

Balliemeanoch Pumped Storage Hydro

Environmental Impact Assessment Report

Volume 5: Appendices Appendix 11.4: Watercourse Crossings

ILI (Borders PSH) Ltd

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Quality information

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Appendix 11.4 Watercourse Crossings




Introduction

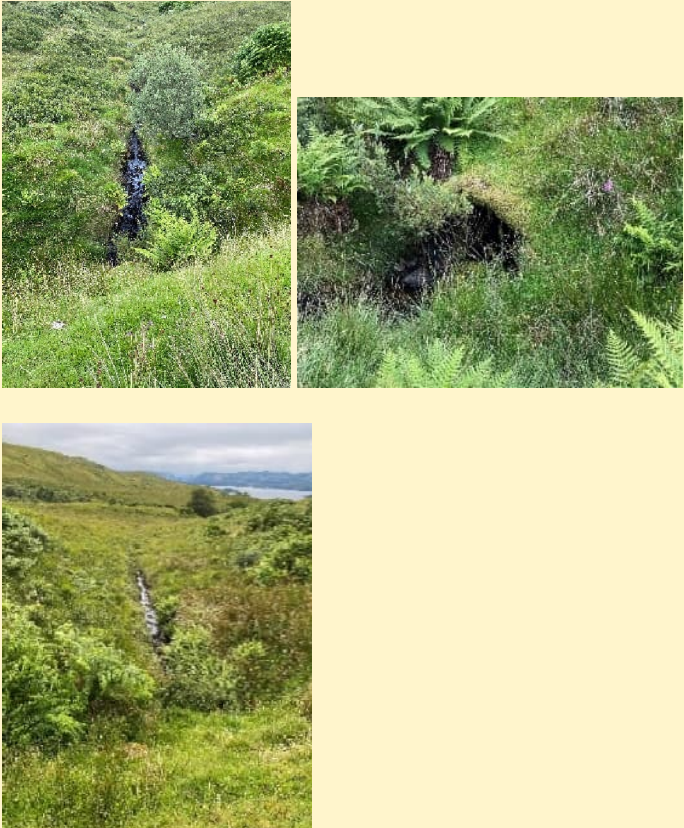
Several Access Tracks are proposed as part of the Development. This report details the existing and proposed watercourse crossings following field and desktop survey. Where there are existing tracks, with associated watercourse crossings, these will be upgraded to widen the track, resulting in a longer length of culvert at each of these crossings in line with the standard detail within SEPA guidance wat-sg-25¹, this guidance is further explained within *Section 11.9.1.7 Design of Watercourse Crossings, Chapter 11 Water Environment (Volume 2 Main Report)*. Where new access tracks are required, new watercourse crossings will be created in line with the standard detail within SEPA guidance wat-sg-25.



Mapping of existing and proposed crossings was undertaken using Geographic Information Systems (GIS) software at the intersections of mapped watercourses with track routes. A walkover survey was undertaken and a number of existing and proposed crossing locations were photographed and notes taken of geomorphological characteristics. The table below was created describing these features, with the National Grid Reference (NGR) and photographs where available.




¹ <https://www.sepa.org.uk/media/151036/wat-sg-25.pdf>





Existing crossing upgrade	
Proposed crossing	



ID	NGR	Description	Upstream	Downstream
Balliemanoch to Headpond (B)				
B1	NN 01185 15658	Water crossing on Allt na Fainge, a direct tributary to Loch Awe. It is located 150m south of compound TC01.	No associated photographs	No associated photographs
B2	NN 01539 15542	Existing track crossing of the Allt a' Gheataidh. Corrugated plastic double pipe culvert.		
B3	NN 04194 15141	Existing track crossing of the Allt a Chrosaid. Large, corrugated plastic pipe culvert. Sitting 20 m north of TC02 & 04.		
B4	NN 04584 15252	Water crossing on a direct tributary to Loch Awe. Crossing on the same watercourse as B5.	No associated photographs	No associated photographs

ID	NGR	Description	Upstream	Downstream
B5	NN 01991 15370	Existing water crossing on direct tributary to Loch Awe. Crossing on the same watercourse as B4. Located 85.73m south of proposed Tunnel Portal 1.	<i>No associated photographs</i>	<i>No associated photographs</i>
B6	NN 05109 15575	Water crossing on the existing access track. Located 34.5m, south-east, from the proposed tunnel portal 2. The upstream land is characterised by vegetated undulating slopes.		<i>No associated photographs</i>

