Mid-Shannon Wilderness Park Greenway

Planning Reports

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EIA Screening Report

Appendix 4

Cultural Heritage Report

Mid-Shannon Wilderness Park Greenway Project Cultural Heritage Desk Study

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Project: Mid-Shannon Wilderness Park Greenway

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ISSUE AND REVISION RECORD

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1 INTRODUCTION

A cultural heritage assessment was carried out in October 2020 as part of the Environmental Impact Assessment Screening Report for the Mid-Shannon Wilderness Park Greenway project. The assessment of the proposed route was undertaken by Kerstin Bartels-Shortt MIAI of Clandillon Civil Consulting for Longford County Council. The report sets out to assess the archaeological potential of the area and forms the basis for the examination of potential impacts of the proposed development on the archaeology, architectural heritage, industrial heritage and other potential cultural heritage elements of the receiving environment.

The aim of the project is to expand the greenway provision in County Longford and to add to and link into the growing network of greenways in Ireland in accordance with the policies and objectives set out in Project Ireland 2040, the National Cycle Policy Framework, the Longford and Roscommon County Development Plans and associated planning documents. The provision of the greenway is part of a country-wide regeneration policy supporting tourism initiatives, sustainable infrastructure projects and greenway construction on a national level. It is also central to the creation of the Mid Shannon Wilderness Park which is linked to the vision of Bord Fáilte's 'Ireland's Hidden Heartland's' initiative, aiming to enhance access to sites of cultural and heritage significance in the Midlands Region of Ireland and generating economic activity, while at the same time protecting environmental integrity.

Longford County Council aims to utilise Ecotourism components such as interpretation, education and cultural awareness in the development of the Mid-Shannon Wilderness Park. The Longford County Development Plan 2015-2021 – Annex 6 Mid- Shannon Wilderness Park Plan, outlines the proposal to develop the Corlea Archaeological and Biodiversity Project, which, in conjunction with the development of the Royal Canal Walking/Cycling Route and the Mid Shannon Wilderness Park will provide communities and villages of South Longford with amenity facilities, tourism infrastructure and enhanced access to heritage sites in County Longford. It is envisaged that encouraging walking and cycling will help the area to build a more sustainable ecotourism base which will in turn provide economic benefits to the area. Links with the Royal Canal and the River Shannon will further facilitate boating visitors travelling on the Shannon to visit both Longford and the Corlea Visitor Centre. The existing facility at Corlea Visitor Centre presents and interprets an Iron Age bog road or tougher, the largest of its kind uncovered to date in Europe. An 18 metre stretch of preserved road is on permanent display in the visitor centre along with display boards and artifacts.

A central tenet of the proposed Mid-Shannon Wilderness Park Greenway scheme is to make use of existing rail lines which were previously used by Bord na Móna as part of their peat harvesting operations, which ceased in 2020. The use of these lines and the associated existing ballast and rail structures will significantly reduce the cost and potential environmental impact of the proposed scheme.

In its entirety, the scheme is approximately 73 km long and consists of:

- 61 km of greenway along decommissioned Bord na Móna rail lines;
- 6 km of greenway along existing local roads;
- 6 km of greenway through existing cutaway bog.

Of the 73 km, 23.4 km of the proposed greenway have been subject to successful Part 8 planning applications[1]. Existing planning applications account for 3km of the 6km of the greenway crossing cutaway bog. While predominantly located in Co. Longford, the scheme also includes a crossing of the River Shannon into Co. Roscommon. This crossing will be over the existing Bord na Móna bridge at Kilnacarrow, which will be retrofitted as part of this scheme.

2 RECEIVING ENVIRONMENT

The 73 km proposed greenway route is located in a roughly triangular area between Longford town, Lanesborough and Ballymahon, as seen in Figure 1 below. The proposed greenway route connects to the Royal Canal Greenway at its north-eastern end, to the west of Longford town. It will then run in western direction through bogs and farmland south of Cloondara towards the River Shannon, where Kilnacarrow Bridge will provide a river crossing into County Roscommon. The route then continues south to Lanesborough, with a number of additional routes running through Cloonbony bog. After continuing westwards along the southern edge of Cloonbony bog for approximately 4kms, the route turns south at the Mount Dillon Bord na Móna depot. From there, two routes will follow existing railway tracks around the edges of previously milled bogland at Cloonfore, Annaghbeg and Derryad townlands. The western section of this track will provide another link with the Royal Canal Greenway, 250m north of Lock 42, and with existing trails leading to Corlea Visitor Centre, while the eastern section will link with two further routes located to the east and west of Derraghan Cross Roads, as well as a short loop around Derryglougher Lodge, north-east of Corlea Visitor Centre. A spur running south from Derraghan Cross Roads will also link with existing tracks and those currently under construction to the west of Corlea Visitor Centre. From there the route extends in southern direction through farmland and bog, finishing approximately 4km north-west of Ballymahon and 2km to the west of the Royal Canal.

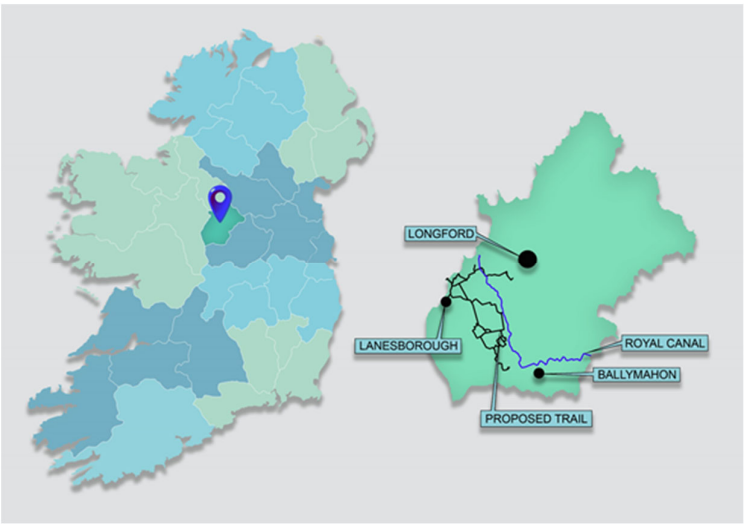


Figure 1:
Route Location

Due to the commercial extraction of peat from the bogs by Bord na Móna, many archaeological finds have been reported within the study area. The anaerobic environment of bogs and wetlands has

[1] Part 8 Planning References Nos. 49, 57, 62, 64, 67, 76, 79 and 81

created unique circumstances for the preservation of archaeological remains where normally perishable archaeological remains, such as wood and leather, can survive.

Large number of toghers or trackways, mainly dating to the Iron Age, have been discovered within the study area, the most famous of which is the Corlea Trackway, classified as a National Monument. This trackway may have formed part of the Slighe Assail, one of the five major early routeways of Ireland. An 18 metre stretch of the togher is on permanent display within Corlea Visitor Centre. Other trackways, some of them only short stretches (Class 2 and 3), were constructed to traverse the peat or provide a foot holding along certain stretches of wet bog. Other site types often found in bogs include platforms for a range of activities, rows of posts and other wooden structures. These may have functioned as hunting infrastructure. Other archaeological evidence dates from the Bronze Age, such as burnt mounds or fulachta fiadh. Over 4,500 fulachta fiadh have been recorded in the country.

In the Early Medieval Period (AD500–1100) the population of Ireland increased and more land was made arable. Habitation sites dating to the early medieval period include crannógs, cashels and ringforts. Given the marginal wetland nature of the landscape, the area of proposed development would not have provided an ideal location for settlement. The Early Medieval Period was also characterised by the foundation of a large number of ecclesiastical sites but none of the known ecclesiastical sites of Co. Longford are located within the study area.

While there are a number of large landed estates and houses that provide an interesting insight into the social, architectural and agricultural environment from the 17th century, the location of the route in largely marginalised land limits the potential impact on features of architectural heritage significance. However, some structures of industrial heritage significance associated with the construction of the Royal Canal in the early 19th century and the peat extraction of the area of the 20th century are located within the receiving environment.

3 ASSESSMENT METHODOLOGY

This report represents Phase I of the cultural heritage assessment, which involves a desktop survey of archaeological, historical and cartographic sources. Monuments and sites located within 150m of the proposed development were included in the assessment. The development of a walking or cycling route can generally be classified as low impact and the use of existing railway tracks will significantly reduce the potential impact of the proposed scheme on the archaeology and cultural heritage of the study area. However, sections of the route that will be newly constructed in a bog environment at Clooneeny, Cloontabeg and Derryshannoge have a high potential to encounter archaeological remains.

The desktop survey included the review of cartographic sources, including historic mapping, aerial photography, baseline records and published information. The following archaeological and historical documents were examined to establish the archaeological, architectural and cultural heritage potential of the proposed development:

- Record of Monuments and Places (“RMP”) for County Longford;
- Sites and Monuments Record (“SMR”) for County Longford;
- Longford County Development Plan 2015-2021;
- National Inventory of Architectural Heritage;
- Co. Longford Industrial Heritage Survey included in NIAH

- Cartographic sources;
- Aerial photography;
- Excavation bulletins;

4 ARCHAEOLOGY

4.1 Sites/National Monuments in the ownership of the state

One site within the study area is designated as a National Monument in the ownership of the state, as listed in Co. Longford Development Plan, 2015-2021. This is the Corlea Trackway, which has been incorporated into a visitor centre and museum. The proposed route will run around the perimeter of the visitor centre on existing tracks. Below is a table of the National Monuments in state ownership:

Site	Description	National Monument No.	Status	Distance
Corlea	Bog Trackway SMR LF022-058001 Road Class 1 Togher	677	State Ownership	0-100m

The location of this site is illustrated on the drawings in Annex B of this report.

4.1.1 RMP Sites

The code of practice agreed between the Department of Culture, Heritage and the Gaeltacht, the National Museum of Ireland and Bord na Móna provides a framework within existing legislation, policy and practice that has enabled Bord na Móna to progress with its programme of peat extraction within the framework of Government strategy, whilst carrying out archaeological mitigation. The agreed practices have led to the discovery and recording of a large number of sites within the study area. The table below lists all archaeological sites recorded within 150m of the proposed route. In total 83 RMP sites were recorded within the study area. Some of these represent clusters of individual sites or short stretches of recorded trackway forming part of the same monument.

Ref	RMP No.	Townland	Monument	Location	Distance
A1	LF013-025	Lissanurlan	Ringfort-rath, marked 'fort' on 1st ed 6''map	610,470.00/ 774,952.00	150m
A2	LF013-159-	Clooneeny	Road – class 3 togher	610,043.00/ 773,422.00	42m
A3	LF013-160-	Clooneeny	Road – class 3 togher (hurdle togher)	610,047.00/ 773,411.00	35m
A4	LF013-067001- 11/ LF013-067014-015	Middleton	Road – class 3 togher, NW-SE aligned on both sides of the existing railway track	605,192.00/ 773,556.00	0-140m
A5	LF013-067013	Middleton	Road – class 2 togher, L 30m, part of a cluster of sites, NW-SE aligned on W side of the existing railway track	605,198.00/ 773,501.00	140m

Ref	RMP No.	Townland	Monument	Location	Distance
A6	LF017-001-	Derryaroge/ Mount Davys	Road - gravel/stone trackway - peatland	603,380.00/ 770,649.00	70m
A8	LF018-110-	Cloonfore	Road - class 1 togher, L 173m orientated ENE-WSW, part of a cluster of sites to the E of the route	605,070.00/ 768405	150m
A9	LF018-080-	Annaghmore/ Corralough	Road - class 1 togher, L 500m orientated E-W	605,750.00/ 766,555.00	50m
A10	LF022-002	Derryshannoge	Ringford - Rath – levelled, named 'Fort' on the 1837 ed. of the OS 6'' map	605,179.00/ 764,417.00	150
A11	LF022-054001-02	Derryshannoge	Togher of brushwood and hazel	605,130.00/ 764,111.00	60m
A12	LF022-054003	Derryshannoge	Structure - peatland	605,142.00/ 764,140.00	30m
A13	LF022-068	Derryglash	Cist	605,342.00/ 763,366.00	85m
A14	LF022-103	Derraghan More	Post row - peatland	606,606.00/ 763,149.00	140m
A15	LF022-055001-007	Derraghan More	Togher – class 3 togher, roundwood 2.1m wide, extending E-W, either side of the railway track	606,475.00/ 763,348.00	0-100m
A16	LF022-055008	Derraghan More/ Derrygowna	Togher – class 1 togher, oak planks, extending E-W	606,608.00/ 763,143.00	150m
A17	LF022-062075-	Derrynagran	Platform – peatland, excavated 2002	606,999.00/ 761,521.00	40m
A18	LF022-186	Derrynagran	Platform - peatland	607,064.00/ 761,403.00	10m
A19	LF022-184--	Derrynagran	Platform - peatland	607,125.00/ 761,321.00	30m
A20	LF022-185--	Derrynagran	Platform - peatland	607,124.00/ 761,323.00	60m
A21	LF022-188--	Derrynagran/ Derrymany	Platform – peatland (band of brushwood in drain face)	607,121.00/ 761,332.00	60m
A22	LF022-062056-	Derrynagran/ Derrymany	Road - class 2 togher, 116 m long, ENE-WSW	607,089.00/ 761,293.00	110m
A23	LF022-176001-	Derrynagran	Structure - peatland	607,110.00/ 761,309.00	110m
A24	LF022-150-	Derrynagran	Platform - peatland	607,094.00/ 761,292.00	110m
A25	LF022-062-020-024-/ LF022-062027-/	Derrynagran	Road - class 3 togher, E-W aligned	607,114.00/ 761,313.00	110-150m

