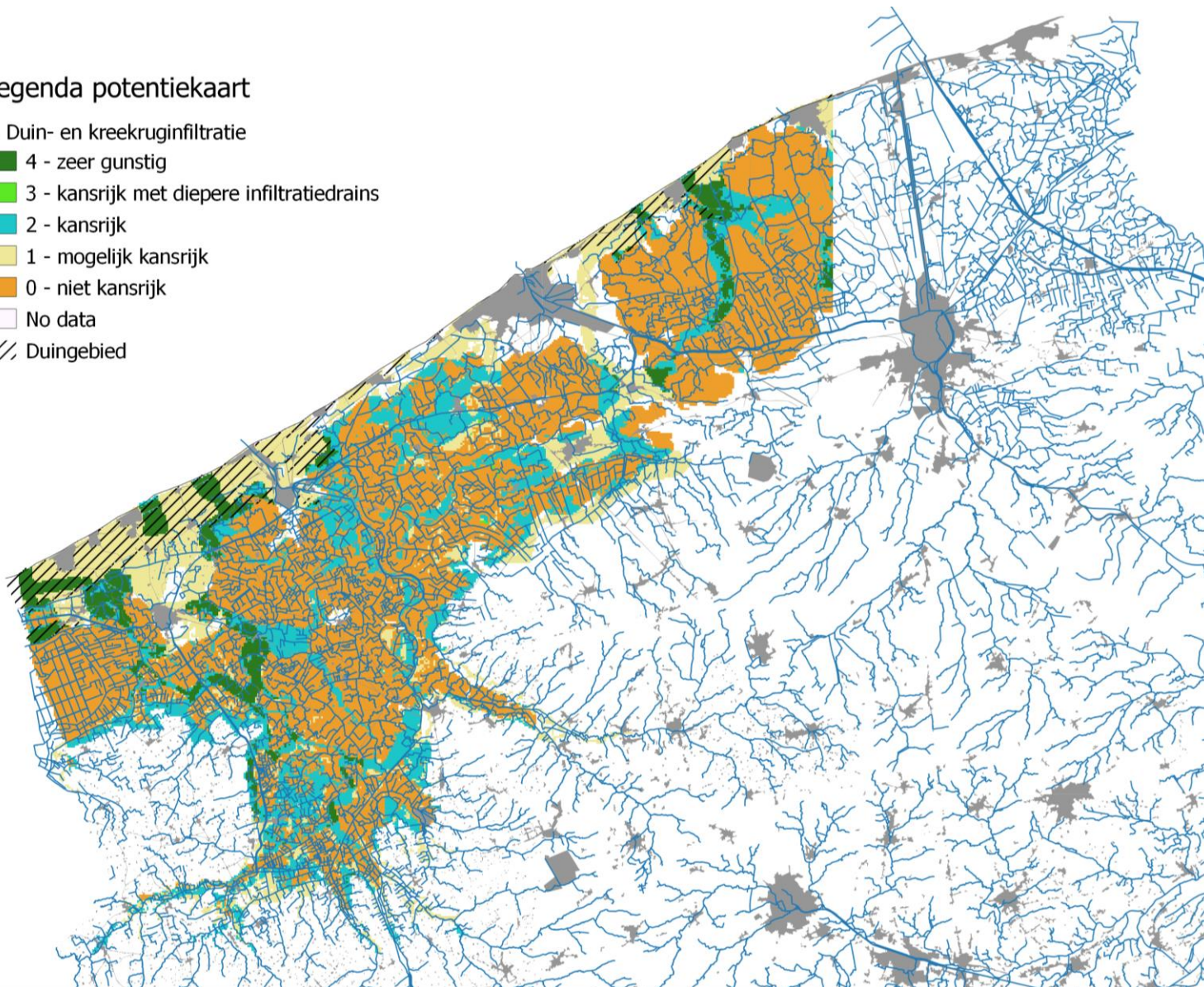


# Opportunity map

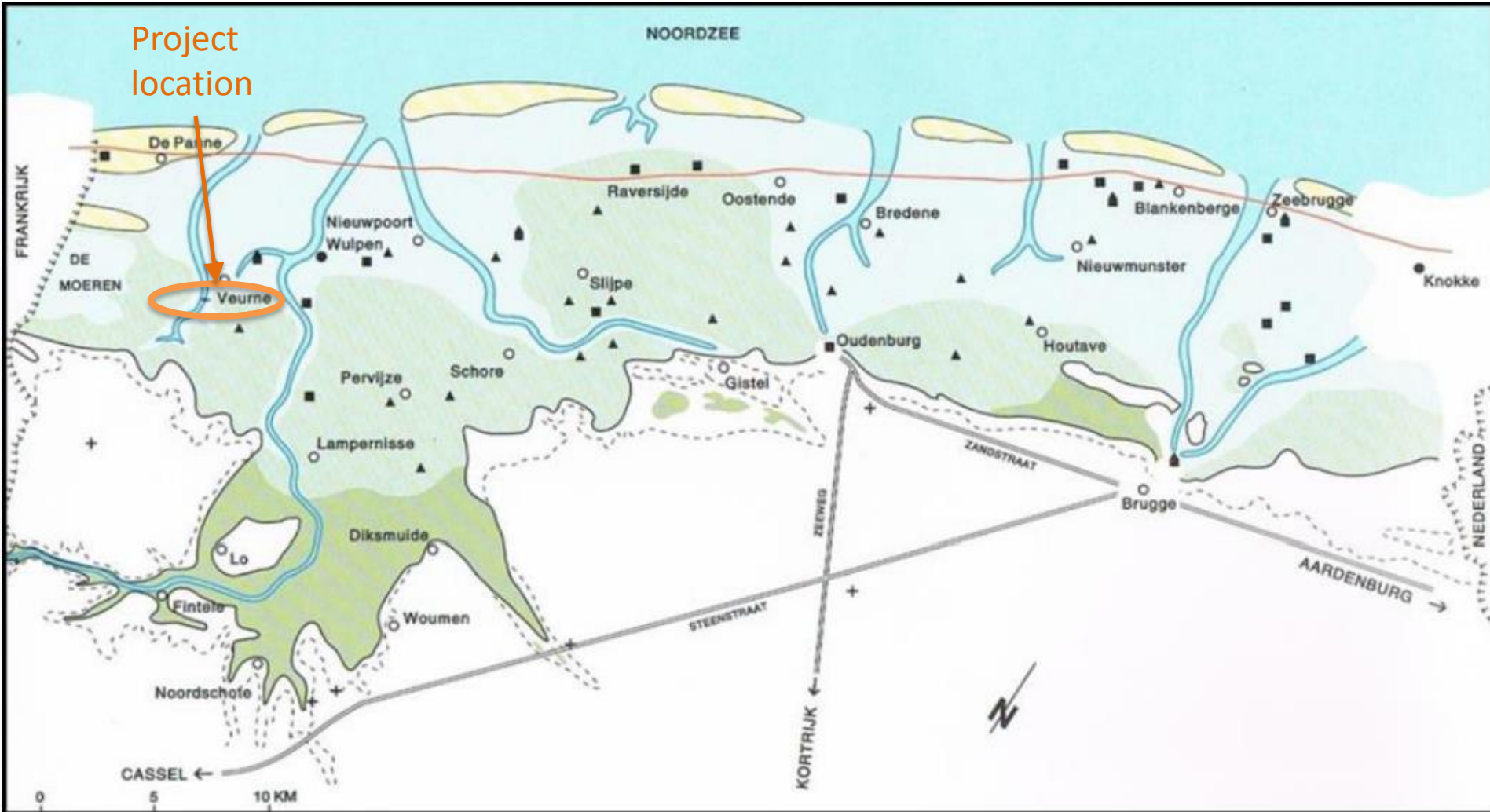
## Legenda potentiekaart

### 1. Duin- en kreekruginfiltratie

-  4 - zeer gunstig
