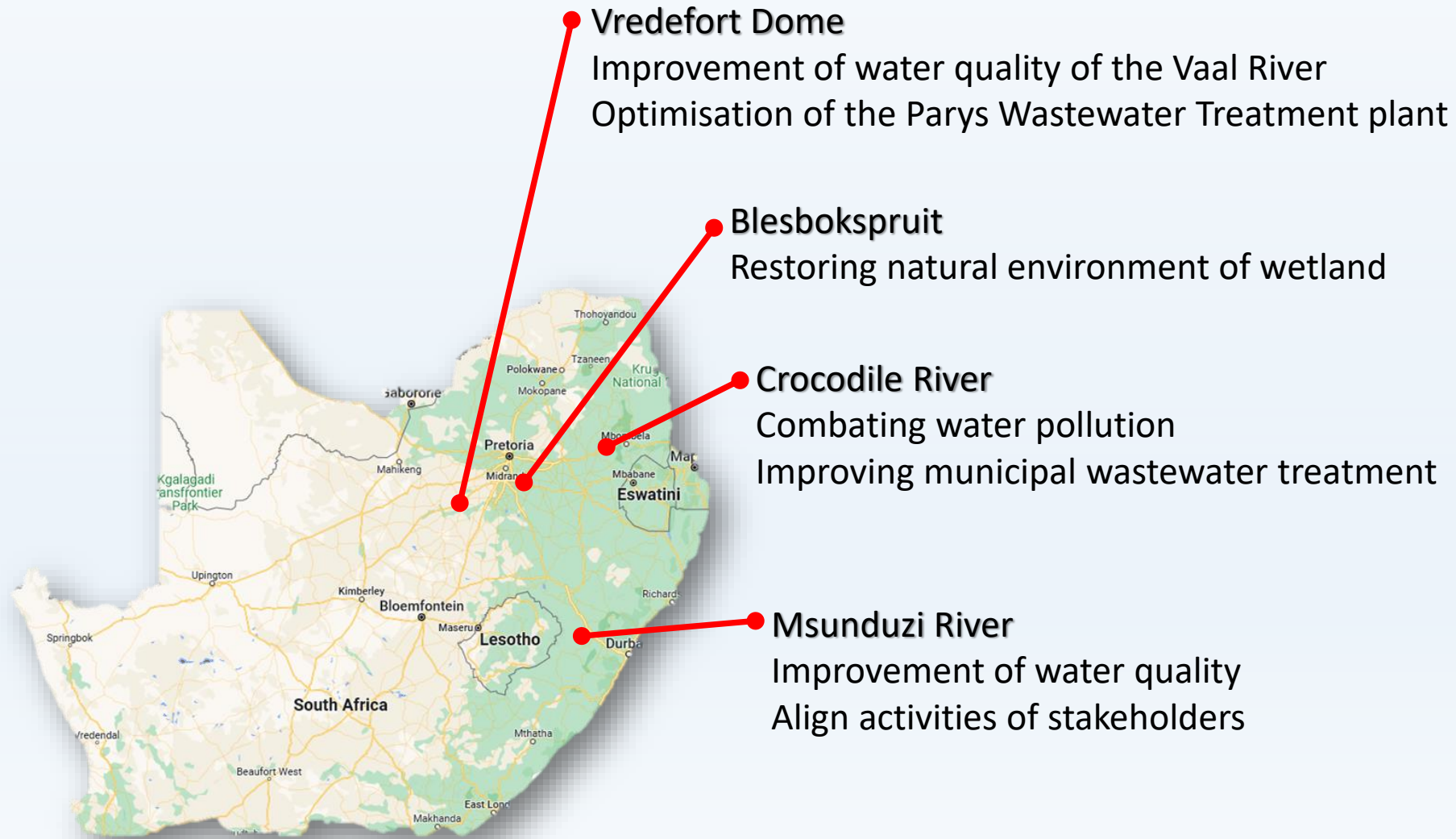# Blue Deal and HydroNET

Marinus van Dijk, Dutch Water Authorities

Dutch Water Authorities
Ministries of Foreign Affairs and
Infrastructure and Water Management

