Charlestown River Walk

Lowpark,
Charlestown
Co. Mayo.

Screening Statement for Appropriate Assessment

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1 INTRODUCTION

This report comprises of an Appropriate Assessment Screening for a proposed pedestrian walkway adjacent to the Charlestown Stream in Lowpark, Charlestown Co. Mayo in order determine whether or not this development, alone and in combination with other plans or projects, could have a significant effect on a Natura 2000 site (EC Habitats Directive 92/43/EEC), in view of the site's conservation objectives.

The Natura 2000 Network is made up of Special Protection Areas for Birds (SPA) and Special Conservation Areas (SAC) for habitats and species. The proposed development is not directly connected with or necessary to the management of a Natura 2000 site. The findings of the assessment will determine whether the proposed development requires an Appropriate Assessment and a Natura Impact Statement under Article 6(3) of the EU Habitats Directive 92/43/EEC.

1.1 STATEMENT OF AUTHORITY

The ecological survey for this report was carried out on May 17th 2021 by Leo Brogan (B.Env., Sc. M.Sc and Dip. Field Ecol.) who has the relevant academic qualifications and experience to undertake habitat surveys and appropriate assessments.

1.2 GUIDANCE

This report has been carried out using the following guidance:

- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 & PSSP 2/10[1].
- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010)[2].
- Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg (EC 2000)[3].
- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg (EC 2002)[4].

[1] NPWS (2010). Legislation Unit, NPWS Department of Environment, Heritage and Local Government, 7 Ely Place Dublin 2.

[2] National Parks and Wildlife Services (2010): http://www.npws.ie/sites/default/files/publications/pdf/NPWS_2009_AA_Guidance.pdf

[3] European Commission (2000) http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pdf

[4] European Commission (2000) http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf

- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. Office for Official Publications of the European Communities, Luxembourg (EC 2007)[5].
- Practice Note P01 Appropriate Assessment Screening for Development Management, Office of the Planning Regulator (2021)[6]

2 SCREENING ASSESSMENT

2.1 DESCRIPTION OF THE PROJECT LOCATION

The project location is in the townland of Lowpark, 300m southwest of Charlestown in northeast Mayo (see Figure 1). The 500m walkway is proposed on lands immediately to the west of the Charlestown Stream which flows in a southerly direction through Charlestown. As shown in Figure 2, access to the start of the walkway is via *The Fairgreen* housing estate off the local primary road running east west into Charlestown.

