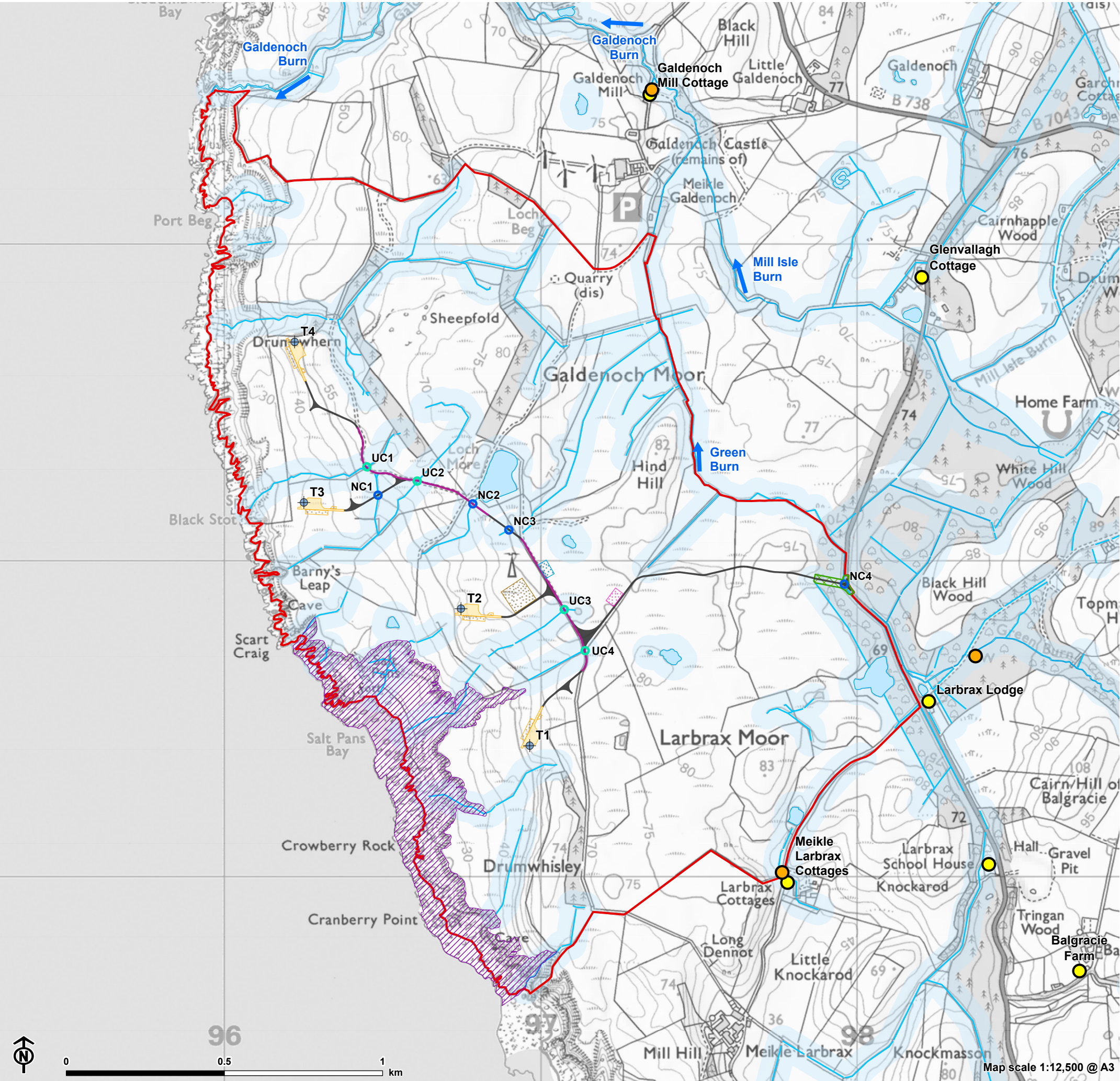


Chapter 9: Hydrology, Hydrogeology, Geology and Peat - Figures



Figure 9.1: Site Location, Topography, Hydrological Features and PWS



- Site boundary
 - Turbine
 - Hardstanding temporary
 - Hardstanding permanent
 - Temporary borrow pit
 - Temporary construction compound
 - Substation/battery storage
 - Track to be upgraded
 - Proposed new track/access junction
 - Tree/scrub removal
 - New watercourse crossing
 - Existing (upgraded) watercourse crossing
 - Sites of Special Scientific Interest (SSSI) Salt Pans Bay
- Hydrological Features**
- PWS supplied properties
 - PWS source locations
 - OS surface water lines (watercourses)
 - OS surface water areas (waterbodies)
 - 50m watercourse and waterbody buffer

Figure 9.2: Watercourses, buffers, catchments and watercourse crossings and flood risk