- Help solve global water issues
- Exchanging water management knowledge

- 15 countries
- 2018 - 2030

Vredefort Dome
Improvement of water quality of the Vaal River
Optimisation of the Parys Wastewater Treatment plant

Blesbokspruit
Restoring natural environment of wetland

Crocodile River
Combating water pollution
Improving municipal wastewater treatment

Msunduzi River
Improvement of water quality
Align activities of stakeholders

Presentation:

1. Water data in the Netherlands

2. Examples of HydroNET use in the Netherlands

3. The role of HydroNET in Blue Deal

4. Benefits of data-driven approach

Data sources

Surface water

- Other Dutch water management authorities
- Level loggers
- Pumps
- Volunteers
- Sluices
- Gauges
- Weirs

Water quality

- Monthly sampling
- Real-time probes

Sewage water

- Sewage pumping station
- Municipal sewage network
- Sewer overflow
- WWTW

Energy

- Energy consumption
- Energy production

Meteo

- Weather prediction models
- Meteo stations
  - Rainfall
  - Wind
  - Temperature
  - Evaporation
  - Radiation
  - ...
- Rainfall radar

Groundwater

- Groundwater monitoring wells
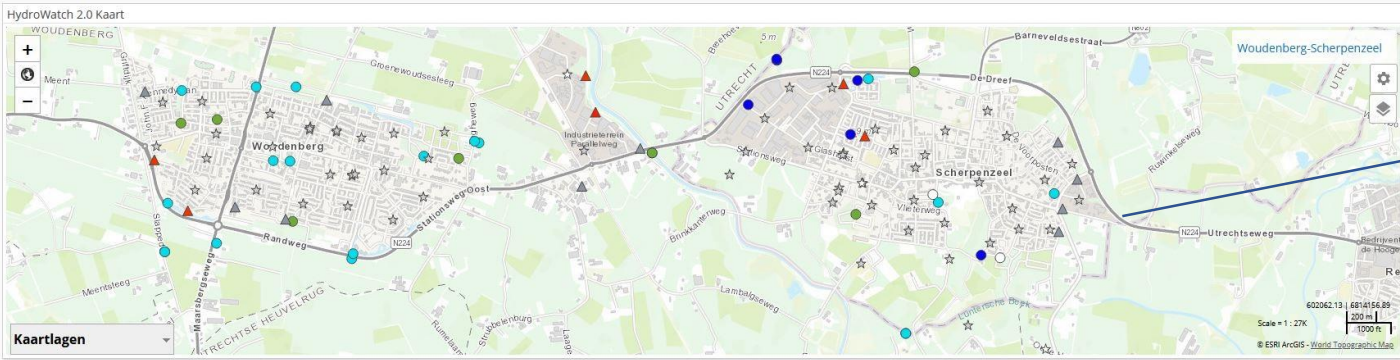- Soil moisture satellite data
- Groundwatermodel
- Soil moisture sensors
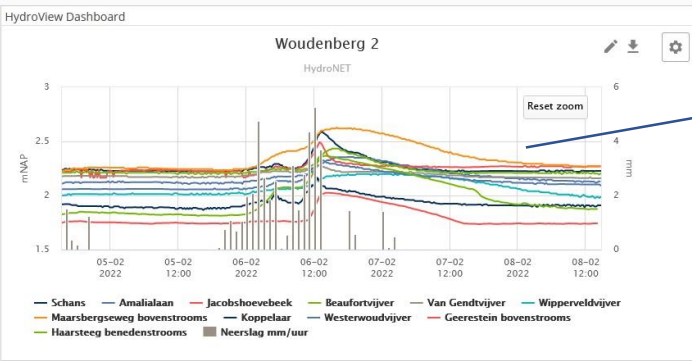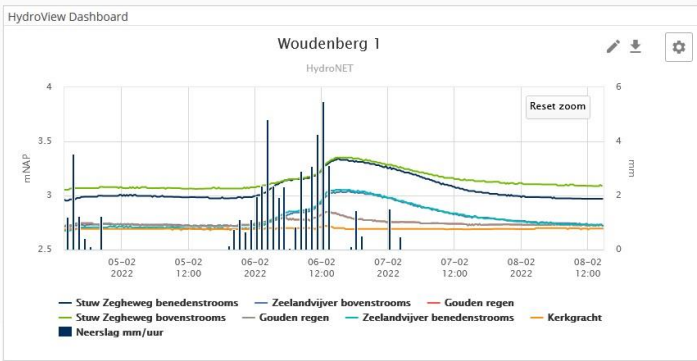- Groundwater extraction data

