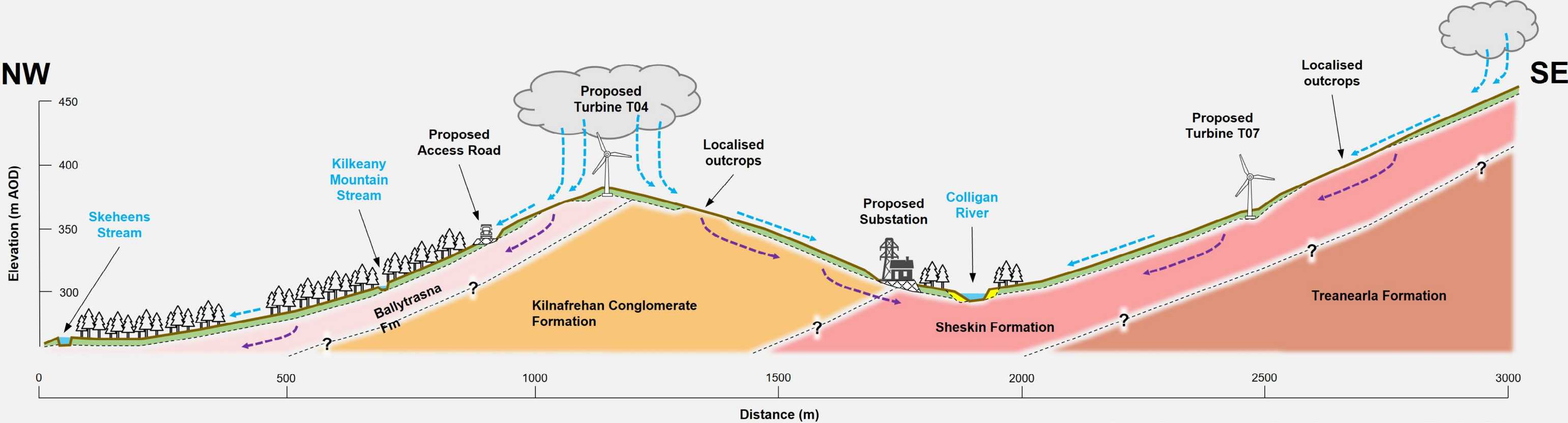


Coumnagappul Wind Farm – Conceptual Site Model (CSM)

Cross-Section 1



- 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
 - Existing Forestry

- Notes:**
- Section 1 lies entirely within the Kilrion Ground Water Body (GWB), whose 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
 - Receptor:
 - Surface water features (streams and rivers)
 - Bedrock Aquifer
 - Groundwater wells and springs



Figure 11.3: Conceptual Site Model (CSM) – NW-SE Cross-Section