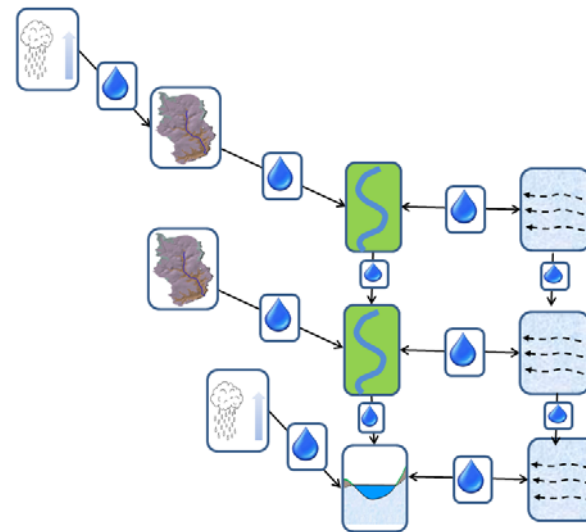
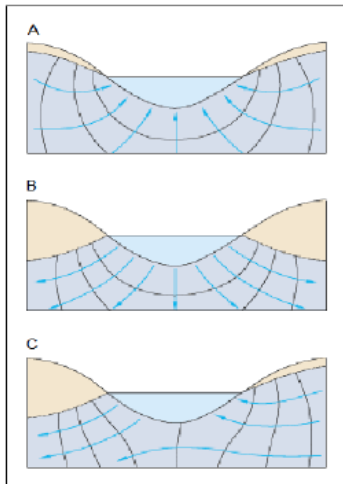


# HydroNet

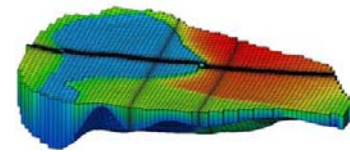
En ny model og et nyt modelkoncept til bestemmelse af udveksling mellem grundvand og overfladevand



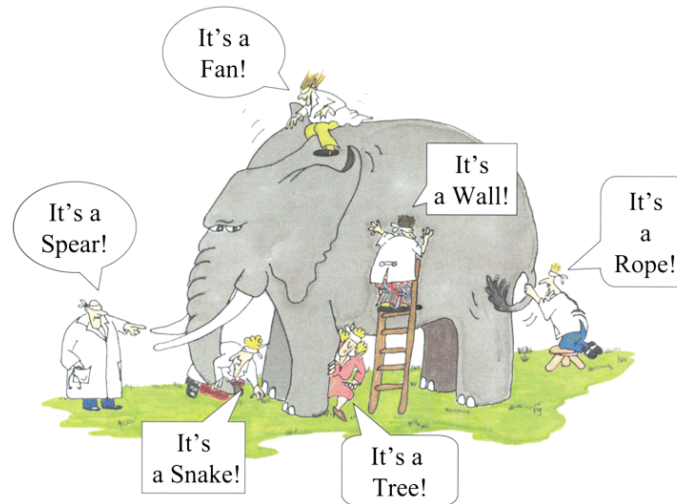
*Udviklingen af HydroNet er støttet af By- og landskabsstyrelsen og Miljøstyrelsen under puljen for miljøeffektive teknologier*

# Formål

- Et modelsystem, som ligger mellem simpel håndregning og de avancerede modeller



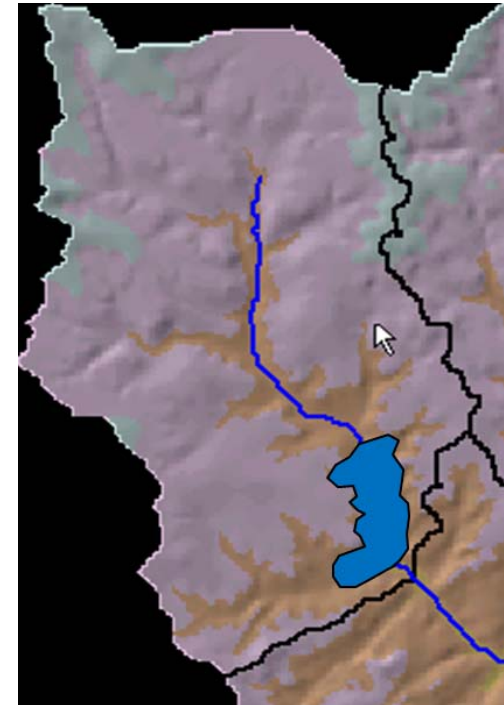
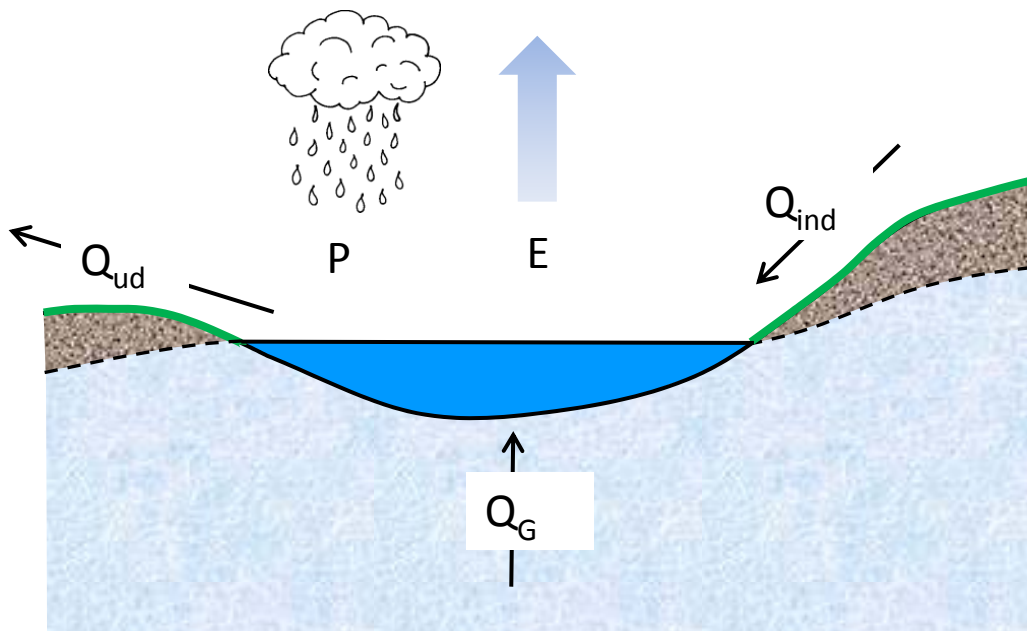
- Et modelsystem, som er fleksibelt og kan tilpasses de data, som er til rådighed.