BLUE DEAL
2018 - 2030

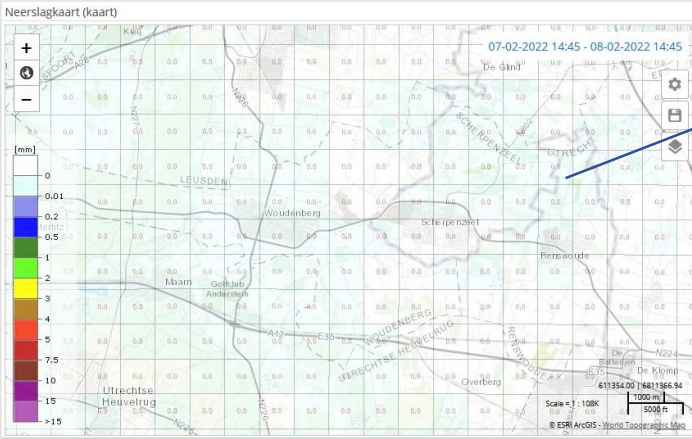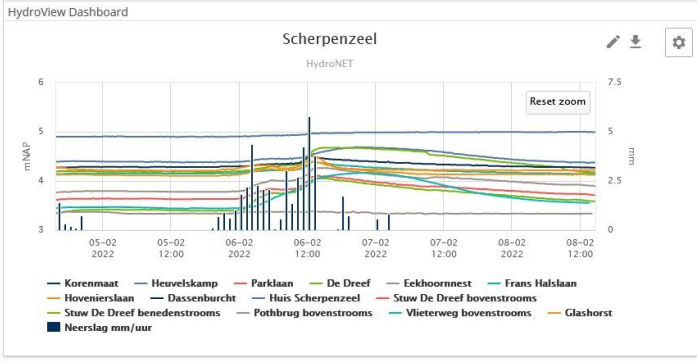HydroNET as data connector and platform for sharing
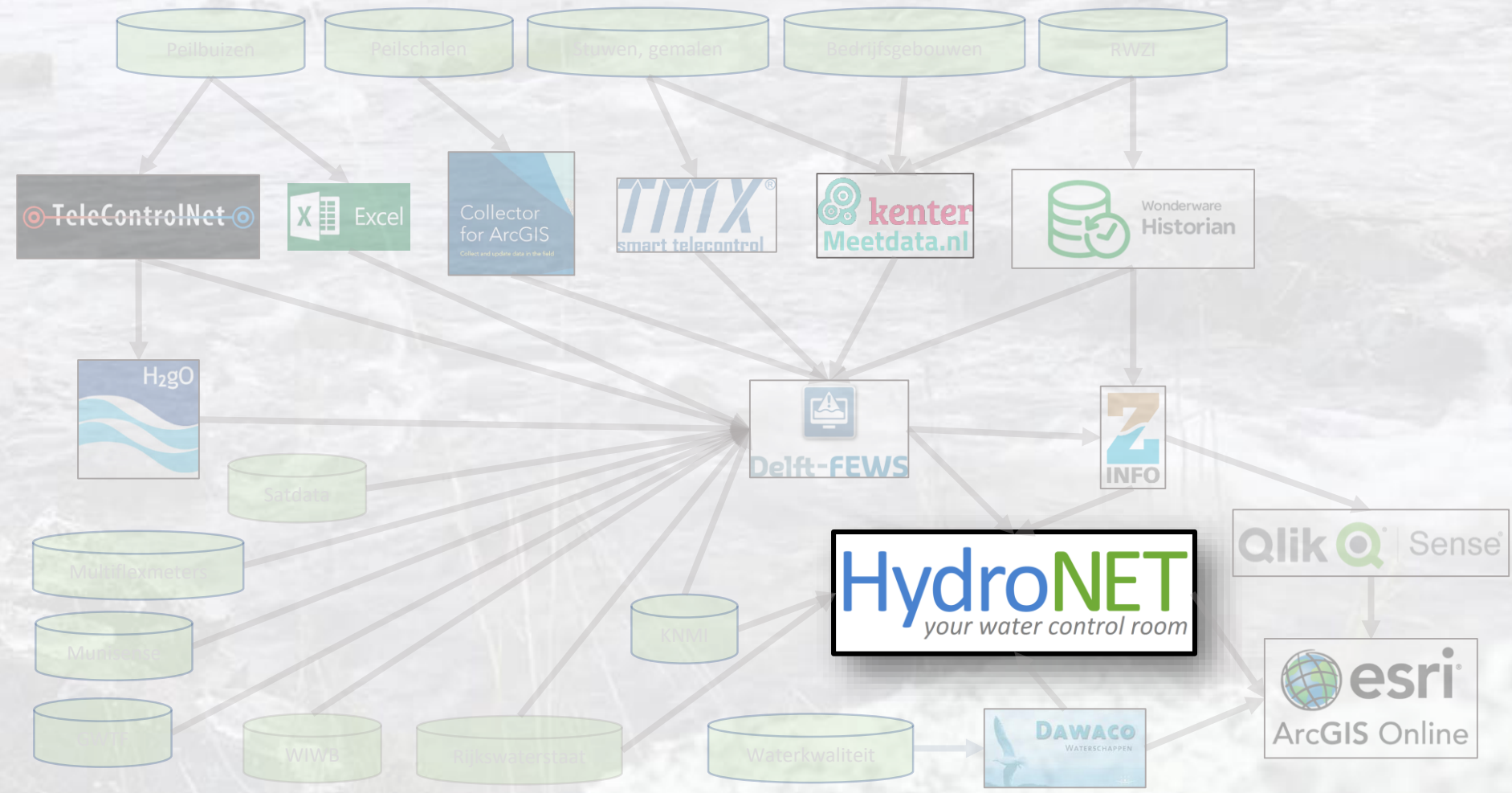
Example:

