

CLASHINDARROCH II

WIND FARM

Borrow Pit Assessment

Prepared for: Vattenfall Wind Power Ltd

Technical Appendix 11.3



BASIS OF REPORT

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1 INTRODUCTION


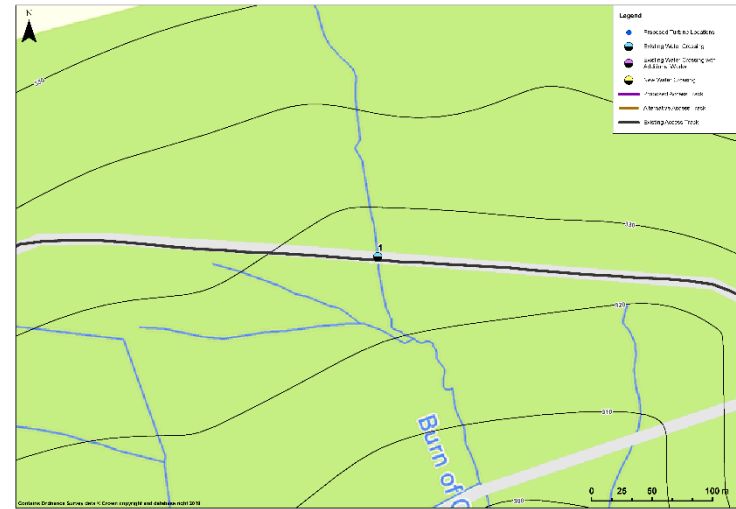


This Technical Appendix presents information with regard to existing and proposed new watercourse crossings.


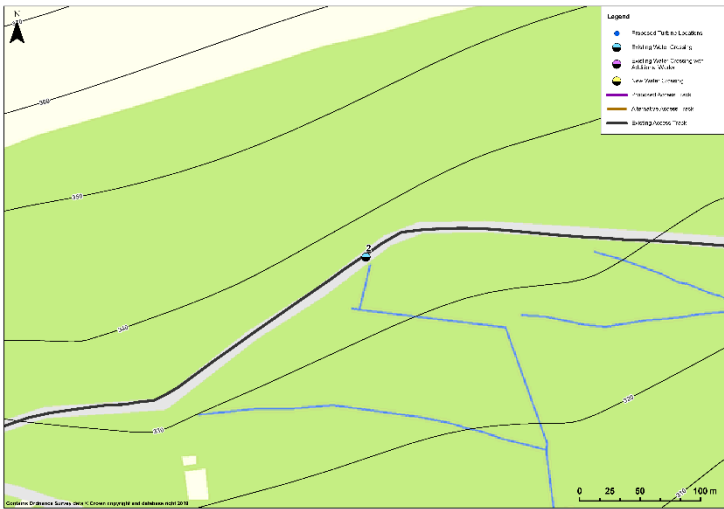


It has been confirmed that:


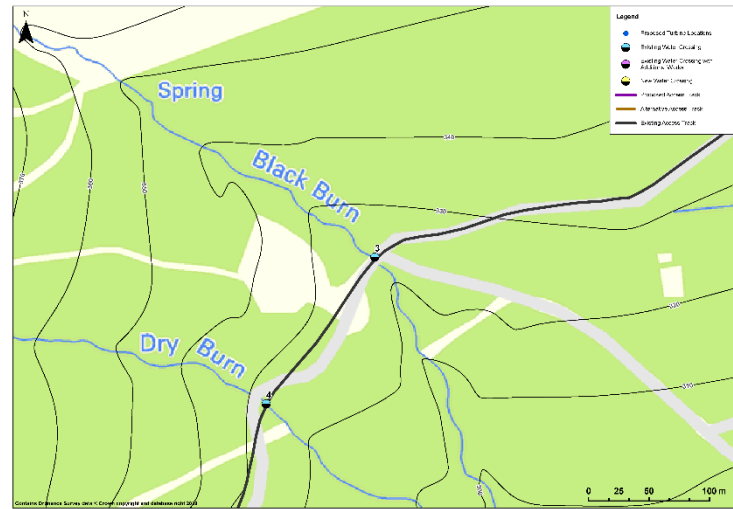


- two new watercourse crossings are required;
- four existing crossings require upgrade works; and
- nine existing watercourse crossings can be used and do not required upgrading.