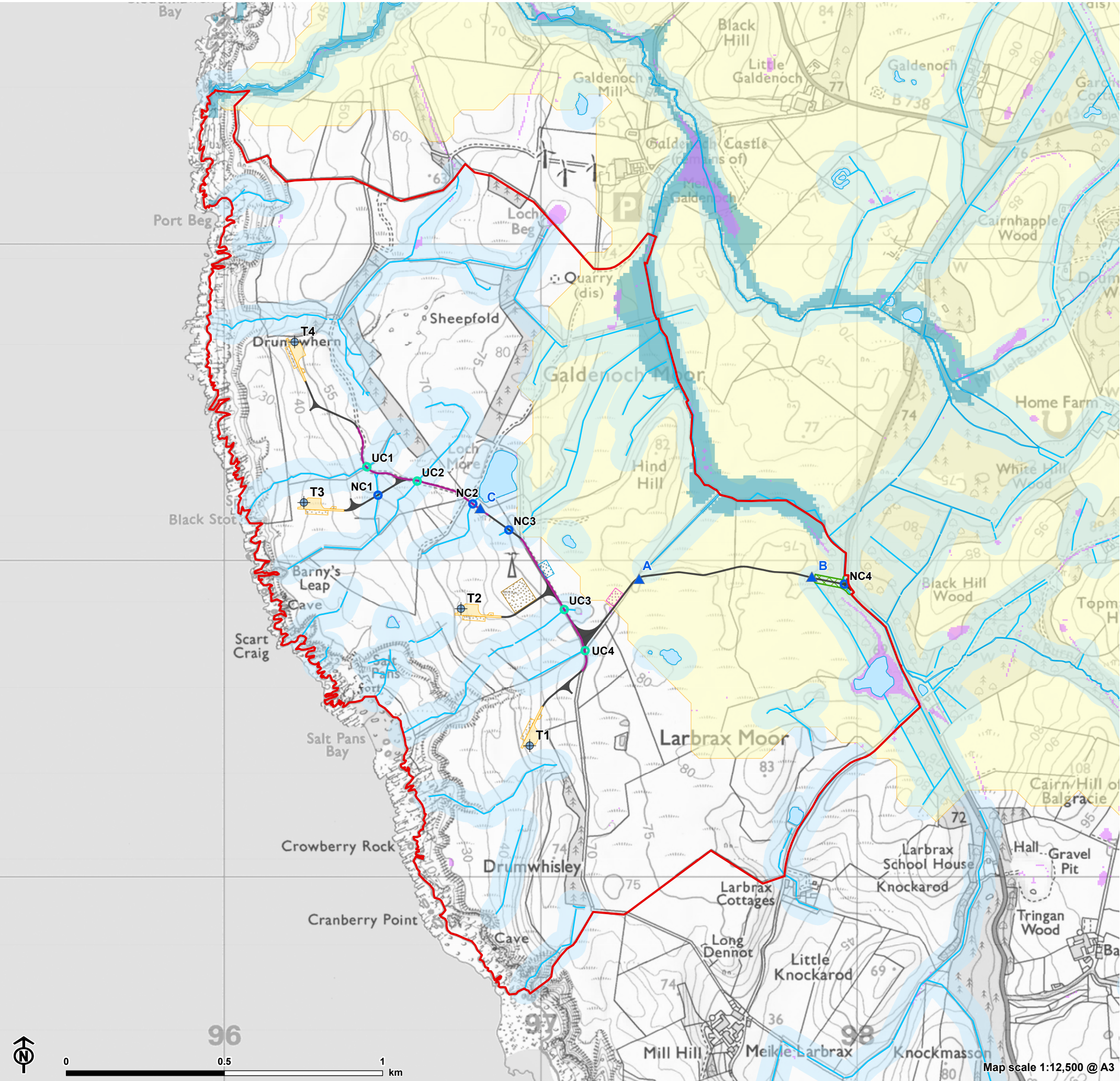