-  3 - kansrijk met diepere infiltratiedrains
-  2 - kansrijk
-  1 - mogelijk kansrijk
-  0 - niet kansrijk
-  No data
-  Duingebied

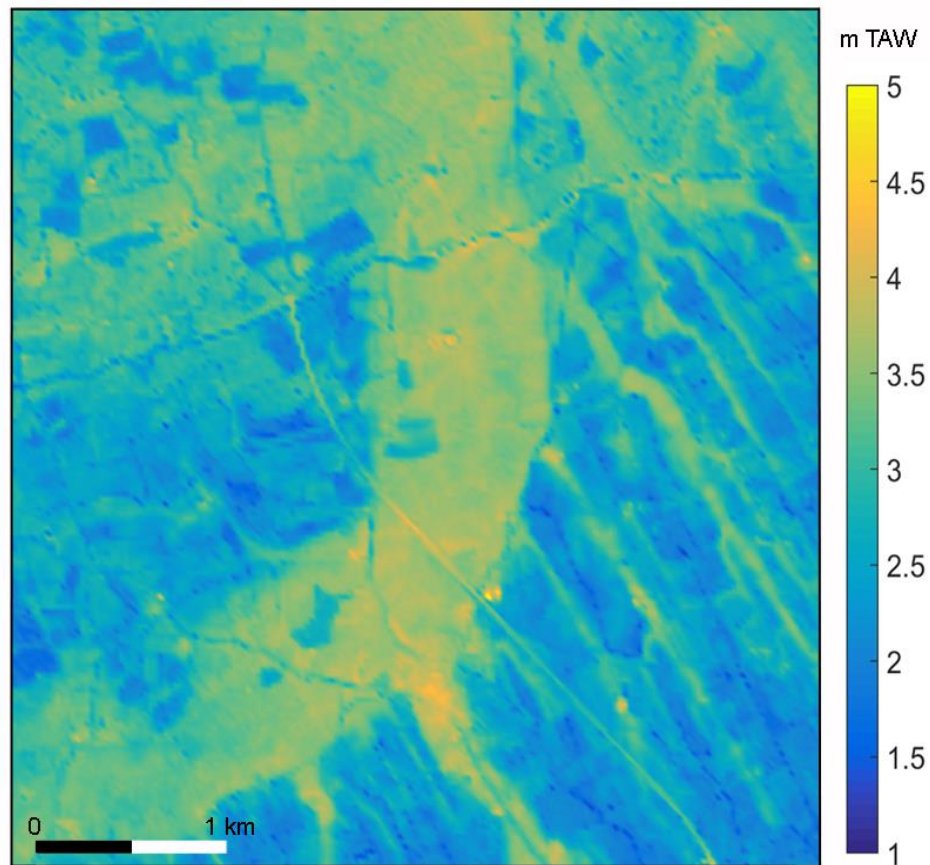
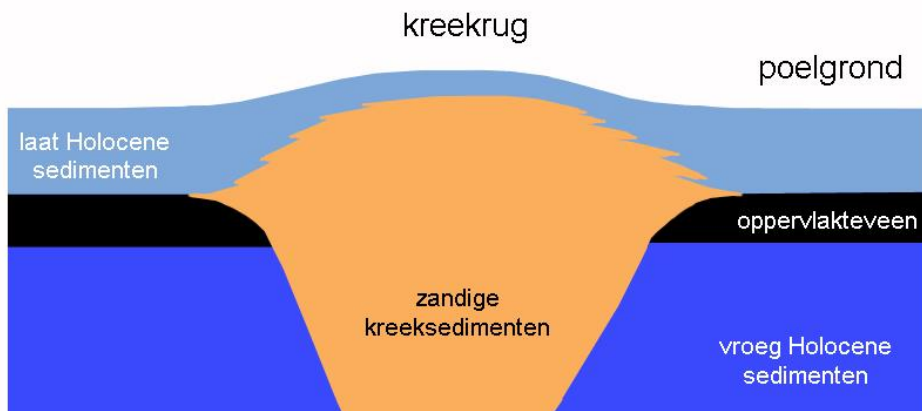