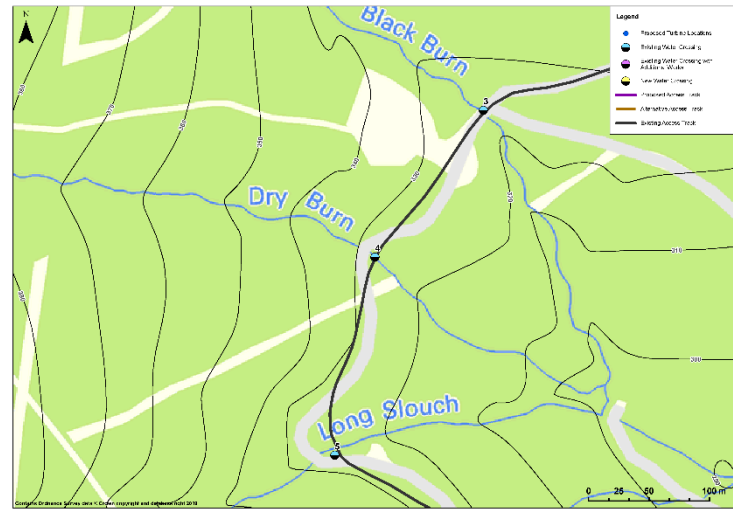


The audit was undertaken by and experienced SLR Hydrologist on 26th July 2017 and 30th April 2019.


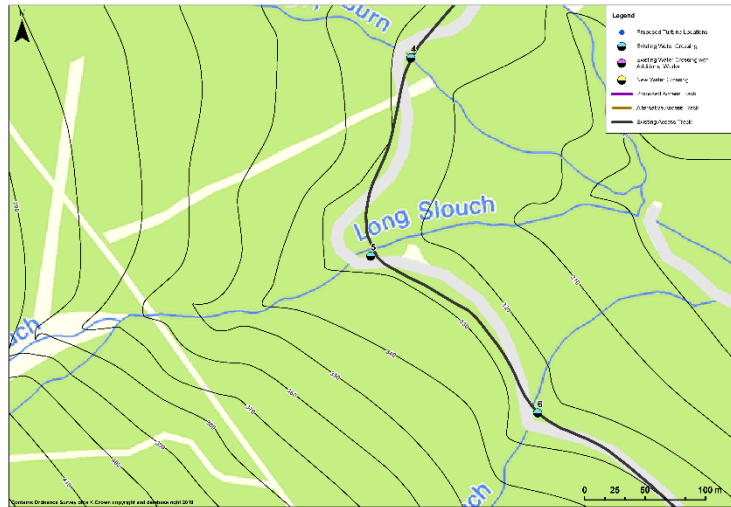


The location of the watercourse crossings are also shown on Figure 11.2.


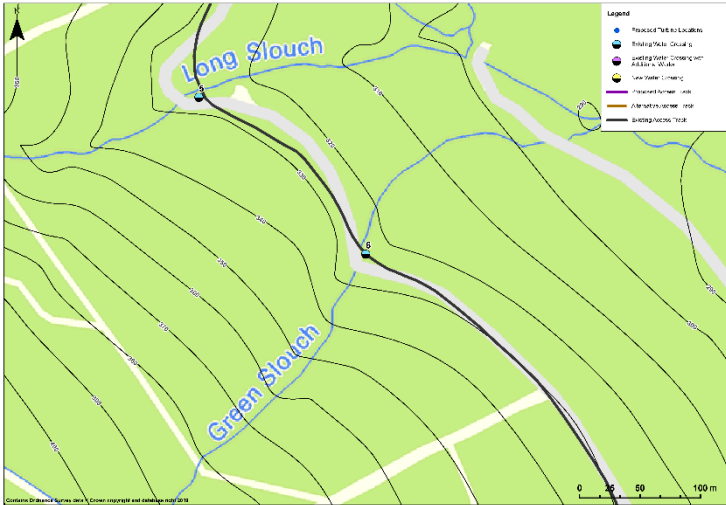


Watercourse Crossing Details	Photography	Location
<p>Watercourse Crossing 1 Existing</p> <p>NGR: NJ 46024 36073</p> <p>Watercourse: Burn of Corshalloch</p> <p>Notes: 0.6 m diameter plastic circular culvert, no flow noted</p>	<p style="text-align: center;">Crossing</p> 	
	<p style="text-align: center;">Culvert Entrance</p>  <p style="text-align: center;">Culvert Exit</p> 	