# Hvad er HydroNet

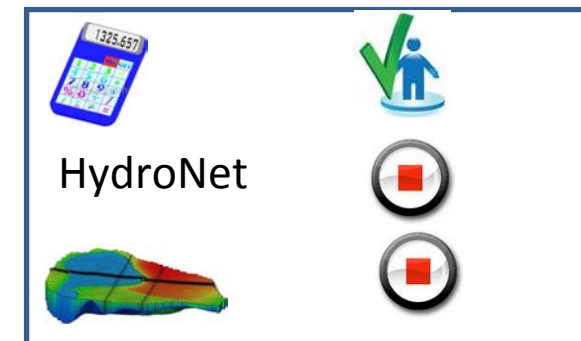
- Konceptuel model og databehandling
- C# Open source objekt biblioteker
- Windows applikationer
- Grundlag for brugerdefinerede beslutningsstøtte systemer

# Hvorfor HydroNet

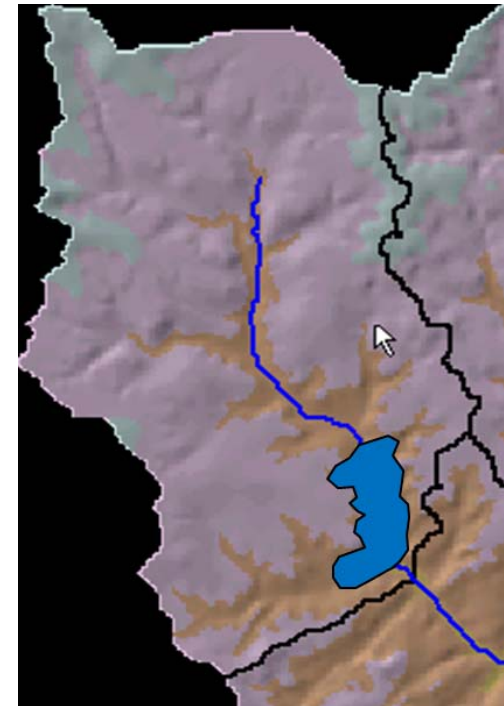
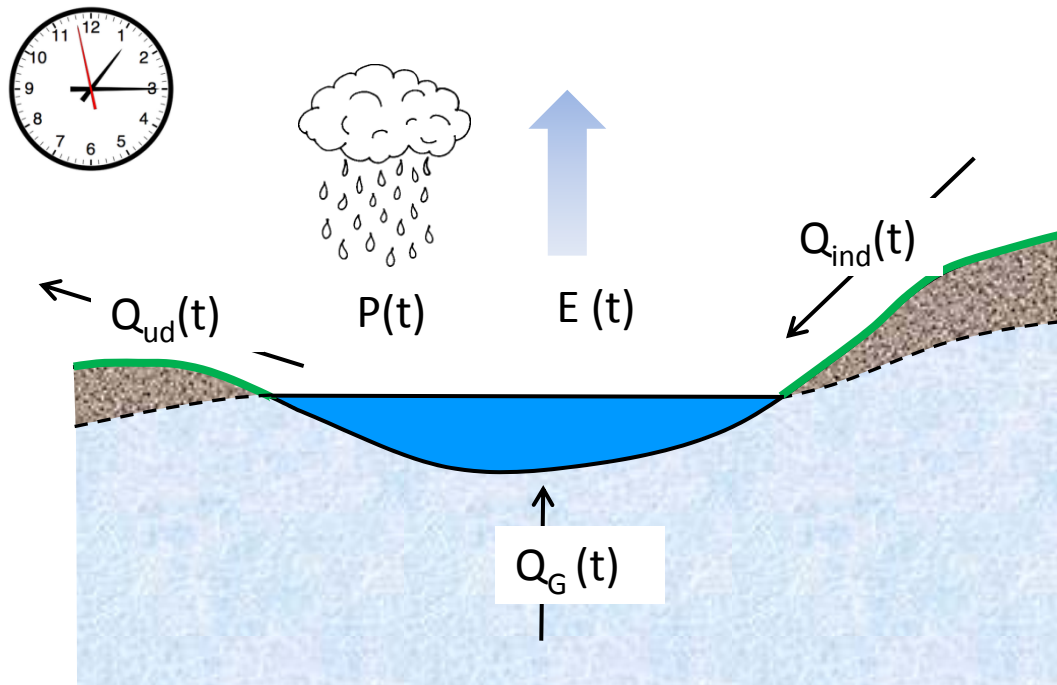


$$Q_G = Q_{ud} - Q_{ind} + E - P + DV$$

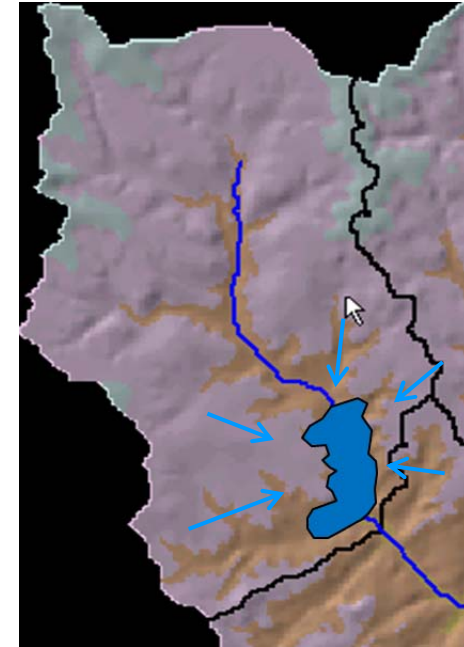
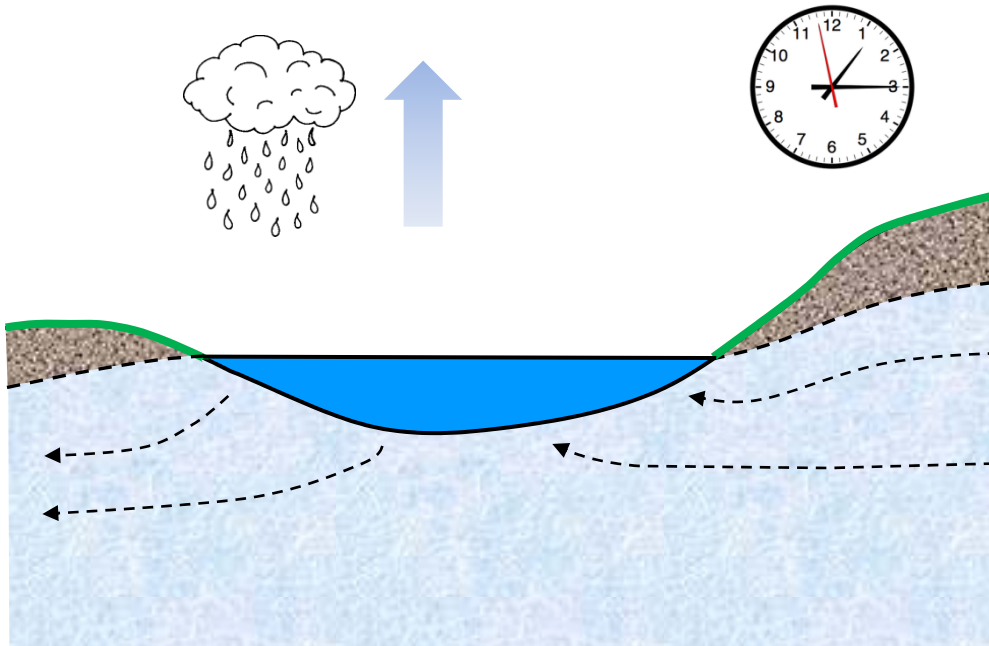
$$T_{\text{ophold}} = V / (Q_{ind} + Q_G + E) ; \text{ for } DV = 0$$