Ref	RMP No.	Townland	Monument	Location	Distance
	LF022-062037-				
A26	LF022-062026-	Derrynagran	Road - class 2 togher, ENE-WSW aligned, L 30m,	607,069.00/ 761,296.00	110-140m
A27	LF022-173-	Derrynagran	Road - class 2 togher, L 9m,	607,110.00/ 761,233.00	150m
A28	LF022-174-	Derrynagran	Road - class 3 togher,	607,130.00/ 761,279.00	140m
A29	LF022-148-	Derrynagran	Platform - peatland	607,155.00/ 761,267.00	90m
A30	LF022-157-	Derrynagran	Platform - peatland	607,150.00/ 761,273.00	90m
A31	LF022-177-	Derrynagran	Platform - peatland	607,139.00/ 761,263.00	140m
A32	LF022-141-	Derrymany	Platform - peatland	607,117.00/ 761,368.00	15m
A33	LF022-143-	Derrymany	Platform - peatland	607,108.00/ 761,355.00	25m
A34	LF022-062051-058	Derrymany	Road - class 3 togher	607,080.00/ 761,340.00	100-120m
A35	LF022-062070-071	Derrymany	Structure - peatland	607,109.00/ 761,289.00	110m
A36	LF022-062061-63-	Derrymany	Road - class 3 togher, aligned NW-SE to the south of the route	608,039.00/ 761,236.00	0m-100m
A37	LF022-160-	Derrynagran	Road - unclassified togher	608,086.00/ 761,274.00	10-15m
A38	LF022-153-	Derrynagran	Road - unclassified togher	608,047.00/ 761,331.00	100m
A39	LF022-146	Derrylough/ Derrymany	Road - gravel/stone trackway – peatland, may be recent	608,221.00/ 761,191.00	100m
A40	LF022-064037-	Derrylough	Road - class 3 togher, E-W	608,244.00/ 761,143.00	140m
A41	LF022-069-	Derrylough	Fulacht Fia	608,686.00/ 760,858.00	100m
A42	LF022-125-	Derryglogher	Post row	607,375.00/ 763,693.00	20m
A43	LF022-056009-015-	Derryglogher	Road – class 3 togher, NE-SW, S of railway line	607,409.00/ 763,680.00	25m
A44	LF018-075-	Rappareehill	Road- Class 3 togher	605,645.00/ 769,092.00	35m
A45	LF018-077011	Cloonfiugh	Road- Class 3 togher, part of large complex to SE of the route	606,355.00/ 768,238.00	150m
A46	LF018-090-	Cloonfiugh	Road- Class 3 togher	606,739.00/ 768,200.00	125m

Ref	RMP No.	Townland	Monument	Location	Distance
A47	LF018-091-	Cloonfiugh	Road- Class 3 togher	606,729.00/ 768,220.00	100m
A48	LF018-068-	Derryart	Road - class 3 togher, E-W	608,949.00/ 767,145.00	30m
A49	LF018-069-	Derryoghil	Road - class 3 togher, ENE-WSW	608,879.00/ 767,050.00	125m
A50	LF018-131	Derryoghil	Road – class 2 togher, L 23m, NW-SE; zone of archaeological potential extends S through milled peatland from location of route	609,113.00/ 766,964.00	10-75m
A51	LF018-130	Derryoghil	Platform - peatland	609,157.00/ 766831.00	120m
A52	LF018-133	Derryoghil	Road – class 2 togher, L 20m, ENE-WSW	609,142.00/ 766,869.00	120m
A53	LF018-134 LF018-136	Derryoghil	Platform - peatland	609,134.00/ 766,958.00	60m
A54	LF018-138/ LF018-139	Derryoghil	Road – togher unclassified and associated platform	609,113.00/ 766,964.00	70-100m
A55	LF018-080002 to-014	Derryoghil	Road – class 3 togher, E-W aligned	609,330.00/ 766,781.00	100-150m
A56	LF018-125	Derryoghil	Platform - peatland	609,162.00/ 766,857.00	120m
A57	LF018-143	Derryoghil	Platform - peatland	609,137.00/ 766,823.00	80m
A58	LF018-081-001 to -041/	Derryoghil	Road - class 3 togher, E-W, part of a large cluster of sites stretching 500m N-S	609,148.00/ 766,779.00	100-150m
A59	LF022-066002-06	Coolnahinch (Moydough By.)	Road - class 3 togher, E-W aligned	610,064.00/ 764,500.00	30-80m
A60	LF022-057005-006/ LF022-057014-015/ LF022-057023-025/ LF022-057028--035-	Corlea	Road - class 3 togher, NW-SE aligned, extending over an area measuring 600m in length	609,749.00/ 763,775.00 to 609,759.00/ 763,725.00	0-100m
A61	LF022-057001-003	Corlea	Road - class 1 togher, 750m in length, ENE-SWS	609,595.00/ 763,557.00 to 609,744.00/ 763,530.00	0-120m

Ref	RMP No.	Townland	Monument	Location	Distance
A62	LF022-085	Corlea	Road - class 3 togher, NE-SW aligned, excavated 2002	609,705.00/ 763,653.00	0-20m
A63	LF022-057041-042	Corlea	Road - class 3 togher (-042 destroyed before recording)	609,774.00/ 763,426.00	0-10
A64	LF022-076--	Corlea	Road - unclassified togher	609,798.00/ 763,370.00	0-10m
A65	LF022-077-	Corlea	Road - class 2 togher, substantial structure, possibly related to LF022-085-(50 m away)	609,664.00/ 763,607.00	50m
A66	LF022-078-	Corlea	Road - unclassified togher, NW-SE aligned	609,677.00/ 763,639.00	30m
A67	LF022-079-	Corlea	Road - class 3 togher	609,797.00/ 763,387.00	0m
A68	LF022-073-	Corlea	Platform - peatland	609,798.00/ 763,385.00	0m
A69	LF022-090-	Corlea	Platform - peatland	609,794.00/ 763,394.00	0m
A70	LF022-095--	Corlea	Platform - peatland	609,661.00/ 763,619.00	40m
A71	LF022-096-	Corlea	Platform - peatland	609,794.00/ 763,413.00	0m
A72	LF022-083-	Corlea	Platform - peatland	609,796.00/ 763,392.00	0m
A73	LF022-084--	Corlea	Road - unclassified	609,793.00/ 763,419.00	0m
A74	LF022-057018-021	Corlea	Road - class 3 togher	609,839.00/ 763,411.00	0m
A75	LF022-057016-LF022-057022-	Corlea	Road - class 2 togher, NE-SW	609,802.00/ 763,366.00 to 609,797.00/ 763,401.00	0-20m
A76	LF022-056026-	Corlea	Road - class 3 togher	609,744.00/ 763,366.00	100m
A77	LF022-093-	Corlea	Road - class 3 togher	609,707.00/ 763,356.00	100m
A78	LF022-080--	Corlea	Road - class 2 togher	609,852.00/ 763,331.00	50m
A79	LF022-081--	Corlea	Road - unclassified	609,783.00/ 763,270.00	0-10m
A80	LF022-088--	Corlea!	Road - unclassified	609,851.00/ 763,336.00	50m
A81	LF022-074-	Corlea	Road - class 1 togher, 159 m length, ENE-WSW	609,733.00/ 763,280.00	100-150m

Ref	RMP No.	Townland	Monument	Location	Distance
A82	LF022-094-	Corlea	Platform - peatland	609,720.00/ 763,275.00	125m
A83	LF022-058016 LF022-058017-	Cloonbreany	Road - class 3 togher, -017 destroyed; to E of existing Corlea trackway path	609,808.00/ 762,621.00	60-120m
A84	LF022-097-	Cloonbreany	Platform - peatland	609,829.00/ 762,683.00	120m

The locations of these sites are illustrated on the drawings in Annex B of this report.

4.1.2 Excavations Database (excavations.ie)

In addition to the recorded RMP sites listed above, 11 further sites of archaeological significance have been identified from the examination of the Excavations Database. Four of these sites are associated with known archaeological sites located at a distance of more than 150m from the proposed route. The table below details the relevant excavations recorded in the Excavations Database within the study area.

Licence No.	Townland	Monument	Distance
00E0517	Derryad/ Cloonfore	W end of brushwood and twig tougher, extending over 173m, associated with RMP LF018-110—further to the E	60m
00E0516	Derryad/ Cloonfore	Plank togher, extends over 420m in total, associated with RMP LF018-108- further east	60m
13E0222	Cloonfore	Class 3 Togher recorded in 2013 Re-Assessment Survey of Derryadd Bog, immediately south of the BnM Mountdillon workshop and offices	unknown
00E0455	Corlea	Roundwood and brushwood togher, possibly associated with LF022-074- and LF022-094.	100-150m
1987:36	Corlea/ Cloonbreany	Trackway excavated by Barry Raftery in 1987. E 609449m, N 762821m	130m
02E0969	Derrynagran	Roundwood and brushwood platform, excavated in 2002, E 606,999.00, N 761,521.00	40m
02E0971	Derrynagran	Roundwood and brushwood togher	30m
02E0972	Derrynagran	Roundwood site (platform), associated with LF022-186	10m
02E0973	Derrynagran	Hurdle site and possible roundwood and brushwood togher	25m
02E0974	Derrynagran / Derrymany	Roundwood and brushwood togher	35m
01E0591	Derrindiff	Togher at Derrycolumb 5 Bog, E 608599m, N 760331m, 2001	75m

The locations of these sites are illustrated on the drawings in Annex B of this report.

4.1.3 Topographical Files

The topographical files of the National Museum of Ireland provide a record of individual finds, which are recorded per townland. All townlands impacted by the proposed development will be examined in the more detailed stages of the environmental assessment of the proposed development. It is expected that numerous finds have been recovered from the bog during peat extraction over the years.

5 ARCHITECTURAL HERITAGE

In 1990, the National Inventory of Architectural Heritage ("NIAH") was established to fulfil Ireland's obligations under the Granada Convention, through the establishment and maintenance of a central record, documenting and evaluating the architectural heritage of Ireland.

The National Inventory of Architectural Heritage ("NIAH") records all built heritage structures within specific counties in Ireland and the record is used to advise Local Authorities on the updating of the Record of Protected Structures ("RPS") as required by the Planning and Development Act, 2000. The Act of 2000 requires Local Authorities to establish a Record of Protected Structures to be included in the County Development Plan ("CDP"). Structures which have been attributed a rating value of international, national or regional importance in the NIAH inventory are recommended by the Minister of Culture, Heritage and the Gaeltacht (CHG) to the relevant planning authority for inclusion on the RPS. Buildings recorded in the RPS can include Recorded Monuments, structures listed in the NIAH or buildings deemed to be of architectural, archaeological or artistic importance by the Minister. Once listed in the RPS, the sites/areas receive statutory protection from injury or demolition under the 2000 Act. Damage to or demolition of a site registered in the RPS is an offence.