# Tidal gullies (Roman period)



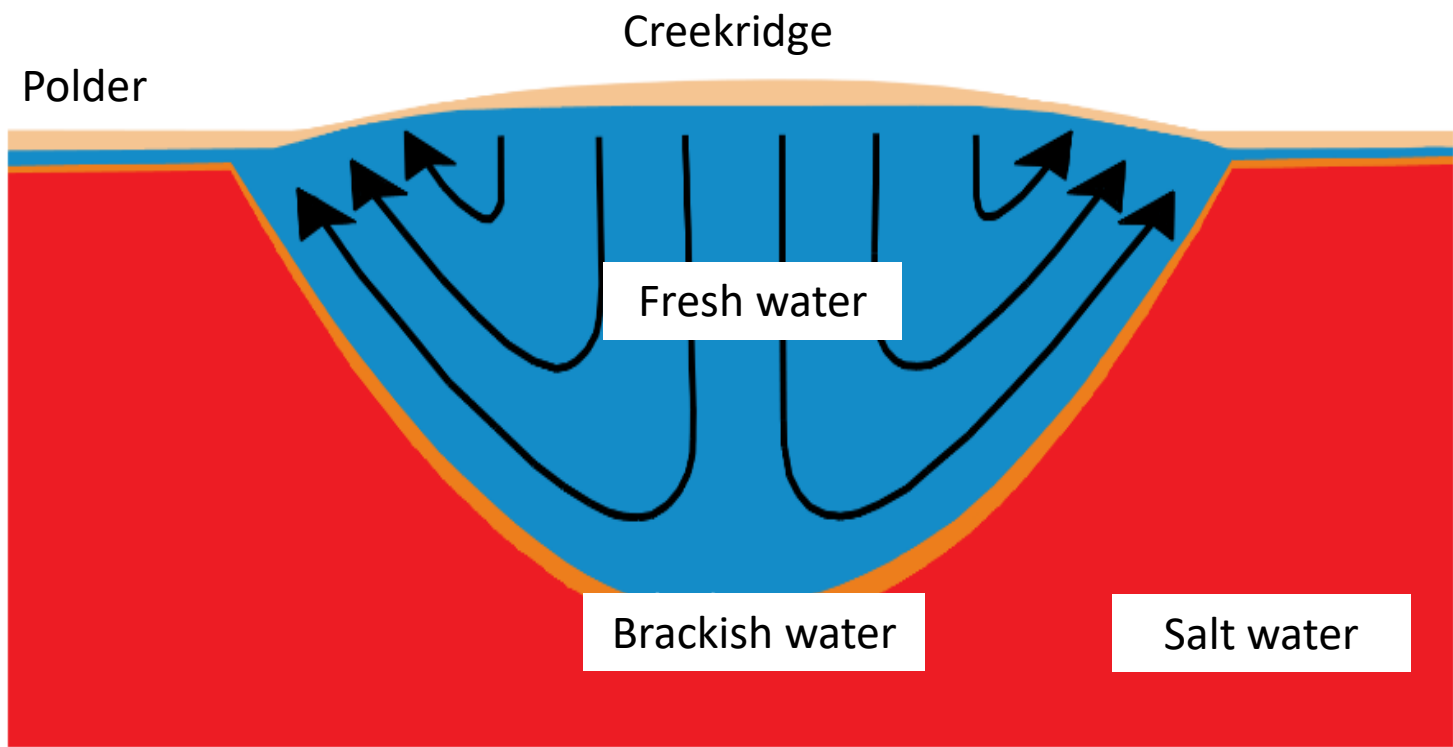


# Creekridge



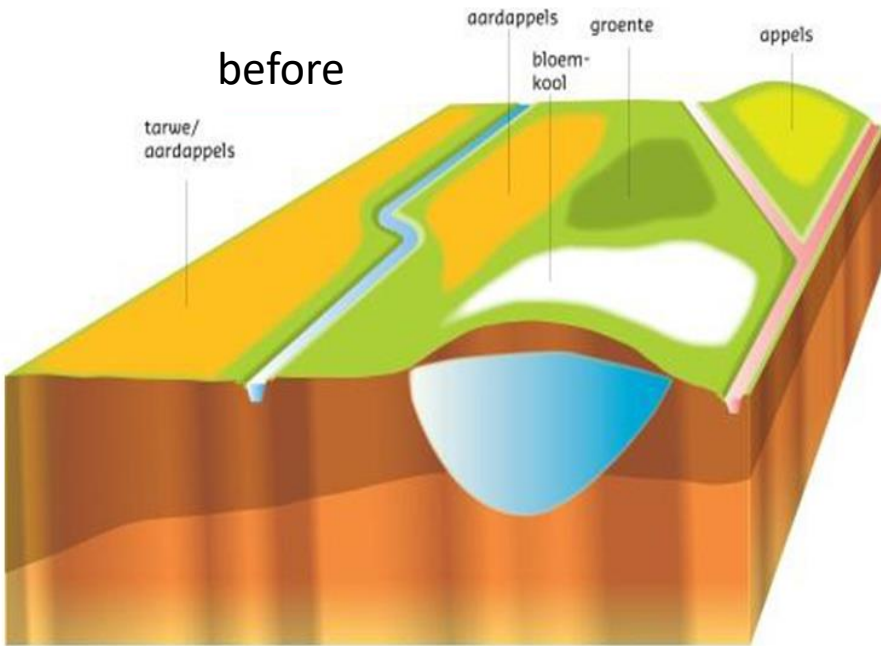


# Creekridge

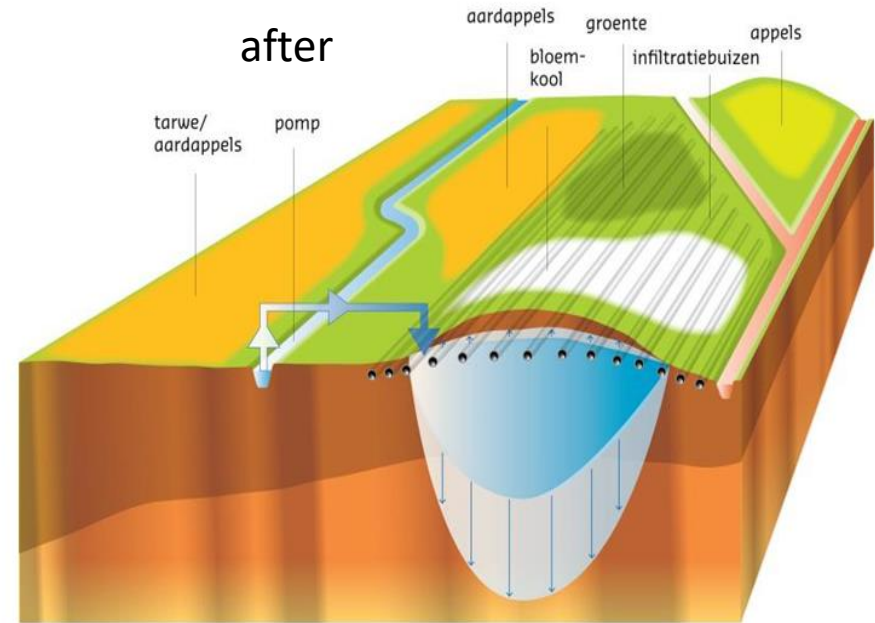


# Creekridge infiltraton

before



after

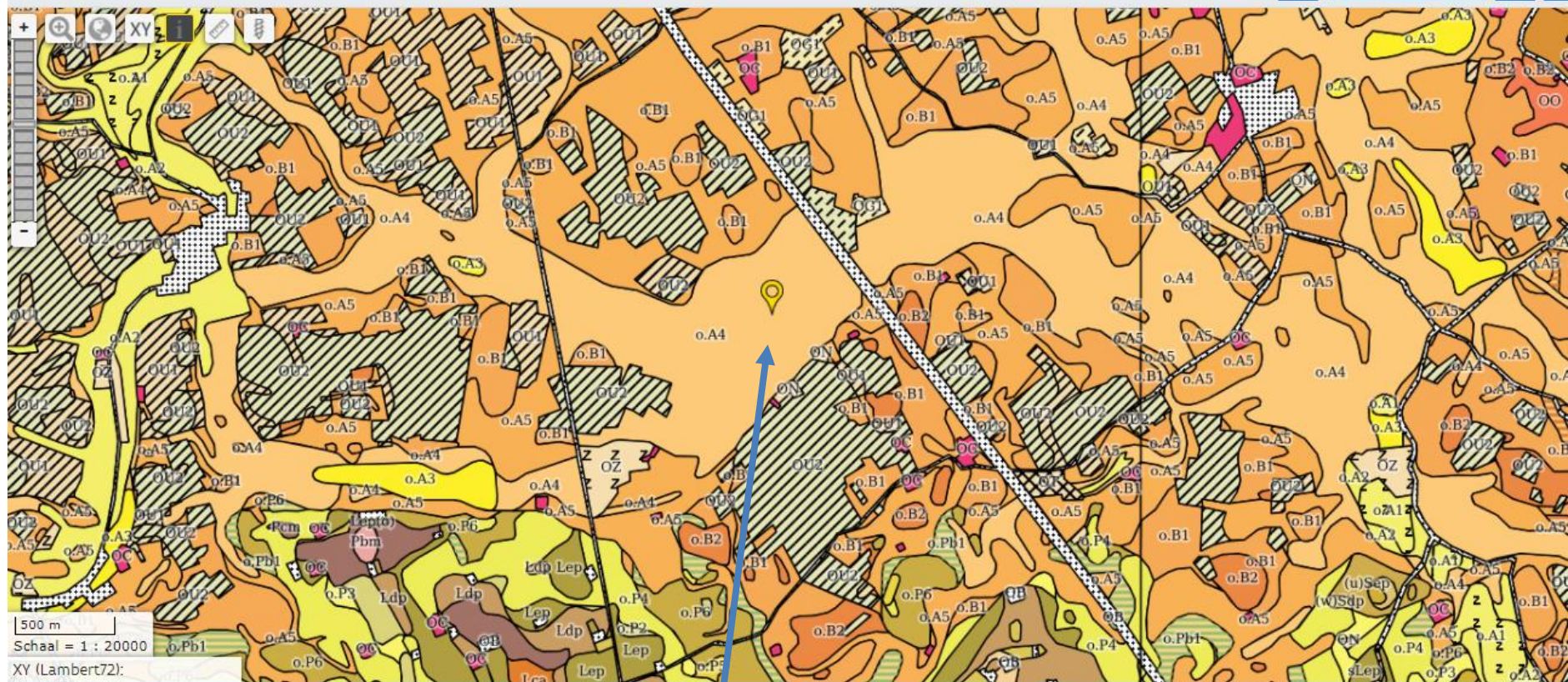


zout water  
 zoet (grond)water  
 klei  
 zand

zout water  
 zoet (grond)water  
 zoet grondwater na maatregel  
 klei  
 zand



# Selected parcel



## Resultaten voor de doorprik

Locatie: XY (Lambert72) = 32198 193536 / GPS (Lat/Long) = 51,0400 2,6890 / Z (DHM III) = 3,88 m TAW  
 Dichtstbijzijnde adres: Crocodilewedstraat 3, 8630 Veurne

Digitale bodemkaart van het Vlaams Gewest: bodemtypes:

▲ Id kaartvlak	Bodemtype	Unibodemtype	Bodemserie	Beknopte omschrijving bodemserie
93504	<b>o.A4</b>	IEdp	o.A4	Kreekruggronden (Oudlandpolders)

Source: [dov.vlaanderen.be](http://dov.vlaanderen.be)



# Selected parcel

**Paneel Lagen**

- kreekruginfiltratie
  - KR\_potentiekaart**
    - 0 - niet kansrijk
    - 1 - mogelijk kansrijk
    - 2 - kansrijk
    - 3 - kansrijk met die...
    - 4 - zeer kansrijk