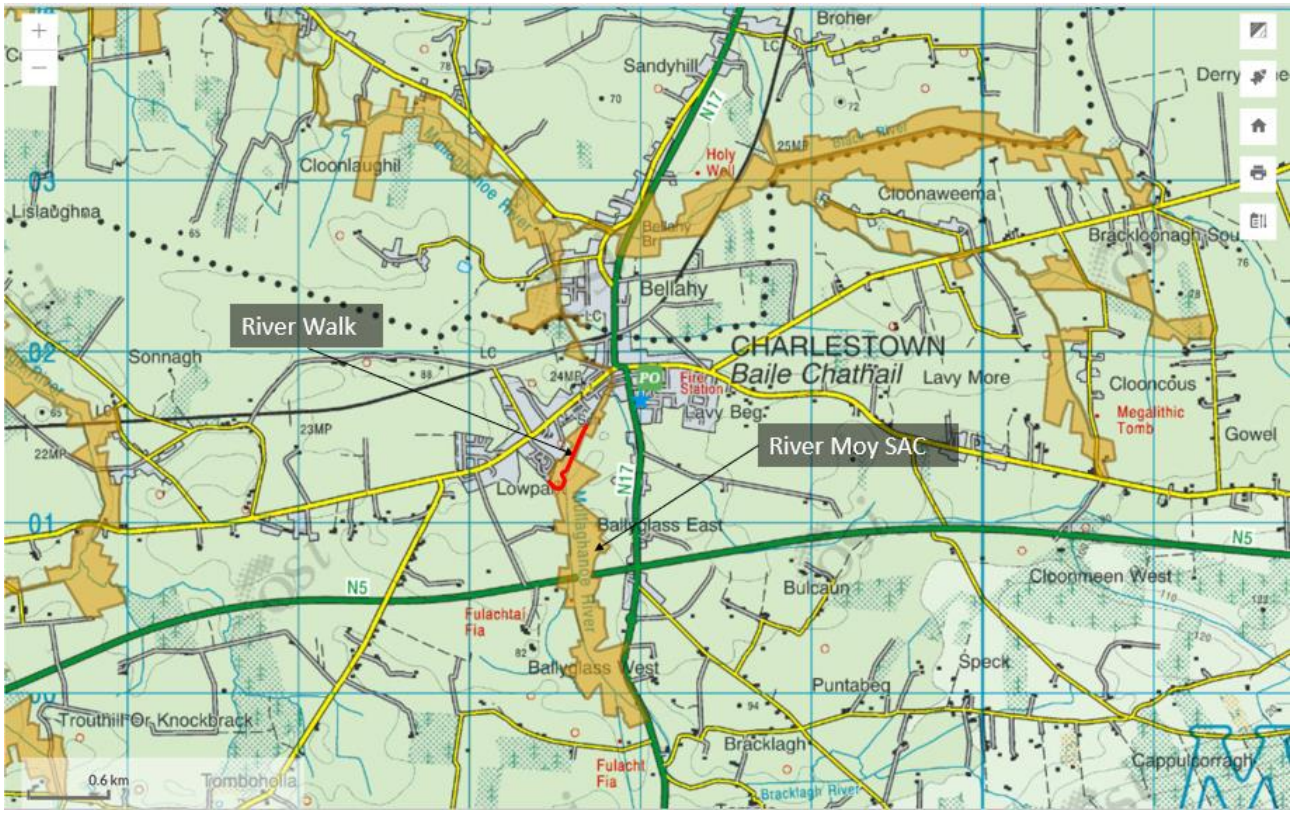


Figure 1 Location for proposed Walkway in Lowpark, Charlestown Co. Mayo

[5] European Commission (2007) http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/guidance_art6_4_en.pdf

[6] https://www.opr.ie/wp-content/uploads/2021/03/9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdf

St Attracta's National School and *St Joseph's Secondary School* are approximately 100m north of the walkway while the landowners newly constructed dwelling house is located directly south of the secondary school 50m north of the proposed walkway. The walkway starts to the west of the outdoor swimming pool, follows the river and turns North after it passes the Ring Fort to link up with a proposed walkway within the Charlestown GAA Grounds. Current land use could be described as agricultural but the fields in question are not secured with fencing and as such are not currently grazed. This stretch of the riverbank was traditionally used as a fishing beat and for leisure purposes.

The proposed walkway route follows the course of the river for 300m circling around the south of the ringfort . It is anticipated that in time the walkway will be continued through the GAA grounds and out onto the local primary road but this element of the project does not form part of this assessment.

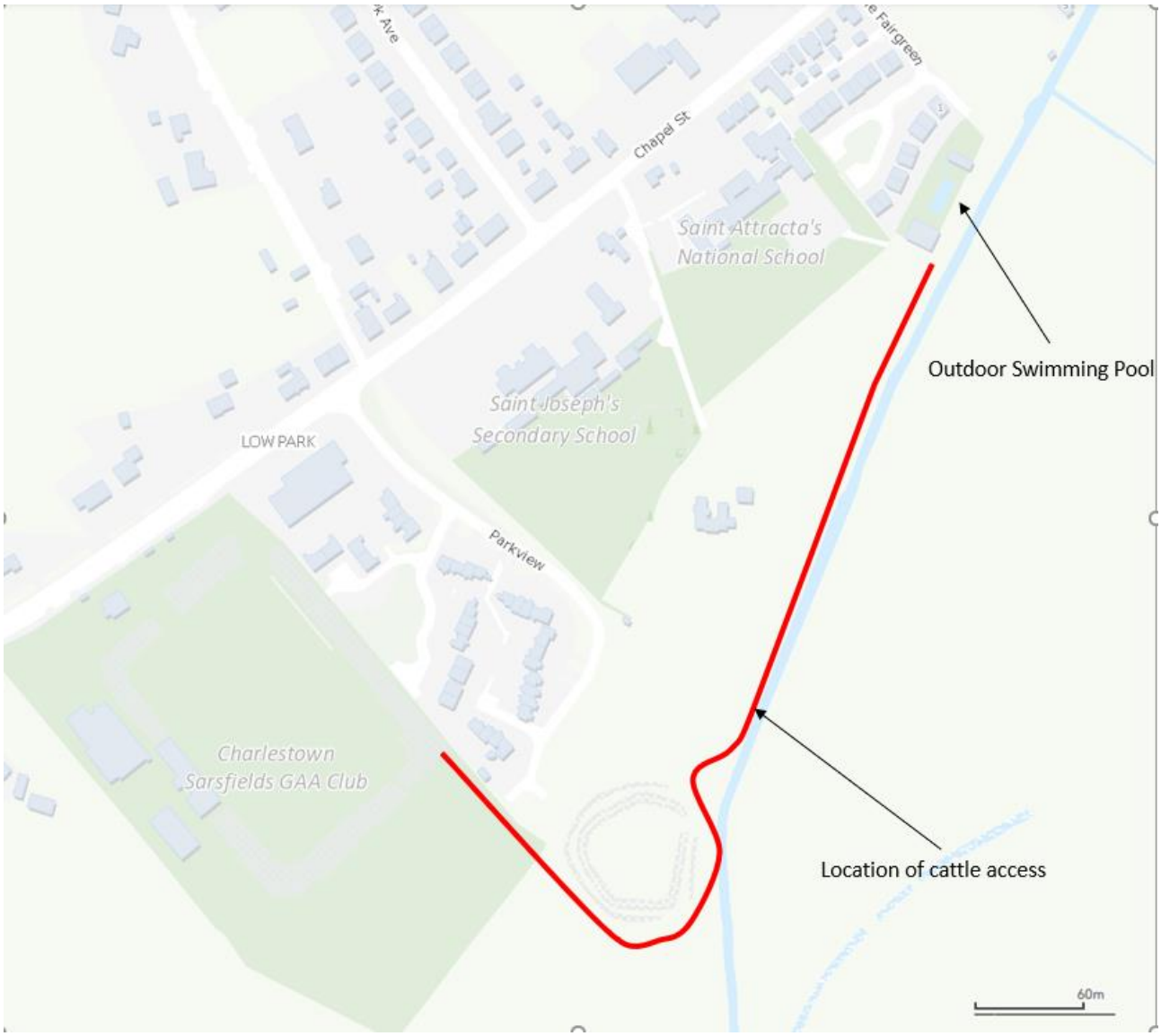


Figure 2 Walkway route in red with Charlestown Stream in blue and local infrastructure

