Glandŵr Cymru
Canal & River Trust in Wales

Project Habitats Regulations Assessment

PONTCYSYLLTE AQUEDUCT SAFETY IMPROVEMENTS

Version Control Table

Version	Purpose/Change	Author	Date
1.0	Draft, for review	Jenny Spelling, Ecologist, Canal & River Trust	11/03/2026
1.1	Final, for submission	Jenny Spelling, Ecologist, Canal & River Trust	17/03/2026

Stage 1 – Screening: Does the project have a likely significant effect on any European/Ramsar site either alone or in combination with any other plan or project?

Name of proposed project	Pontcysyllte Aqueduct Safety Improvements
Site address/location	Pontcysyllte Aqueduct, Trevor, Wrexham, LL20 7TT SJ 2701 4182 and SJ 2706 4214 Please refer to Figure 1 Project Site Location for further information.
Brief Description	Works to improve safety and site management of Pontcysyllte Aqueduct, including: 1. Installation of fencing and signage at the northern approach, such that it channels visitors towards safety signage, and slows bicycles. 2. Installation of CCTV cameras and poles at both the northern and southern end of the aqueduct, to deter misuse of the aqueduct and allow review of footage should misuse occur, (this would not be 'live' monitored). 3. Installation of chicane fencing and signage at the southern approaches to channel visitors towards the safety signage and slow bicycles.
Generic pathways of impact for the project	<u>Construction phase</u> • Reduction in water quality through pollution of watercourse from chemicals/other potentially polluting materials. • Direct harm and/or disturbance to feature during construction operations. <u>Operational phase</u> • None anticipated.
Sites affected by project	A search for sites designated under the EU Habitats Directive (Council Directive 92/43/EEC), the Wild Birds Directive (Directive 79/409/EEC) or the Ramsar Convention was carried out, within a 1km radius around the project site. A 1km radius was selected based on the likely zone of influence of the proposed works, which is limited to the towpath on the northern and southern approaches to the aqueduct. The search comprised the use of the MAGIC (Multi-Agency Geographic Information for the Countryside) website. The River Dee is situated 0.08km to the south (at its closest point) and is designated as River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid (Wales) Special Area of Conservation (SAC). It is also designated as Afon Dyfrdwy (River Dee) Site of Special Scientific Interest. Please refer to Figure 1 for the location of the Project Site in relation to nearby designated sites.

	The River Dee and Bala Lake SAC is part of a wider network of connected designated sites, which includes the functionally linked Dee Estuary SAC (Wales)/Ramsar (Wales/England), which includes two of the qualifying features for the River Dee SAC: Sea lamprey *Petromyzon marinus* and River Lamprey *Lampetra fluviatilis*. According to the Core Management Plan for the River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid SAC[1], these two qualifying features do not occur in the SAC unit within which the project is located. There are no works proposed within the river channel or connecting habitat that would affect these two qualifying features and the Dee Estuary SAC is situated over 75km downstream of the project. Therefore, the Dee Estuary SAC is screened out from this assessment. The Dee Estuary SPA (Wales/England) was initially identified during Screening as it is hydrologically connected to the River Dee. However, it is situated over 75km downstream of the project and does not share the same features of interest as the Dee SAC, as it is designated for its assemblage of important populations of waterfowl. The Dee Estuary Ramsar (Wales/England) is also hydrologically connected to the Dee SAC. It is designated for Annex 1 Habitats including extensive areas of intertidal sand and mudflats and saltmarsh, as well as for populations of natterjack toad *Bufo calamita* and waterbirds. Therefore, given the nature of the designated features, which are not functionally linked to the River Dee SAC, and their distance downstream from the proposals, both the Dee Estuary SPA and Ramsar site can be immediately screened out.
Qualifying Features: River Dee & Bala Lake/Afon Dyfrdwy a Llyn Tegid (Wales) SAC and Afon Dyfrdwy (River Dee) SSSI	Primary Reasons for overall designation: Feature 1. Watercourses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Feature 2. Atlantic salmon *Salmo salar* Feature 3. Floating water-plantain *Luronium natans* Other Reason Feature 4. Sea lamprey Feature 5. Brook lamprey *Lampetra planeri* Feature 6. River Lamprey Feature 7. Bullhead *Cottus gobio*