**Paneel Statistieken**

drains

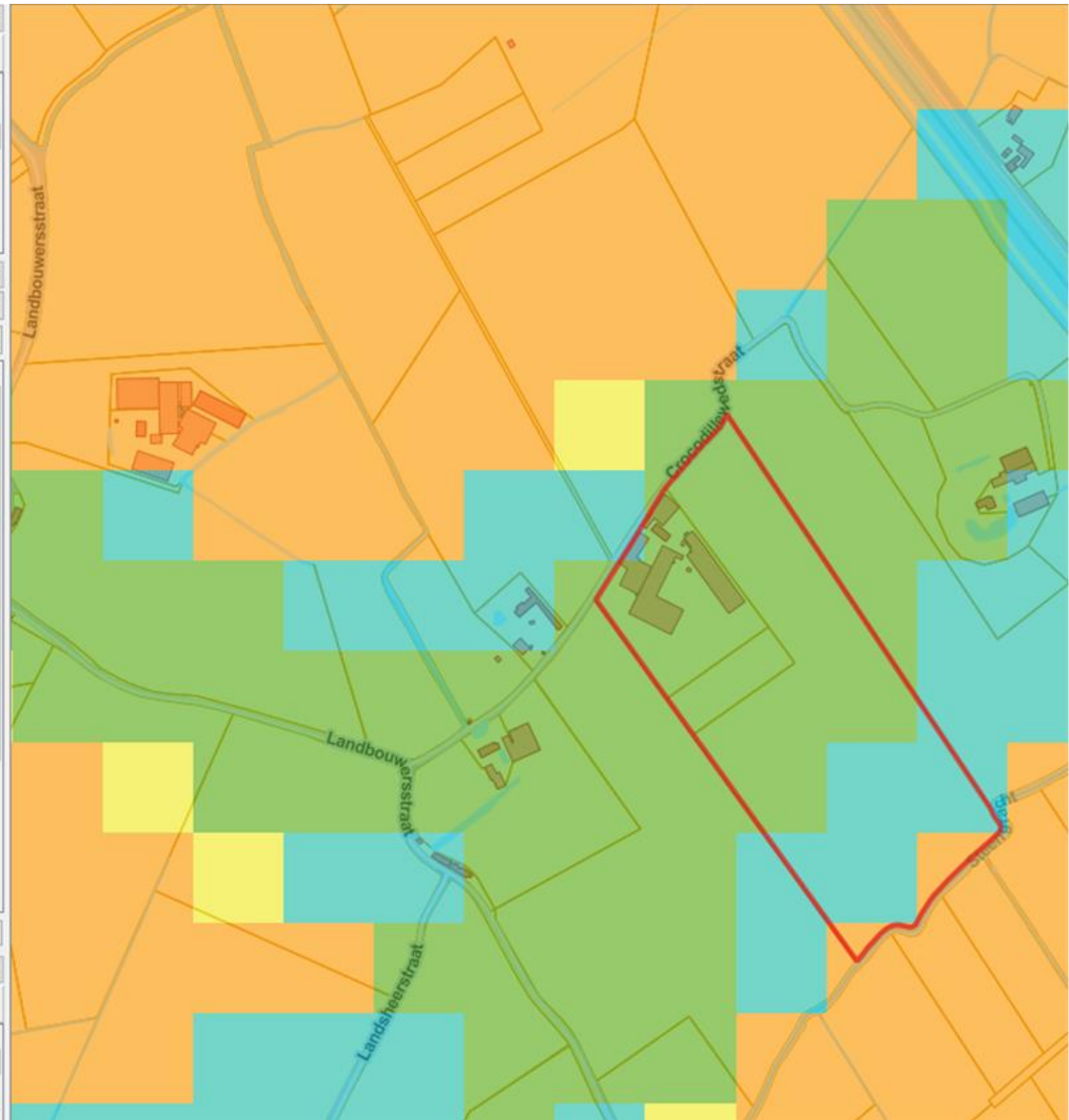
ID

Statistiek	Waarde
Telling	22
Som	22
Gemiddelde	1
Mediaan	1
St afw (pop)	0
St afw (monster)	0
Minimum	1
Maximum	1
Bereik	0
Kleinste hoeveelheid	1
Grootste hoeveelheid	1
Variëteit	1