2.2 DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.2.1 Description of Project

The proposed walkway will be 500m long and approximately 3m wide and will, for the majority of its route, follow the course of the Charlestown Stream. It is proposed to clear the proposed route of vegetation and scrub to achieve a reasonably level profile. Timber edging will be pegged in place on both sides of the walkway, Clause 804 material or similar will be laid and compacted to form a solid base layer and fine limestone dust will be laid to provide a smooth surface.

For safety reasons, the existing fence along the riverbank will be renewed along its original line and the proposed walkway will be contained within a 5m corridor running parallel to this fence. This corridor allows for a 1m verge either side of a 3m walkway

A timber post and rail fence, 1.3m high, is to be erected along the north of the proposed walkway to provide security for the landowner. Timber seating will be provided at intervals along the route.

The topography in the first 300m of the pathway is level with grassland habitat throughout. The chosen route of the pathway at the western end is will require the clearance of scrub habitat for 100m south of the ring fort.

It is anticipated that the walkway will take approximately 1 month to construct, commencing in the September 2022. A small excavator will be used to remove the vegetation and create a smooth profile. *Terram T1000* Geogrid will be laid down, followed by *Clause 804* and limestone dust. Small dumpers will be used to transport materials along the route and all fencing works will be undertaken using hand operated equipment and/or tractor with post driver. Timber edging will also be laid by hand.

Excavated soils will be used to create small earthen banks adjacent to the walkway. Waste fencing material will be transported to a licenced facility for recycling.

The depression associated within a cattle access point along the river (see Figure 8) will be backfilled with boulders and rock armour will be placed along the edge of the walkway to prevent erosion. A sediment barrier in the form of a geotextile membrane will be incorporated into these works.

It is anticipated that 16 lighting columns with LED lamps will be installed as part of the project to facilitate use of the walkway during hours of darkness.

No major surface water drainage works are envisaged.

It is envisioned that this project will provide safe access to this riverside setting and in time become a valuable ecological learning resource for the students in the nearby schools and the wider community.

2.3 DESCRIPTION OF THE EXISTING ENVIRONMENT

2.3.1 Information Sources

The ecological desktop study to inform the Appropriate Assessment Screening completed for the proposed development comprised the following elements:

- Identification of European Sites within the Zone of Influence (ZoI) of the proposed development area through the identification of potential pathways/ links from the proposed development area and European sites and/ or supporting habitats;
- Review of the National Parks and Wildlife Service (NPWS) site synopses (Natura 2000 data form) and conservation objectives for European Sites[7] with identification of potential pathways from the proposed development; and
- Review of available literature and online data. This included a detailed review of the NPWS website including mapping and available reports[8] for relevant sites and in particular Qualifying Interests described and their conservation objectives.

An outline of the key datasets and information sources reviewed as part of the study are provided below:

- National Parks and Wildlife Service (NPWS) database of areas designated (and proposed) for nature conservation
- National Biodiversity Data Centre database (NBDC)[9];
- EDEN Application [10]; and
- EPA Appropriate Assessment Geo Tool[11]
- OSI and Bing Maps aerial photography and mapping.

2.3.2 Existing Environment

Habitats

Using Fossits Guide to Habitats of Ireland[12], the habitats (See Figure 4) along the proposed walkway route can best be described as;

- Depositing lowland river (FW2)
- Dry meadows and grassy verges (GS2)
- Scrub (WS1)
- Wet grassland (GS4)

[7] National Parks and Wildlife Service: http://www.npws.ie/protectedsites/ (accessed May 2021)

[8] National Parks and Wildlife Service: http://www.npws.ie/mapsanddata/ (accessed May 2021)

[9] NBDC https://maps.biodiversityireland.ie/Map (accessed May 2021)

[10] EPA https://www.edenireland.ie/home/secure (accessed May 2021)

[11] EPA AA Geotool (https://gis.epa.ie/EPAMaps/AAGeoTool) (accessed May 2021)

[12] Fossit 2000. A guide to habitats in Ireland. The Heritage Council

The Charlestown Stream is located approximately 5 metres to the southeast of the proposed walkway. During the ecological survey the river occupied the full wet width, had an average depth of 30cm and had large cobbles and boulders in the riverbed. Flow rates were moderate and there were a of number of riffles and glides. The northern banks of the river were quite steep, except for one location where the banks were lowered to accommodate access for livestock. The steep banks were heavily vegetated with mature deciduous trees (Alder Sycamore and Willow) growing at the top of the bank interspersed with brambles climbing on the post and wire fence line.

