



# Technical Appendix 8.5: Schedule of Watercourse Crossings

## Breezy Hill Wind Farm

### Breezy Hill Energy Ltd

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## Basis of Report

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## 1.0 Introduction

SLR Consulting Ltd (SLR) was commissioned by Brockwell Energy Ltd (the ‘Applicant’) to undertake a schedule of proposed new and existing watercourse crossings which will be upgraded as part of Breezy Hill Energy Project (the Proposed Development).

This report presents photographs and dimensions for each crossing point. The report also details the likely form of the track crossing solution (e.g., culvert, arch culvert, or bridge). The final design of each crossing solution would be agreed with Scottish Environment Protection Agency (SEPA) prior to construction as part of the detailed site design.

A survey of the proposed watercourse crossings was undertaken in December 2024 by experienced SLR hydrologists.

The location of the watercourse crossings is shown in **Figure 8.5.1**.

### 1.1 Relevant Legislation

The Water Framework Directive (2000/60/EC) (WFD) has been transposed into Scottish legislation as the Water Environment and Water Services (Scotland) Act 2003 (or WEWS) and has given Scottish ministers powers to introduce regulatory controls over activities in order to protect and improve Scotland’s water environment. The water environment includes wetlands, rivers, lochs, transitional waters (estuaries), coastal waters and groundwater. These regulatory controls, known as the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) came into force in 2011 and have since been amended in 2013, 2017, and 2021.

With respect to watercourse crossings, CAR requires that all engineering works in inland surface waters and wetlands are subject to authorisation and allow for proportionate risk-based regulation which is outlined in the CAR Practical Guide. The authorisation process operates at three levels:



- General Binding Rules (GBR):
  - Minor crossings with no construction on bed or banks.
- Registration:
  - Bridges across rivers and lochs where no part of the structure encroaches on the bed (e.g., no piers or in-channel supports). In addition, the total length of the structures on both banks should not be more than 20 m. This category includes bottomless arch culverts; and
  - Closed culverts used for single-track tracks, footpaths and/or cycle routes, where the affected river is not more than 2 m wide.
- Licence (Simple/Complex):
  - All other bridges, fords or causeways; and
  - This category would include bridges affecting more than 20 m total bank lengths, bridges with in-stream supports or closed culverts for crossings not specified above.

SEPA provide authorisation for watercourse crossings shown on the 1:50,000 scale Ordnance Survey (OS) maps (Landranger Series). All other watercourses are classed as “minor watercourse” and are exempt under CAR.





## 2.0 Watercourse Crossing Details

The locations of new and existing watercourse crossings which may be upgraded as part of the Proposed Development are shown on **Figure 8.5.1**. Two new watercourse crossings and 13 existing crossings on tracks which will be upgraded are required to facilitate the Proposed Development, details of which are included below.



Watercourse Crossing ID	WCX01
Watercourse Crossing Details	<b>Grid Reference:</b> E 248771/ N 611763 <b>Status:</b> Existing Crossing Type: Closed culvert Crossing Size: 1.0 m diameter Watercourse Width: 2.0 m Watercourse Depth: 0.7 m Notes: None
Photograph Culvert Entrance	
Photograph Looking Downstream	




Watercourse Crossing ID	WCX02
Watercourse Crossing Details	<p><b>Grid Reference:</b> E 248118 / N 611530</p> <p><b>Status:</b> Existing</p> <p>Crossing Type: Closed culvert</p> <p>Crossing Size: 0.4 m diameter</p> <p>Watercourse Width: 0.8 m</p> <p>Watercourse Depth: 0.4 m</p> <p><b>Notes:</b> Artificial drain connecting two artificial surface waterbodies.</p>
Photograph Looking Upstream	 <p>A photograph showing a narrow, shallow watercourse flowing through a dark, muddy, and rocky landscape. The water is murky brown. The surrounding area is flat with some sparse vegetation and a cloudy sky in the background.</p>
Photograph Culvert Exit Looking Downstream	 <p>A photograph showing the exit of a culvert into a watercourse. The culvert is made of black corrugated metal and is surrounded by rocks and tall, dry, brown grass. The water is flowing away from the culvert exit towards a larger body of water in the background.</p>