Alleen geselecteerde objecten

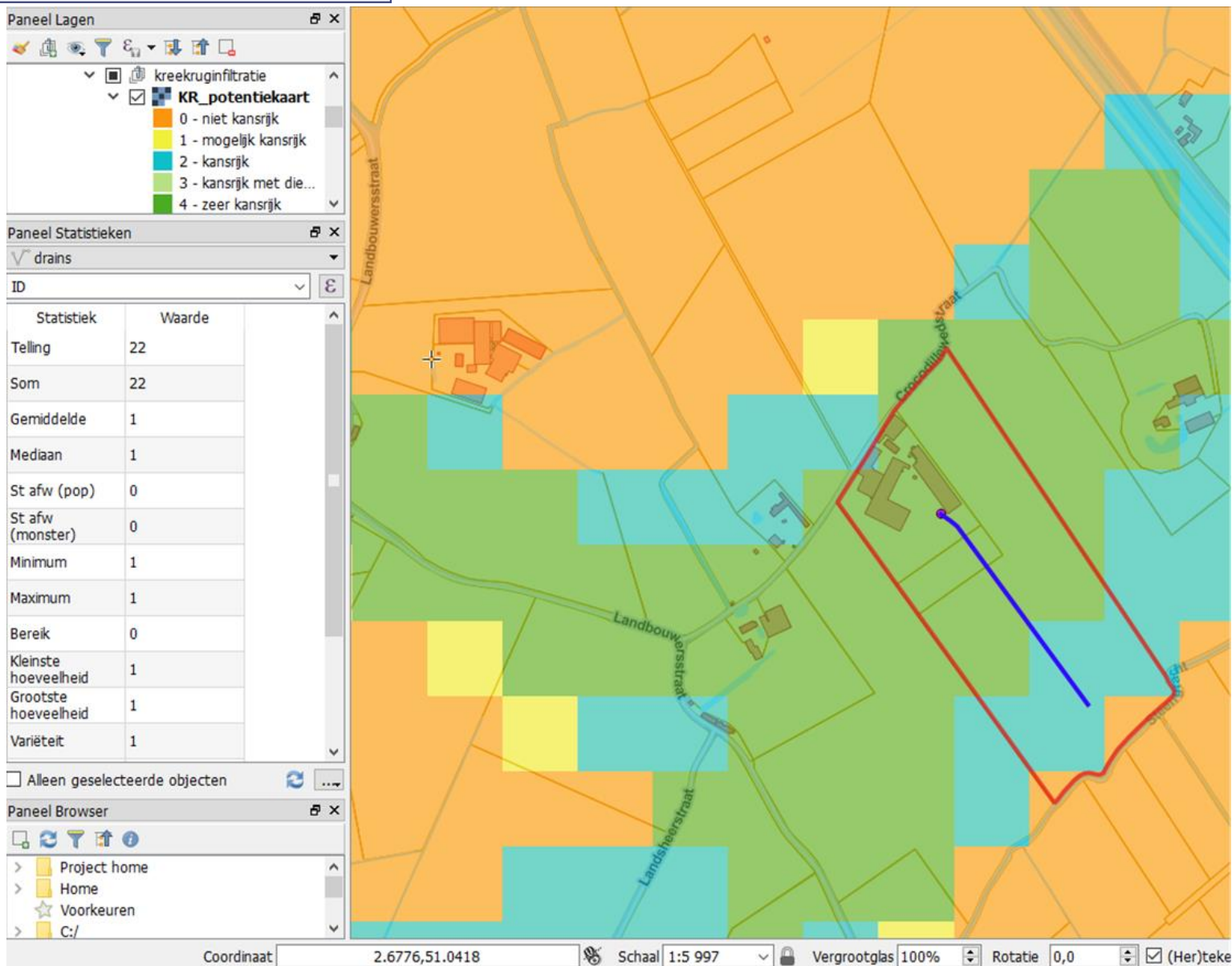
**Paneel Browser**

- Project home
- Home
- Voorkeuren
- C:/

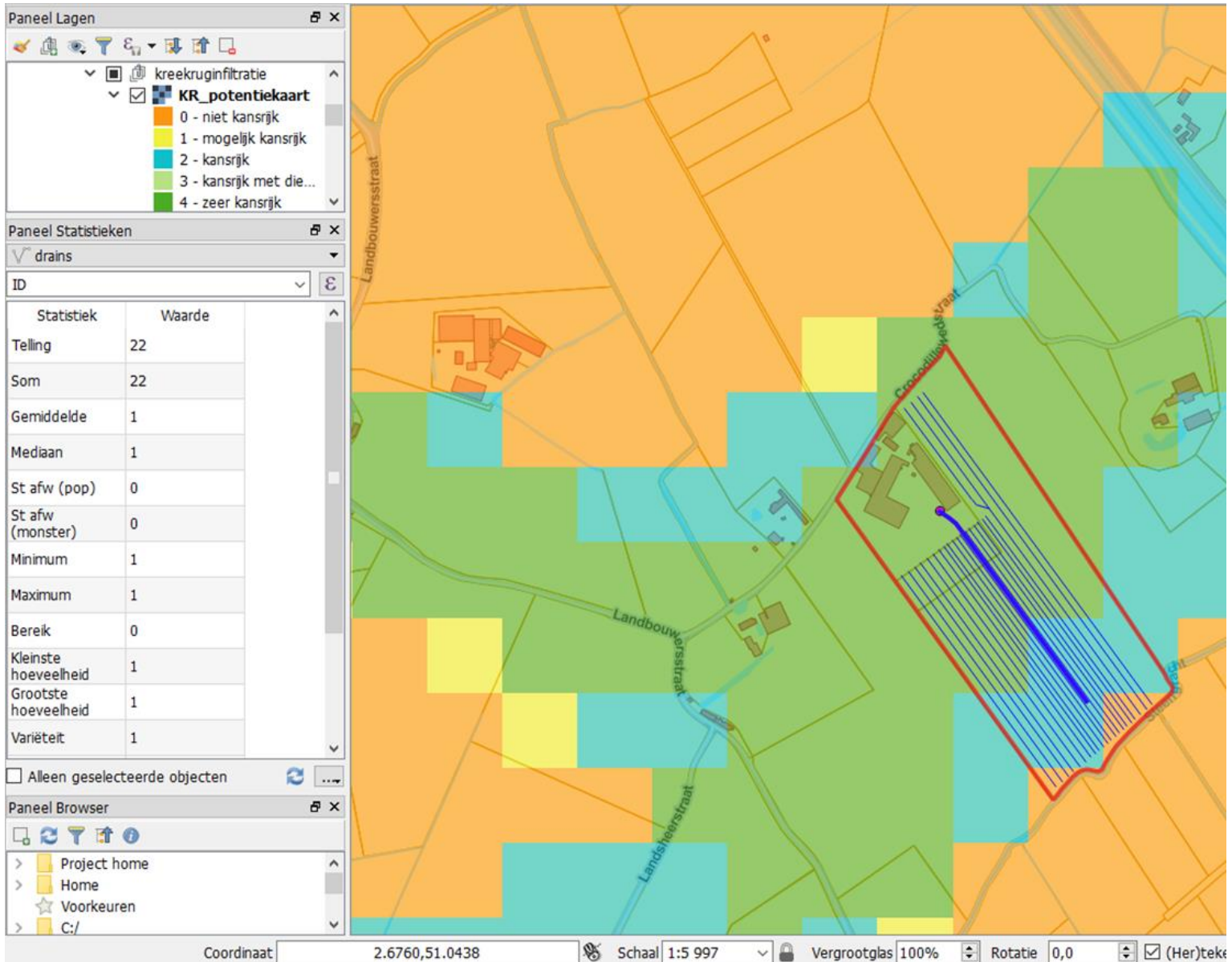




# Selected parcel



# Selected parcel





# Cooperation agreement



# Tendering

Piezometer network



Final design – license application - construction





# Piezometer network



- License application
- Design
- Baseline conditions
- Groundwater modelling
- Monitoring