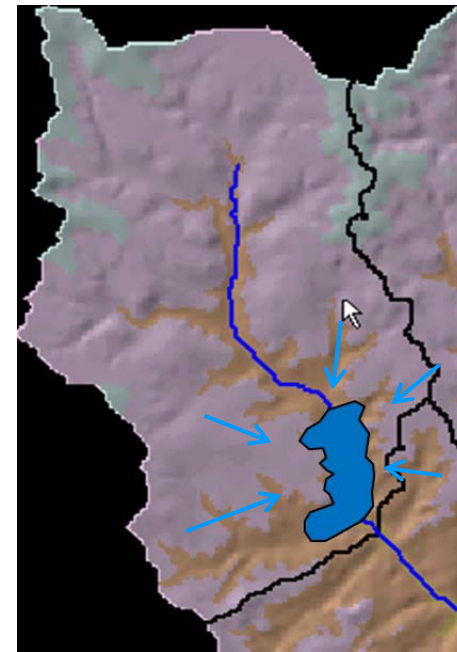
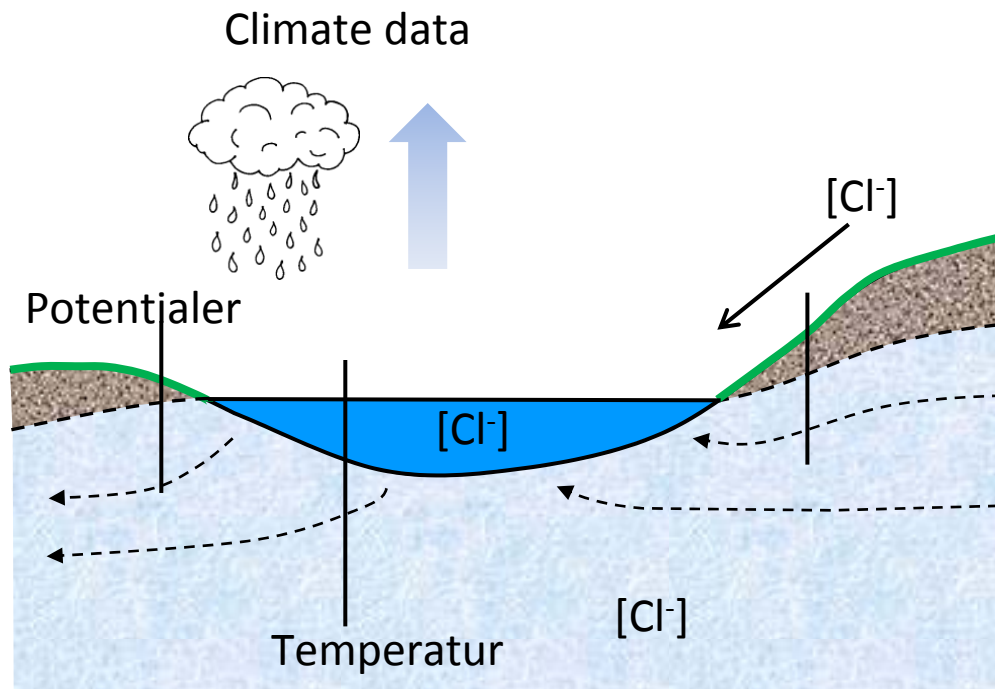
# Hvorfor HydroNet



# Hvorfor HydroNet



- Både grundvandsindstrømning og udstrømning
- Vegetation → svært at estimere fordampning / transpiration
- Diffus ind og udstrømning



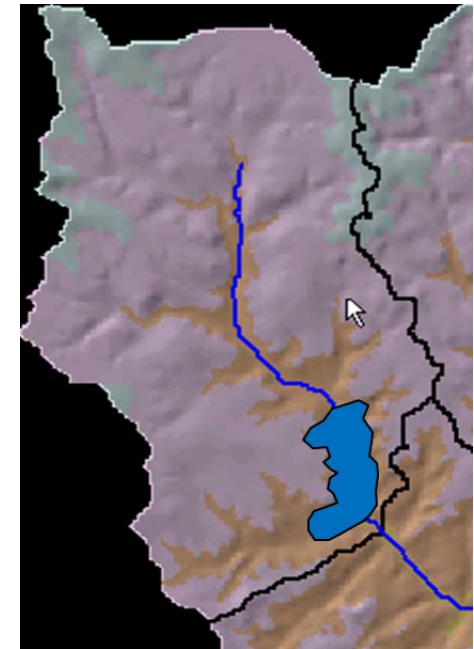
HydroNet er designet til at udnytte viden fra vidt forskellige datatyper





# HydroNet features

- Model for overfladevand
- Netværk af søer og vandløb
- Simpel rutning
- Grundvand er en randbetingelse
- Transport af et hvert opløst stof
  - 1. ordens nedbrydning
  - Radon
  - Oxygen isotoper