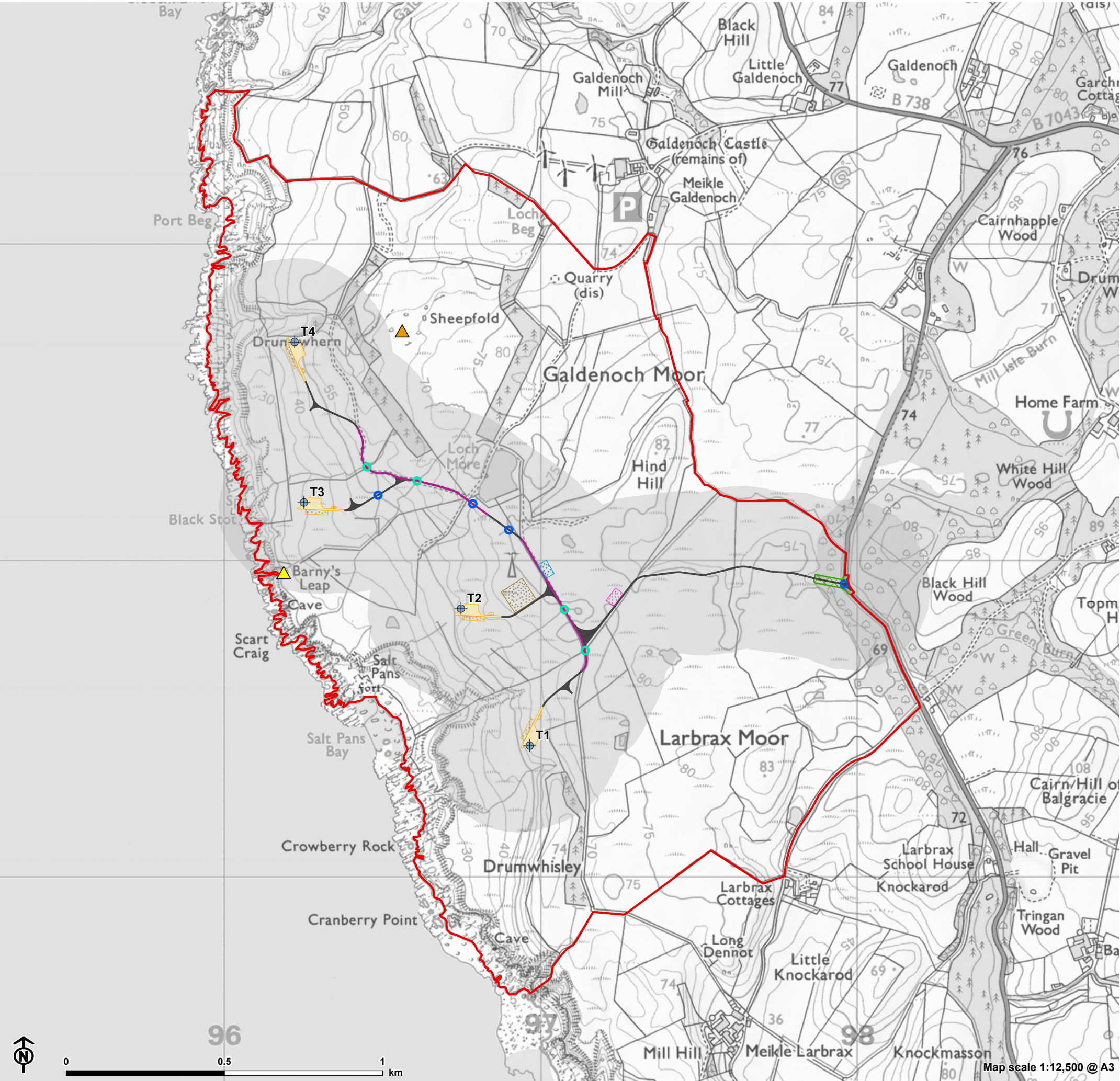