Watercourse Crossing ID	WCX03
Watercourse Crossing Details	<p><b>Grid Reference:</b> E 247355 / N 611658</p> <p><b>Status:</b> Existing</p> <p>Crossing Type: Closed culvert</p> <p>Crossing Size: 0.4 m diameter</p> <p>Watercourse Width: 0.6 m</p> <p>Watercourse Depth: 0.1 m</p> <p>Notes: None.</p>
Photograph Culvert Entrance	
Photograph Looking Downstream	





Watercourse Crossing ID	WCX04
Watercourse Crossing Details	<b>Grid Reference:</b> E 247417 / N 611705 <b>Status:</b> New <b>Watercourse Width:</b> 1 m <b>Watercourse Depth:</b> 0.7 m <b>Notes:</b> Watercourse located in forestry ride. Water level noted to be medium, with high flow, and orange colour.
Photograph Looking Upstream	
Photograph Looking Downstream	
Potential Crossing Type Likely Required CAR Authorisation	Culvert Registration







Watercourse Crossing ID	WCX05
Watercourse Crossing Details	<p><b>Grid Reference:</b> E 247442 / N 611920</p> <p><b>Status:</b> Existing</p> <p>Crossing Type: Closed culvert</p> <p>Crossing Size: 0.2 m diameter</p> <p>Watercourse Width: 0.2 m</p> <p>Watercourse Depth: 0.1 m</p> <p><b>Notes:</b> Watercourse noted to be artificially modified upslope by forestry.</p>
Photograph Looking Upstream	 <p>A photograph showing a narrow watercourse flowing through a field of tall, dry grass. The water is dark and reflects the sky. In the background, a line of trees is visible under a bright sky.</p>
Photograph Culvert Exit	 <p>A close-up photograph of the culvert exit. The culvert is a dark, circular opening in the ground, surrounded by tall, dry grass and some green vegetation. The water is dark and still.</p>





Watercourse Crossing ID	WCX06
Watercourse Crossing Details	<b>Grid Reference:</b> E 247501 / N 612011 <b>Status:</b> New <b>Watercourse Width:</b> 0.4 m <b>Watercourse Depth:</b> 0.4 m <b>Notes:</b> Watercourse monitored approx. 20 m upstream during survey.
Photograph Looking Upstream	
Photograph Looking Downstream	





Watercourse Crossing ID	WCX07
Watercourse Crossing Details	<p><b>Grid Reference:</b> E 247284 / N 611695</p> <p><b>Status:</b> Existing</p> <p><b>Notes:</b> Culvert present was hidden due to collapsed gabion stone and overgrown vegetation.</p>
Photograph Looking Upstream	 <p>A photograph showing a steep, rocky bank with sparse vegetation and a fallen log, likely representing the upstream view of the watercourse crossing.</p>
Photograph Looking Downstream	 <p>A photograph showing a rocky, debris-filled area in the foreground, with a forested hillside in the background, likely representing the downstream view of the watercourse crossing.</p>







Watercourse Crossing ID	WCX08
Watercourse Crossing Details	<b>Grid Reference:</b> E 247188 / N 611730 <b>Status:</b> Existing Crossing Type: Closed culvert Crossing Size: 0.3 m diameter Watercourse Width: 0.35 m Watercourse Depth: 0.1 m <b>Notes:</b> Culvert hidden by vegetation.
Photograph Culvert Entrance	
Photograph Looking Downstream	





Watercourse Crossing ID	WCX09
Watercourse Crossing Details	<p><b>Grid Reference:</b> E 248719 / N 612252</p> <p><b>Status:</b> Existing</p> <p>Crossing Type: Closed culvert</p> <p>Crossing Size: 0.3 m diameter</p> <p>Watercourse Width: 0.5 m</p> <p>Watercourse Depth: 0.3 m</p> <p><b>Notes:</b> Culvert is utilised for trackside drainage.</p>
Photograph Looking Upstream	 A photograph showing a narrow, shallow watercourse flowing through tall, dry grass. The water is murky and brown. In the background, a paved road or track runs alongside the watercourse, and a line of trees is visible on the horizon under a clear sky.
Photograph Culvert Exit	 A photograph showing the exit of a culvert into a grassy field. The culvert opening is a dark, rectangular hole in the ground, surrounded by tall, dry grass. A small, white, fluffy object, possibly a bird's nest or a piece of debris, is visible in the foreground near the culvert exit.