ID	NGR	Description	Upstream	Downstream
B7	NN 05336 15841	Water crossing exhibiting a large, corrugated pipe culvert used for discharge to the watercourse. The crossing is located on the existing access track.		
B8	NN 05393 15917	Water crossing on the new access track (excavated). The water crossing sits on a tributary to Allt Beochlich. The water crossing is on the same water course as B7 and sits 321.2 m south of TC20.	No associated photographs	No associated photographs
B9	NN 05269 17060	Water crossing on new access track (excavated). Water course sits downstream from Lochan Breac-liath and is a direct tributary to Lochan Romach. The crossing sits 142 m east of PC19	No associated photographs	No associated photographs
B10	NN 05258 17178	Water crossing on tributary to Buinne Dhubh. Located 168.55m east of TC08. It is located on new access track (excavated).	No associated photographs	No associated photographs

ID	NGR	Description	Upstream	Downstream
B11	NN 03740 15904	<p>Water crossing on proposed new access track (excavated).</p> <p>It sits 54.5 m east of B10.</p>	<p><i>No associated photographs</i></p>	<p><i>No associated photographs</i></p>
B12	NN 03000 15910	<p>Proposed crossing on Buinne Dhubh. The area is characterised by steep undulating slopes with weathered, eroded rocks within the watercourse bed.</p> <p>The water crossing sits 27.48m north-west of PC09 (Permanent Compound).</p>		
B13	NN 02681 16007	<p>Water crossing on Buinne Dhubh. The crossing is due to the proposed erection of compound PC09. Upstream area is characterised by weathered rocks on the watercourses bed.</p>		<p><i>No associated photographs</i></p>



ID	NGR	Description	Upstream	Downstream
B14	NN 05283 16552	Water crossing on Buinne Dhubh. The crossing is due to the proposed erection of compound PC09. It is located 15m south of the proposed headwater embankment. The downstream area is characterised by weathered rocks on the waterbed.	No associated photographs	 
B15	NN 05467 16357	Water crossing on Buinne Dhubh. The water crossing is on the new access track (excavated) within the proposed headwater embankment. The area is characterised by unsorted weathered rocks at the waterbed.		

ID	NGR	Description	Upstream	Downstream
				
B16	NN 03595 15961	Water crossing on a tributary to Buinne Dhubh. It's located on the new access track (excavated) within the headwater embankment. The downstream area is characterised by steep undulating vegetated slopes.	No associated photographs	
B17	NN 03542 15966	Crossing on the Alt Mor, with crossings B18 & B19. Water crossing located on proposed new access track (floating). Located 196.23 m south of compound TC10.	No associated photographs	No associated photographs
B18	NN 04348 15161	Water crossing Alt Mor, same as crossings B17 & B19. Water crossing located on proposed new access track (excavated).	No associated photographs	No associated photographs

ID	NGR	Description	Upstream	Downstream
B19	NN 01146 16312	Water crossing on the Alt Mor, with crossings B17 & B18. It is located on the new access track (floating)	<i>No associated photographs</i>	<i>No associated photographs</i>
B20	NN 01117 16492	Water crossing on unnamed watercourse. It sits on the proposed access track (floating) to the east of the headwater pond.	<i>No associated photographs</i>	<i>No associated photographs</i>
B21	NN 01134 16075	Water crossing on unnamed tributary to Buinne Dhubh. It sits on the proposed access track (floating) to the east of the headwater pond.	<i>No associated photographs</i>	<i>No associated photographs</i>
B22	NN 05393 15917	Water crossing on a tributary to Buinne Dhubh. The crossing is located on the proposed access track (floating) east of the headwater pond.	<i>No associated photographs</i>	<i>No associated photographs</i>
B23	NN 04185 15991	Water crossing on unnamed tributary Buinne Dhubh. It sits on the proposed access track (excavated) east of the headwater pond.	<i>No associated photographs</i>	<i>No associated photographs</i>
B24	NN 04096 16083	Water crossing unnamed tributary to Buinne Dhubh. It located on the proposed access track (floating) east of the head water pond.	<i>No associated photographs</i>	<i>No associated photographs</i>