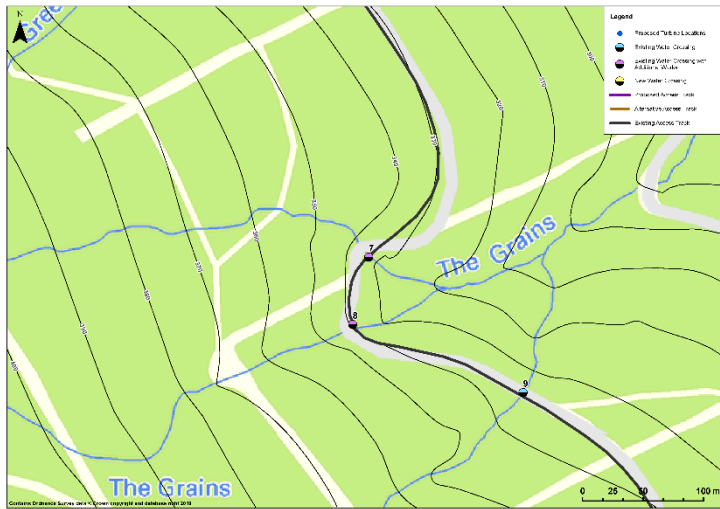


Watercourse Crossing Details	Photography		Location
Watercourse Crossing 2 Existing NGR: NJ 45698 36063 Watercourse: Unnamed Tributary of Burn of Corshalloch Notes: 0.6 m diameter plastic circular culvert, negligible flow from natural catchment, majority of inflow from track drainage.	Upstream Catchment 		
	Culvert Entrance 		
	Culvert Exit 		




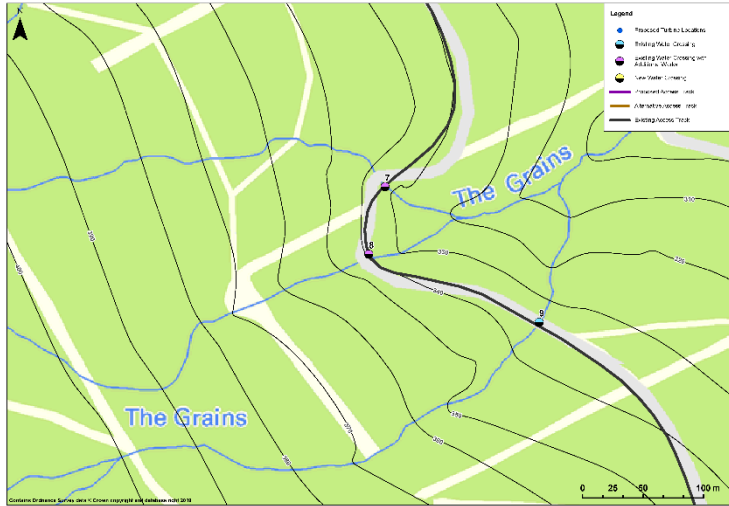
Watercourse Crossing Details	Photography		Location
<p>Watercourse Crossing 3 Existing</p> <p>NGR: NJ 45311 35895</p> <p>Watercourse: Black Burn</p> <p>Notes: 1.2 m diameter plastic circular culvert with slight warping under track.</p>	<p>Crossing</p> 		
	<p>Culvert Entrance</p> 		<p>Culvert Exit</p> 