Watercourse Crossing ID	WCX10
Watercourse Crossing Details	<p><b>Grid Reference:</b> E 248582 / N 612488</p> <p><b>Status:</b> Existing</p> <p>Crossing Type: Closed culvert</p> <p>Crossing Size: 0.3 m diameter</p> <p>Watercourse Width: 0.7 m</p> <p>Watercourse Depth: 0.2 m</p> <p>Notes: None.</p>
Photograph Culvert Entrance	
Photograph Looking Downstream	





Watercourse Crossing ID	WCX11
Watercourse Crossing Details	<b>Grid Reference:</b> E 248577 / N 612505 <b>Status:</b> Existing Crossing Type: Closed culvert Crossing Size: 0.2 m diameter Notes: None.
Photograph Looking Upstream	
Photograph Looking Downstream	





Watercourse Crossing ID	WCX12
Watercourse Crossing Details	<b>Grid Reference:</b> E 248288 / N 613229 <b>Status:</b> Existing Crossing Type: Closed culvert Crossing Size: 0.4 m diameter Watercourse Width: 0.5 m Watercourse Depth: 0.2 m Notes: None.
Photograph Looking Upstream	
Photograph Looking Downstream	







Watercourse Crossing ID	WCX13
Watercourse Crossing Details	<b>Grid Reference:</b> E 248231 / N 613530 <b>Status:</b> Existing Crossing Type: Closed culvert Crossing Size: 0.3 m diameter Watercourse Width: 0.8 m Watercourse Depth: 0.05 m Notes: None.
Photograph Looking Upstream	 A photograph showing a gravel road crossing a watercourse. The water is flowing under the road, and the surrounding area is covered with tall grass and some trees in the background.
Photograph Looking Downstream	 A photograph showing a culvert entrance. The culvert is a dark, circular opening in the ground, surrounded by tall grass and some trees. The water is flowing out of the culvert.



Watercourse Crossing ID	WCX14
Watercourse Crossing Details	<p><b>Grid Reference:</b> E 248538 / N 613467</p> <p><b>Status:</b> Existing</p> <p>Crossing Type: Closed culvert</p> <p>Crossing Size: 0.3 m diameter</p> <p>Watercourse Width: 0.6 m</p> <p>Watercourse Depth: 0.09 m</p> <p><b>Notes:</b> Culvert covered by vegetation and water pooling upstream.</p>
Photograph Looking Upstream	 A photograph showing a watercourse flowing through a wooded area. The water is dark and appears to be pooling or moving slowly. The banks are covered in dense vegetation, including tall grasses and shrubs. The background shows more trees and a slightly elevated area.
Photograph Looking Downstream	 A photograph showing a watercourse flowing through a wooded area. The water is dark and appears to be pooling or moving slowly. The banks are covered in dense vegetation, including tall grasses and shrubs. The background shows more trees and a slightly elevated area.





Watercourse Crossing ID	WCX15
Watercourse Crossing Details	<b>Grid Reference:</b> E 248629 / N 613363 <b>Status:</b> Existing Crossing Type: Closed culvert Crossing Size: 0.5 m diameter Watercourse Width: 0.3 m Watercourse Depth: 0.2 m Notes: None.
Photograph Looking Upstream	 <p>A photograph showing a grassy, slightly elevated area with some bare, brownish vegetation in the foreground. In the background, there is a dense line of evergreen trees under an overcast sky.</p>
Photograph Looking Downstream	 <p>A photograph showing a grassy area with some bare, brownish vegetation in the foreground. In the background, there is a dense line of evergreen trees under an overcast sky.</p>





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