



Technical Appendix 8.4: Schedule of Watercourse Crossings

Dalfad Wind Farm

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Basis of Report

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Acronyms and Abbreviations

CAR	Water Environment (Controlled Activities) (Scotland) Regulations 2011
CEMP	Construction Environmental Management Plan
EAC	East Ayrshire Council
EASR	Environmental Authorisations (Scotland) Regulations 2018
EIA	Environmental Impact Assessment
GBR	General Binding Rules
OEMP	Operational Environmental Management Plan
SEPA	Scottish Environment Protection Agency
WEWS	Water Environment and Water Services (Scotland) Act 2003
WFD	Water Framework Directive (2000/60/EC)



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1.0 Introduction

This Technical Appendix presents a schedule of watercourse crossings which will be required to facilitate construction and operation of Dalfad Wind Farm (the Proposed Development).

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

The report also presents photographs of the mapped watercourses near the proposed turbine T4.

A survey of the proposed watercourse crossings was undertaken in April 2026 by experienced SLR hydrologists.

The location of the watercourse crossings is shown in **Figure 8.2** of the Environmental Impact Assessment (EIA) Report and details of the hydrological setting of the Proposed Development are outlined in **Chapter 8: Geology, Hydrology, Hydrogeology and Peat** of the EIA Report.

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, previously 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. In November 2025, the Environmental Authorisations Scotland Regulations (EASR)¹ was extended to include water activities and replaces the CAR regulatory regime.

With respect to watercourse crossings, the EASR outlines that engineering activities (except culverting for land-gain, dredging and permanent diversions or realignments) on minor watercourses do not require an authorisation². A minor watercourse is one that is not shown on the 1:50,000 scale Ordnance Survey maps (Landranger series).

The application of EASR for watercourse crossings³ specifies 5 potential approaches:

- General Binding Rules (GBR6):
 - installation crossing a watercourse or loch where:
 - a crossing where no part of the crossing is on the bed or banks of a river, burn, ditch or loch.
- General Binding Rules (GBR7):

¹ Scottish Government (2018) Environmental Authorisations (Scotland) Regulations (EASR), available online at <https://www.legislation.gov.uk/ssi/2018/219/contents>

² Details on activities that do not require an authorisation, available online at <https://beta.sepa.scot/regulation/authorisations-and-compliance/easr-authorisations/activities-that-do-not-require-an-authorisation/#anchor-wateractivities>

³ Details on activities that involve the installation of a crossing to a watercourse and the authorisation required, available online at <https://beta.sepa.scot/regulation/authorisations-and-compliance/easr-authorisations/water-activities/engineering/crossings/>



- installation of temporary crossings, structures or works where:
 - temporary crossings and temporary structures in a river, burn, ditch or loch; or
 - any temporary works associated with the undertaking of any other activity specified in this GBR or for the purpose of maintaining an existing man-made structure in a river, burn, ditch or loch.
- Registration (EASR-SC-054):
 - installation of a crossing across a watercourse or loch where:
 - a crossing where no part of the crossing is on the bed; and
 - part of the crossing is on the bank, and the total cumulative length of all banks is less than or equal to 50m.
- Registration (EASR-SC-055):
 - installation of a crossing (excluding crossings with piers, causeways and fords) across a watercourse that has a bed width of 2m or less, or a loch where:
 - part of the crossing is on the bed;
 - the total cumulative length of channel affected is less than or equal to 15m; and
 - the total cumulative length of all banks affected is less than or equal to 50m.
- Permit:
 - installation of all other crossings across a watercourse or loch (this includes all fords, causeways and bridges with piers). This includes:
 - installation of a new permit level crossing (those that do not meet the registration or GBR activity thresholds);
 - alteration of an existing permit level crossing which does not meet the maintenance criteria;
 - removal of an existing permit level crossing; and
 - installation or removal of a crossing which cannot comply with GBR or registration standard conditions.



2.0 Watercourse Crossing Details

The Proposed Development has sought to utilise existing tracks and access routes where possible. However, three new watercourse crossings and three existing crossings on tracks which are scheduled to be upgraded are required to facilitate the Proposed Development, details of which are included below.