Records examined for the purpose of this assessment included:

- National Inventory of Architectural Heritage: County Longford;
- Longford County Council: Development Plan
- Ordnance Survey of Ireland- historical and Ordnance Survey Maps;

5.1 NIAH Sites

There are 3 structures of architectural or industrial heritage significance included in the NIAH located within 150 m of the proposed route. One of these sites is Kilnacarrow Bridge, which will be crossed by the proposed greenway. None of the sites identified from NIAH records are included in the RPS for Co. Longford. There are no impacts on Architectural Conservation Areas. The table below lists structures included in the NIAH, indicating the significance rating of each site, N= National, R = Regional, L= Local.

NIAH No.	Townland	Description	Rating	Date	Distance
13401332	Begnagh	Begnagh (Royal Canal) Bridge	R	c. 1815	70m
13401202	Kilnacarrow	Kilnacarrow Railway Bridge	R	1950-1970	0m
13401701	Cloonbony	Cloonbony House	R	c. 1800	150m

The locations of these sites are illustrated on the drawings in Annex B of this report.

6 CONCLUSION

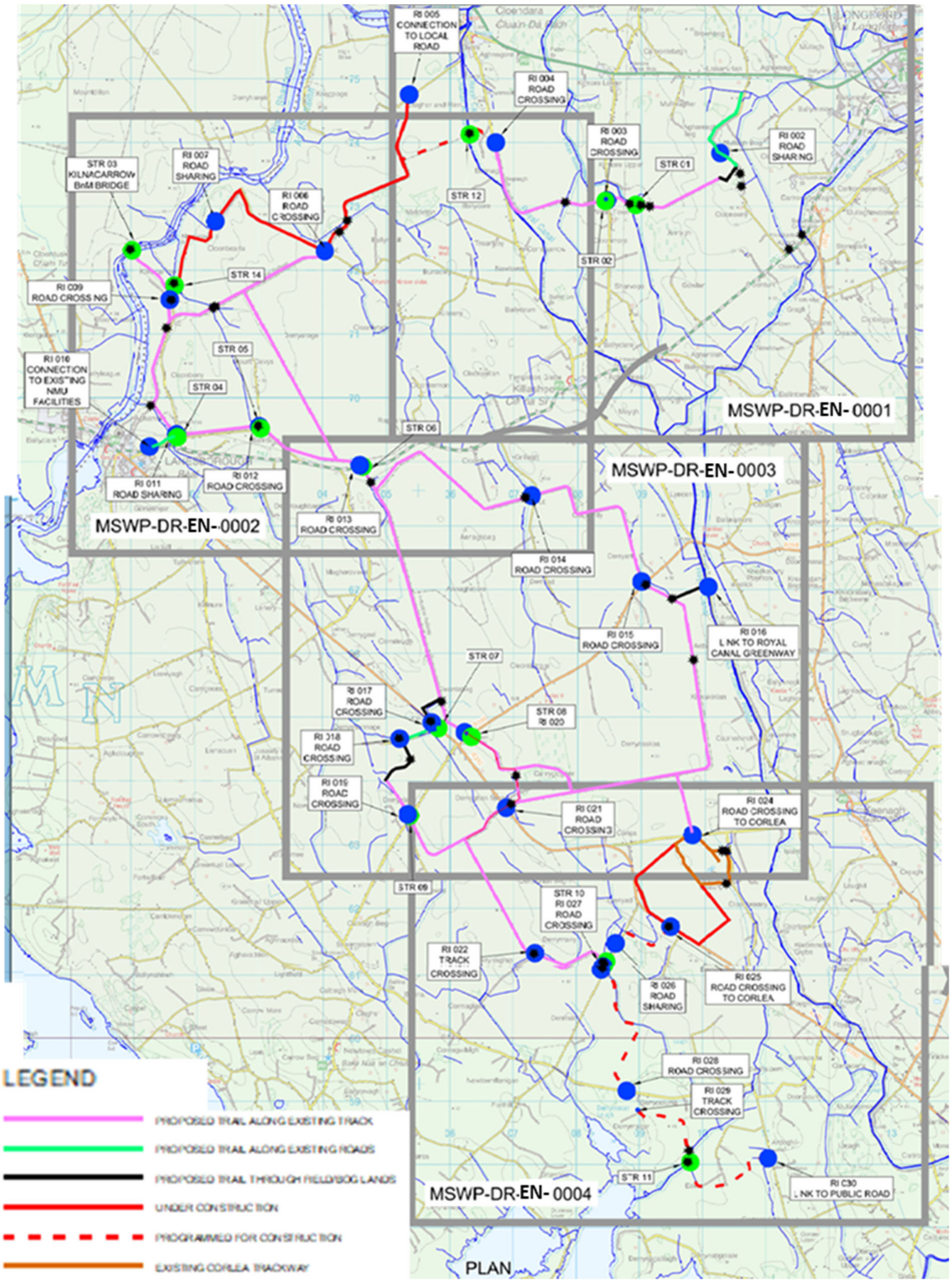
Greenways and walking routes, by their nature, are generally low-impact developments and the potential to adversely affect the cultural heritage landscape is relatively low. Of the 73km overall length of the proposed greenway route, 61 km will be positioned along decommissioned Bord na Móna industrial rail lines and a further 6 km of greenway will run along existing roads. The use of existing railway tracks and roads will further reduce the potential impact of the proposed scheme on the archaeology and cultural heritage of the study area.

It is proposed that 6 km of greenway will be constructed in cutover bog, providing connections between existing industrial railway sections and local roads. There is a high potential to encounter archaeological remains at these locations. The proposed greenway width will typically be 3.0m in accordance with National Trails guidance and TII guidance. In line with National Trails Standard for Class 2 Cycleway and Walkway, trail surfacing for off-road sections of the greenway will typically consist of a 50mm layer of compacted crushed 6mm Limestone or Quarry dust, which has been used on rural greenways in Ireland and on sections of the MSWP greenway constructed thus far. The use of floating roads, which use geogrid to spread the load of construction materials over a large surface area where poor ground conditions prevail, such as peat bogs, will reduce the requirements for mechanical excavation of topsoil and peat layers. Where the route crosses streams, placement of culverts and construction of stream crossings may also require mechanical excavation of topsoil and peat layers.

In order to mitigate impacts on previously unidentified archaeological sites within the study area, it is recommended that any potential groundworks and clearing of vegetation will be monitored by a suitably qualified archaeologist as agreed by Longford County Council and Bord na Móna. This is especially pertinent where large clusters of trackways and platforms have previously been recorded, such as at Corlea, Derraghan More and Derrynagran townlands.

The impact on structures of architectural heritage significance by the proposed greenway route is deemed to be low. Detailed site inspection at Kilnacarrow Bridge will facilitate further assessment of potential impacts of the greenway development on this NIAH site. The proposed low impact trail development is unlikely to impact on the setting of other cultural heritage sites. Some cultural heritage sites in close proximity to the proposed greenway route will be more accessible to visitors and residents of County Longford, in line with Longford County Council's objective to provide enhanced access to sites of cultural and heritage significance in the Midlands Region. Apart from improved connectivity to the important heritage and tourism site at Corlea Visitor Centre, the proposed development will give access to structures of architectural heritage significance such as Begnagh Royal Canal bridges, Kilnacarrow bridge and pass in the vicinity to sites of industrial heritage significance, such as Lanesborough Power Station.

ANNEX A: PROPOSED ROUTE ALIGNMENT



ANNEX B: HERITAGE SITE LOCATIONS

PRELIMINARY DESIGN

A1

A2

A3

13401332

PLAN
Scale 1:12500

0m 125.0m 250.0m 375.0m 500.0m 625.0m 750.0m 875.0m 1000.0m 1125.0m 1250.0m
Scale 1:12500

NOTES

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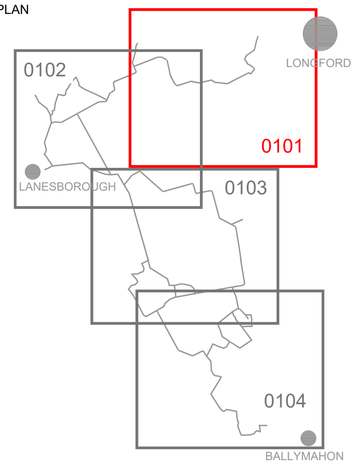
2. Section of greenway denoted as being under construction or For Construction have been granted planning permission under. Refer to Part VIII for planning applications numbers.

LEGEND

- PROPOSED TRAIL ALONG EXISTING TRACK
- PROPOSED TRAIL ALONG EXISTING ROAD
- PROPOSED TRAIL THROUGH FIELD/BOG LANDS
- UNDER CONSTRUCTION
- PROGRAMMED FOR CONSTRUCTION
- EXISTING CORLEA TRACKWAY
- WATERCOURSE

- A4 — ARCHEOLOGY HERITAGE SITES
- 00E0517 — EXCAVATIONS DATABASE (EXCAVATION NUMBER AS REFERENCE)
- 13401202 — ARCHITECTURAL HERITAGE (NIAH & NUMBER AS REFERENCE)

KEY PLAN



REV	DATE	DESCRIPTION	BY	CHK	APD
P01	24/06/2021	PRELIMINARY DESIGN	ZM	SF	SC

CLIENT

DESIGNER

CLANDILLON CIVIL CONSULTING

PROJECT

MID SHANNON WILDERNESS PARK GREENWAY PROJECT

DRAWING TITLE

CULTURAL HERITAGE SITES
SHEET 1 OF 4

DESIGNED	DRAWN	CHECKED/APPROVED
SF	ZM	SC
DATE	SCALE	SHEET SIZE
24/06/2021	1:12500	A1
DRAWING NUMBER		REVISION
MSWP-DR-EN-0001		P01

PRELIMINARY DESIGN

RIVER SHANNON

RIVER SHANNON

A4

A5

A6

A44

A45

A46

A47

A8

13401202

13401332

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00E0517

00E0516

PLAN
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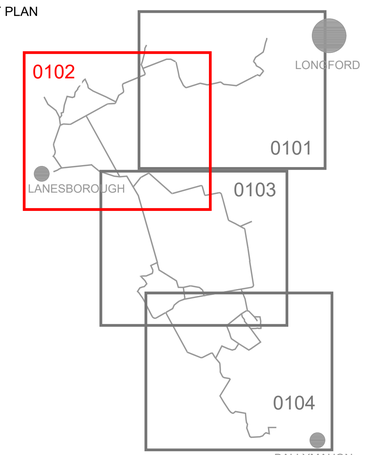

REV	DATE	DESCRIPTION	BY	CHK	APD
P01	24/06/2021	PRELIMINARY DESIGN	ZM	SF	SC

CLIENT: An Longfort Longford County Council; Tionscadal Éireann Project Ireland 2040

DESIGNER: CLANDILLON CIVIL CONSULTING

PROJECT: MID SHANNON WILDERNESS PARK GREENWAY PROJECT

DRAWING TITLE: CULTURAL HERITAGE SITES SHEET 2 OF 4

DESIGNED	DRAWN	CHECKED/APPROVED
SF	ZM	SC
DATE	SCALE	SHEET SIZE
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DRAWING NUMBER		REVISION
MSWP-DR-EN-0002		P01