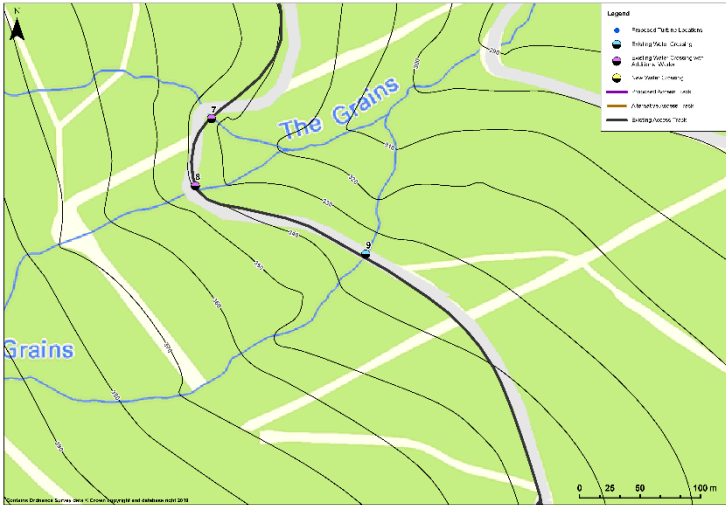
Watercourse Crossing Details	Photography		Location
<p>Watercourse Crossing 4 Existing</p> <p>NGR: NJ 45221 35773</p> <p>Watercourse: Dry Burn</p> <p>Notes: 0.6 m diameter plastic circular culvert upstream discharging to a 0.9 m diameter plastic circular culvert downstream, lots of growth at entrance.</p>	<p>Crossing</p> 		
	<p>Culvert Entrance</p> 	<p>Culvert Exit</p> 	




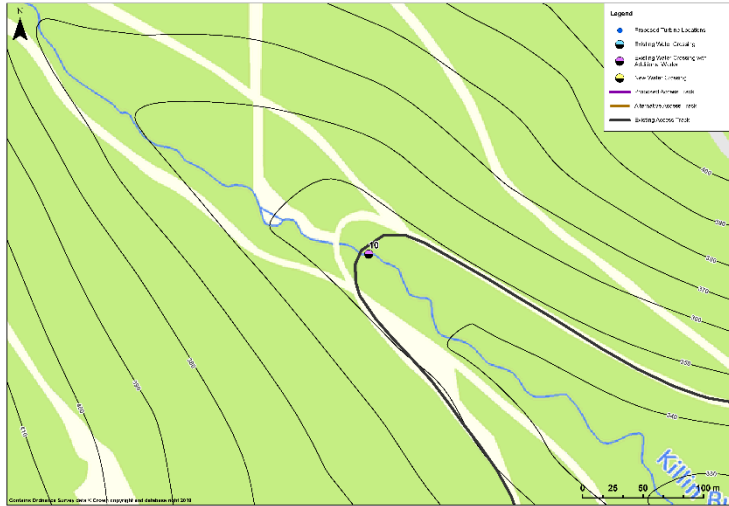
Watercourse Crossing Details	Photography		Location
<p>Watercourse Crossing 5 Existing</p> <p>NGR: NJ 45188 35609</p> <p>Watercourse: Long Slouch</p> <p>Notes: 0.9 m diameter plastic circular culvert, old culvert immediately upstream.</p>	<p>Crossing</p> 		
	<p>Culvert Entrance</p> 		<p>Culvert Exit</p> 




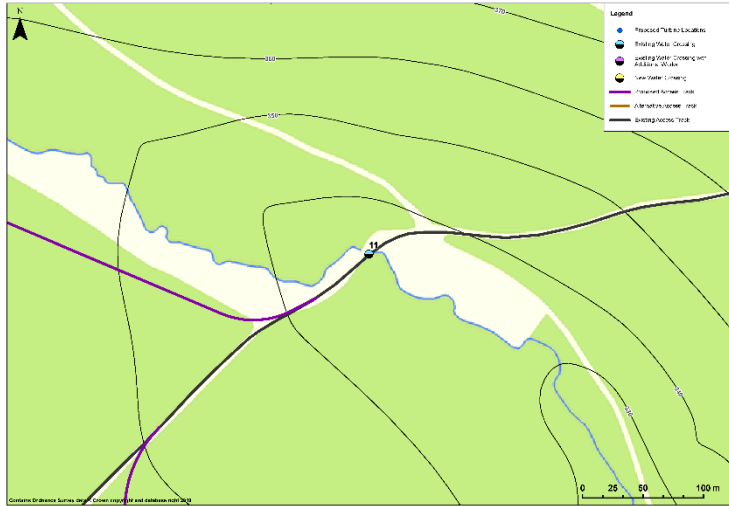
Watercourse Crossing Details	Photography		Location
<p>Watercourse Crossing 6 Existing</p> <p>NGR: NJ 45326 35480</p> <p>Watercourse: Green Slouch</p> <p>Notes: 0.8 m diameter plastic circular culvert, no flow observed, debris build up at culvert exit.</p>	<p style="text-align: center;">Crossing</p> 		
	<p style="text-align: center;">Culvert Entrance</p> 		<p style="text-align: center;">Culvert Exit</p> 