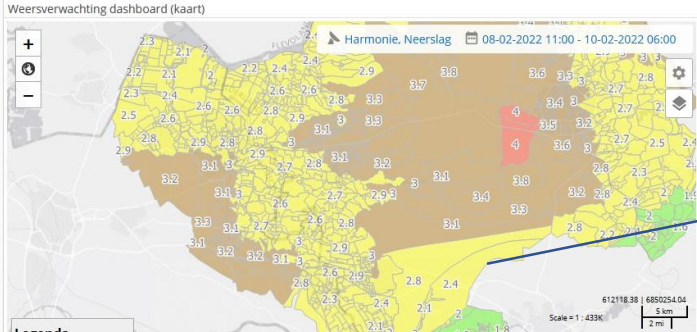HydroNET dashboard sharing data with municipalities

Map with:
- Surface water level
- Ground water level
- WWTP
- Sewer overflows

Graphs with surface water levels and precipitation (radar)
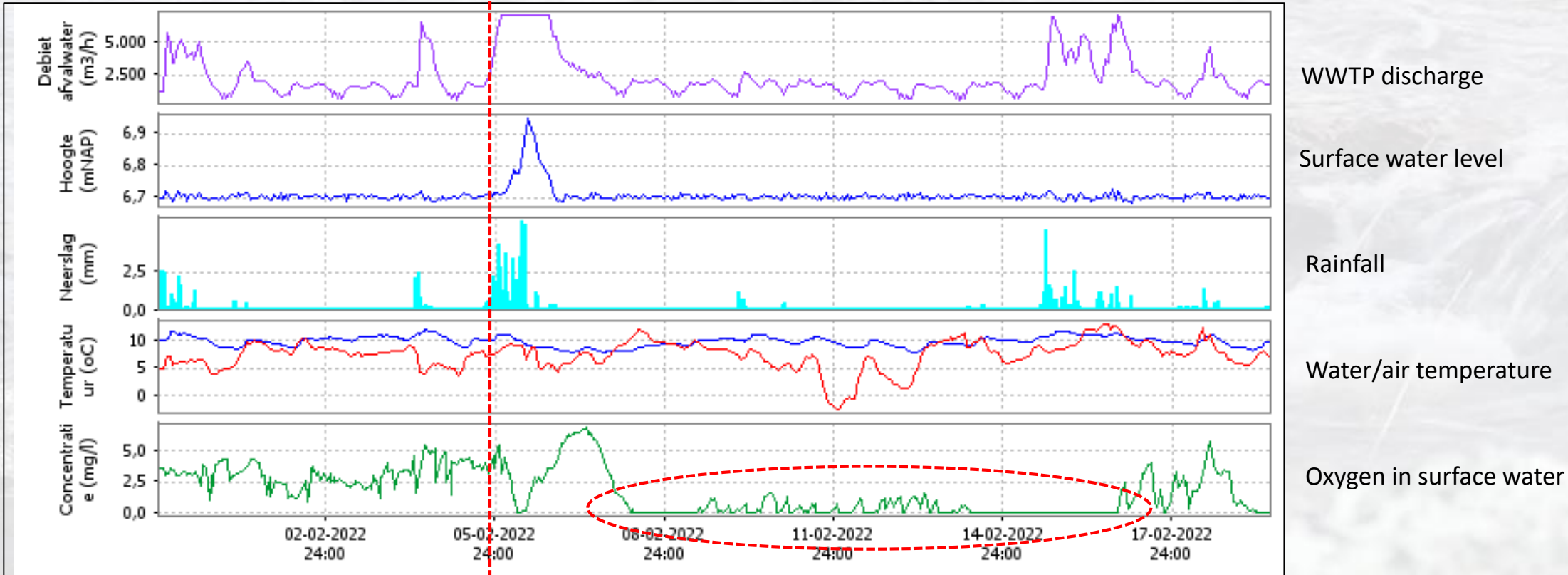
Total rainfall based on rainfall radar