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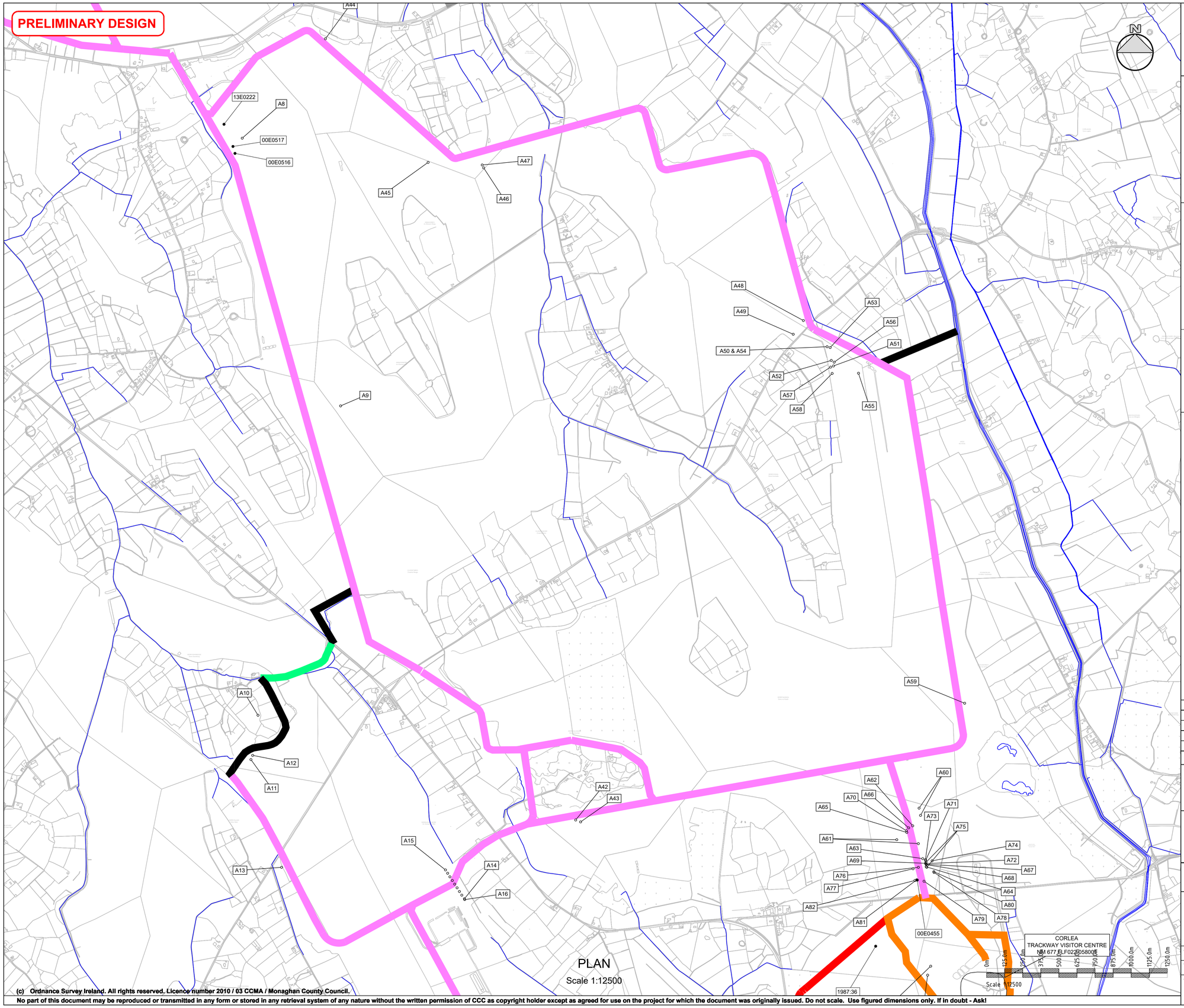

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Scale 1:12500

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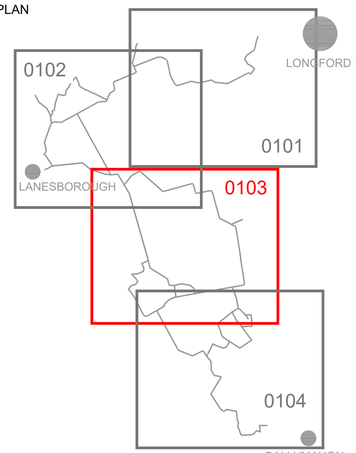

REV	DATE	DESCRIPTION	BY	CHK	APD
P01	24/06/2021	PRELIMINARY DESIGN	ZM	SF	SC

CLIENT: An Longfort Longford County Council; Tionscadal Éireann Project Ireland 2040

DESIGNER: CLANDILLON CIVIL CONSULTING

PROJECT: MID SHANNON WILDERNESS PARK GREENWAY PROJECT

DRAWING TITLE: CULTURAL HERITAGE SITES SHEET 3 OF 4

DESIGNED	DRAWN	CHECKED/APPROVED
SF	ZM	SC
DATE	SCALE	SHEET SIZE
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DRAWING NUMBER		REVISION
MSWP-DR-EN-0003		P01

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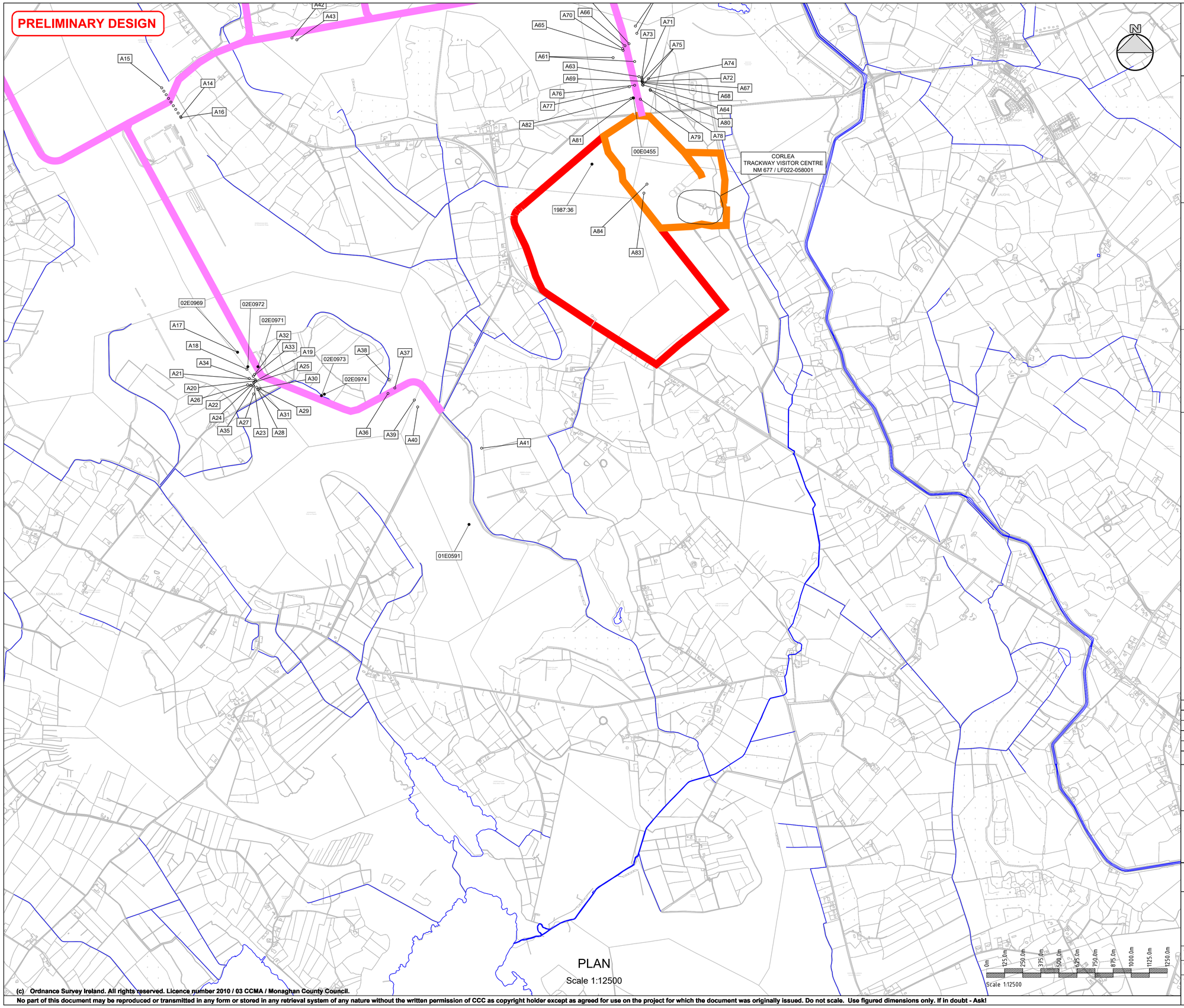

PLAN

Scale 1:12500

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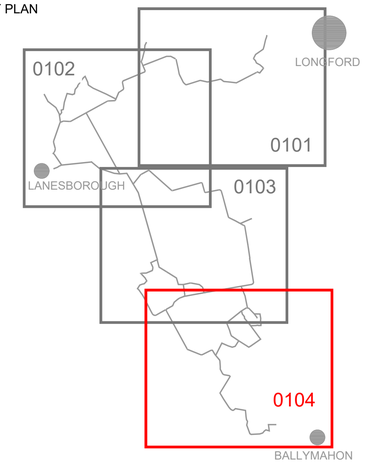


REV	DATE	DESCRIPTION	BY	CHK	APD
P01	24/06/2021	PRELIMINARY DESIGN	ZM	SF	SC

CLIENT

AN LONGFORT SUBURBTAN — Longford County Council / Comhairle Chontae an Longfoirt

Tionscadal Éireann Project Ireland 2040

DESIGNER

CLANDILLON CIVIL CONSULTING

PROJECT

MID SHANNON WILDERNESS PARK GREENWAY PROJECT

DRAWING TITLE

CULTURAL HERITAGE SITES
SHEET 4 OF 4

DESIGNED	DRAWN	CHECKED/APPROVED
SF	ZM	SC
DATE	SCALE	SHEET SIZE
24/06/2021	1:12500	A1
DRAWING NUMBER		REVISION
MSWP-DR-EN-0004		P01

EIA Screening Report

Appendix 5

AA Screening Report

FLYNN FURNEY
ENVIRONMENTAL CONSULTANTS

Mid Shannon Wilderness Park Greenway

Appropriate Assessment Screening Report

Date: 14 June 2021

By: Flynn, Furney Environmental Consultants

For: Clandillon Civil Consulting

Contents

1 INTRODUCTION

Flynn Furney have been commissioned by Clandillon Civil Consulting to carry out a Stage 1 Appropriate Assessment (AA) Screening Report for the proposed construction of a Greenway within and around a number cutover bog sites in Co. Longford. This screening exercise aims to determine whether the proposed construction and operation of this route has the potential to have significant or indeterminate impacts on the conservation objectives and overall integrity of any Natura 2000 sites. This assessment is based upon desk study and fieldwork carried out by suitably qualified ecologists.

Designated sites within 15km of the proposed development have been reviewed for potential impacts or pathways for impacts. This is followed by an ecological impact assessment of the project on the ecology of the area surrounding the route, including possible impacts on designated sites.

Section 5 of the report comprises the AA Screening that specifically focuses on the potential for impacts on Natura 2000 sites and their conservation objectives.

This report has been completed to provide information regarding the ecological status of the proposed site of works. This report has been completed to provide the information necessary to allow the competent authority to conduct an Article 6[3] Appropriate Assessment (AA) Screening of the proposed development. The legislation and methodology for which is detailed in the following sections below.

1.1 Proposed Works

Longford County Council have proposed the development of the Mid-Shannon Wilderness Park Greenway, a proposed new greenway through the Bord na Móna bogs of central Longford. The aim of this project is to expand the greenway provision in County Longford and to add to and link into the growing network of greenways in Ireland in accordance with the policies and objectives set out in Project Ireland 2040, the National Cycle Policy Framework, the Longford and Roscommon County Development Plans and associated planning documents. The provision of the greenway is also central to the creation of the Mid Shannon

Wilderness Park which is linked to the vision of Ireland's Hidden Heartlands. The location of the scheme is illustrated in Figure 1 below.

The study area consists of a linear path around and through a number of former raised bogs that have been used by Bord na Móna for peat cutting over recent decades. A central tenet of the scheme is to make use of existing industrial rail lines which were previously used by Bord na Móna as part of their peat harvesting operations which ceased in 2020.