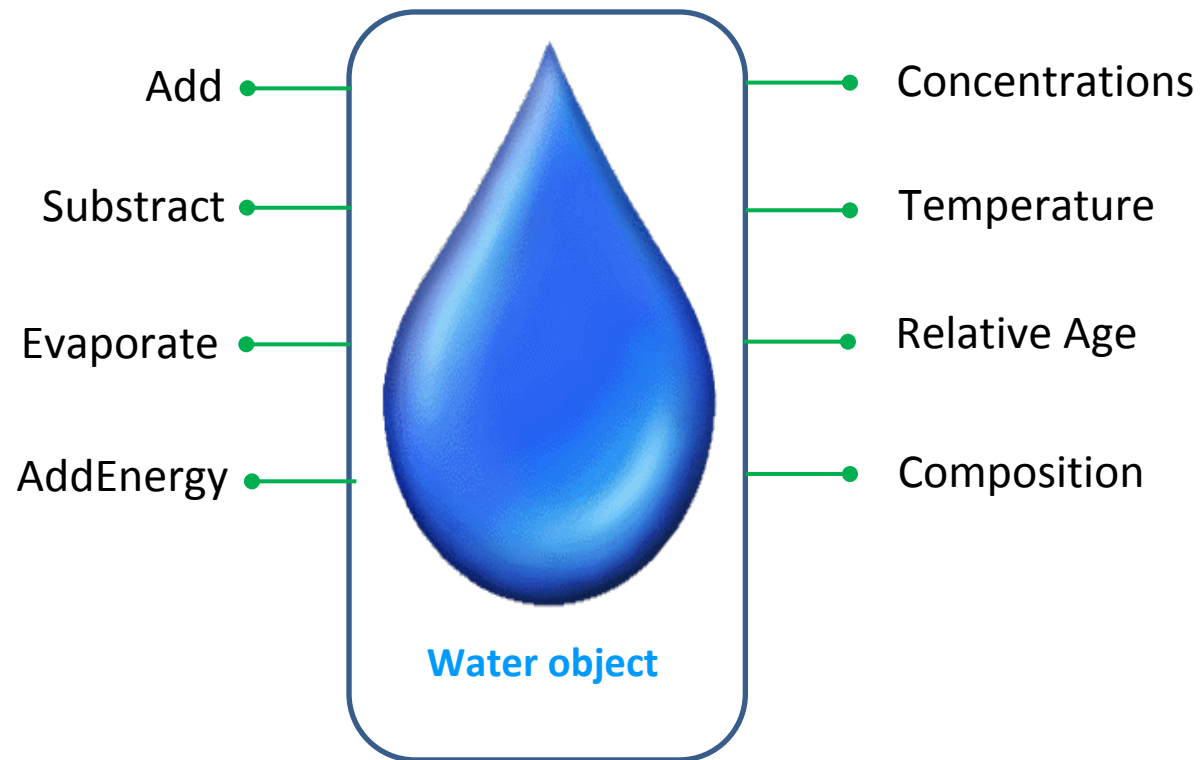
# HydroNet keywords

- Fra “bagsiden af en kuvert” til avanceret modellering
- Let at tilpasse
  - Nye komponenter til nye målinger
- Open source
- Let at bruge
  - Gennem anvendelsesspecifikke brugerflader

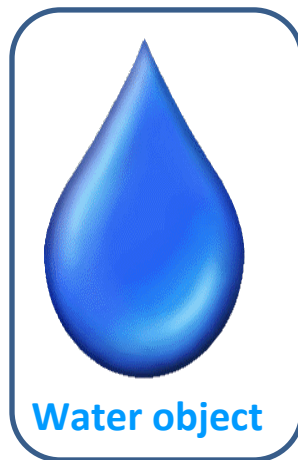
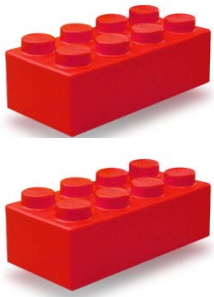
# HydroNet arkitektur

Methods

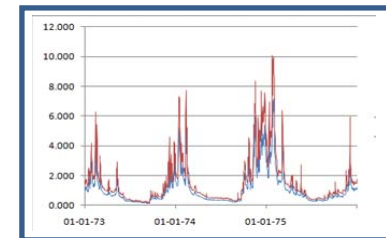
Properties



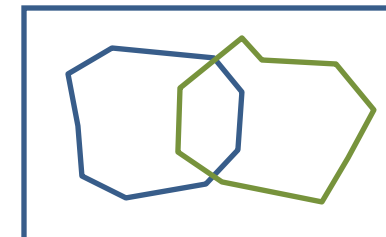
# HydroNet arkitektur



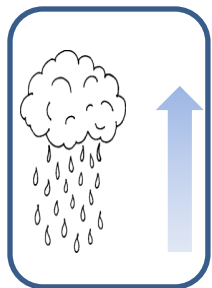
- Temperature
- Concentrations
- Age
- .....