Dry meadow and grassy verges (GS2) best described the initial section of the proposed walkway route. Meadow foxtail was the dominant grass species (in flower during survey) and the broadleaved herbs consisted of Meadowsweet, Creeping buttercup, Meadow buttercup, Germander speedwell, Ground elder, Hogwood, Ribwort plantain, Cleavers, Foxglove, Creeping thistle and Broadleaved dock. The Biodiversity Ireland online mapping facility describes this habitat as GA1 (Agricultural Grassland) but there appears to have been a removal or reduction in the grazing pressure which accounts for its reclassification to Dry Meadows and Grassy Verges.

Scrub (WS1) which is mainly composed of Grey Willow (*Salix cineria*) Bramble *(Rubus fructicosus*) with Gorse (*Ulex europaeus)* and Bracken (*Pteridium aquilinum*) in places.

Wet Grassland (GS4) best described the remainder of the area along the route which featured Red Fescue, Sweet vernal grass, Poa species, Flag iris, Soft rush, Bush vetch, Common knapweed, Field woodrush, Lesser celandine, Herb robert, Hedge parsley and Marsh Thistle. Pignut and bluebell were common in the field to the east of the Scrub habitat associated with the ringfort in the western portion of the walkway.

No Invasive Alien Plant species were identified along the chosen walkway route or in the general area.

A summary of the habitats located within and adjacent to the site is provided in Figure 3 and photographs in Figures 4 to 6.

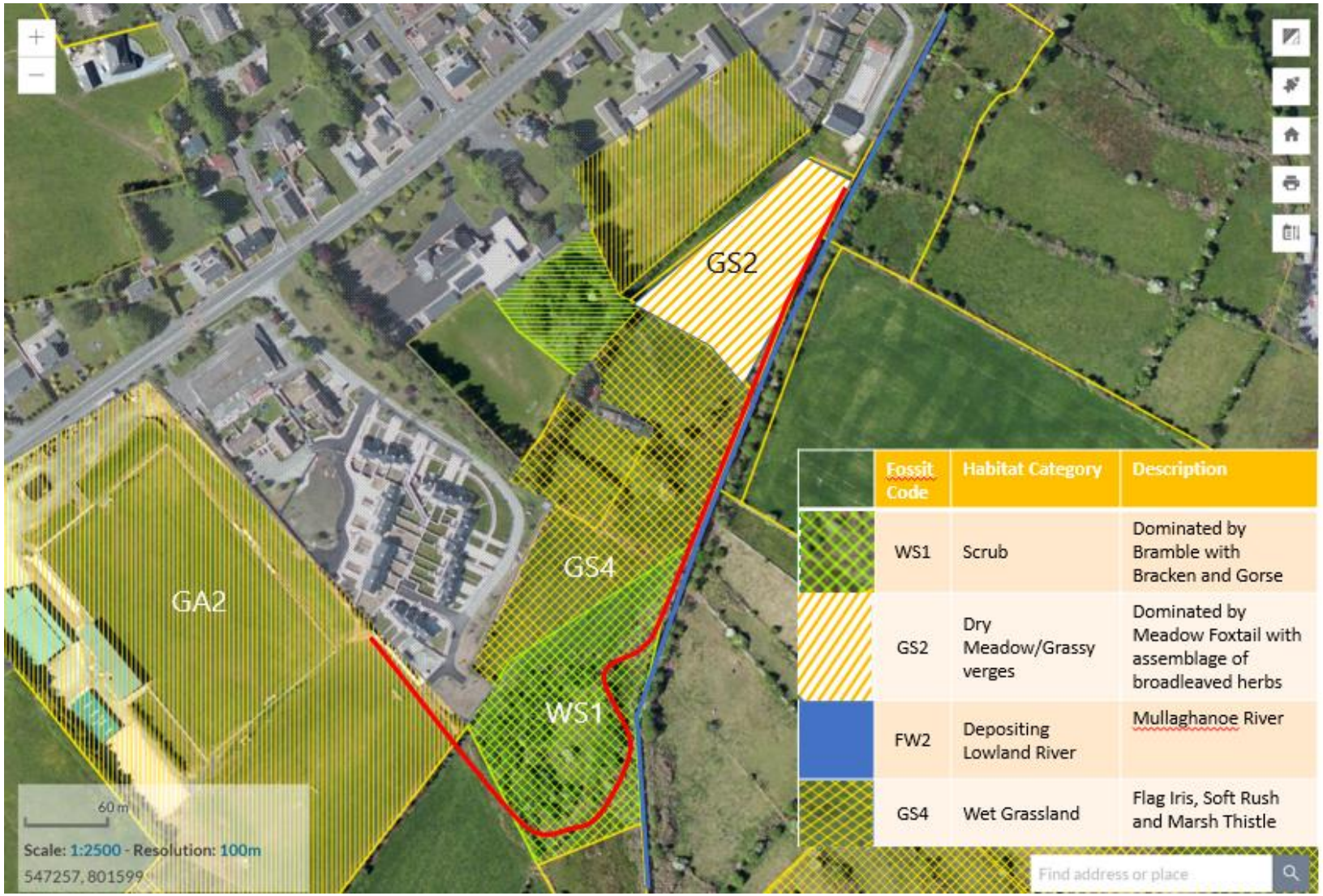


Figure 3 Habitats along the proposed river walk[13]

[13] Base map generated from https://maps.biodiversityireland.ie/Map (Accessed 19th May 21) Updated to represent scrub encroachment and reduction in grazing pressure

Figure 4 View upstream of FW2 Depositing lowland river

Figure 5 View east showing GS2 Dry Meadow and grassy verges in the east of proposed walkway

Figure 6 View southwest of route through WS1 Scrub to the south of Ringfort.