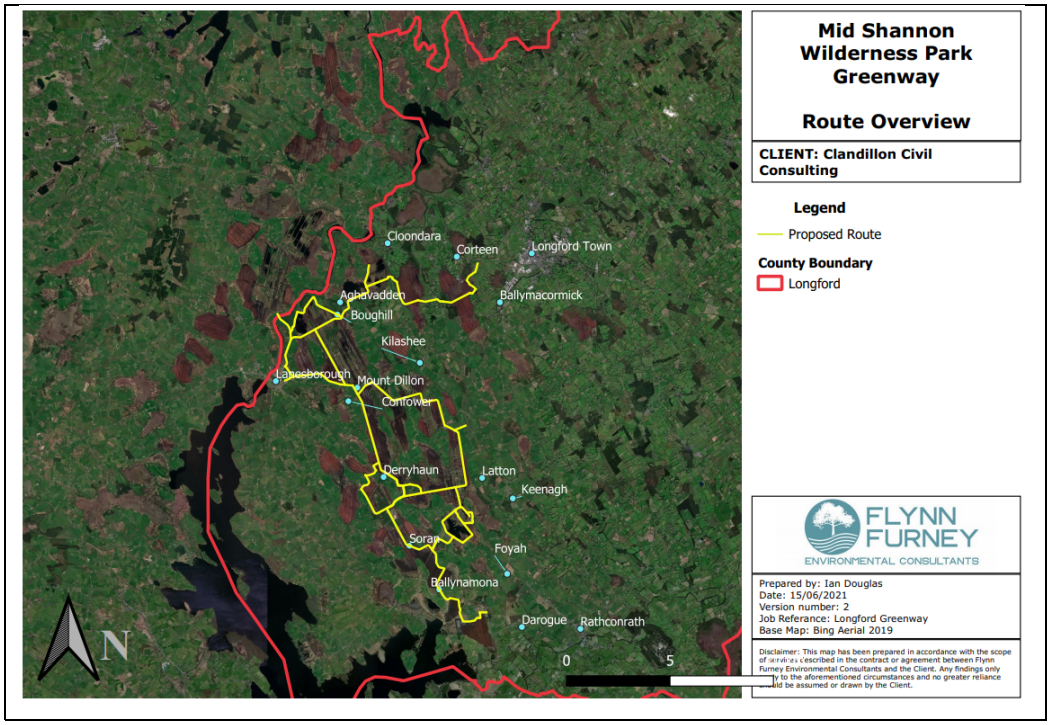
In summary, the scheme is approximately 73 km long and consists of:

- 61 km of greenway along decommissioned Bord na Móna rail lines;
- 6 km of greenway along existing local roads;
- 6 km of greenway through existing cutaway bog.

Including within the 73 km are a number of spurs and side trails linking the main trail to roads, towns and to other trail networks. Works involved with this project includes track clearance, track widening, removal and stock piling of material and the laying of a new track surface, resurfacing of existing roads and the provision of signage and street furniture.

A number of new bridge crossing and bridge improvement works will be required as part of this project. Work may include bank clearance, construction of bridge foundations and the installation of new bridge infrastructure. The design specifications of which have yet to be confirmed.

Figure 1: The proposed route and local towns and villages



1.2 Site Description

The proposed walking route generally follows the old industrial trainline network used to bring cut peat to the Lanesborough power station and to other storage and processing facilities associated with the peat extraction industry. The route also follows a number of small farm tracks, rural roads and passes through areas of recolonising ground and hard stands around Bord na Móna yards and compounds.

The surrounding landscape is dominated by a mixture of degraded bogs, bog woodland, rivers (including the River Shannon), improved and wet grassland interspersed and conifer plantations.

A number of areas of recolonising previously cutover bog were recorded surrounding the proposed route. Recolonising areas generally consisted of open areas of previously cutover peat that firstly becomes interspersed with heather, grasses, rushes and sedges species. Trees, usually Willow and Birch, were noted in later succession areas of cutover bog. The

oldest areas were dominated by bog woodland species which formed dense stands of trees with limited light the understory.

Standing water was a common feature in many of these areas of former raised bog. Permanent or semi-permanent standing water was recorded as complex mosaic habitat of bog and bog fringe species including heather, grasses, rushes and trees was noted interspersed amongst areas of open water and reeds, rushes and wetland tree species. These areas were noted as important for wetland and wading bird species.

2 Legislative context

The methodology for this screening statement is clearly set out in a document prepared for the Environment DG of the European Commission entitled 'Assessment of plans and projects significantly affecting Natura2000 sites: methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC' (Oxford Brooks University, 2001). This report and any contributory fieldwork were carried out in accordance with guidelines given by the Department of Environment, Heritage and Local Government (2009, amended 2010).

The process is given in Articles 6(3) and 6(4) of the Habitats Directive and is commonly referred to as '*Appropriate Assessments*' (which in fact refers to Stage 2 in the sequence under the Habitats Directive Article 6 assessment). Article 6 of the Habitats Directive sets out provisions which govern the conservation and management of Natura 2000 sites. Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment.

"Any plan or project not directly connected with or necessary to the management of the (Natura 2000) site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

Article 6(4) of the same directive states:

"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of the Natura 2000 is protected. It shall inform the Commission of the

compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

It is the responsibility of the proponent of the plan or project to provide the relevant information (ecological surveys, research, analysis etc.) for submission to the 'competent national authority'. Having satisfied itself that the information is complete and objective, the competent authority will use this information to screen the project, i.e. to determine if an AA is required and to carry out the AA, if one is deemed necessary. The competent authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned.

The appropriate assessment process has four stages. Each stage determines whether a further stage in the process is required. If, for example, the conclusions at the end of Stage One are that there will be no significant impacts on the Natura 2000 site, there is no requirement to proceed further. The four stages are:

1. Screening to determine if an appropriate assessment is required
2. Appropriate assessment
3. Consideration of alternative solutions
4. Imperative Reasons of Overriding Public Interest/Derogation

Stage 1. Screening

This is to determine if an appropriate assessment is required. Screening is the technique applied to determine whether a particular plan would be likely to have significant effects on a Natura 2000 site and would thus warrant an Appropriate Assessment. The key indicator that will determine if an Appropriate Assessment is required is the determination of whether the development is likely to have *significant environmental effects* on a Natura 2000 site or not.

Stage 2. Appropriate Assessment

This step is required if the screening report indicates that the development is likely to have a significant impact on a Natura 2000 site. Stage 2 assesses the impact of a plan or project on the integrity of the Natura 2000 site, either alone or in combination with other plans or projects, with respect to the site's structure, function and conservation objectives. Where there are adverse impacts, an assessment of the potential mitigation of these impacts is also required.

Stage 3. Assessment of Alternative Solutions

If it is concluded that, subsequent to the implementation of measures, a plan or project will have an adverse impact on the integrity of a Natura 2000 site, it must be objectively concluded that no alternative solutions exist before the plan or project can proceed.

Stage 4. Imperative Reasons of Overriding Public Interest/Derogation

Where no alternative solutions exist and where adverse impacts remain but imperative reasons of overriding public interest (IROPI) exist for the implementation of a plan or project, an assessment of compensatory measures that will effectively offset the damage to the Natura 2000 site will be necessary.

Flynn, Furney Environmental Consultants Ltd has been appointed by Clandillon Civil Consulting (who have been appointed by Longford County Council) to undertake the first stage of the above process: a screening exercise to determine whether the proposed development has the potential to have any significant or indeterminate impacts on the conservation objectives and overall integrity of any Natura 2000 sites. This assessment is based upon desk study and fieldwork carried out by suitably qualified ecologists. This document includes a detailed description of the development. The sites within 15km of the proposed development are then reviewed for potential impacts or pathways for impacts. Sections 4 and 5 of the report comprise the AA Screening that specifically focus on the potential for impacts on Natura 2000 sites and their conservation objectives.

3 Description of the project and local site characteristics

3.1 Site location

The proposed walking route network generally following the disused Bord na Móna industrial railway route through a number of former raised bogs south and west of Longford town. The trail also includes a number of roadways, farm lanes and areas of recolonising bare ground.

The trail passes through what is generally a rural landscape with other bogs, woodlands and pasture based agriculture the main land uses surrounding the site. The majority of the route is found within lands owned by Bord na Móna.

The ground conditions do not vary significantly within the area under survey. Surfaces along the old train line is generally described as large aggregate crushed rock that has become recolonised by grasses and herb species associated with bogs and recolonising bare ground.

The route starts from Ballyloughan on the N63 approximately 4km southwest of Longford town centre. The route then proceeds west towards Lanesborough and County Roscommon over the Bord na Móna rail bridge at Kilnacarrow. The route then moves south towards the Mount Dillion Bord na Móna Yard and continues south to Derryhaun. The route will also extend east and connect with the Corlea Trackway Visitors Centre and the walkways that surround it. From Derryhaun the route generally continues in a southern direction through BallynaMóna and east towards Ballymahon, where a connection with the Royal Canal trackway will be established.

Works involved with this project include clearance, track widening, removal of old trainlines, removal and stock piling of material and the laying of a new track surface, resurfacing of existing roads which interface with the greenway and the provision of signage and street furniture. A number of new bridges and culverts are also likely to be required as part of this project. Work may include site clearance, tree-felling and the installation of new bridge or culvert infrastructure. The detailed design specifications of this project have yet to be confirmed.

3.2 Description of the proposed development

Table 1: Development description

Development Detail	Description
Size, scale, area, land take	The total length of the route is approximately 73km. The proposed works will generally consist of the construction of a greenway along the existing industrial rail line corridor. The construction of a number of or restoration of a number of bridges and culverts is also anticipated as well as the installation of fencing where required. Rail Decommissioning Works will be carried out by Bord na Móna's in accordance with their Rehabilitation and Decommissioning Plan. The proposed greenway seeks to reuse the former peatland industrial rail network. Land take is unlikely to exceed 3 metres either side of the centre of the track. The project will also include the installation of signage, distance markers and benches (see below).
Details of physical changes that will take place during the various stages of implementing the proposal*	• Removal of rail line as per the Bord Na Móna Rehabilitation/Decommissioning Plan (by Bord na Móna) • Removal of organic material and soil • Surface improvement – Sealed and unsealed surfaces. • Bridge / culvert installation and drainage works • Signage • Boundary fencing / gates / crossing point works • picnic sets and benches • bicycle racks • footfall counters
Description of resource requirements for the construction/operation of the proposal (construction material,	Construction stage resource requirements will likely include crushed rock (Clause 804) and potentially Bitumen depending on the specifications (particularly for locations at risk of flooding).

human presence and wastes produced.	Overburden material may have to be stock piled and removed if suitable onsite reuse like landscaping cannot be found. At an operational stage the Greenway is likely to be busier during daylight hours but is not intended for night-time use.
Other	This proposal will result in increased noise and human presence during the construction phase but this is not greater then the levels of disturbance and noise associated with previous industrial site uses.

3.3 Works and site characteristics and risks to the environment

The principle risks posed from the proposed project relate to the potential temporary disturbance to protected species of birds.

4 Ecological Assessment

4.1 Desk Study

A desktop study was carried out as part of this screening process. This included a review of available literature on the site and its immediate environs. Sources of information included the National Parks and Wildlife Service databases on protected sites and species.

4.2 Designated Sites

Sites designated for the conservation of nature in Ireland include:

- Special Areas of Conservation (SACs)
- Special Protection Areas (SPAs)
- Natural Heritage Areas (NHAs) and;
- proposed Natural Heritage Areas (pNHAs)

SPAs and SACs form the *Natura 2000* network of sites. It is these sites that are of relevance to the screening process for this Appropriate Assessment Screening.

SPAs and SACs are prime wildlife conservation areas in the country, considered to be important on a European as well as Irish level. SPAs and SACs are designated under EU Habitats Directive, transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended.

Natural Heritage Area (NHAs) is the basic designation for wildlife in Ireland. These are areas considered important for their habitats or species of plants and animals whose habitat needs protection. They first entered into European Law under the 1976 Wildlife Act, then were transposed into Irish law with the 1997 Natural Habitats Regulations (S.I. No. 94 of 1997), finally gaining full statutory backing in Ireland with the passing of the Wildlife (Amendment) Act 2000.

pNHA sites were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated. These sites are designated as being of significance for

species and habitats. While not afforded the same protection as sites protected under the Habitats Directive, they are subject to protection through the following mechanisms:

- Agri-environmental farm planning schemes such as GLAS (Formally the Rural Environment Protection Scheme)
- Forest Service requirement for NPWS approval before they will pay afforestation grants on pNHA lands
- Recognition of the ecological value of pNHAs by Planning and Licencing Authorities.

All Natura designated sites within 15km of the proposed works were considered during the desktop study stage of this screening assessment in order to assess the potential for significant effects upon their Qualifying Interests / Special Conservation Interests and Conservation Objectives. This stage of the process is used to determine whether any of the designated sites may be 'screened out'. That is, that they can be regarded as not being relevant to the process, having no potential to be significantly affected or impacted upon.

4.3 Stakeholder Consultation

To date consultations with the following Stakeholders has taken place. These are summarised in table 2 below.

Table 2: Summary of Consultations

Stakeholder	Nature of Consultation	Outcome
Clandillon Civil Consulting	Meetings and phone calls	Need for this Screening Assessment communicated
Longford County Council	Via Clandillon Civil Consulting	The need for this Screening Assessment indicated
National Parks and Wildlife Service	Consultation with Local NPWS Ranger	Report to be issued to Ranger for review as required.