Watercourse Crossing ID	WCX01
Watercourse Crossing Details	Grid Reference: E 263363 / N 624057 Status: Proposed Watercourse Width: 3.0 m Watercourse Depth: 0.1 m Notes: No flowing water was recorded during the time of the survey.
Photograph Looking Upstream	
Photograph Looking Downstream	
Potential Crossing Type Likely Authorisation	Culvert or bridge Permit



Watercourse Crossing ID	WCX02
Watercourse Crossing Details	Grid Reference: E 262781 / N 623475 Status: Existing Crossing Type: Closed circular culvert Crossing Size: 2.5 m diameter Watercourse Width: 5.0 m Watercourse Depth: 0.3 m Notes: None.
Photograph Looking Upstream	
Photograph Looking at Crossing Exit from Downstream	



Watercourse Crossing ID	WCX03
Watercourse Crossing Details	Grid Reference: E 262926 / N 622960 Status: Existing Crossing Type: Closed circular culvert Crossing Size: 900 mm Watercourse Width: 1.0 m Watercourse Depth: 0.1 m Notes: Manmade channel which is approximately 10 m wide and 5 m high. Vegetation and debris present in the channel during the time of the survey.
Photograph Looking at Crossing Entrance from Upstream	
Photograph Looking at Crossing Exit from Downstream	



Watercourse Crossing ID	WCX04
Watercourse Crossing Details	Grid Reference: E 262720 / N 621300 Status: Existing Crossing Type: Closed circular culvert Crossing Size: 300 mm Watercourse Width: 0.3 m Watercourse Depth: 0.1 m Notes: The channel is a manmade drain. There is a heavily occluded concrete culvert present under the grass track. The watercourse channel is fully vegetated, with an approximate width of 2m.
Photograph Looking Upstream	 A photograph showing a grassy field with a wire fence in the foreground. In the background, there are trees and a clear blue sky.
Photograph Looking Downstream	 A photograph showing a grassy field with a wire fence in the foreground. In the background, there are trees and a clear blue sky.



Watercourse Crossing ID	WCX05
Watercourse Crossing Details	Grid Reference: E 263198 / N 621040 Status: Proposed Watercourse Width: 0.4 m Watercourse Depth: 0.2 m Notes: Gravel substrate, with vegetated bank overgrowing the channel.
Photograph Looking Upstream	
Photograph Looking Downstream	Looking 
Potential Crossing Type Likely Authorisation	Culvert Registration