Figure 7 View south of route along western edge of ringfort

Figure 8 Cattle Access location along the Charlestown Stream at chainage 225 m

2.3.3 Surface Water

A series of headwater streams of the Charlestown_010 waterbody rise on the western and southern flanks of the Mullaghanoe uplands and join up 2 km south of Charlestown as shown in Figure 8. Flowing northwards past the location of the proposed walkway, it is joined by the Black(Sligo)_010 to form the Mullaghanoe_010 which travels west over 8 kms to discharge into the main channel of the River Moy 5.5km northeast of Swinford.

The EPA Eden website indicates that the Charlestown_010 waterbody is currently at Moderate Ecological Status based on the data collected between 2013 and 2018 (Figure 9).

It has been assigned this status in the most recent Q value assessment undertaken in 2019 and was considered to be at Poor Ecological status in 2007, 2010 and 2013 (See Figure 10). Currently the significant pressures affecting the status of this waterbody are nutrient inputs from Agriculture and Hydromhorpology (altered habitats due to channelisation and drainage).

Upgrades completed on the Charlestown Urban Wastewater Treatment Plant have resulted in this pressure no longer being considered significant.

The waterbody is currently failing to achieve its environmental objectives under S.I. No. 293/1988 - European Communities (Quality of Salmonid Waters) Regulations 1988. In the current River Basin Management Plan (2018-2021) this waterbody forms part of the Owengarve/Charlestown Area for Action and is expected to achieve good status by 2027.