Figure 9.3: Ground Water Dependent Terrestrial Ecosystems (GWDTE)



- Site boundary
- Turbine
- Hardstanding temporary
- Hardstanding permanent
- Temporary borrow pit
- Temporary construction compound
- Substation/battery storage
- Track to be upgraded
- Proposed new track/access junction
- Tree/scrub removal
- New watercourse crossing
- Existing (upgraded) watercourse crossing

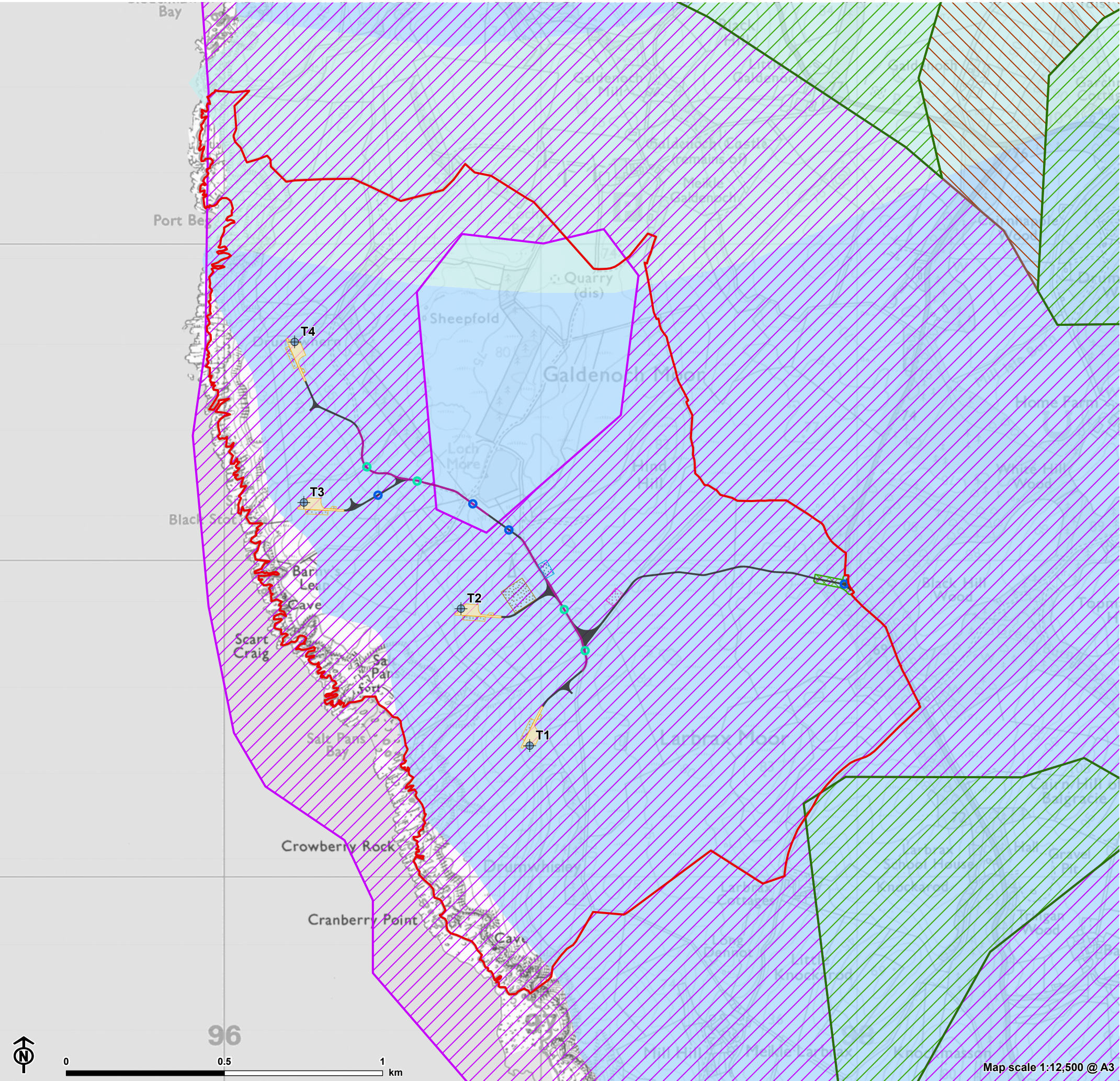
GWDTE identified by hydrology surveys

- Highly dependent
- Moderately dependent
- 250m infrastructure buffer

Notes:
The infrastructure buffer consists of:
- 250m buffer around all infrastructure



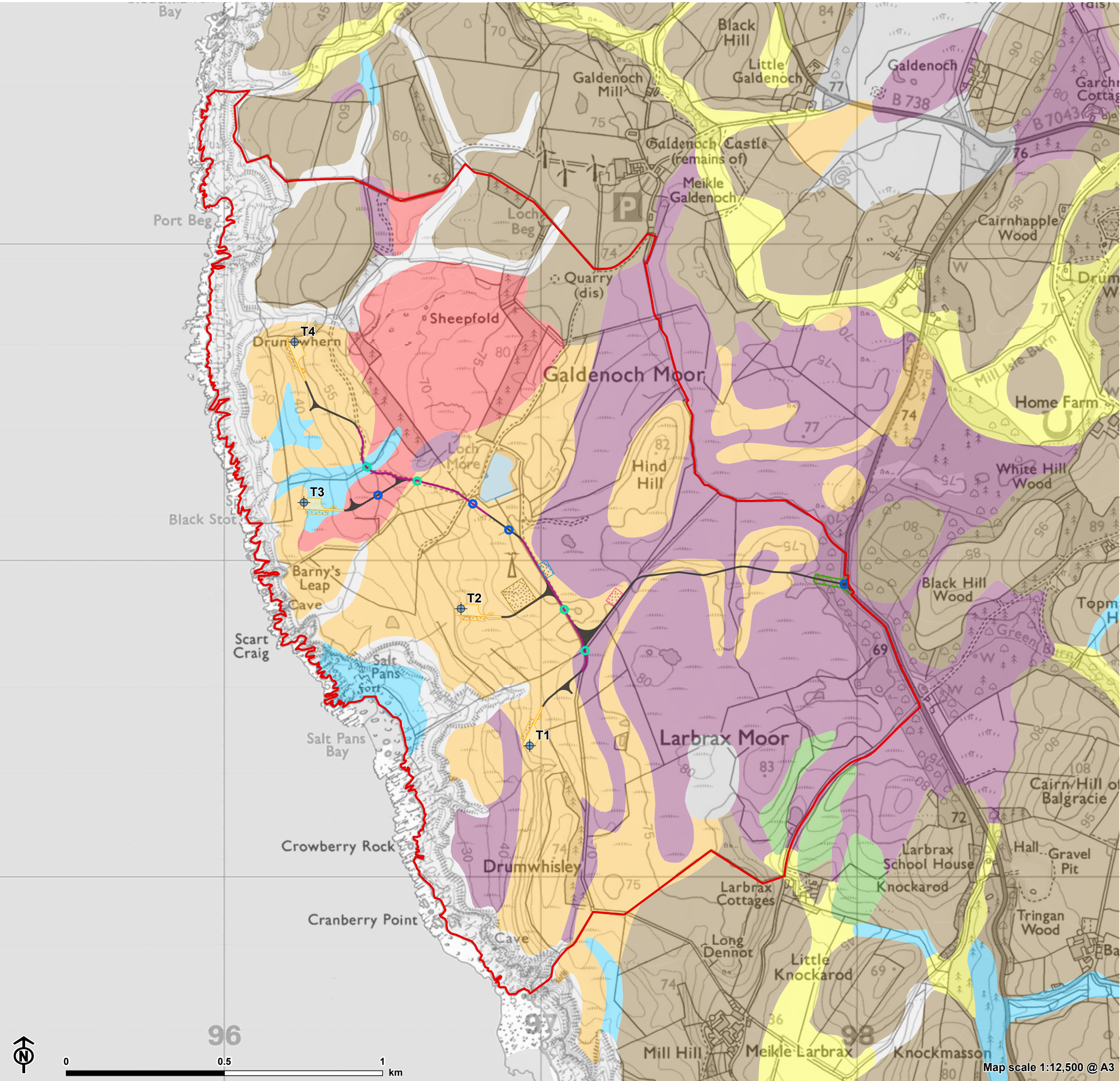
Figure 9.4: Solid Geology and Superficial Geology