All sites designated for the conservation of nature within 15km of the proposed works are detailed in Table 3 – Table 4 below.

Table 3: Designated sites with 15km of the proposed project area

Site Code	Site Name	Designation	Distance from the site
1626	Annaghmore Lough (Roscommon)	SAC	13.4km
2313	Ballymore Fen	SAC	13.4km
2346	Brown Bog	SAC	1.8km
2336	Carn Park Bog	SAC	14.9km
2348	Clooneen Bog	SAC	7.6km
2349	Corbo Bog	SAC	5.4km
448	Fortwilliam Turlough	SAC	3.4km
1818	Lough Forbes Complex	SAC	1.7km
440	Lough Ree	SAC	0.57km
2202	Mount Jessop Bog	SAC	1.6km
4101	Ballykenny-Fisherstown Bog	SPA	1.63km
4064	Lough Ree	SPA	0.57km
422	AghnaMóna Bog	NHA	11.3km
1423	Cloonageeher Bog	NHA	11.6km
1420	Corracramph Bog	NHA	14.1km
605	Derrycanan Bog	NHA	9.3km
1448	Forthill Bog	NHA	2.18km
2072	Lisnanarriagh Bog	NHA	9.3km
1450	Mount Jessop Bog	NHA	1.6km
691	Rinn River	NHA	12.5km
1617	Ardakillin Lough	pNHA	13.6km
442	Brown Bog	pNHA	1.8km
676	Carn Park Bog	pNHA	14.9km
1822	Carrickglass Demesne	pNHA	6.5km
445	Clooneen Bog	pNHA	7.6km
602	Corbo Bog	pNHA	5.4km
1821	Cordara Turlough	pNHA	2.0km
1444	Derry Lough	pNHA	0.01km

447	Derrymore Bog	pNHA	2.1km
448	Fortwilliam Turlough	pNHA	3.4km
608	Kilglass And Grange Loughs	pNHA	11.2km
449	Lough Bannow	pNHA	0.14km
1819	Lough Bawn	pNHA	0.16km
1642	Lough Boderg And Lough Bofin	pNHA	12.3km
1818	Lough Forbes Complex	pNHA	1.7km
440	Lough Ree	pNHA	0.57km
689	Lough Sewdy	pNHA	11.1km
1443	Lough Slawn	pNHA	5.0km
2103	Royal Canal	pNHA	0.01km
1732	Waterstown Lake	pNHA	11.5km

A total of 10 sites designated as SAC's and 2 sites designated as SPA's were recorded with 15km of the proposed development. The closest being Lough Ree SPA and SAC 0.5km away.

A total of 8 proposed National Heritage Areas (NHAs) were also recorded with 15km of the proposed development. The closest being Mount Jessop Bog 1.6km away.

A total of 20 pNHAs were found within 15km of the route. The closest of these was Derry Lough which the route runs along the boundary at some points.

No direct risks to the conservation objectives of any sites listed in table 1 are considered likely due one or more of the following:

- Lack of connectivity between the proposed development and the designated area.
- Significant buffer between the proposed works area and the designated area
- No impact or change to the management of the designated area or;
- No change to chemical or physiological condition of the designated site as a result of the proposed development.

Table 4: Lough Ree SPA and SAC Conservation Objectives

SITE	CODE	DISTANCE TO DISIGNATED SITE	SCREENING CRITERIA
Lough Ree SPA & SAC	004064	Approximately 0.5km	No physical pathways identified
HABITAT TYPES (*DENOTES A PRIORITY HABITAT)			**Habitat (Natura)**
Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation			3150
Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)			6210
Active raised bogs			7110
Degraded raised bogs still capable of natural regeneration			7120
Alkaline fens			7230
Limestone pavements			8240
Bog woodland			91D0
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)			91E0
Annex II Species: Common name (*Latin Name*)			**Species (Natura) Code No.**
Little Grebe (*Tachybaptus ruficollis*)			A004
Whooper Swan (*Cygnus cygnus*)			A038
Wigeon (*Anas penelope*)			A050
Teal (*Anas crecca*)			A025
Mallard (*Anas platyrhynchos*)			A053
Shoveler (*Anas clypeata*)			A056
Tufted Duck (*Aythya fuligula*)			A061
Common Scoter (*Melanitta nigra*)			A065
Goldeneye (*Bucephala clangula*)			A067
Coot (*Fulica atra*)			A125
Golden Plover (*Pluvialis apricaria*)			A140
Lapwing (*Vanellus vanellus*)			A142

Common Tern (*Sterna hirundo*)	A193
Wetland and Waterbirds	A999
Otter (*Lutra Lutra*)	1355

A map showing all designated sites with 15km of the proposed development can be seen in Appendix A.

The possibly of risk to the Lough Ree SPA and SAC are discussed in more detail below. Risks to the conservation objectives of all other sites listed in table 3 is considered likely due one or more of the following:

- Lack of connectivity between the proposed development and the designated area.
- Significant buffer between the proposed works area and the designated area
- No impact or change to the management of the designated area or;
- No change to chemical or physiological condition of the designated site as a result of the proposed development.

4.4 Field Surveys

Field work for this survey was carried out between the 1st and 9th October 2020. Additional surveys were completed in January 2021. Habitats were classified and dominant plant species noted according to the guidelines given by the JNCC (2010). Habitats were classified according to Fossitt (2000). The field survey was also used to identify potential sources and pathways for impacts to designated sites. The survey also aimed to assess whether any species for which any designated site may have received its designation occur within this study area.

4.5 Habitats Description

No rare, threatened or protected species of plants as per the Red Data Book (Curtis and McGough, 1988) or Red List (Wyse Jackson et al., 2016) were found. No species listed in the Flora Protection Order (2015) were found to occur within the study area.

4.6 Overview of habitats and classification

An overview of the main habitats recorded within and surrounding the Longford Greenway study area are provided here.

Most habitat types noted here are found outside the zone of influence of the works. Works for this Greenway development will primarily be taken place on the following habitats:

- Recolonising Bare Ground ED3
- Buildings and Other Artificial Surfaces BL3
- Cutover Bog PB4
- Scrub WS1

4.6.1 Recolonising Bare Ground ED3

Fossit describes Recolonising bare ground as areas where bare or disturbed ground, derelict sites or artificial surfaces of tarmac, concrete or hard core have been invaded by herbaceous plants. Vegetation cover should be greater than 50% for inclusion in this category.

Recolonising bare ground was recorded throughout the study area along the industrial trainline, at junctions on the edges of the bogs and around yards. Many of the plant species found within this habitat types were typical ruderals, or weed plants including Colt's Foot (*Tussilago farfara*), Nettle (*Urtica dioica*), Dandelion (*Taraxacum spp*.), Willow-herb (*Epilobium spp*.) and Ragwort (*Senecio spp*.). As some bare areas contained a lot of peat bog species including Heath Milkwort (*Polygala serpyllifolia*), Purple Moor-grass (*Molinia caerulea*), Cotton grasses (*Eriophorum spp*.) and Heathers (*Calluna vulgari*) were noted in a number of areas. Species diversity in some areas of recolonising bare ground was quite high with Tormentil (*Potentilla erecta*), Silverweed (*Potentilla anserina*), Perforated St John's Wort (*Hypericum perforatum*), Yarrow (*Achillea millefolium*), Self-heal (*Prunella vulgaris*), Common Bird's-foot Trefoil (*Lotus corniculatus*) and Common Centaury (*Centaurium erythraea*). The remains of a number of Orchids were also noted these were likely Common Spotted Orchid (*Dactylorhiza fuchsii*).

4.6.2 Buildings and Other Artificial Surfaces BL3

This habitat type includes all buildings (domestic, agricultural, industrial and community) along with roads, and other sealed surfaces. With this study, this habitat type was mostly associated with roads, Bord na Móna yards, houses and domestic yards. No significant floral species were recorded within this habitat type.

4.6.3 Cutover Bog (PB4)

The dominant habitat type surrounding much of the site. Cutover bogs are areas of bog where part of or most of the original mass of peat has been removed through turf cutting or other forms of peat extraction. Areas of cutover recorded were generally abandoned or exhausted cutover as little or no peat (relative to its original mass) remained. In many instances the bedrock under the original peat mass was visible. In other areas peat was seen at depths of over 2meters. Cutover bog was generally recorded as a transitional habitat, or complex of habitats, that can include mosaics of bare peat and revegetating areas with woodland, scrub, heath, fen and or grassland communities. The nature of the recolonising vegetation was dependent on numerous factors including the frequency and extent of disturbance, hydrology, the depth of peat remaining, and the nature of the peat and the underlying substratum.

Standing water was present in drains, pools or excavated hollows. Some large areas of flooded cutover bog were recorded around the site and have begun to form complex wetland and wetland fringe habitat similar to fens, flushes and reed fringes.

To allow for a more accurate representation of this habitat type within the report Cutover Bog has been further separated into 4 categories. These categories generally follow the descriptions used in previous ecological studies carried out by Bord na Móna Ecologist. Habitats as described here have been adapted from the Bord na Móna future habitat mapping database. These have been slightly modified to better suit this report. The level of detail provided within these data bases was beyond that required for this report given that this project is not likely to significantly impact areas of recolonising cutover peat.
See foot notes for corresponding habitat classifications.

Bare Cutover Bog (Bare PB4)[1]

Areas of recent disturbance were recolonisation has just become or has not yet taken place. Bare peat accounts for over 80% of the area.

Emerging grassland and heath on Cutover peat (PB4 (GS4, HH1)[2]

A mosaic of areas of grassland usually composed of Purple Moor-grass (*Molinia caerulea*), Rushes (*Juncus effusus, J. acutiflorus, J. articulatus, J. inflexus*), Sedges (*Carex Spp*) and Heathers (*Calluna vulgaris, Erica spp*). Tree including Willows (*Salix sp.*) and Birch Downy Birch (*Betula pubescens*) are present but only as seedlings or juvenile trees.

[1] Classified as bare peat on the Bord na Móna future habitat mapping database

[2] Classified as Bog woodland, heathland, and/or degraded raised bog communities (WN7/WS1/PB1/HH1/HH3/PF2/GS3) on the Bord na Mona future habitat mapping database

Emerging Woodland Cutover Bog (WN7, GS4, HH1)[3]

These are areas of previously open grassland, heathland type cut over bog as described above. Bog woodland species are beginning to become dominant. Trees including Willows (*Salix sp.*) and Birch Downy Birch (*Betula pubescens*) abundant but not yet dominant.

Bog woodland & wetland mosaic (WN7, FL, FS1, PF2, WN6)[4]

This habitat type was commonly found within depressions over large areas of expansive cut over raised bog. These areas where complex mosaics of submerged or semi-submerged plants interspersed within open deeper water. Waters levels are likely to fluctuate greatly during the year. Willow (*Salix Spp*) commonly formed dense stands within this mix along with reed fringe species including Common Reed (*Phragmites australis*), Bulrush (*Typha latifolia*) and Reed Canary-grass (*Phalaris arundinacea*). These habitats were noted as important feeding and resting grounds for a wide range of wetland bird species.

4.6.4 Scrub (WS1)

This broad category includes areas that are dominated by at least 50% cover of shrubs, stunted trees or brambles. The canopy height is generally less than 5 metres. Scrub develops as a precursor to woodland or as a result of recent disturbance and was often found in inaccessible locations, or on abandoned or marginal land. Scrub was common throughout the study area and has developed in a number of different circumstances. Scrub dominated by Bramble(*Rubus fruticosus agg*.), Gorse (*Ulex europaeus*). and Willow (*Salix spp*) was most common. Scrub was commonly found along the sides of the tracks between the track and areas of cutover bog. In many instances scrub was found to transition into bog woodland. Scrub often formed an impenetrable thicket and often could not be surveyed in detail. Trees in the scrub usually consisted of Willows (*Salix Spp.),* Downy Birch (*Betula pubescens*), Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*) and Gorse (*Ulex europaeus*). Climbers included Dog-rose (*Rosa canina*), Bramble (*Rubus fruticosus agg*.), Ivy (*Hedera helix*), Honeysuckle (*Lonicera periclymenum*), Hedge Bindweed (*Calystegia sepium*), Cleavers

[3] Broadly corresponds to Bog woodland (WN7) dominated - with pockets of open habitats (PF2, GS, HH1) on the Bord na Mona future habitat mapping database

4 Bord na Mona future habitat mapping database

(*Galium aparine*) and Bush Vetch (*Vicia sepium*). A herb layer and grasses were generally absent or minimal.