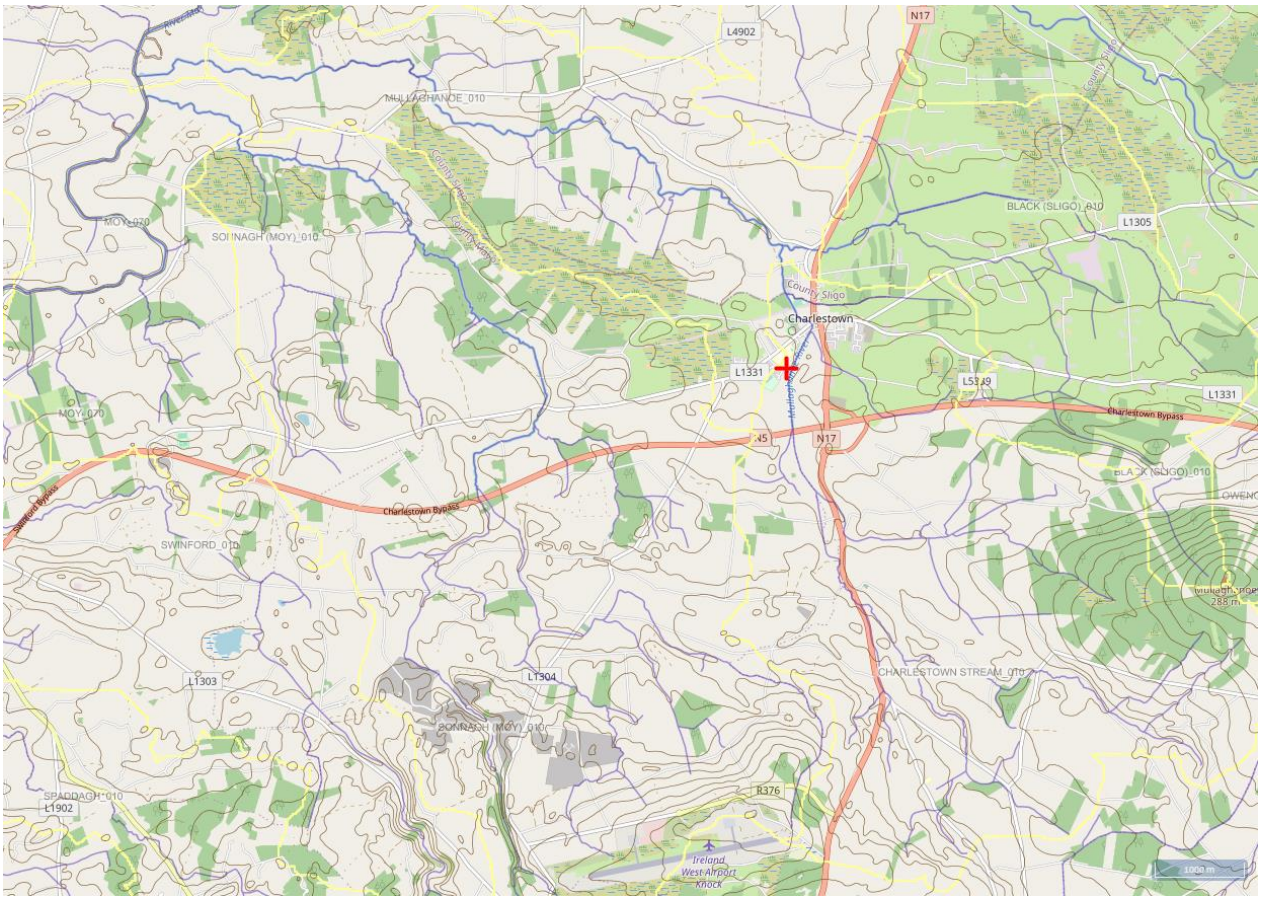


Figure 9 Regional Surface Water network

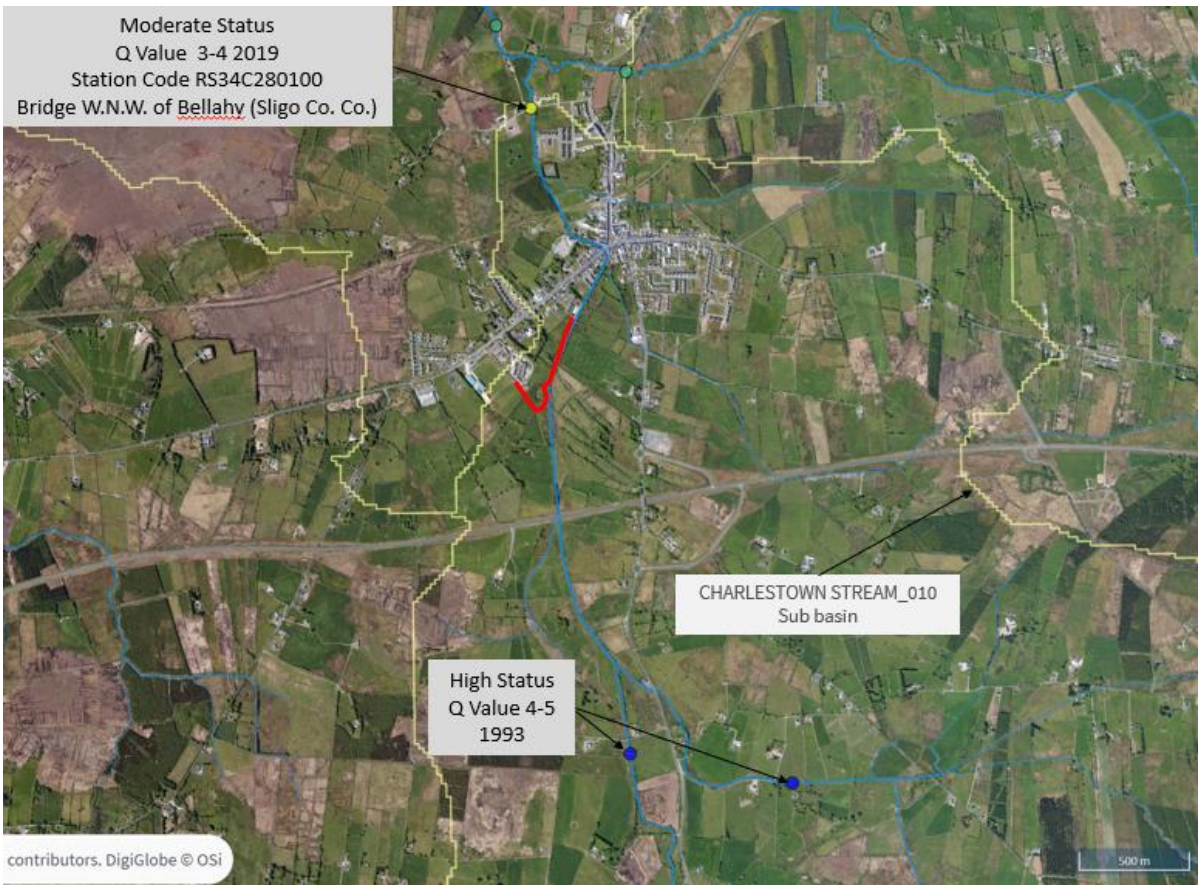
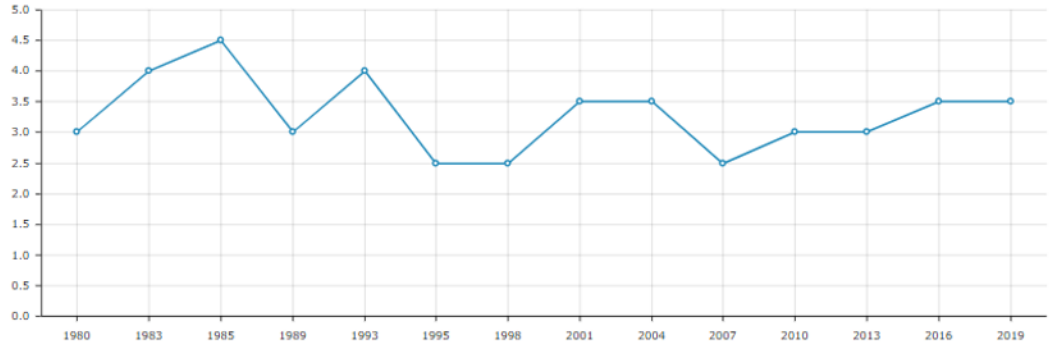


