TECHNICAL APPENDIX 7.3

Water Crossing Schedule

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Table of Contents

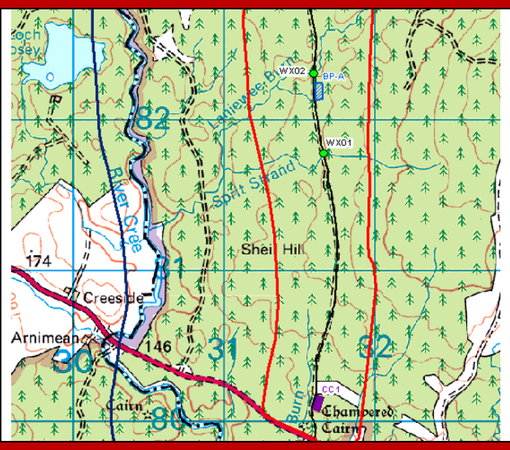
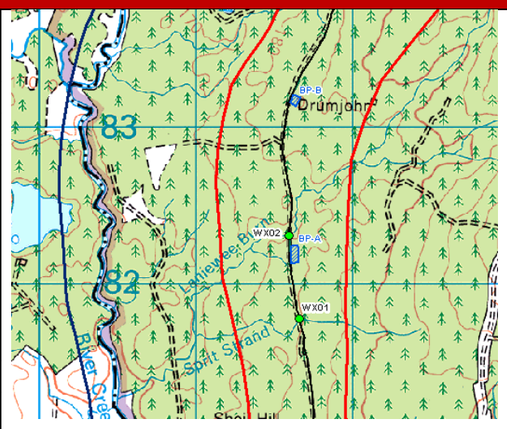
Appendix 7.3 Water Crossing Schedule

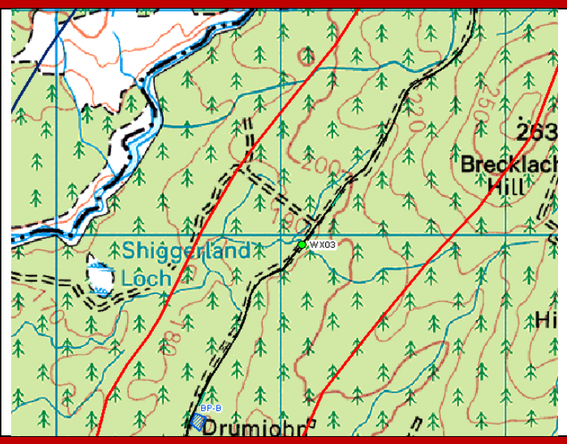
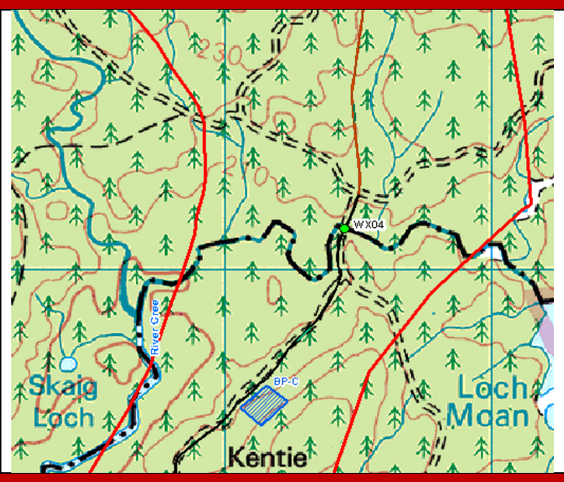
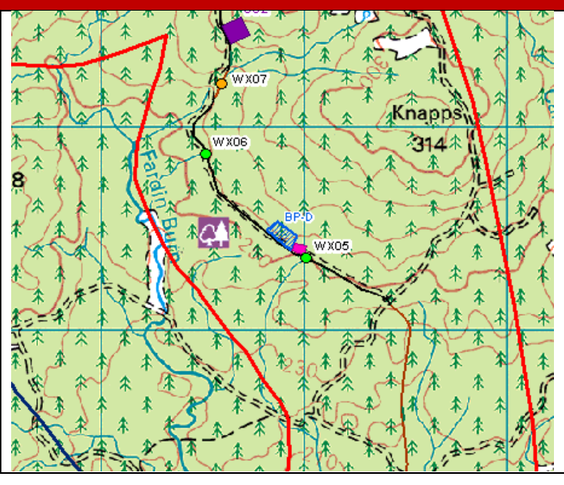
1 Introduction