ID	NGR	Description	Upstream	Downstream
		The crossing is located 126.31 m south of compound TC11.		
B25	NN 04148 16662	Water crossing on unnamed tributary to Buinne Dhubh. It is located on the new access track (excavated) north-east of the proposed headwater pond.	<i>No associated photographs</i>	<i>No associated photographs</i>
B26	NN 03983 16722	Water crossing on unnamed tributary to Buinne Dhubh. It is located on the new access track (excavated) north-east of the proposed headwater pond.	<i>No associated photographs</i>	<i>No associated photographs</i>
B27	NN 03786 15907	Water crossing on direct tributary to Lochan Airigh . Located on the temporary construction access track. The crossing is situated 156.16 m east of compound PC16.	<i>No associated photographs</i>	<i>No associated photographs</i>
B28	NN 03833 15894	Water crossing on same watercourse as crossing B27. The crossing is located within the western border of the headwater pond. It is located 163.59m north of compound TC15.	<i>No associated photographs</i>	<i>No associated photographs</i>
Forest Access (F)				
F1	NN 05025 17929	Water crossing a tributary to Allt na Cuile Riabhaiche.	<i>No associated photographs</i>	<i>No associated photographs</i>

ID	NGR	Description	Upstream	Downstream
		It sits on the new access road (excavated). The crossing is located 71.50 m east from PC13 (Tunnel portal 3)		
F2	NN 05387 18001	Water crossing on a tributary to Allt na Cuile Riabhaiche. The crossing is located on the new access road (excavated).	<i>No associated photographs</i>	<i>No associated photographs</i>
F3	NN 05419 18059	Water crossing on the same watercourse as point F2. The crossing sits on the new access track (excavated).	<i>No associated photographs</i>	<i>No associated photographs</i>
F4	NN 05506 18084	Water crossing on a tributary to Allt na Cuile Riabhaiche. Water crossing on the new access track (excavated).	<i>No associated photographs</i>	<i>No associated photographs</i>
F5	NN 05419 18059	Water crossing on a tributary to Allt na Cuile Riabhaiche. Water crossing on the existing access track to be upgraded.	<i>No associated photographs</i>	<i>No associated photographs</i>
F6	NN 06182 18713	Water crossing on existing access track to be upgraded. Watercourse is a tributary to the Allt na Cuile Riabhaiche river.	<i>No associated photographs</i>	<i>No associated photographs</i>
F7	NN 06740 19331	Water crossing on existing access track to be upgraded. The water crossing sits on a watercourse tributary to the Keppohan River.	<i>No associated photographs</i>	<i>No associated photographs</i>

ID	NGR	Description	Upstream	Downstream
		The crossing sits 103.34 m south of Compound TC12..		
F8	NN 06904 19355	Water crossing on existing access track to be upgraded. The water crossing sits on a watercourse tributary to the Keppohan River.	<i>No associated photographs</i>	<i>No associated photographs</i>
F9	NN 07643 19557	Water crossing on new access track (floating). Water crossing sits on direct tributary to Archan river.	<i>No associated photographs</i>	<i>No associated photographs</i>
F10	NN 08098 20070	Water crossing on existing access track to be upgraded. Crossing on tributary to Archan river.	<i>No associated photographs</i>	<i>No associated photographs</i>
F11	NN 08177 19940	Water crossing on Archan River. The crossing sits on the existing access track to be upgraded.	<i>No associated photographs</i>	<i>No associated photographs</i>
F12	NN 09004 20397	Water crossing on tributary to the Cladich river. The crossing sits on existing access track to be upgraded. The crossing sits 147.69m east of compound X2 . The land is characterised by heavy vegetation upstream and downstream of the existing water crossing.		


ID	NGR	Description	Upstream	Downstream
				
Windfarm Access (W)				
W1	NN 03618 13568	Water crossing sits on Allt na h-Airigh. The crossing is located on the new wind farm access track.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W2	NN 03955 13334	Water crossing on tributary to Allt Blarghour. The crossing sits on the new wind farm access track.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W3	NN 03979 13269	Water crossing on tributary to Allt Blarghour. The crossing sits on the new wind farm access track, 68.69 m east of crossing point 42.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W4	NN 04007 13010	Water crossing on tributary to Allt Blarghour. The crossing sits on the new wind farm access track.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W5	NN 04717 12573	The water crossing sits on the new wind farm access track.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>