Figure 10 Proposed walkway in relation to relevant surface water features

Monitoring Station: RS34C280100

Code	RS34C280100	Monitoring Type	RIVER_STATION
Station	Bridge W.N.W. of Bellahy	Easting	147496.31
Station Type	Operational	Northing	302517.54

Q Value - Chart



	1980	1983	1985	1989	1993	1995	1998	2001	2004	2007	2010	2013	2016	2019
Result	3	4	4.5	3	4	2.5	2.5	3.5	3.5	2.5	3	3	3.5	3.5
Classification	Poor	Good	High	Poor	Good	Poor	Poor	Moderate	Moderate	Poor	Poor	Poor	Moderate	Moderate
Q-Value	3	4	4-5	3	4	2-3	2-3	3-4	3-4	2-3	3	3	3-4	3-4

Figure 11 Summary of the Q Value results for the Charlestown _010 Waterbody

2.4 IDENTIFICATION OF RELEVANT NATURA 2000 SITES

A standard source-receptor-pathway conceptual model was used to identify a preliminary list of 'relevant' European sites (i.e. those which could be potentially affected). This conceptual model is a standard tool in environmental assessment. In order for an effect to occur, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism means there is no likelihood for the effect to occur. In the context of the proposed development, the model comprises:

- Source (s) – e.g. sediment run-off from the proposed development
- Pathway (s) – e.g. drains and streams connecting to a European site
- Receptor (s) – Qualifying habitats and species of European sites

There are 10 Natura 2000 sites (all SACs) located within 15km of the proposed development site as shown in Table 2.1.

All potential source-receptor-pathway relationships has been identified and evaluated in Tables 2.1 with the result that only the River Moy SAC is considered further in the screening process. The entire walkway is located on non-annexed habitats within the River Moy SAC.

Figure 12 Natura 2000 Site considered further in Screening

Table 2-1 Designated SAC Sites within a 15km radius of the proposed development

European Site (Code)	List of Qualifying Interest	Distance from Proposed Development (km)	Connections (Source-pathway-receptor)	Considered further in screening Y/N
River Moy SAC 002298	[1092] Austropotamobius pallipes [1095] Petromyzon marinus [1096] Lampetra planeri [1106] Salmo salar (only in fresh water) [1355] Lutra lutra [7110] * Active raised bogs [7120] Degraded raised bogs still capable of natural regeneration [7150] Depressions on peat substrates of the Rhynchosporion [7230] Alkaline fens [91A0] Old sessile oak woods with Ilex and Blechnum in the British Isles [91E0] * Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002298.pdf	Within SAC	Yes The proposed walkway is 2-3m from main river channel	**Y**
Urlaur Lakes SAC 001571	[3140] Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	10.9 km	No ecological connection due to separation distance	N
Cloonakillina Lough SAC 001899	[7140] Transition mires and quaking bogs	11.9km	No ecological connection due to separation distance	N
Doocastle Turlough SAC 000492	[3180] Turloughs	12.2km	No ecological connection due to separation distance	N
Turloughmore (Sligo) SAC 000637	[3180] Turloughs*	13.2km	No ecological connection due to separation distance	N
Flughany Bog SAC 000497	[7110] Active raised bogs* [7120] Degraded raised bogs still capable of natural regeneration [7150] Depressions on peat substrates of the Rhynchosporion	13.5km	No ecological connection due to separation distance	N

European Site (Code)	List of Qualifying Interest	Distance from Proposed Development (km)	Connections (Source-pathway-receptor)	Considered further in screening Y/N
Lough Nabrickkeagh Bog SAC 000634	[7130] Blanket bogs (* if active bog)	13,7km	No ecological connection due to separation distance	N
Ox Mountains Bogs SAC 002006	[3110] Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3160] Natural dystrophic lakes and ponds [4010] Northern Atlantic wet heaths with *Erica tetralix* [4030] European dry heaths [7130] Blanket bogs (* if active bog) [7140] Transition mires and quaking bogs [7150] Depressions on peat substrates of the Rhynchosporion Species [1528] Marsh Saxifrage (*Saxifraga hirculus*) [1013]Geyer's Whorl Snail (*Vertigo geyeri*)	14 km	No ecological connection due to separation distance	N
Derrinea Bog SAC 000604	[7110] Active raised bogs* [7120] Degraded raised bogs still capable of natural regeneration [7150] Depressions on peat substrates of the Rhynchosporion	14 km	No ecological connection due to separation distance	N
Lough Hoe Bog SAC 000633	[3110] Oligotrophic waters containing very few minerals of sandy plains *Littorelletalia uniflorae*) [7130] Blanket bogs (* if active bog) [1013] Geyer's Whorl Snail (*Vertigo geyeri*) [1092] White-clawed Crayfish (*Austropotamobius pallipes*)	14.1km	No ecological connection due to separation distance	N