Watercourse Crossing Details	Photography		Location
<p>Watercourse Crossing 7 Existing requiring upgrade</p> <p>NGR: NJ 45486 35147</p> <p>Watercourse: Headwater of The Grains</p> <p>Notes: 0.6 m diameter plastic circular culvert, no flow observed.</p>	<p style="text-align: center;">Crossing</p> 		
	<p style="text-align: center;">Culvert Entrance</p> 	<p style="text-align: center;">Culvert Exit</p> 	


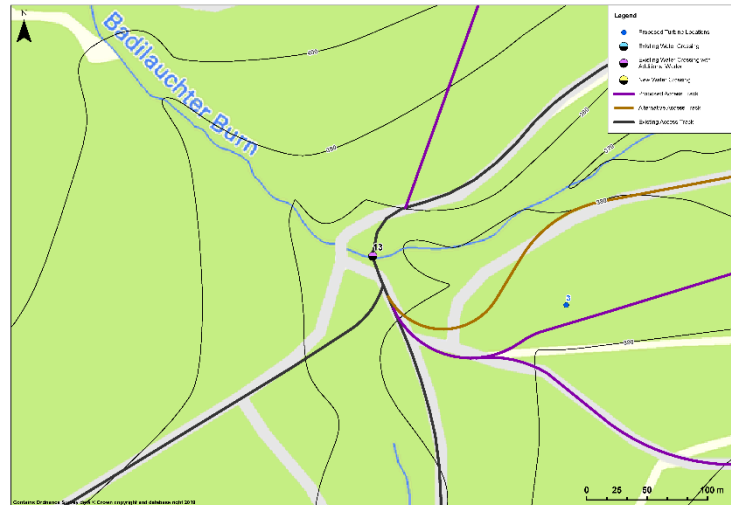


Watercourse Crossing Details	Photography	Location
<p>Watercourse Crossing 8 Existing requiring upgrade</p> <p>NGR: NJ 45473 35091</p> <p>Watercourse: Headwater of The Grains</p> <p>Notes: 0.6 m diameter plastic circular culvert, roadside drainage is directed vial two pipes to the culvert discharge location</p>	<div data-bbox="622 331 1234 707"> <p>Crossing</p>  </div> <div data-bbox="611 863 913 1069"> <p>Culvert Entrance</p>  </div> <div data-bbox="943 863 1245 1069"> <p>Culvert Exit</p>  </div>	




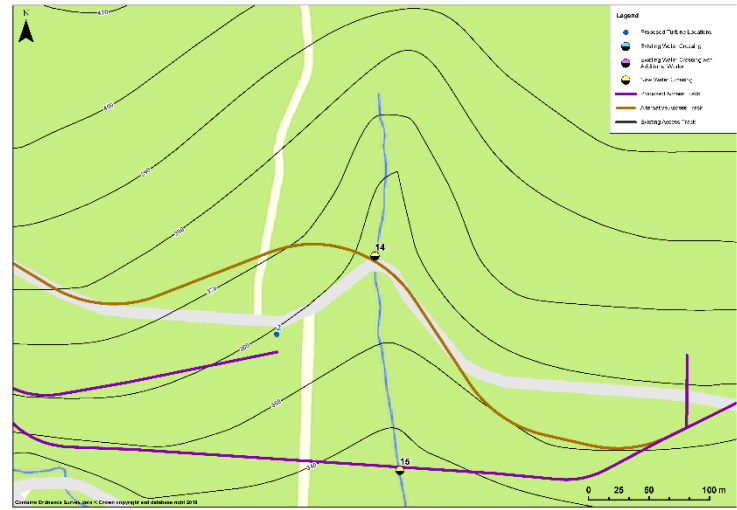
Watercourse Crossing Details	Photography	Location
<p>Watercourse Crossing 9 Existing</p> <p>NGR: NJ 45614 35035</p> <p>Watercourse: Headwater of The Grains</p> <p>Notes: 0.9 m diameter plastic circular culvert, no flow noted.</p>	<p style="text-align: center;">Crossing</p>  <p style="text-align: center;">Culvert Entrance</p>  <p style="text-align: center;">Culvert Exit</p> 	