Time series



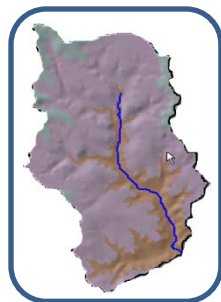
Geometry / GIS



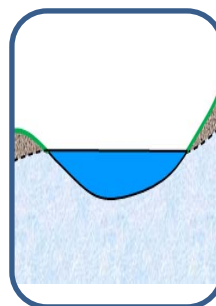
Climate



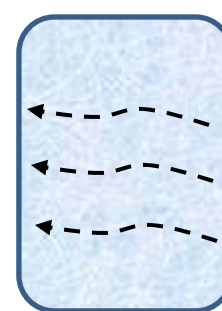
Streams



Catchment

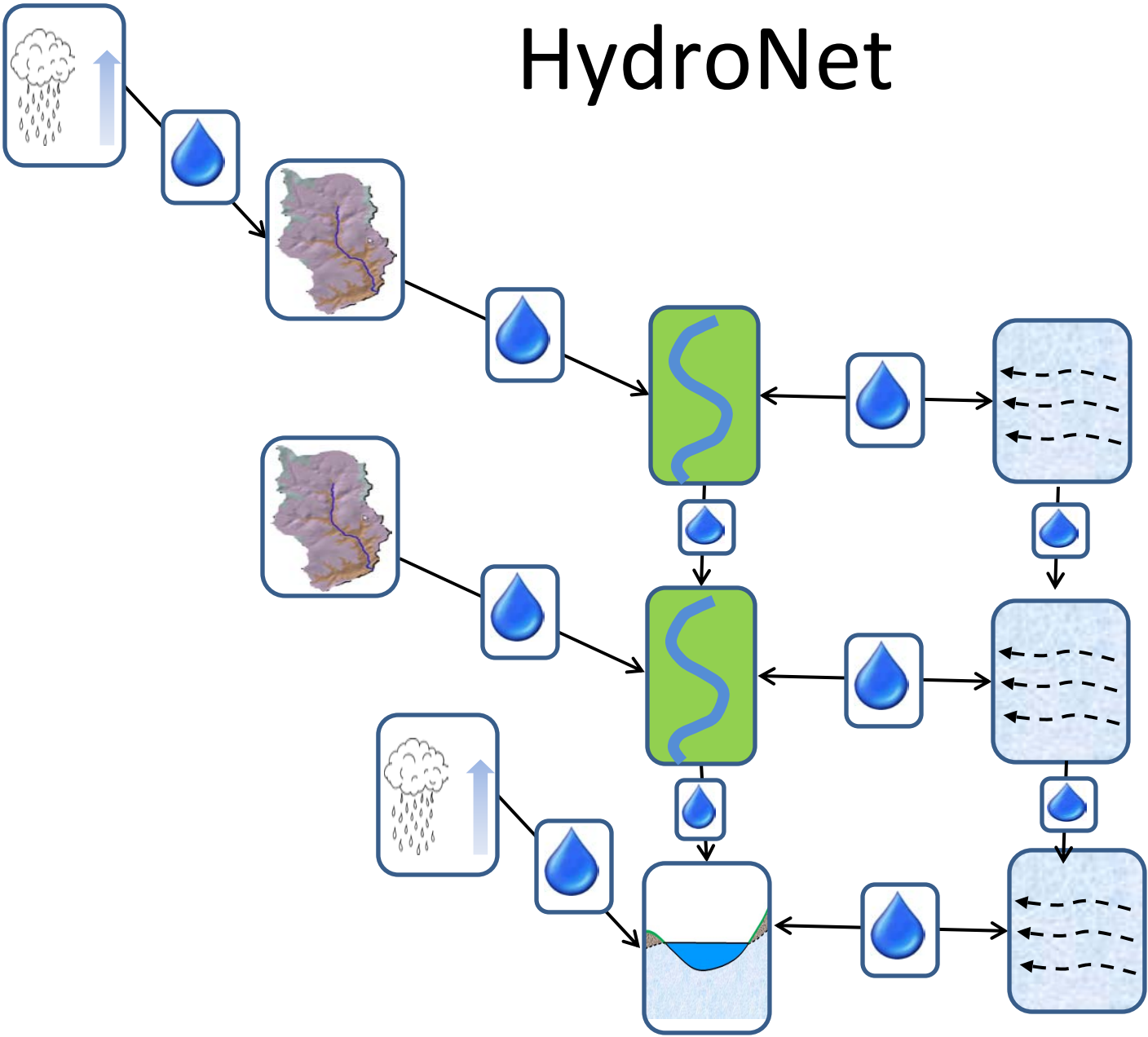