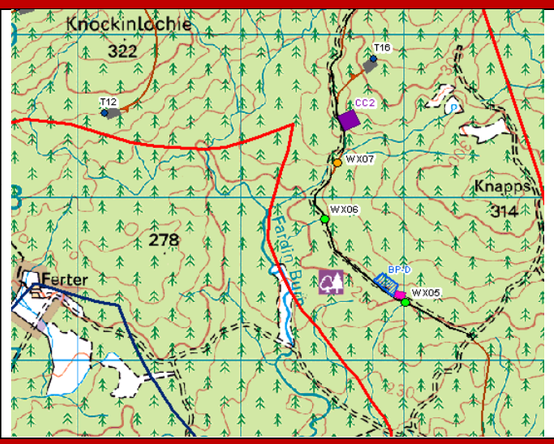
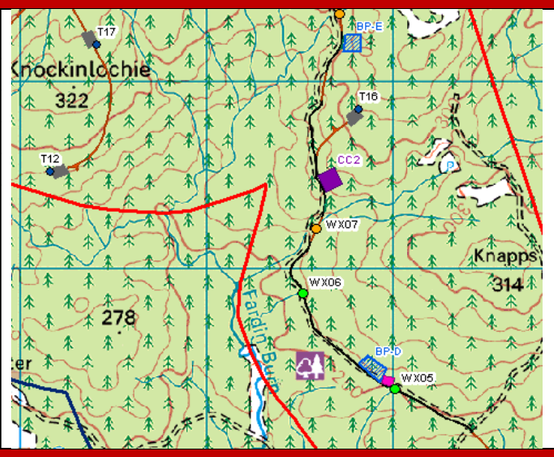
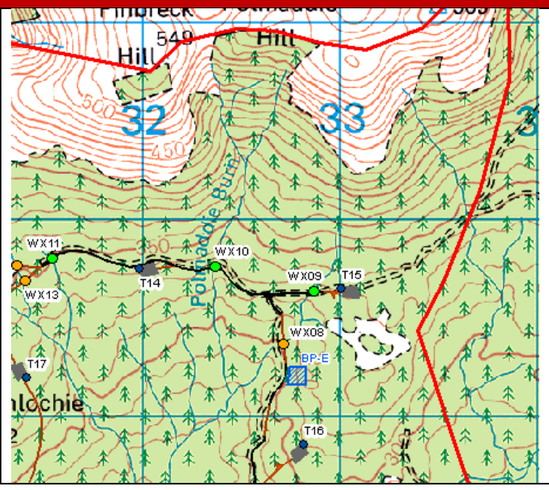
1.1.1 Some of the proposed access tracks to turbines would require new watercourse crossings to be constructed. Nine proposed new water crossings are proposed, with nine existing crossings which will definitely or potentially require upgrade, replacement or extension.