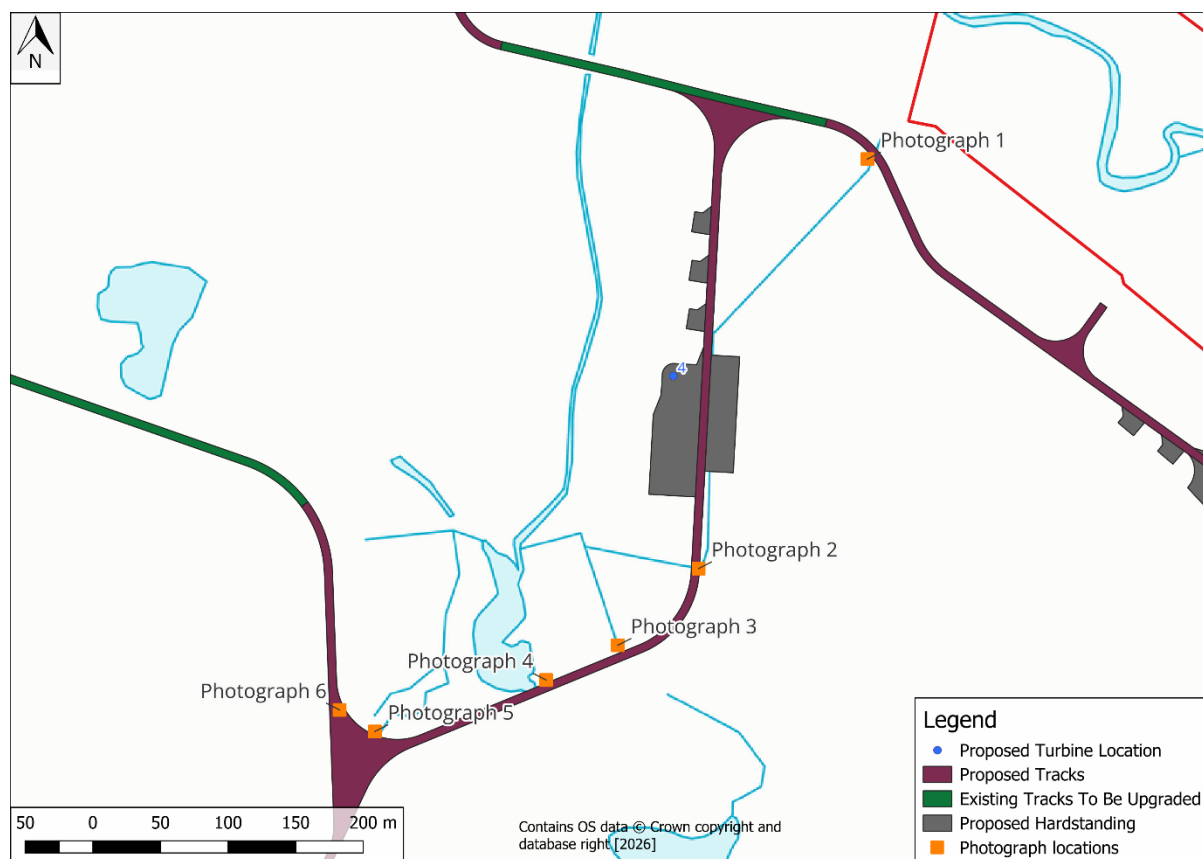
Watercourse Crossing ID	WCX06
Watercourse Crossing Details	Grid Reference: E 262970 / N 620105 Status: Proposed Watercourse Width: 0.4 m Watercourse Depth: 0.2 m Notes: Pebble and cobble substrate. The watercourse is located within a wider floodplain with evidence of flotsam on the wider floodplain banks.
Photograph Looking Upstream	
Photograph Looking Downstream	
Potential Crossing Type Likely Authorisation	Culvert Registration



3.0 Photographs near Turbine T4

As discussed in **Chapter 8** of the EIA Report (and witnessed in the photographs in Section 2.0 of this report) the local hydrology within the Site has been altered by previous mining activities. As part of the hydrological walkover, the area around turbine T4 was reviewed to determine if the mapped watercourses exists as shown on the 1:10,000 OS mapping. An extract of the OS mapping and the photograph locations are shown on **Plate 1** and details are included below.

Plate 1: Photograph Locations



Photograph ID	Photograph 1
Mapped watercourse follows fence line. No evidence of any watercourse.	



Photograph ID	Photograph 2
Mapped watercourse follows fence line. No evidence of any watercourse.	

Photograph ID	Photograph 3
Large embankment noted to the south of the settlement pond. No crossing under the embankment found and no evidence of any watercourse in this area.	



Photograph ID	Photograph 4
Large embankment noted to the south of the settlement pond. No crossing under the embankment found and no evidence of any watercourse in this area.	

Photograph ID	Photograph 5
Area comprises an existing track and made ground. No crossing under the track found and no evidence of any watercourse in this area.	



Photograph ID	Photograph 6
Area comprises an existing track and made ground. No crossing under the track found and no evidence of any watercourse in this area.	

In summary, no evidence of a watercourse was found close to or within 50 m of turbine T4 and associated infrastructure.



4.0 Summary and Recommendations

Three new watercourse crossings and three existing crossings on existing tracks which will be upgraded as part of the Proposed Development are required to facilitate the Proposed Development, the locations of which are shown on **Figure 8.2** of the EIA Report.

As stated in EIA Report **Chapter 8** new watercourse crossings would be designed to pass the 200-yr flood event plus an allowance for climate change, and their design and construction details would be agreed with SEPA and East Ayrshire Council as part of the final CEMP and as required by the EASR.

Good practice methods which will be adopted during construction and operation of the Proposed Development are outlined in **Chapter 8** of the EIA Report.

The area around turbine T4 was reviewed as part of the hydrological walkover and it is noted that the hydrology in this area has been altered by previous mining activities. It has been confirmed that the mapped watercourses in this area are not present and therefore a 50m buffer to these does not apply.





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