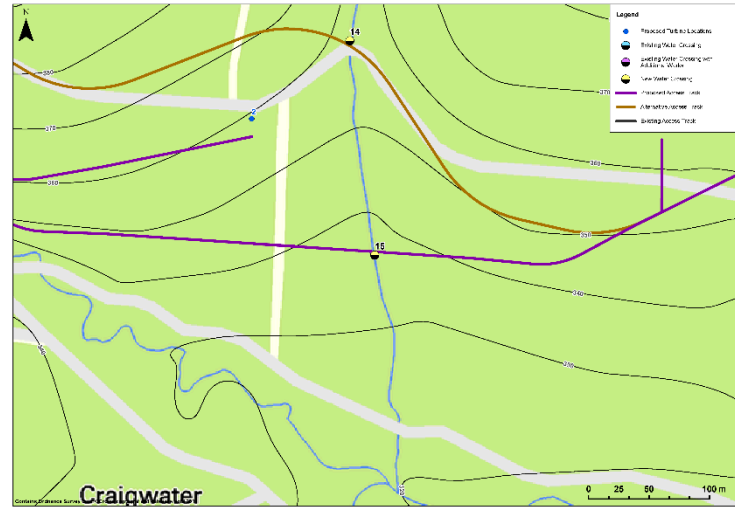
Watercourse Crossing Details	Photography	Location
<p>Watercourse Crossing 10 Existing requiring upgrade</p> <p>NGR: NJ 45175 34317</p> <p>Watercourse: Killin Burn</p> <p>Notes: 1.2 m diameter plastic circular culvert, older culvert immediately upstream.</p>	<div data-bbox="622 331 1234 708"> <p>Crossing</p>  </div> <div data-bbox="607 740 927 1187"> <p>Culvert Entrance</p>  </div> <div data-bbox="938 740 1249 1187"> <p>Culvert Exit</p>  </div>	

Watercourse Crossing Details	Photography	Location
<p>Watercourse Crossing 11 Existing</p> <p>NGR: NJ 44647 33666</p> <p>Watercourse: Burn of Bedlaithen</p> <p>Notes: 1.2 m diameter plastic circular culvert, an older crossing exists immediately upstream.</p>	<div data-bbox="622 331 1234 707"> <p>Crossing</p>  </div> <div data-bbox="611 863 913 1069"> <p>Culvert Entrance</p>  </div> <div data-bbox="943 863 1245 1069"> <p>Culvert Exit</p>  </div>	

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Watercourse Crossing Details	Photography		Location
<p>Watercourse Crossing 13 Existing requiring upgrade</p> <p>NGR: NJ 43255 32623</p> <p>Watercourse: Badilauchter Burn</p> <p>Notes: 1.2 m diameter plastic circular culvert, an older culvert exists immediately upstream.</p>	<p style="text-align: center;">Crossing</p> 		
	<p style="text-align: center;">Culvert Entrance</p> 		<p style="text-align: center;">Culvert Exit</p> 

Watercourse Crossing Details	Photography	Location
<p>Watercourse Crossing 14 New</p> <p>NGR: NJ 43721 31770</p> <p>Watercourse: Headwater of Ealaiche Burn</p> <p>Notes: 0.4 m wide very shallow minor watercourse with clean fine to medium gravel base.</p>	<p style="text-align: center;">Crossing</p>  <p style="text-align: center;">Upstream</p>  <p style="text-align: center;">Downstream</p> 	

Watercourse Crossing Details	Photography	Location
<p>Watercourse Crossing 15 New</p> <p>NGR: NJ 43742 31592</p> <p>Watercourse: Headwater of Ealaiche Burn</p> <p>Notes: 0.3 m wide shallow watercourse with clean medium gravel base.</p>	<p>Upstream</p> 	
	<p>Downstream</p> 