4.6.5 Raised bog (PB1)

Raised bogs are accumulations of deep acid peat (3-12 m) that originated in shallow lake basins or topographic depressions. A number of possible raised bogs still capable of regeneration were noted surrounding the track. These were noted as peat masses that were higher then the surrounding landscape and were usually found at the corners of areas of extensive cutover peat.

Raised bogs have links to a number of annex 1 habitat types mentioned below. As possible areas of raised bog noted during this survey were outside the zone of influence of works, no significant risks to any areas of raised bog were considered likely.

Links with Annex I: Raised bogs correspond to the priority habitat, '*active raised bogs (7110)' if they are still capable of peat formation, or if peat formation has temporarily ceased. 'Degraded raised bogs still capable of natural regeneration (7120)' are also listed as an annexed habitat. These are damaged bogs where it is judged that the peat forming capability can be restored within 30 years. The annexed habitat, 'depressions on peat substrates of the Rhynchosporion (7150)' occurs in pockets as a sub-habitat of raised bog.

4.6.6 Conifer Plantation (WD4) and Mixed Conifer Woodland (WD3)

Fossitt (2000) describes this category as areas that support dense stands of planted conifers where the broadleaved component is less than 25% and the overriding interest is commercial timber production. The conifer plantations encountered were characterised by even-aged stands of trees that are usually planted in regular rows running adjacent to the proposed route and in the surrounds. Plantations consisted mainly of Sitka Spruce (*Picea sitchensis*), Scots Pine (*Pinus sylvestris*) Lodgepole Pine (*Pinus contorta*), Norway Spruce (*Picea abies*) and Larches (*Larix spp.*). Species diversity was generally low and single species stands are common.

Mixed Conifer Woodland as they appeared surrounding the study area was composed of mixed stands of the above species. Depending upon the density of planting and species composition these stands contained varying levels of shrub and understory plants.

The proportion of ground flora species was dependent upon the degree of light penetration and Bramble growth. In many instances Bramble (*Rubus fruticosus agg.)* dominated the understorey and smothered all other plants with the exception of those who could climb above the thicket like Ivy (*Hedera helix*), Honeysuckle (*Lonicera periclymenum*), Hedge Bindweed (*Calystegia sepium*), Cleavers (*Galium aparine*) and Bush Vetch (*Vicia sepium*). Bent grasses (*Agostis* spp.) were noted here.

4.6.7 Mixed broadleaved/conifer woodland (WD2)

This general category includes woodland areas with mixed stands of broadleaved trees and conifers, where both types have a minimum cover of 25%, and a maximum of 75%. Trees contained a mixture of both native or non-native species. In general non-natives were usually conifers including Sitka Spruce (*Picea sitchensis*), Lodgepole Pine (*Pinus contorta*), Norway Spruce (*Picea abies*) and Larches (*Larix spp.*) with the exception of the broadleaved species Beech(Fagus sylvatica) and Sycamore (*Acer pseudoplatanus*). The native broadleaved component usually contained Willows (*Salix Spp.), Alder (Alnus glutinosa)*, Sessile Oak (*Quercus petraea*), Downy Birch (*Betula pubescens*), Holly (*Ilex aquifolium*), Rowan (*Sorbus aucuparia*), Elder (*Sambucus nigra*), Ash (*Fraxinus excelsior*) and Hazel (*Corylus avellana*). The mixture of these species was usually determined by seed sources, light exposure and degree of wetness. Small and immature broadleaved trees and shrubs were common in these habitat types. Understory plants varied greatly across the site depending on typography and acidity of the soil. Under conifers and where conifers had recently stood the following herb species were common; Rosebay Willowherb (*Epilobium angustifolium*), Foxgloves (*Digitalis purpurea*) and ferns including Bracken (*Pteridium aquilinum*) and Hard Fern (*Blechnum spicant*). Climbers; Honeysuckle (*Lonicera periclymenum*) and Ivy (Hedera helix) were also common. In areas where broadleaved trees dominated the ground flora layer Cleavers (Galium aparine), Bush Vetch (Vicia sepium), Meadow Vetchling (*Lathyrus pratensis*), *Nettle (Urtica dioica)* and Wood Sorrel (*Oxalis acetosella*) were noted. Species diversity was likely greater than that described here but could not be fully assessed given the time of the year.

4.6.8 Hedgerows (WL1) and Treelines (WL2)

Hedgerows are linear strips of shrubs, often with occasional trees. Some hedgerows may be overgrown or fragmented if management has been neglected, but where still considered in this category unless they have changed beyond recognition. Most hedgerows recorded during this survey were outside the study area or forming the boundary of the study areas e.g. along roadways or along the track side. Species composition varies with factors such as age, management, soils and exposure. Hedgerows usually contained plants such as Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*), Gorse (*Ulex europaeus*), Holly (*Ilex aquifolium*), Dog-rose (*Rosa canina*), Bramble (*Rubus fruticosus agg*), Ash (*Fraxinus excelsior*), Hazel (*Corylus avella*na), Beech(Fagus sylvatica), Elder (*Sambucus nigra*), Elms (*Ulmus spp*.) and Willows (*Salix spp*.). In many instances mature trees over 10 meters tall were found within hedgerows. Climbing plants such as Ivy (*Hedera helix*), Honeysuckle (*Lonicera periclymenum*), Hedge Bindweed (*Calystegia sepium*), Cleavers (*Galium aparine*) and Bush Vetch (*Vicia sepium*) were common. Many hedgerows particularly those in front of houses or that ran along roads contained non-native shrub species including Fuchsia (*Fuchsia magellanica*), Box (*Buxus sempervirens*), Snowberry (*Symphoricarpos albus*), Cotoneaster (*Cotoneaster spp*.), Leyland cypress (*Cupressus* x *leylandii*) and Cherry Laurel (*Prunus laurocerasus*).

Treelines were also common features in the same context as hedgerows discussed above. Treelines usually had the same characteristics as hedgerows but contained more mature trees. Treelines species included: Beech(Fagus sylvatica), Downy Birch (*Betula pubescens*), Horse Chestnut (*Aesculus hippocastanum*), Sycamore (*Acer pseudoplatanus*), Ash (*Fraxinus excelsior*) and Alder (*Alnus glutinosa*).

4.6.9 Mixed Broadleaved woodland (WD1)

Fossit describes this general category of woodlands as areas with 75-100% cover of broadleaved trees, and 0-25% cover of conifers. Mixed broadleaved woodland is used in situations where woodland stands cannot be classified as semi-natural or are clearly planted this may include woodlands planted hundreds of years before as is often the case in and around old estates. Beech(*Fagus sylvatica*) was a common inclusion in this habitat type along with Willows (*Salix Spp.), Alder (Alnus glutinosa)*, Sessile Oak (*Quercus petraea*), Downy Birch (*Betula pubescens*), Holly (*Ilex aquifolium*), Rowan (*Sorbus aucuparia*), Sycamore (*Acer*

pseudoplatanus), Elder (*Sambucus nigra*), Ash (*Fraxinus excelsior*) and Hazel (*Corylus avellana*) in varying quantities. The ground layer within this habitat type was variable and often contained large numbers of sapling Ash (*Fraxinus excelsior*), Elder (*Sambucus nigra*) and Sycamore (*Acer pseudoplatanus*).

Bramble (*Rubus fruticosus agg.)* was dominant or abundant in most areas of Mixed Broadleaved woodland along Wood Speedwell (*Veronica montana*), Ivy (*Hedera helix*), Herb-Robert (*Geranium rob*ertianum), Bush Vetch (Vicia sepium), Enchanter's-nightshade(*Circaea lutetiana*), Wood Sorrel (*Oxalis acetosella*) and Bracken (*Pteridium aquilinum*).

In wet areas where streams and ditches were found or where the ground level was closer to the water level wet woodland areas occurred. Many of these areas have been classified as Wet Willow Woodland (WN6) and these are discussed in detail below. Areas of broadleaved woodland that were wet but did not fit into that category as they were not permanently waterlogged are described here:

Woodlands dominated by Willows (*Salix Spp.), Alder (Alnus glutinosa)*and Downy Birch (*Betula pubescens*) was commonly found in depressions bordering the site and along the edge of areas of cutover bog.. *Alder (Alnus glutinosa)* and Willow usually dominated the canopy with grasses including creeping bent (*Agrostis stolonifera*) often forming a uniform mat in the understory. Herbs included Water Mint (*Mentha aquatica*), Water forget-menots (*Myosotis spp*.), Meadowsweet (*Filipendula ulmaria*) and Rushes (*Juncus Spp*). Many of these areas graded into true Wet willow woodland or areas of wet grassland.

4.6.10 Wet willow-Alder-ash woodland (WN6)

According to Fossitt (2000) this broad category includes woodlands of permanently waterlogged sites that are dominated by Willows (*Salix sp.*), Alder *(Alnus glutinosa)* or Ash (*Fraxinus excelsior*), or by various combinations of some or all of these trees. It includes woodlands of lakeshores, stagnant waters and fens. Woodlands of this habitat types have a ground flora that is often 'grassy' in appearance with abundant remote Sedge (*Carex remota*) and Creeping bents (*Agrostis stolonifera*). Other common components of the field layer include Bramble (*Rubus fruticosus agg*.), Creeping Buttercup (*Ranunculus repens*),

Meadowsweet (*Filipendula ulmaria*), Marsh-bedstraw (*Galium palustre*), Yellow pimpernel (*Lysimachia nemorum*) and Lady-fern (*Athyrium filix-femina*).

Surrounding the study area these woodlands were typically found around where rivers and drainage ditches were close to ground level creating permanent or near permanent flooded conditions for most of the year. Ground flora was quite typical of WN6 woodlands in places with common components including Reed Canary-grass (*Phalaris arundinacea*), Remote Sedge (*Carex remota*), Creeping Buttercup (*Ranunculus repens*), Marsh-bedstraw (*Galium palustre*). Other species commonly occurring in this habitat included Water Mint (*Mentha aquatica*), Marsh Thistle (*Cirsium palustre*), Purple loosestrife (*Lythrum salicaria*), Wild Angelica (*Angelica sylvestris*) and Lady-fern (*Athyrium filix-femina*).

Fossitt notes that "wet willow-Alder-ash woodland (WN6) may contain links with the priority Annex I habitat Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-padion, Alnion incanae, Salicion albae*) (91E0)".

4.6.11 Depositing lowland rivers (FW1) and Eroding upland Rivers (FW1)

Rivers within the study area were found crossing the route at a number of occasions. In most instances, aquatic vegetation was only occasional and typically species here included Fool's Water Parsley (*Apium nodiflorum*), Reed Canary Grass (*Phalaris arundinacea*) and unbranched Bur-reed (*Sparganium emersum*) with water starwort (*Callitriche sp*.) and Duckweed (Lemna sp.) occurring where the flow was particularly slow.

4.6.12 Drainage ditches (FW4)

This category includes linear water bodies or wet channels that are entirely artificial in origin, and some sections of natural watercourses that have been excavated or modified to enhance drainage and control the flow of water. Drainage ditches either contained water (flowing or stagnant) or were wet enough to support wetland vegetation. Drainage ditches were common throughout the site and were usually associated with drainage of peat formations. These varied in sizes and significance. Smaller ditches contend little Fool's Water-cress (*Apium nodiflorum*), Bramble (*Rubus fruticosus agg.*), Creeping Buttercup (*Ranunculus repens*) and

Lady-fern (*Athyrium filix-femina*). Other large drainage ditches were dominated by Duckweed (Lemna sp.) and also contained Giant Hogweed (*Heracleum mantegazzianum*).

4.6.13 Dry meadow and grassy verges (GS2)

Dry meadow and grassy verges (GS2) primarily occurred on unmanaged land associated with roadside verges, paths and lands unmanaged for recreation or agriculture. This habitat type often merged between areas of recolonising bare ground, hedgerows, scrub and treelines.

These grasslands were typically overgrown, contained a high proportion of course grasses such as Cock's-foot (*Dactylis glomerata*), Bents (*Agrostis spp*.), False Oat-grass (*Arrhenatherum elatius*) and Purple Moor-grass (*Molinia caerulea*). The herb layer contained mainly tall growing or climbing herbs including common Hogweed (*Heracleum sphondylium*), Hedge Bindweed (*Calystegia sepium*), Bush Vetch (*Vicia sepium*) and Common Knapweed (*Centaurea nigra*). In wetter areas Bog Asphodel (*Narthecium ossifragum*) and Devil's-bit Scabious (*Succisa pratensis*) were commonly recorded.