[1] (Natural Resources Wales (September 2022) CORE MANAGEMENT PLAN INCLUDING CONSERVATION OBJECTIVES FOR River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid SAC. Available from: https://naturalresources.wales/media/673374/river_dee___bala_lake_32_plan.pdf [accessed: 15/05/2025]

	Feature 8. European otter *Lutra lutra* Within the SAC unit 7851 Dee-Ceiriog to Alwen that the site falls within, the following Qualifying Features occur: Feature 1. Watercourses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Feature 2. Atlantic salmon Feature 5. Brook lamprey Feature 7. Bullhead Feature 8. European otter
Ecological surveys & results relevant to European site qualifying features	On 25 June 2025, a survey of the site was carried out by an Ecologist from the Canal & River Trust. No habitat of importance to European protected species was found and no ecologically significant habitats of above site-level value were found.
Is the project directly connected with or necessary to the management of the European site?	No

Special Feature	Conservation Objective	Potential Hazard	Pathway(s) of Impact
Watercourse	Conservation Objective for watercourse: • The ecological status of the water environment should be sufficient to maintain a stable or increasing population of each feature. This will include elements of water quantity and quality, physical habitat and community composition and structure. • Water quality standards for the river Dee follow those in the revised Common Standards Monitoring Guidance for Rivers (JNCC 2016). These are detailed in Appendix 2. There will be no deterioration in water quality, as defined by these standards, other than that temporarily generated by natural variations in water flow or by man-made variations occurring as a result of operating the River Dee flow control regime within its normal operating parameters. • The Dee flow regime should remain within 10% of 'recent actual flow' as described by Bethune (2006).	Reduction in water quality through pollution of watercourse from chemicals/other potentially polluting materials.	There are no waterbodies or watercourses within the Project Site. The nearest waterbody is the Llangollen Canal situated adjacent to the Project Site. The nearest downstream hydrological connection of the canal to the River Dee is at Black Park Weir circa 4km south east of the Project Site, which is connected to the River Dee SAC/SSSI via Afon Bradley, which then travels 2.4 km north east to the River Dee SAC/SSSI. It is possible any pollution events from equipment malfunction (such as a fuel spill) could run off from the towpath into adjacent habitat, such as nearby woodland. However, based on the type of work proposed and equipment to be used, it is unlikely any pollution would be of sufficient quantity to reach the river through adjacent habitats. Integral to the project will be the implementation of standard pollution prevention measures as part of general site good practice to minimise the potential for harm to adjacent habitats. This will ensure any pollution from spills/leaks etc from plant/equipment/construction materials is minimised. Added to the distance of the Project Site from the river, no effect is anticipated.

	• The river planform and profile should be predominantly unmodified. Physical modifications having an adverse effect on the integrity of the SAC will be avoided. • Artificial factors impacting on the capability of each feature to occupy the full extent of its potential range should be modified where necessary to allow passage, eg. weirs, bridge sills, or other forms of barrier. • Natural limiting factors such as waterfalls, which may limit the natural range of a feature or its dispersal between naturally isolated populations, should not be modified. • Levels for nutrients, in particular phosphate, will be agreed for cross-border water bodies between NRW and NE, and measures taken to maintain nutrients below these levels. • Potential sources of pollution, nutrient enrichment and/or suspended solids that have not been addressed in the Review of Consents such as, but not confined to, diffuse pollution or disturbance to sediments, will be considered in assessing plans and projects.		