Rainfall prediction from weather model National Weather Service

Example:
Data-driven early warning
Combining datasources for 'fact-finding'

Heavy rainfall, problems on WWTP
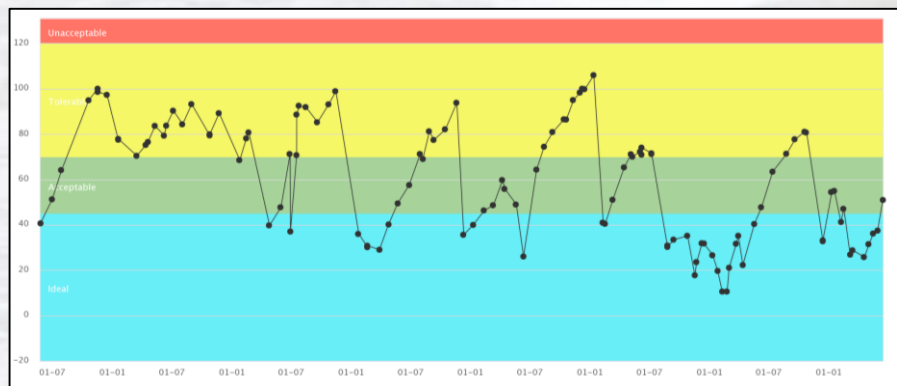
5 days with low oxygen
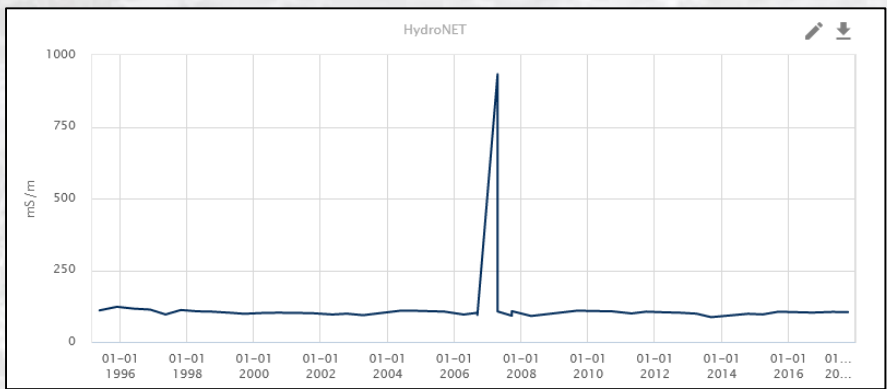
HydroNET and Blue Deal:

