* Start with simple models to identify which features of the mines are important: mine shafts, volume of workings, depth of production, vertical/lateral geometry, presence of diping coal seams bringing water down from surface (some of details in mines might not be important) 🡪 identify important factors that determine the temperature of water when reaches the abstraction point
* Are workings well connected to main flow path?
* 2D models – steady state model – extract heat + analyse zone of influence
* Shallow workings are the wettest (recharge from rainfall), deeper seams doesn’t not respond as much from rainfall so less inflow
* At what rate water is cooling down at the surface?
* Connections between seams?

Next:

Simple 2D model of bilston glen

Using existing digital data?

What are the limitation of these data?

Identify flow path from mine plans and make sure that they are represented in the simulations

Are lateral panels around roadways importants ?

Dawdon flooded in 10-15 years

Pumped water temperature 20C since 11 years

80 L/s

Which water flooded the mine?

5 profiles from dwdon/hawdon before/after pumping

Data about rock temperature in the mine (to plan ventilation)