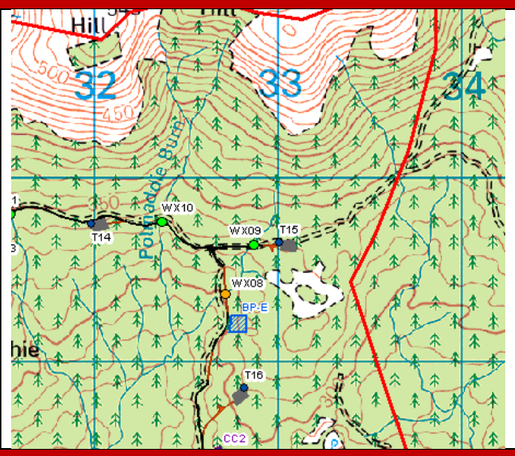
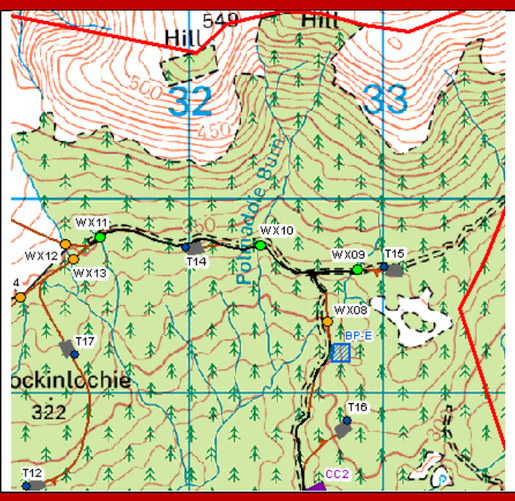
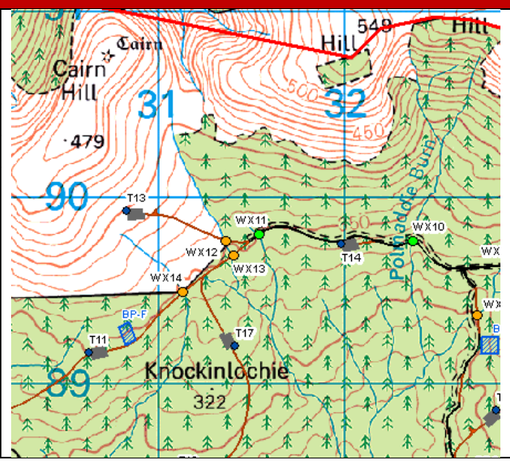
1.1.2 Relevant information for each proposed water crossing is provided in **Table 7.3.1** below, together with a note of the proposed crossing type to be constructed, a map extract showing the crossing location (do not scale), and photographs of selected watercourses. The location of each crossing is shown on **Figure 7.2a** and **7.2b** of **Chapter 7: Hydrology, Hydrogeology, Geology and Soils** and **Table 4.4.1** of **Chapter 4: Description of Development** list the grid coordinates of each crossing point. Detailed design of all crossings would be undertaken in consultation with Scottish Environment Protection Agency (SEPA) and the relevant regulatory authorities and would be agreed prior to construction.