- Site boundary
- Turbine
- Hardstanding temporary
- Hardstanding permanent
- Temporary borrow pit
- Temporary construction compound
- Substation/battery storage
- Track to be upgraded
- Proposed new track/access junction
- Tree/scrub removal
- New watercourse crossing
- Existing (upgraded) watercourse crossing

- Solid Geology and Superficial Geology**
- Bedrock Geology**
- Blackcraig Formation and Galdenoch Formation (Undifferentiated) – Wacke
 - Kirkcolm Formation - Wacke
- Superficial Geology**
- Glacial Sand and Gravel
 - Peat
 - Till

Figure 9.5: Soils



- Site boundary
- Turbine
- Hardstanding temporary
- Hardstanding permanent
- Temporary borrow pit
- Temporary construction compound
- Substation/battery storage
- Track to be upgraded
- Proposed new track/access junction
- Tree/scrub removal
- New watercourse crossing
- Existing (upgraded) watercourse crossing

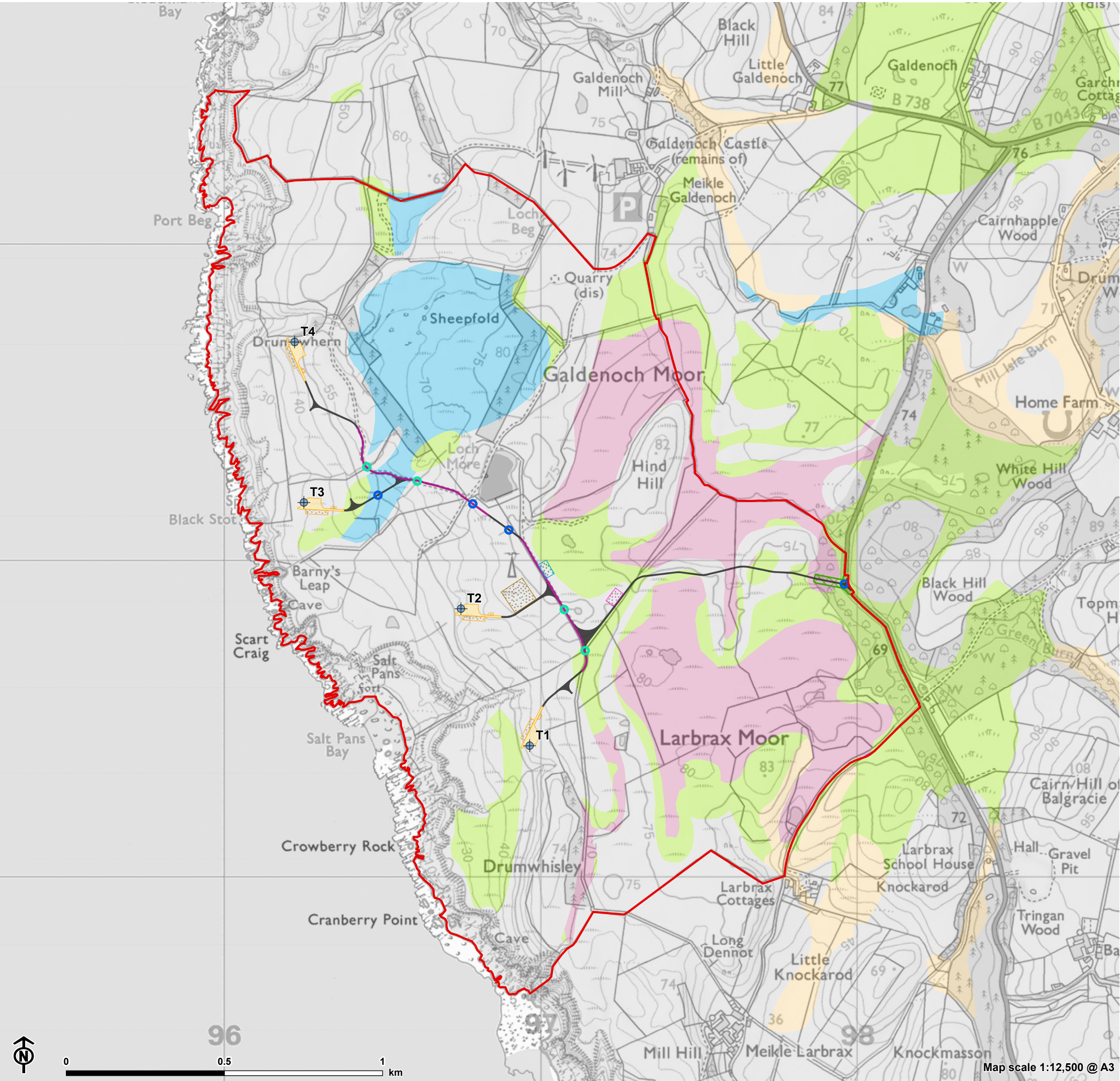
National Soil Map of Scotland. James Hutton Soil Map (2022)

- Alluvial soils
- Brown soils
- Immature soils
- Mineral gleys
- Mineral podzols
- Peat
- Peaty gleys
- Peaty podzols
- Lochs
- No data