- Unlock environmental databases

- Easy sharing of data

- Automated and standardised reports

- Webbased: easy collaboration in SA and between NL and SA
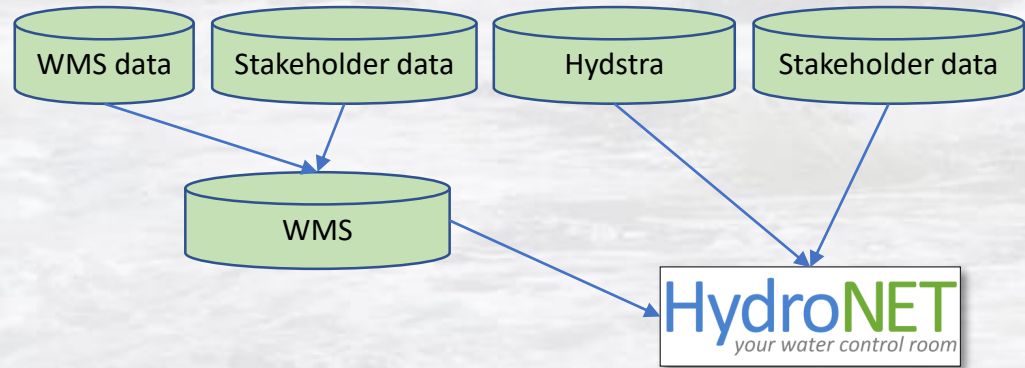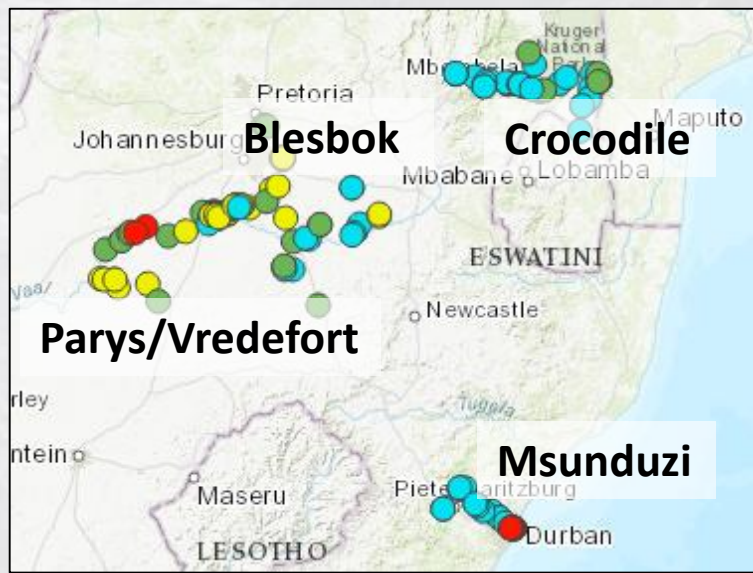
- Let data flow like water!

Conclusions

Reliable and open data -> base for factfinding and discussion

WMS data → Stakeholder data → Hydstra → Stakeholder data

WMS

HydroNET
your water control room

Combine data: 1 + 1 = 3

Blesbok

Crocodile

Parys/Vredefort

Msunduzi

Share expertise, skills, examples

Combined with real-time probes: (early)warning system

Sharing data improves data quality