2.5 ASSESSMENT OF THE SIGNIFICANCE OF POTENTIAL EFFECTS ON THE SITES WITHIN THE ZONE OF INFLUENCE

Table 2-2 Screening Matrix for Assessment of Significance of Potential Impacts

(a) Identify all potential direct and indirect impacts that may result in significant effects on the conservation objectives of River Moy SAC taking into account the size and scale of the project under the following headings	
Impacts	**Significance of Impacts (Duration /Magnitude /etc)**
Construction Phase • **Vegetation clearance** • **Demolition** • **Surface water runoff from soil excavations/infill and landscaping** • **Noise , dust vibration** • **Impact on groundwater/dewatering** • **Storage of excavated/construction materials** • **Access to site** • **Pests**	There is potential for impacts on water quality in the Charletown_010 waterbody from silt laden surface water runoff as the construction of the walkway will require clearance of vegetation and excavation of soil/ subsoil. It is considered however that due to the shallow formation depths required and the buffer provided by the grassy margins between the walkway and the aquatic habitats and species, that no significant effects are likely on the aquatic species listed among the qualifying interests of the River Moy SAC. Backfilling of the cattle access ramp to the river will permanently remove this pressure from the waterbody. The large stone used as rock armour will be carefully placed at a suitable distance from the waterbody and will incorporate a sediment retention barrier in the form of a geotextile membrane. All excavated material will be used to form small mounds to the north of the walkway. Construction material are all non-toxic in nature and concrete will be limited. Machinery (excavator, dumper and tractor mounted post driver) will be the minimal size required to complete the task. Access to and from the site for personnel and machinery will be from the existing access road near the swimming pool. All machinery will be subject to strict biosecurity protocols to ensure compliance with the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011), which prohibits the spreading of invasive species.
Operational phase e.g. • **Direct emission to air and water l**	LED lighting on light sensitive timer to be installed along the walkway route, will minimise light spillage and low levels of disturbance are predicted.

• **Surface water runoff containing contaminant or sediment** • **Lighting disturbance** • **Noise/vibration** • **Changes to water/groundwater due to drainage or abstraction** • **Presence of people, vehicles and activities** • **Physical presence of structures (e.g. collision risks)** • **Potential for accidents or incidents**	The walkway will allow closer access for people to the freshwater species listed among the Qualifying Interests (Otter, Salmon, White Clawed Crayfish, River or Brook Lamprey) but will not lead to significant levels of disturbance, to any emissions to water or act as barriers to movement/migration. A post and wire fence along the top of the bank will restrict access to the riparian zone. The existing shallow ramps leading down to the river's edge created by the landowner for cattle access may be used for as a means of access for the purposes of educational aquatic workshops. Any maintenance required of the grassy margins of the walkway will be carried out without recourse to pesticides The option of accessing the walkway on foot from the public lane and pathways as part of a circular route is likely to be most widely used. Car parking spaces are available along the outdoor swimming pool. The operational phase of the development will not lead to any effects on the European sites.
In combination Effects/Other	It is considered that due to the nature and scale of the proposed project, there is no potential for in combination effects with other projects. The Charlestown_010 waterbody is part of Owengarve/ Charlestown Priority Area for Action under the River Basin Management Plan (2018-2021). This waterbody will be subject to a detailed catchment assessment with the aim of restoring it to good ecological status before 2027. This project may provide an important site from which to hold community basis awareness programmes which could lead to beneficial effects through increased awareness of this freshwater ecosystem which forms an integral part of Charlestown's natural heritage.

(b) Describe any likely changes to the European site	
Examples of the type of changes to give consideration to include: • **Reduction or fragmentation of habitat area** • **Disturbance to QI species Habitat or species fragmentation** • **Reduction or fragmentation in species density** • **Changes in key indicators of conservation status value (water or air quality etc.)** • **Changes to areas of sensitivity or threats to QI** • **Interference with the key relationships that define the structure or ecological function of the site**	Despite the fact that the proposed development is located entirely within a European Site, it is considered that the nature and scale of the project is such that it will not result in any likely changes to the River Moy SAC. The walkway will result in a change of use of approximately 1500m^2 of SAC area. However it is considered that this will not have a significant effect on the SAC as the habitat types on which the walkway is proposed (Dry meadows and grassy margins and Scrub) are not listed among the qualifying interests. The QIs for which the site is listed are all associated with the freshwater habitats, none of which are likely to be affected.

(c) Are 'mitigation' measures necessary to reach a conclusion that likely significant effects can be ruled out at screening	
☐ ¨**Yes**¨ ☒ **No**	While best practice construction methods and strict biosecurity protocols will be employed during construction these are not required to avoid or reduce any effects on a European site. These measures are not relied upon to reach a conclusion of no likely significant

3 SCREENING CONCLUSION

The Appropriate Assessment screening process considered potential impacts which may arise during the construction and operational phase of the proposed River Walkway in Lowpark, Charlestown Co. Mayo.

Based on the information on file, which is considered adequate to undertake a screening determination and having regard to:

- the scale of the proposed development (3m wide 500m linear walkway),
- the nature of the proposed development (minimally invasive excavations and low impact construction methodology and materials),
- the setback distance from the riverbank and buffering capacity of the dry meadow/grassy margin habitat,

it is concluded that the proposed development, individually or in-combination with other plans or projects, would not be likely to have a significant effect on the above listed European sites or any other European site, in view of the said sites' conservation objectives. An appropriate assessment is not, therefore, required.

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