Lake

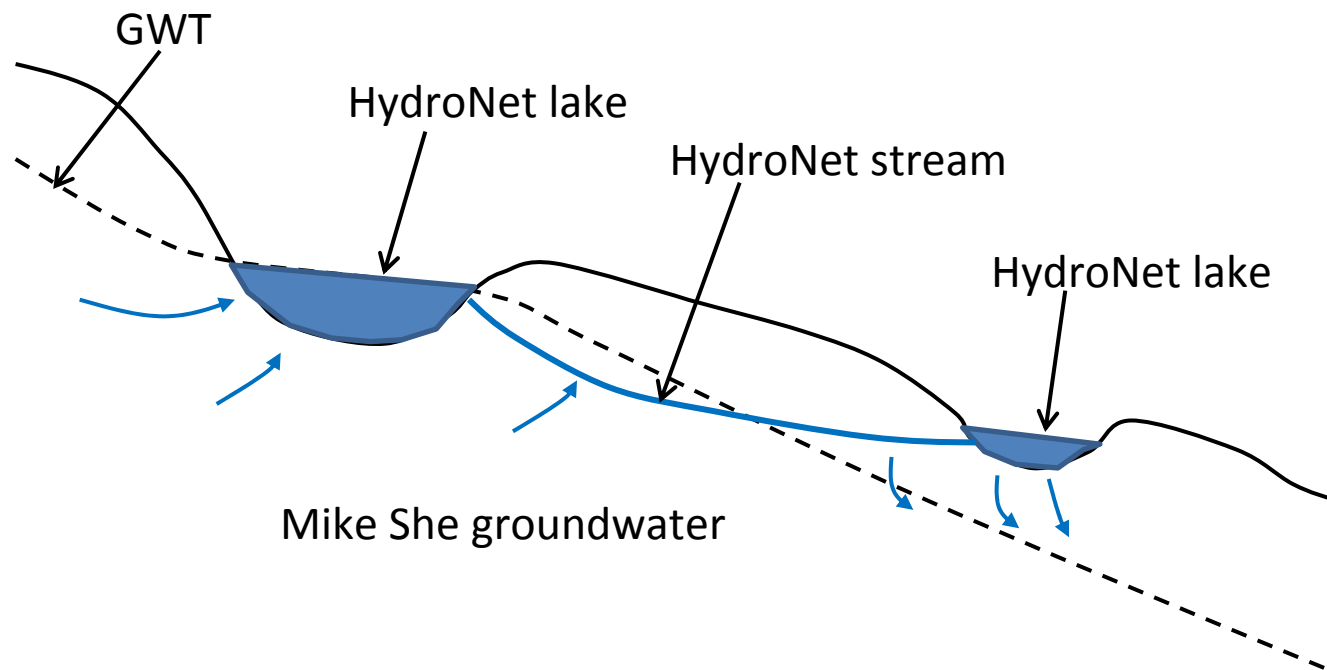


Groundwater

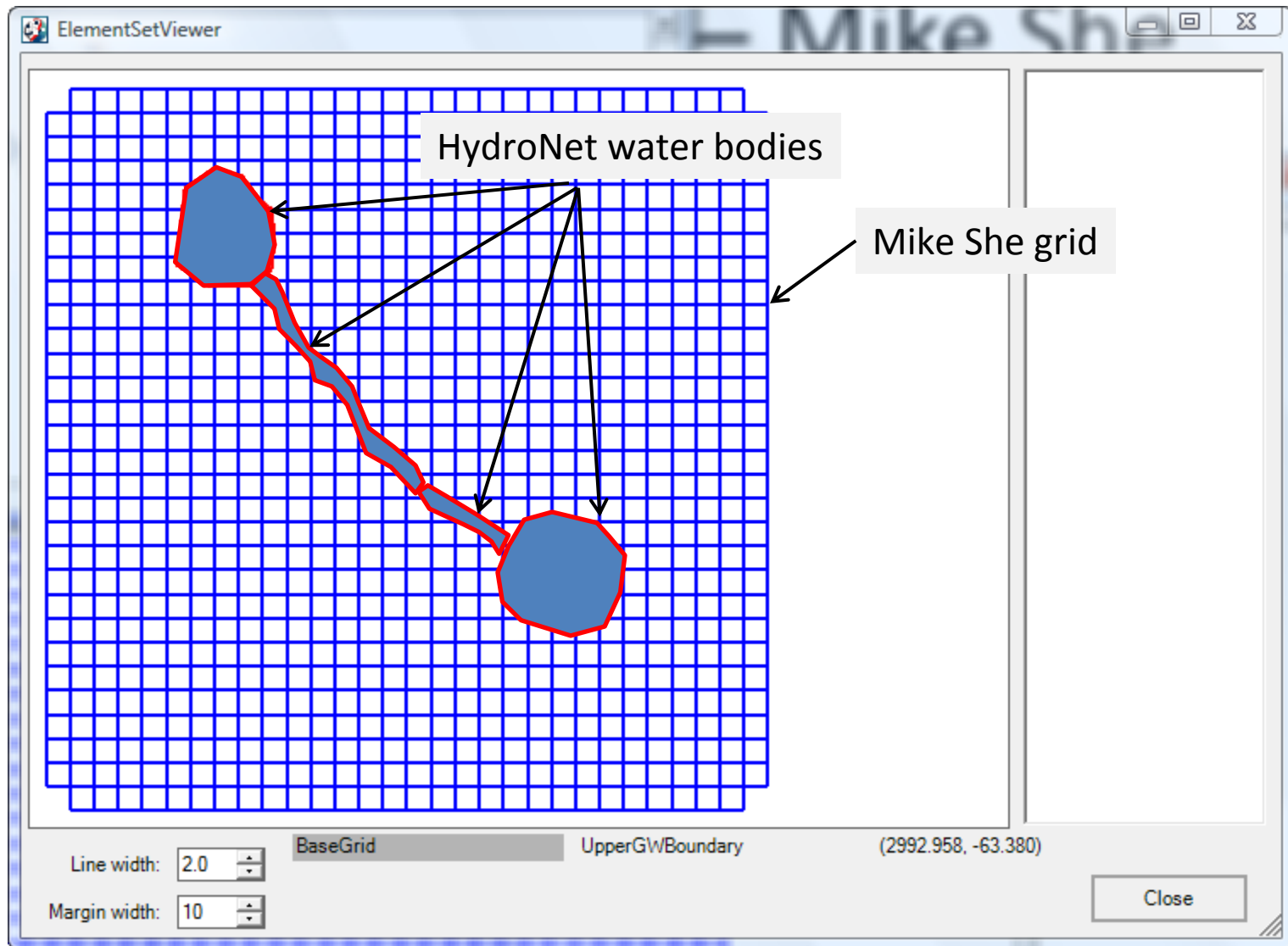
# HydroNet



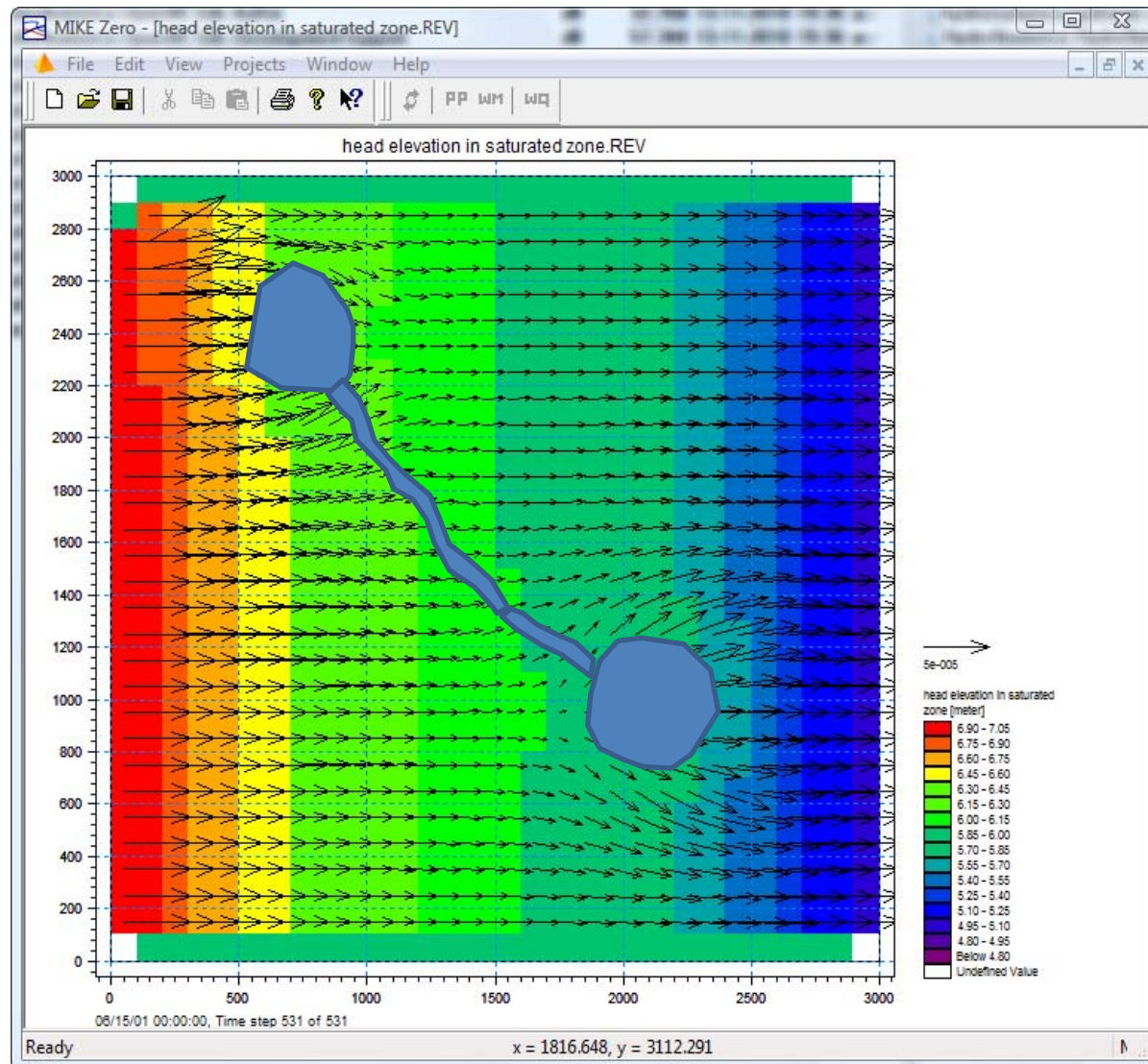
# HydroNet – Mike She



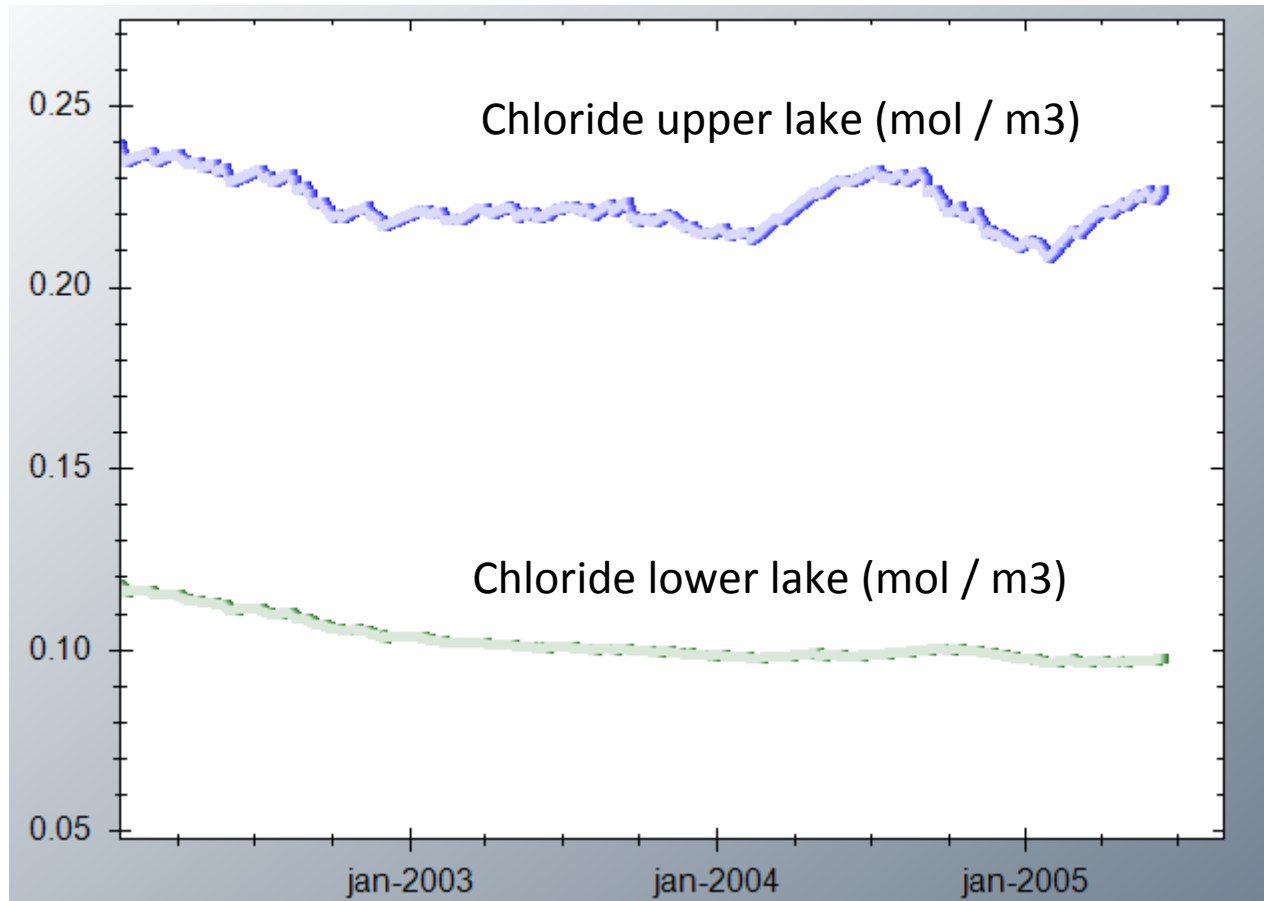