# Drilling





# Sample collection





# Geophysical borehole measurements

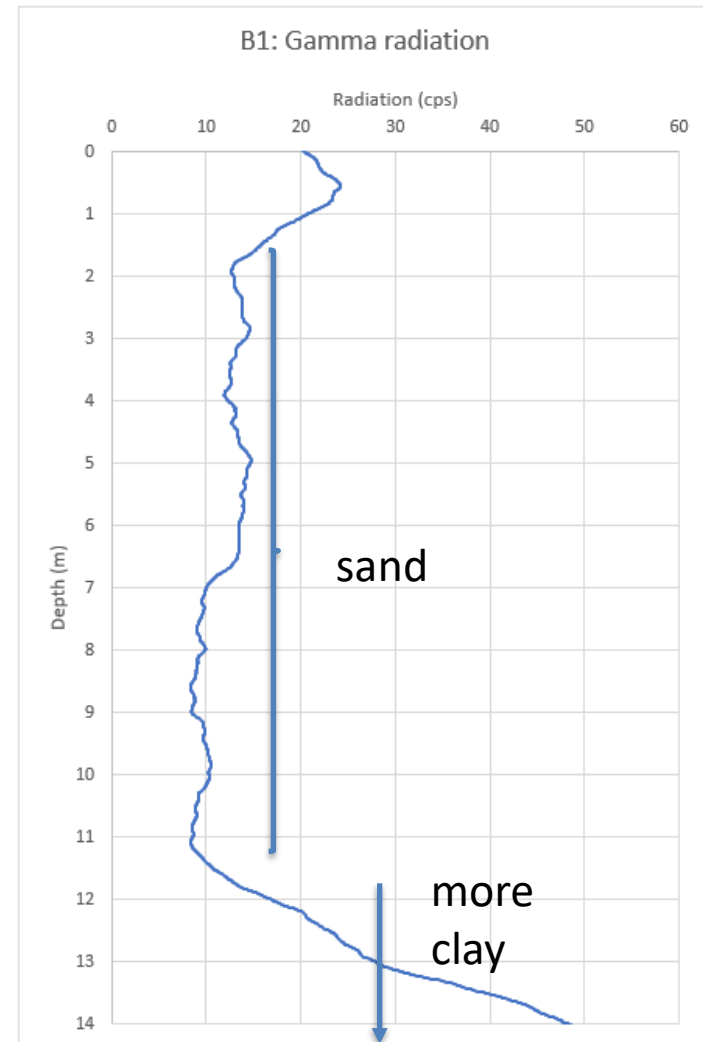
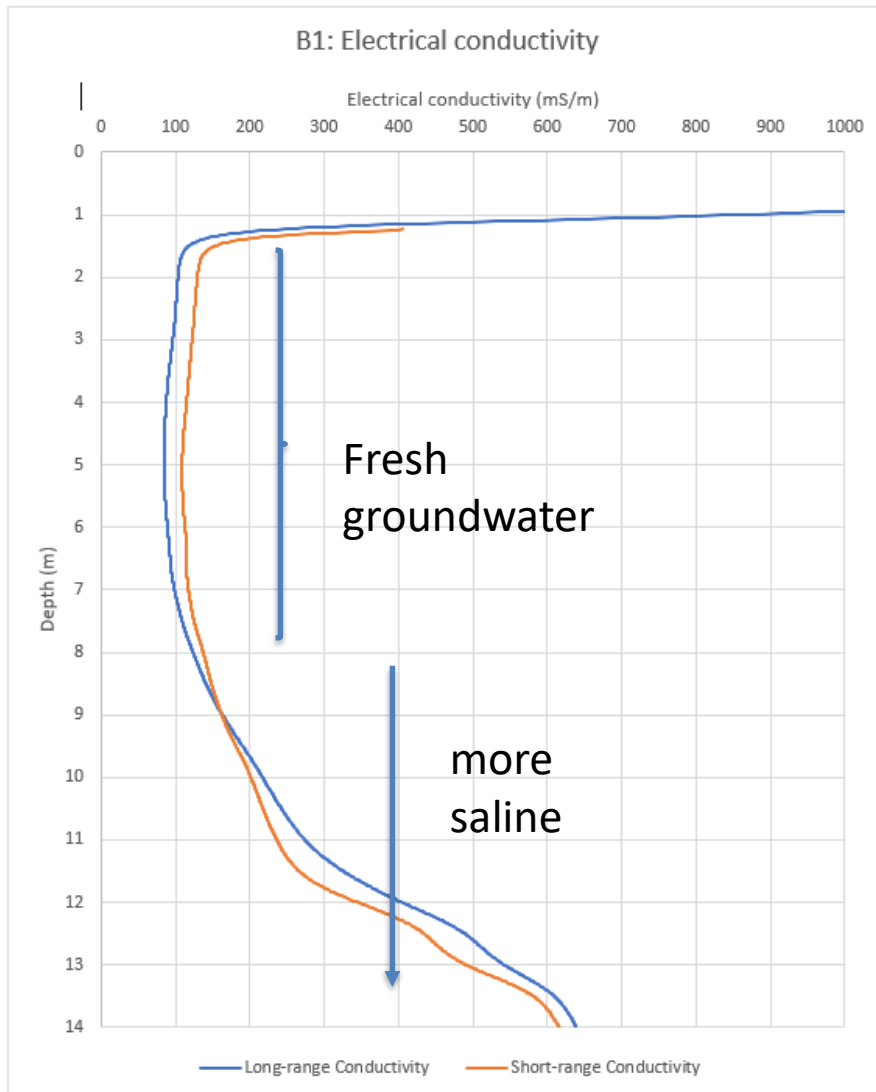




# Geophysical borehole measurements



# Geophysical borehole measurements





# Planning

- ▶ **December – January**
  - Monitoring groundwater and surface water
  - Groundwater model and hydrogeological study
  - Final design of the infiltration system
  - Preparation of the license application
- ▶ **March – August 2021**
  - License application
- ▶ **September – October 2021**
  - Construction of the infiltration system
- ▶ **November – December 2021**
  - Start of infiltration
  - Monitoring and optimisation










## KREEKRUGINFILTRATIE ZORGT VOOR EXTRA ZOETWATERVOORRAAD

**NIEUWS** | 13/11/2020



### MEEST GELEZEN

-  Noodkreet kledingketen: "Open vanaf 1 december of we verdwijnen"
-  Politie legt verjaardagsfeest met 29 aanwezigen stil in Roeselare
-  Gezocht: 300 pleeggezinnen
-  Motorraceren: een vergeten sport?
-  800 lichtjes voor ziekenhuispersoneel





# Thank you



 [www.topsoil.eu](http://www.topsoil.eu)