ID	NGR	Description	Upstream	Downstream
		The crossing sits on a tributary of Alltan Airigh Mhic Choinnich and Errallich water.		
W6	NN 04762 12574	The water crossing sits on the new wind farm access track. The crossing sits on a tributary of Alltan Airigh Mhic Choinnich and Errallich water.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W7	NN 04966 12502	The water crossing sits on the new wind farm access track. The crossing sits on a tributary of Alltan Airigh Mhic Choinnich and Errallich water.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W8	NN 05030 12437	The water crossing sits on the new wind farm access track. The crossing sits on a tributary of Alltan Airigh Mhic Choinnich and Errallich water.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W9	NN 05083 12359	The water crossing sits on the new wind farm access track. The crossing sits on a tributary of Alltan Airigh Mhic Choinnich and Errallich water.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W10	NN 05727 12027	Water crossing on direct tributary to Errallich water. The crossing sits on the new wind farm access track.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W11	NN 06053 12070	Water crossing on direct tributary to Errallich water.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>



ID	NGR	Description	Upstream	Downstream
		The crossing sits on the new wind farm access track.		
W12	NN 06796 12417	Water crossing on the same watercourse as crossing W13. The watercourse is a direct tributary to Allt Criche. The crossing sits on the new wind farm access track.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W13	NN 07231 12604	Water crossing on the same watercourse as crossing point W12. The watercourse is a direct tributary to Allt Criche. The crossing sits on the new wind farm access track.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W14	NN 07360 12353	Water crossing on a tributary to the Allt Criche. The crossing sits on the new wind farm access track.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W15	NN 07371 12142	Water crossing on the same watercourse as crossing point W16. The watercourse is a tributary to the Errallich Water. The crossing sits on the new wind farm access track.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
W16	NN 07584 12022	Water crossing on the same watercourse as point W15. The watercourse is a tributary to the Errallich Water.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>

ID	NGR	Description	Upstream	Downstream
		The crossing sits on the new wind farm access track.		
W17	NN 08731 12421	Water crossing sits on the Allt Criche (direct tributary to the Erallich Water). The crossing is located on the new wind farm access track.	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>

Castle Access (C)

C1	NN 08894 09731	Existing crossing of unnamed watercourse along forestry track between A819 and Garden Cottage at River Aray		<i>No Associated Photographs</i>
C2	NN 09165 09860	Existing water crossing (bridge) over the river Aray (direct tributary to Loch Fyne) on Douglas Muir Drive. The crossing sits on the existing access track to be upgraded.		

ID	NGR	Description	Upstream	Downstream
				
C3	NN 09273 09887	<p>Water crossing on unnamed watercourse, 112m east of crossing point C4.</p> <p>The water crossing sits on the existing access track.</p> <p>The surrounding area of the watercourse is highly vegetated.</p>		
C4	NN 10072 09705	<p>Existing water crossing on direct tributary to Loch Fyne.</p> <p>The crossing is located on the existing access track, 292 m north of the A83.</p>	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>
Inverary Access (IN)				
IN1	NN 08734 08271	<p>Water crossing on unnamed water course located on the Upper Avenue Road.</p> <p>The crossing sits 155.47 m southwest of temporary compound TC21.</p>	<i>No Associated Photographs</i>	<i>No Associated Photographs</i>

ID	NGR	Description	Upstream	Downstream
IN2	NN 08629 08097	<p>Existing water crossing on the Crom Allt watercourse located on the Upper Avenue Road.</p> <p>The water crossing sits on the existing access road to be upgraded.</p>	<p><i>No Associated Photographs</i></p>	<p><i>No Associated Photographs</i></p>
IN3	NN 08344 07651	<p>Water crossing on the watercourse Crom Allt. It is located on the Upper Avenue Road above the Inveraray Golf Club.</p> <p>Upstream of the water crossing is characterised by a rocky weathered waterbed and a large, corrugated pipe culvert to the left of the watercourse.</p>		
IN4	NN 08352 07468	<p>Existing water crossing on a tributary to the Crom Allt. It is located on the Upper Avenue Road north of the Inveraray Golf Club.</p> <p>It sits 288.90 m away from the temporary compound TC22.</p>	<p><i>No Associated Photographs</i></p>	<p><i>No Associated Photographs</i></p>