# HydroNet – Mike She

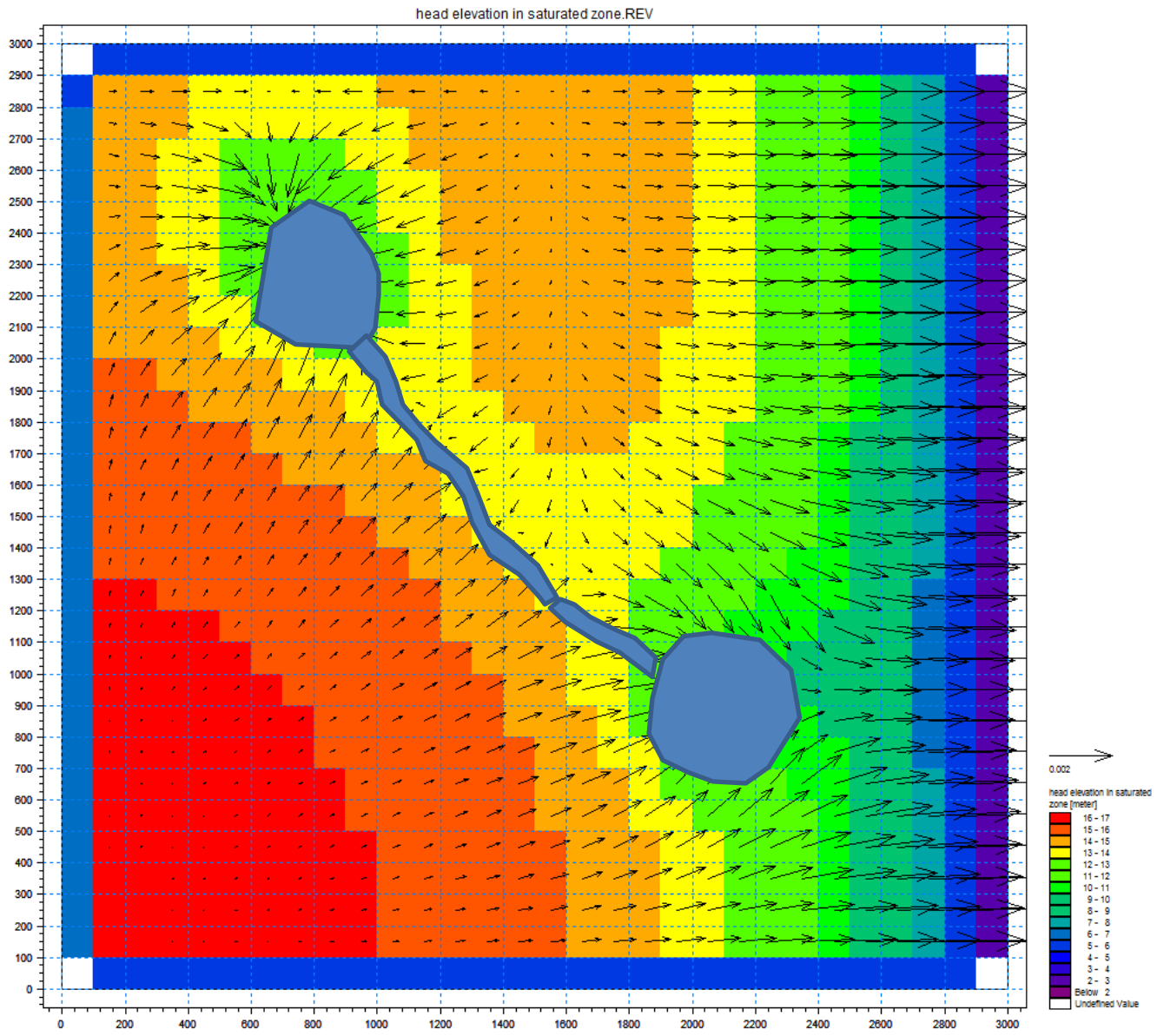


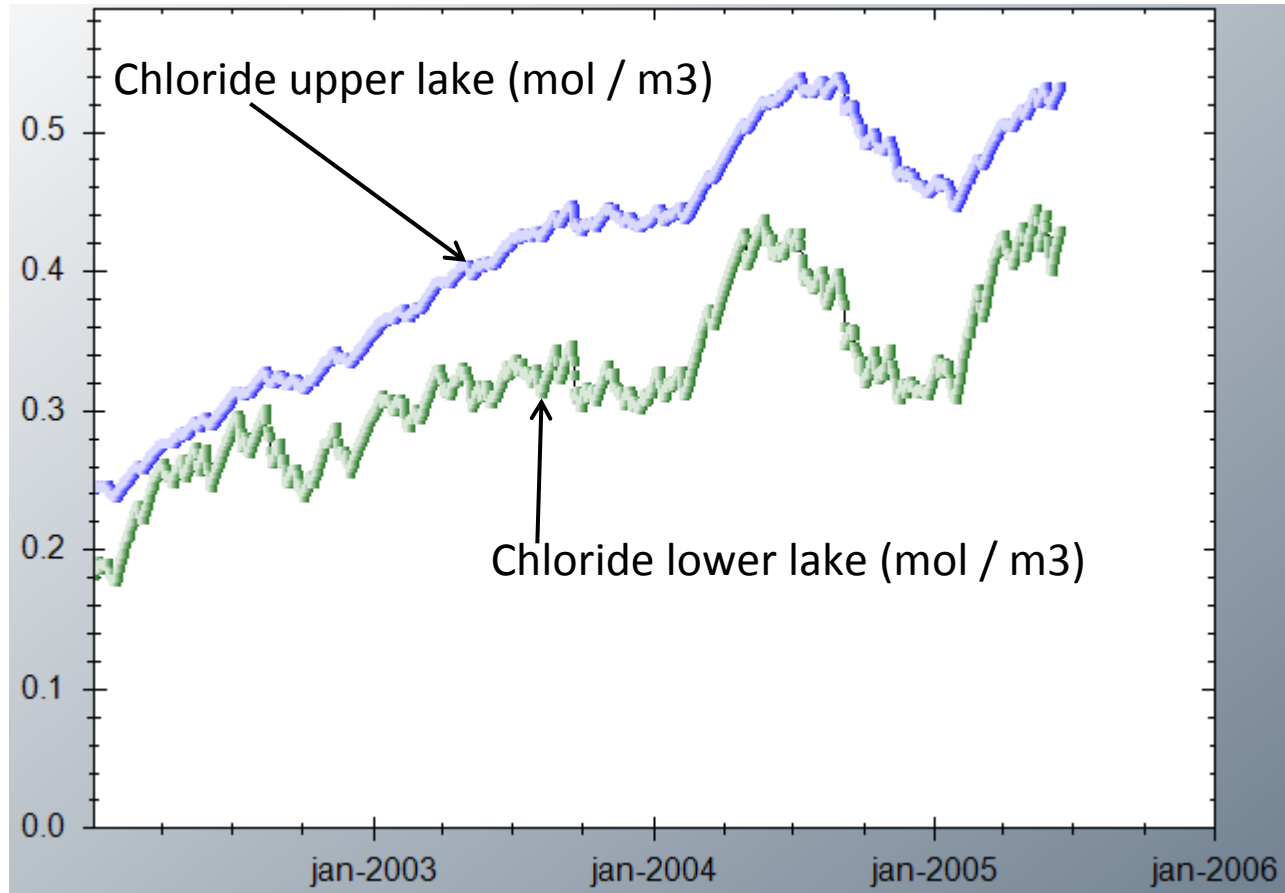
# HydroNet – Mike She

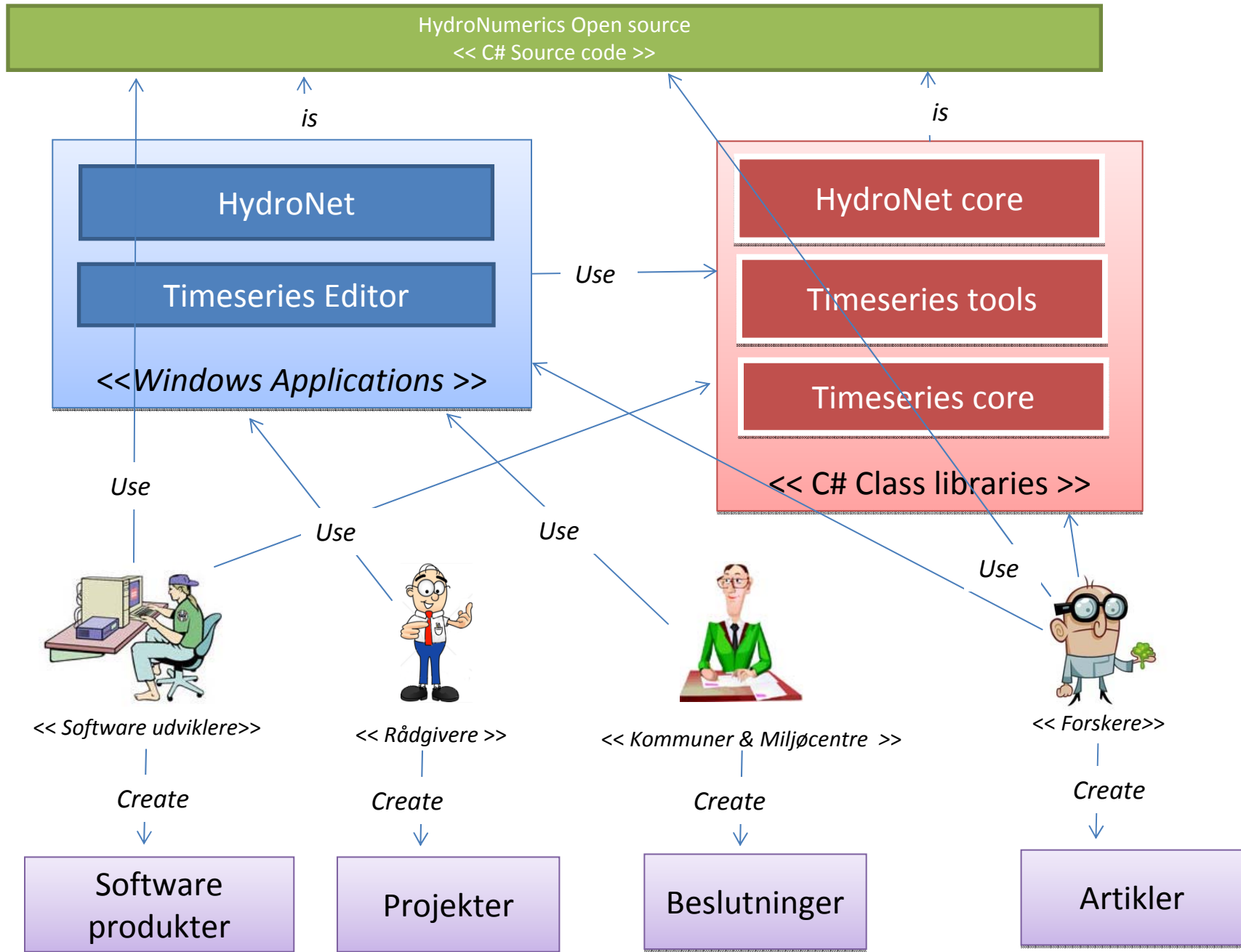