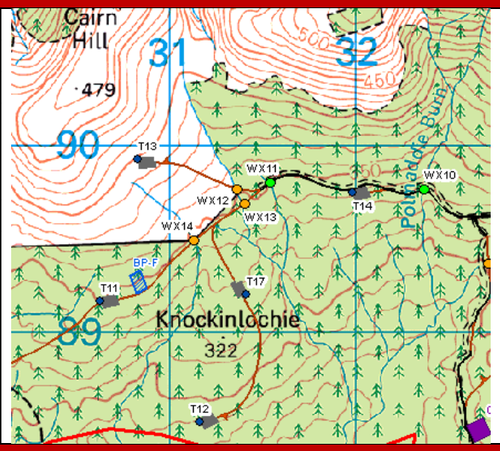
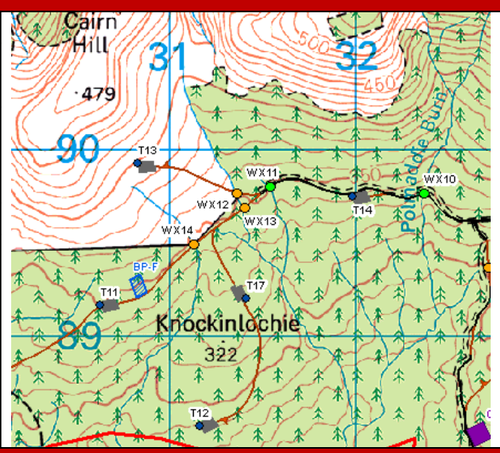
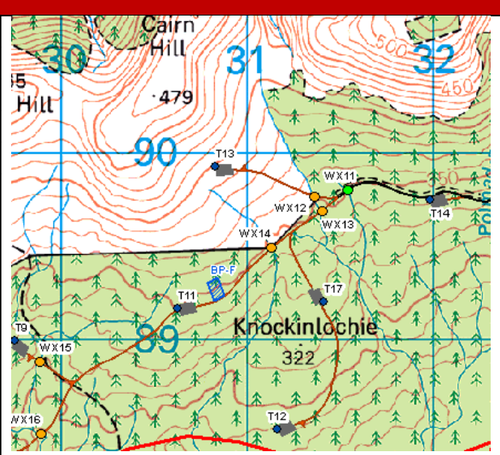
2 Water Crossing Schedule

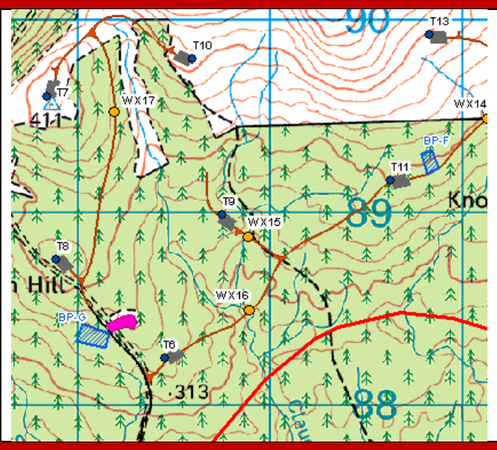
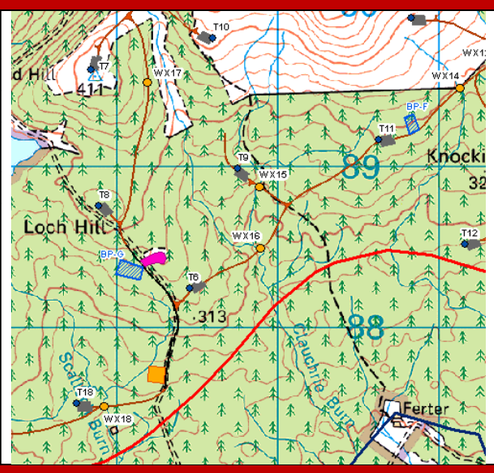
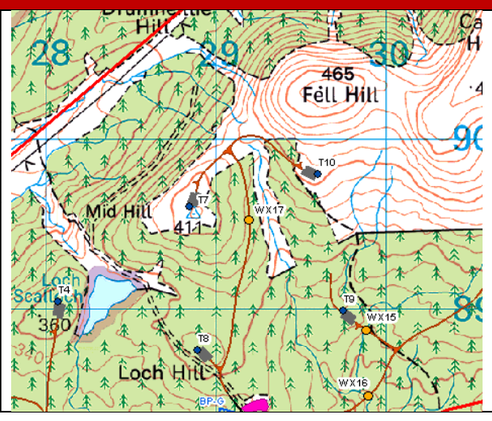
Water Crossing 1 (WX01)		
Location Description	Near the south end of the existing Drumjohn Road access	
Grid Co-ordinates	231657, 581780	
Watercourse	Sprit Strand (tributary of the River Cree)	
Description	Existing piped culvert	
Catchment	River Cree	
Crossing Type	Existing piped culvert may require extension to accommodate road widening. Confirmation of appropriate sizing to allow continuous flow	
Water Crossing 2 (WX02)		
Location Description	Near the south end of the existing Drumjohn Road access, 540m north of Water Crossing 1	
Grid Co-ordinates	231593, 582310	
Watercourse	Laniewee Burn	
Description	Existing bridge consisting of precast beams supported on concrete abutment. Measures 3.2m width between concrete upstands. To comply with WTG supplier's speciication, a replacement bridge may be required to provide a 4.5m width. A similar construction to the existing bridge is proposed.	
Catchment	River Cree	
Crossing Type	Bridge	