Map scale 1:12,500 @ A3

Figure 9.6: Carbon and Peatlands Classification

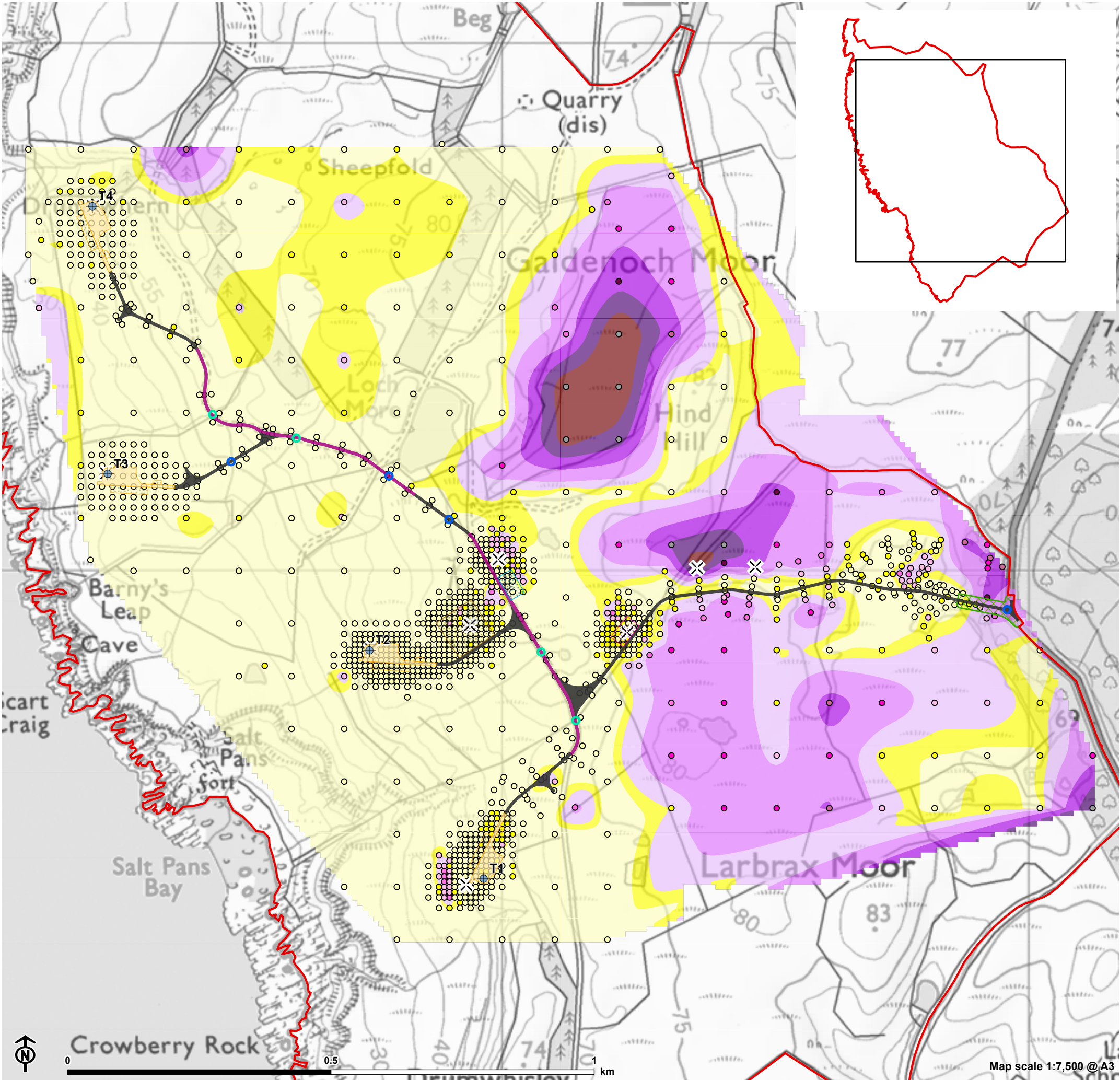


- Site boundary
- Turbine
- Hardstanding temporary
- Hardstanding permanent
- Temporary borrow pit
- Temporary construction compound
- Substation/battery storage
- Track to be upgraded
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- New watercourse crossing
- Existing (upgraded) watercourse crossing

NatureScot Carbon and Peatland (2016) Classification

- Class 1: Nationally important carbon-rich soils, deep peat and priority peatland habitat.
- Class 3: Dominant vegetation cover is not priority peatland habitat but is associated with wet and acidic type. Occasional peatland habitats can be found. Most soils are carbon-rich soils, with some areas of deep peat.
- Class 4: Area unlikely to be associated with peatland habitats or wet and acidic type. Area unlikely to include carbon-rich soils.
- Class 5: Soil information takes precedence over vegetation data. No peatland habitat recorded. May also include areas of bare soil. Soils are carbon-rich and deep peat.
- Class 0: Mineral soil - Peatland habitats are not typically found on such soils.
- Class -2: Non-soil (e.g. loch, built up area, rock and scree).

Figure 9.7: Peat Depths (Combined Phase 1 and Phase 2)



- Site boundary
- Turbine
- Hardstanding temporary
- Hardstanding permanent
- Temporary borrow pit
- Temporary construction compound
- Substation/battery storage
- Track to be upgraded
- Proposed new track/access junction
- Tree/scrub removal
- New watercourse crossing
- Existing (upgraded) watercourse crossing

Peat Depths (combined Phase 1 and Phase 2)

- Peat core locations

Probed peat depth (cm)

- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- 200 - 250
- 250 - 300
- > 500

Interpolated peat depth (m)

- 0 - 30
- 30 - 50
- 50 - 100
- 100 - 200
- 200 - 300
- 300 - 400
- >400