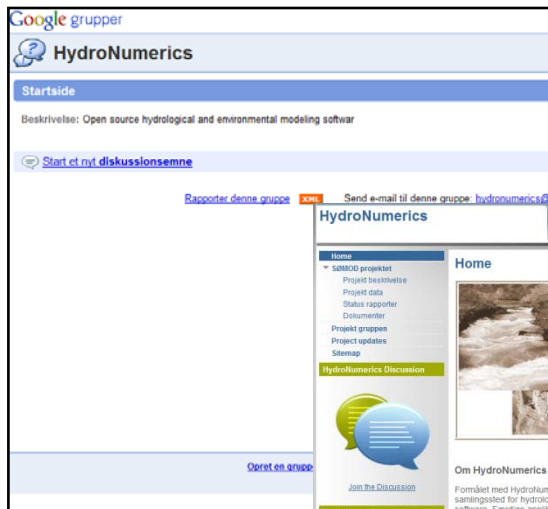








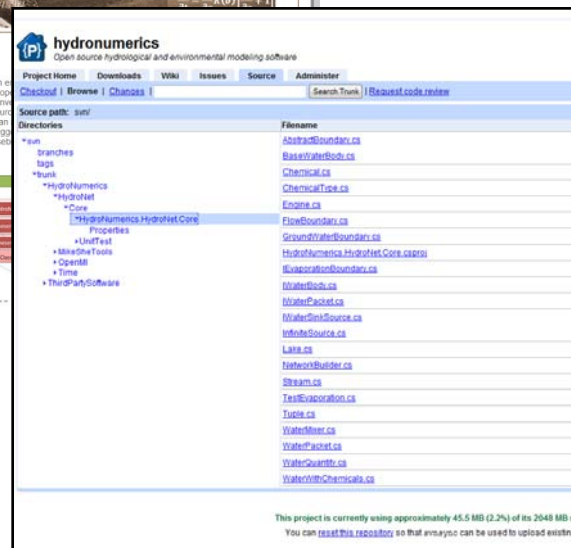
# Mere info



Google groups (forum)



Google Sites (Hjemme side)



Google code (CVS)

Og Jacob og Jan 😊

Tak for opmærksomheden