Water Crossing 3 (WX03)		
Location Description	Central part of the existing Drumjohn Road access	
Grid Co-ordinates	232093, 583959	
Watercourse	Minor tributary of Plumbjordan Burn	
Description	Existing piped culvert.	
Catchment	River Cree	
Crossing Type	Existing piped culvert may require extension to accommodate road widening. Confirmation of appropriate sizing to allow continuous flow	
Water Crossing 4 (WX04)		
Location Description	Near the north end of the existing Drumjohn Road access	
Grid Co-ordinates	233448, 586154	
Watercourse	River Cree	
Description	Existing bridge consisting of precast beams supported on concrete abutment and two columns supporting the deck mid-span. A replacement bridge will likely be requried to provide a suitable width as per Water Crossing 2. The replacement bridge will likely need to be east of the existing bridge to avoid an awkward bend and embankment beyond the bridge and to avoid the need for extensive earthworks.	
Catchment	River Cree	
Crossing Type	Bridge	
Water Crossing 5 (WX05)		
Location Description	Near thenorth end of the existing Drumjohn Road access	
Grid Co-ordinates	233012, 587358	
Watercourse	Minor tributary of the River Cree	
Description	Existing piped culvert	
Catchment	River Cree	
Crossing Type	Existing piped culvert may require extension to accommodate road widening. Confirmation of appropriate sizing to allow continuous flow.	

Water Crossing 6 (WX06)		
Location Description	Near the north end of the existing Drumjohn Road access	
Grid Co-ordinates	232516, 587868	
Watercourse	Minor tributary of the Fardin Burn	
Description	Existing piped culvert	
Catchment	River Cree	
Crossing Type	Existing piped culvert may require extension to accommodate road widening. Confirmation of appropriate sizing to allow continuous flow.	
Water Crossing 7 (WX07)		
Location Description	Near the north end of the existing Drumjohn Road access	
Grid Co-ordinates	232590, 588213	
Watercourse	Minor tributary of the Fardin Burn	
Description	Minor ditch/watercourse	
Catchment	River Cree	
Crossing Type	Road to be realigned/straightened at this location, new piped culvert required at crossing location, sized to allow continuous flow.	
Water Crossing 8 (WX08)		
Location Description	North end of existing Drumjohn Road acess	
Grid Co-ordinates	232713, 589367	
Watercourse	Tributary of Polmaddie Burn	
Description	Existing bridge of precast beams supported on concrete abutment, measuring 3.0m in width between concrete upstands. Existing crossing location in a dip and on a bend, therefore new crossing proposed to the east.	
Catchment	River Cree	
Crossing Type	Bridge (4.5m width) or open-arch culvert, allowing continuous flow.	

Water Crossing 9 (WX09)		
Location Description	Immediately west of T15, east end of Site	
Grid Co-ordinates	232869, 589634	
Watercourse	Tributary of Polmaddie Burn	
Description	Existing piped culvert	
Catchment	River Cree	
Crossing Type	Existing piped culvert may require extension to accommodate road widening. Confirmation of appropriate sizing to allow continuous flow.	
Water Crossing 10 (WX10)		
Location Description	West of T15 (west of WX09), east end of Site	
Grid Co-ordinates	232371, 589764	
Watercourse	Polmaddie Burn	
Description	Existing piped culvert	
Catchment	River Cree	
Crossing Type	Existing piped culvert may require extension to accommodate road widening. Confirmation of appropriate sizing to allow continuous flow.	
Water Crossing 11 (WX11)		
Location Description	Between T11 and T14, east end of Site	
Grid Co-ordinates	231544, 589805	
Watercourse	Tributary of Polmaddie Burn	
Description	Existing piped culvert	
Catchment	River Cree	
Crossing Type	Existing piped culvert may require extension to accommodate road widening. Confirmation of appropriate sizing to allow continuous flow.	

