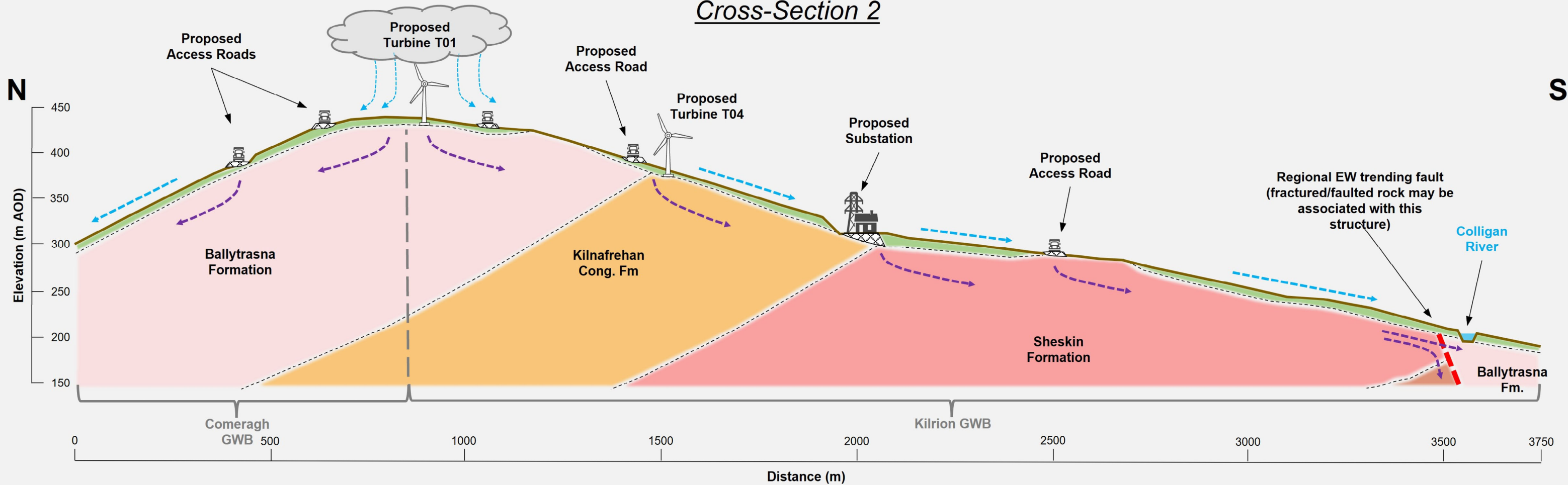


# Coumnagappul Wind Farm – Conceptual Site Model (CSM)

## Cross-Section 2



### Quaternary Subsoils

- Alluvium Deposits
- Till Deposits
- Engineered Fill (Cut/Fill)

### Bedrock Geology

- Ballytrasna Formation
- Kilnafrehan Conglomerate Formation
- Sheskin Formation
- Treanearla Formation

### Symbology

- Interpreted conformable contact
- Ground level (Google Earth Pro)
- Surface water flow direction
- Anticipated groundwater flow direction
- Interpreted Normal Fault

### Notes:

- Section 2 lies predominantly within the Kilrion Ground Water Body (GWB), with a small portion of the north lying within the Comeragh GWB. The main aquifer type is recorded as being a Locally Important Aquifer (LI). The underlying bedrock can be described as having:
  - Low Transmissivity ( $T = 1$  to  $10\text{m}^2/\text{day}$ )
  - High to Extremely High Groundwater Vulnerability
  - Permeable to depths of around 25m
  - Low Groundwater Recharge rates (51-200mm)
  - Moderate Subsoil Permeability (associated with till deposits)
- Source:
  - Construction, Operational and Decommissioning Phase activities
- Pathway:
  - Deep excavations (turbine bases, substation)
  - Linear excavations (e.g. access roads, cable routes)
  - Surface water runoff
  - Unsaturated zone within the superficial deposits and bedrock
  - Fractured / faulted bedrock
- Receptor:
  - Surface water features (streams and rivers)
  - Bedrock Aquifer
  - Groundwater wells and springs

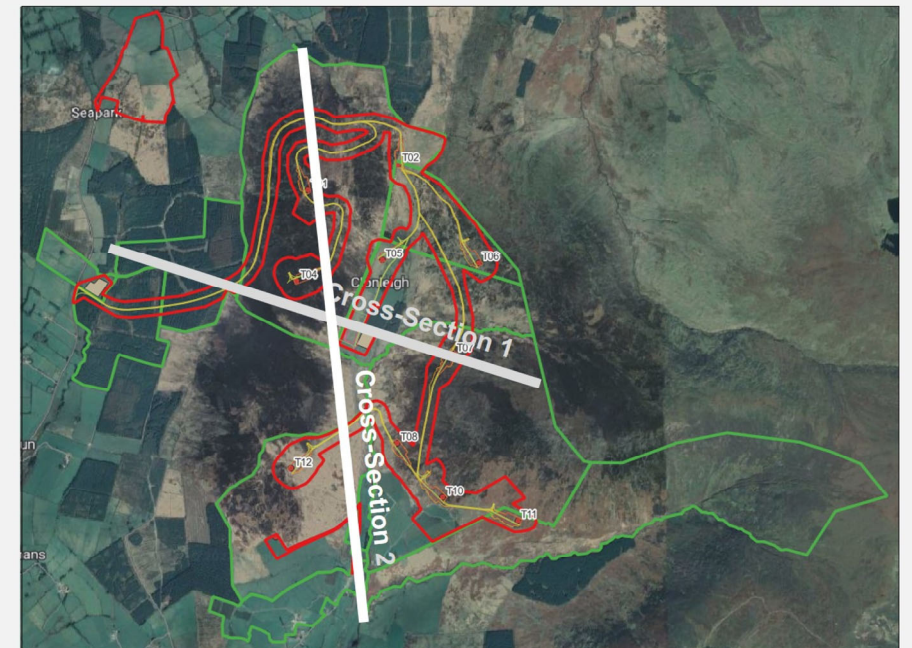


Figure 11.4: Conceptual Site Model (CSM) – N-S Cross-Section