Feature 1. Watercourses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	Feature 1: The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • The conservation objective for the watercourse as defined above must be met. • The extent of this feature within its potential range in this SAC should be stable or increasing • The extent of the sub-communities that are represented within this feature should be stable or increasing. • The conservation status of the feature's typical species should be favourable. • All known, controllable factors, affecting the achievement of these conditions are under control (many factors may be unknown or beyond human control).	Reduction in water quality through pollution of watercourse from chemicals/other potentially polluting materials.	For discussion of impact pathways for effects on water quality, please see above.
Feature 2. Atlantic salmon	Feature 2: The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • The parameters defined in the vision for the watercourse as defined above must be met	Reduction in water quality through pollution of watercourse from chemicals/other potentially polluting materials.	For discussion of impact pathways for effects on water quality, please see above.

	• The SAC feature populations will be stable or increasing over the long term. • The natural range of the features in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • There will be no reduction in the area or quality of habitat for the feature populations in the SAC on a long-term basis • All known, controllable factors, affecting the achievement of these conditions are under control (many factors may be unknown or beyond human control).		
Feature 5. Brook lamprey	Feature 5: The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • The parameters defined in the vision for the watercourse as defined above must be met. • The SAC feature populations will be stable or increasing over the long term. • The natural range of the features in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • There will be no reduction in the area or quality of habitat for the	Reduction in water quality through pollution of watercourse from chemicals/other potentially polluting materials.	For discussion of impact pathways for effects on water quality, please see above.

	feature populations in the SAC on a long-term basis. • All factors affecting the achievement of these conditions are under control.		
Feature 7. Bullhead	Feature 7: The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • The parameters defined in the vision for the watercourse as defined above must be met. • The SAC feature populations will be stable or increasing over the long term. • The natural range of the features in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • There will be no reduction in the area or quality of habitat for the feature populations in the SAC on a long-term basis. • All factors affecting the achievement of these conditions are under control.	Reduction in water quality through pollution of watercourse from chemicals/other potentially polluting materials.	For discussion of impact pathways for effects on water quality, please see above.
Feature 8. European otter	Feature 8: The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:	Direct harm and/or disturbance to feature during construction operations.	Ecological surveys of the wider area have confirmed the River Dee to the south of the site provides optimal habitat to support otter, however the Project Site does not contain habitat suitable for this species. Otter may pass near to the site as part of a wider territory encompassing the Canal, however there is no

	• The parameters defined in the vision for the watercourse as defined above must be met. • The SAC otter population is stable or increasing over the long term, both within the SAC and within its catchment. • There will be no loss of otter breeding or resting sites other than by natural means (such as naturally occurring river processes) within the SAC or its catchment. • The number of potential resting sites within the SAC will not be a factor limiting that limits the otter population's size or extent. • There should be no reduction of fish biomass within the SAC or its tributaries except for that attributable to natural fluctuations. • There should be no loss of amphibian habitat likely to provide a source of prey for members of the SAC otter population. • The potential range of otters in the within the SAC or its catchment is neither being reduced nor is likely to be reduced for the foreseeable future. • All known or potential access or dispersal routes within the catchment for otters that might be considered part of the SAC		suitable habitat for foraging or sheltering within the Project Site and the proposed works will not create a barrier to otters passing along the canal. Therefore no effect is anticipated.

	population should be maintained such that their function is not impaired including the incorporation of measures or features required to avoid disturbance. • Off site habitats likely to function as 'stepping stones' within the catchment for members of the SAC otter population will be maintained for migration, dispersal, foraging and genetic exchange purposes. • All man-made structures within or likely to be used by otters from the SAC population must incorporate effective measures to facilitate the safe movement and dispersal of otters. • All known, controllable factors, affecting the achievement of these conditions are under control (many factors may be unknown or beyond human control)		

There are no impact pathways identified as having a risk of a significant adverse effect on the conservation objectives for the FOI, therefore Stage 2: Appropriate Assessment is not required.

Figure 1: Project Site Location in Relation to Afon Dyfrdwy/River Dee SAC (1:5,000)