Water Crossing 12 (WX12)		
Location Description	Between T11 and T14, east end of Site	
Grid Co-ordinates	231362, 589769	
Watercourse	Tributary of Polmaddie Burn	
Description	Burn is fairly narrow and largely hidden by rushes, however channel is quite wide (~10m) with sloping banks to the burn approximately 2m deep.	
Catchment	River Cree	
Crossing Type	Open arch culvert, allowing continuous flow.	
Water Crossing 13 (WX13)		
Location Description	Between T11 and T14, east end of Site	
Grid Co-ordinates	231402, 589692	
Watercourse	Tributary of Polmaddie Burn	
Description	Burn is fairly narrow and largely hidden by rushes, however channel is quite wide (~10m) with sloping banks to the burn approximately 2m deep.	
Catchment	River Cree	
Crossing Type	Open arch culvert, allowing continuous flow.	
Water Crossing 14 (WX14)		
Location Description	Between T11 and T14, east end of Site	
Grid Co-ordinates	231132, 589492	
Watercourse	Tributary of Polmaddie Burn	
Description	Narrow burn requiring new crossing	
Catchment	River Cree	
Crossing Type	New piped culvert, sized to allow continuous flow.	

Water Crossing 15 (WX15)		
Location Description	Immediatey south east of T9, south-central Site area	
Grid Co-ordinates	229887, 588877	
Watercourse	Clauchrie Burn	
Description	Burn is approximately 1m wide, requiring new crossing	
Catchment	River Cree	
Crossing Type	Open arch culvert, allowing continuous flow	
Water Crossing 16 (WX16)		
Location Description	Between T6 and T11, south-central Site area	
Grid Co-ordinates	229895, 588493	
Watercourse	Clauchrie Burn	
Description	Crossing at a relatively flat location, burn is approximately 1m wide.	
Catchment	River Cree	
Crossing Type	Open arch culvert, allowing continuous flow.	
Water Crossing 17 (WX17)		
Location Description	On the access spur to T7 and T10, north-central Site area	
Grid Co-ordinates	229194, 589525	
Watercourse	Minor tributary of the Clauchrie Burn	
Description	Anticipated to be a minor ditch requiring new crossing	
Catchment	River Cree	
Crossing Type	New piped culvert, sized to allow continuous flow.	

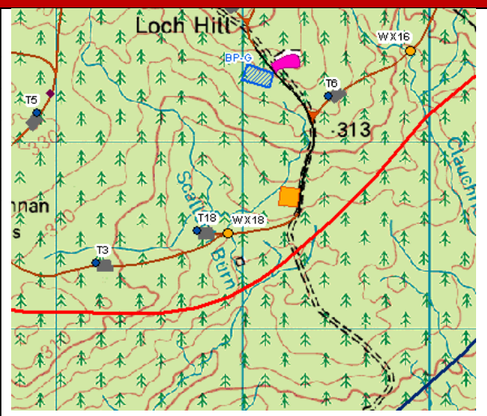
Water Crossing 18 (WX18)		
Location Description	Immediately east of T18 towards south west of Site	
Grid Co-ordinates	228922, 587513	
Watercourse	Scalloch Burn	
Description	Crossing location at a relatively flat area, burn approximately 1m wide.	
Catchment	River Cree	
Crossing Type	Open arch culvert, allowing continuous flow.	

Table 7.3.1: Water Crossing Schedule

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