Where disturbance was minimal or along the unkept banks of the trainlines species diversity was high in places including Silverweed (*Potentilla anserina*), St John's Wort (*Hypericum perforatum*), Selfheal (*Prunella vulgaris*), Common Bird's-foot Trefoil (*Lotus corniculatus*), Cat's-ear (*Hypochoeris radicata*). was often abundant. In wetter areas Bog Asphodel (*Narthecium ossifragum*) and Devil's-bit Scabious (*Succisa pratensis*) were commonly recorded. The dead stalks of Orchids were found in and along a number of verges. These could not be indemnified given the time of year but were likely common spotted orchids.

4.6.14 Bog Woodland (WN7)

This category can include woodlands of intact ombrotrophic bogs, bog margins and former cutover bog. Bog woodland typically occurs on deep acid peat that is relatively well drained in the upper layers and is commonly associated with former turf cutting activity or drainage. It may also occur in areas of cutover bog where most of the peat has been removed. Bog woodland was common surrounding the study area. Downy Birch (*Betula pubescens*) and Willows (*Salix spp*.) usually dominated and often formed pure stands. In particularly well developed areas of bog woodland other trees and shrubs can including Holly (*Ilex aquifolium*),

Rowan (*Sorbus aucuparia*), Scots Pine (*Pinus sylvestris*) and Oaks (*Quercus spp*.) were noted. Dwarf shrubs such as Ling (*Calluna vulgaris*) or Bilberry (*Vaccinium myrtillus*) were commonly found in the field layer of this habitat usually in association with Bracken (*Pteridium aquilinum*), Bramble (*Rubus fruticosus agg.*), Ivy (*Hedera helix*), Purple Moor-grass (*Molinia caerulea*) and Honeysuckle (*Lonicera periclymenum*).

4.6.15 Wet grassland (GS4)

Areas of wet grassland varied across the site. Significantly large areas of this habitat type were recorded surrounding the site and were associated with low intensity agriculture. These were generally dominated by Rushes (*Juncus effusus, J. acutiflorus, J. articulatus, J. inflexus*) and Sedges (*Carex Spp*). Grasses included Yorkshire-fog (*Holcus lanatus*) and Creeping Bent (*Agrostis stolonifera*) were noted. The herb component usually contained Creeping Buttercup (*Ranunculus repens*), Marsh Thistle (*Cirsium palustre*), Silverweed (*Potentilla anserin*a), Meadowsweet (*Filipendula ulmaria*), Water Mint (*Mentha aquatica*) and Horsetails (*Equisetum spp*.). Yellow Iris (*Iris pseudacorus*) dominated wet grassland was also recorded in a number of locations.

Table 5: Other Habitats noted around the site

Habitat Types	Fossit Code
Stone walls and other stonework	BL1
Improved Grassland	GA1
Amenity Grassland	GA2
Dense bracken	HD1
Ornamental/non-native shrub	WS3
Immature woodland	WS2

4.7 Mammal Activity

Populations of Badgers likely hold territories that include some portions of the Longford Greenway route. No setts were recorded during the fieldwork portion of this study. No evidence of Otter activity was also recorded. Otter are likely to be present within the Royal Canal that the Greenway crosses and possibly some of the rivers it also crosses. Pine Marten is a protected species that has extended its range in Ireland in recent years. Signs including scat marking were recorded in a number of locations along the fringes of woodlands and bogs. Red Squirrel has similarly expanded its range in recent times and however no signs of recent Red Squirrel activity were recorded.

4.8 Breeding Birds

All bird species seen and heard during surveys were recorded. The greater majority of the birds recorded were of least conservation concern (Birdwatch Ireland) but 2 no. species were 'red list' species (Golden Plover and Meadow Pipit), being of highest conservation concern. The vast wetland areas that are developing around the site are likely to become important breeding and nesting areas for a number of wetland and wading bird species.

4.9 Bats

Surveys for sites suitable for bat roosts (e.g. buildings or large mature trees) were also carried out. No likely roost sites were recorded within the footprint of the Greenway route. Some suitable trees were noted surrounding the route in neighbouring farms. Much suitable foraging area for several bat species occurs over the area surveyed.

5 ARTICLE 6(3) SCREENING ASSESSMENT

This Screening assessment questionnaire (EC, 2001) is used to assess whether this project has the potential to impact upon Natura 2000 sites. The consideration criteria of potential for impacts on Natura 2000 sites is detailed below.

5.1 Article 6(3) Assessment Criteria

5.1.1 Description of the individual elements of the project likely to give rise to impacts on the Natura 2000 site.

It is not considered likely that the proposed development is likely to give rise to impacts to and Natura designated sites.

Minor risk of disturbance to designated species using the sites may exist during the construction operations for the Greenway through noise and light pollution but these would likely be less significant than same during peat cutting activities.

5.1.2 Description of any Likely Direct, Indirect or Secondary Impacts of the Project on the Natura 2000 Site.

Any likely direct, indirect or secondary impacts of the proposed development, both alone and in-combination with other plans or projects, on the SAC by virtue of the following criteria: size and scale, land take, distance from the Natura 2000 site or key feature thereof, resource requirements, emissions, excavation requirements, transportation requirements and duration of construction, operational and decommissioning phases of the works are detailed in the Table 5 below.

Table 6: Assessment of Likely Impacts

ASSESSMENT OF LIKELY IMPACTS	
Size and scale	The Longford Greenway covers a very large area at 74 linear km but is proposed to be less than 5 meters wide (3m on average). This includes bogs, roads, tracks and train lines. No Natura 2000 sites occur within the proposed route area. Therefore no significant impacts to any Natura designated sites owing to size or scale of the proposed works exist.
Land-take	None of the proposed route is planned to take place within the boundary of any Natura 2000 sites therefore land-take is nil.
Distance from the Natura 2000 site or key features of the site;	None of the proposed route is planned to take place within the boundary of any Natura 2000 sites. The nearest designated site is Lough Ree 0.5km from the proposed route.
Resource requirements (water abstraction etc.);	No materials for construction will be sourced from within any Natura 2000 sites. No water will be abstracted from the site during the construction or operation of the development. Therefore, there will be no impact on any Natura 2000 sites as a result of resource requirements.
Emissions (disposal to land, water or air);	No emissions are predicted as likely that will impact upon any Natura 2000 sites beyond those normally associated with any trail development projects.
Excavation requirements;	As none of the proposed track construction will take place inside any Natura 2000 sites, excavation requirements are nil.
Transportation requirements;	Access to much of the sites can take place using pre-existing roads, industrial rail line routes and laneways and will not impact any Natura 2000 sites.
Duration of construction, operation, decommissioning, etc.;	Duration of operations not known at time of writing. It is likely that the construction period would be over 12 months. The operational phase of the Greenway would be indefinite.

Timing of works	Works shall be timed to minimise disturbance to native species. Track clearance in woodland or scrub areas should take place outside of the breeding season for birds. Works shall be carried out in dry conditions and not during/immediately after flooding incidents. Works shall not be permitted after dusk or before dawn to avoid impact upon crepuscular species.
Cumulative or In-combination Impacts with other Projects and Plans	There are no other projects or plans known to the author that would, in-combination with the proposed works have significant impacts on any Natura 2000 site.

5.2 Description of any Likely Changes to the Natura 2000 Sites

Any likely changes to the Natura 2000 site are described in the table below with reference to the following criteria: reduction of habitat area, disturbance to key species, habitat or species fragmentation, reduction in species density, changes in key indicators of conservation value and climate change.

Table 7: Likely changes to the Nature 2000 site

Likely Changes to the Natura 2000 Site	
Reduction of habitat area	No work will take place within the boundary of any Natura 2000 sites. Works will take place in a number of different habitat types including cutover bog, scrub, recolonising bare ground, improved grassland and mixed woodland. No habitats identified within the works area are those of significance for the two qualifying interest species of any Natura 2000 sites nearby. Some areas of what appeared to be intact raised bog were noted surrounding the proposed route in a number of locations. Raised bogs is one if the qualifying interests of a number of local Natura 2000 sites. However these areas are

	outside the works area for this project. Therefore risks are considered negligible.
Disturbance to key species	One of the qualifying interests of the nearest Natura 2000 site; Lough Ree was recorded during survey: Golden Plover (*Pluvialis apricaria*). This was noted flying over the route and within areas of open bogland surrounding the route in a number of locations. This species was recorded at a significant distance from the proposed works area and looked to only be using the site for temporary feeding. Risk of disturbance to this species is considered low.
Habitat or species fragmentation	There will be no works within any SAC or SPA. No impacts on any qualifying species are predicted. Therefore there will be no impacts within any Natura 2000 sites with regard to habitat or species fragmentation.
Reduction in species density	No reduction in species density is considered likely within any SAC or SPA as a result of the proposed works.
Changes in key indicators of conservation value (water quality etc.);	Habitat integrity is the most relevant of the key indicators of conservation value with regard to the nearest Natura 2000 site. However, the risk of any significant impacts on water quality within this site during the construction phase can be excluded due to nature of the works and absence of any hydrological connectivity.
Climate change	No effects to the site as a result of or in combination with enhanced climate change are predicted as a result of the proposed development.

5.2.1 Likelihood of Interference with the key relationships that define the structure and function of the Natura 2000 Site as a whole:

It is considered that there will be no long-term residual impacts from the proposed works upon the key relationships that define any local Natural 2000 sites. Appropriate measures will be put in place during the works phase to prevent any possible impacts during construction. A Construction Environmental Management Plan will be implemented in order to adhere to best

practice construction methods and prevent any impacts on water quality or to designated species.

5.2.2 Indicators of Significance as a Result of the Identification of Effects

Indicators of significance as a result of the identification of effects as set out below in terms of loss, fragmentation, disruption, disturbance and changes to the key elements of site.

Table 8: Indicators of significance

Indicators of Significance	
Loss	There will be no loss of habitat within any Natura 2000 site as a result of the proposed works. It is not anticipated that the loss of any species of conservation interest will occur as a result of the proposed works due to injury or mortality.
Fragmentation	No habitat fragmentation to any Natura 2000 site is predicted.
Disruption	No significant risk of disruption to any Natura 2000 sites are likely during this project.
Disturbance	As above
Change to key elements of the site (e.g. water quality etc.)	No long term changes to any key elements of any Natura 2000 site are predicted as a result of the proposed development.

5.2.3 Description of any Likely Significant Impacts or Indeterminate Impacts of the Project on the Natura 2000 Site

Based on a consideration of the likely impacts arising from the proposed works and a review of their significance in terms of the conservation interests on Lough Ree SPA and SAC, no significant impacts have been identified as *likely* on the Natura 2000 site as a result of the proposed development.

5.3 FINDINGS OF ARTICLE 6(3) SCREENING ASSESSMENT

Name of project or plan: Mid Shannon Wilderness Park Greenway

Name and location of Natura 2000 Site: *Proposed works are to take place across a 73km extent of existing industrial train lines, roads, tracks south of Longford town and North of Ballymahon. The nearest Natura 2000 sites are Lough Ree SPA and Lough Ree SAC*

Description of project or plan: A Greenway (a cycleway that caters for both pedestrians and cyclists in a recreational environment) is proposed in Co. Longford with a small section in Co. Roscommon. Longford County Council have proposed the development of the Mid-Shannon Wilderness Park Greenway, a proposed new greenway through the Bord na Móna bogs of central Longford.

In summary, the scheme is approximately 73 km long and consists of:

- 61 km of greenway along decommissioned Bord na Móna rail lines;
- 6 km of greenway along existing local roads;
- 6 km of greenway through existing cutaway bog.

The route also includes a number of spurs and side trails linking the main trail to roads, towns and to other trail networks. Works involved with this project includes track clearance, track widening, removal and stock piling of material and the laying of a new track surface.

This proposed Greenway will likely comprise a 3m wide track, with 1m buffer strips on either side. The greenway will be constructed almost entirely within lands belonging to Bord na Móna.

The project will involve the clearance of vegetation in some areas but will generally consist of clearance and improvement works to the existing Bord na Móna industrial trainline. Also involved will be the installation of signage, seating areas and associated works.

Is the project or plan directly connected with or necessary to the management of the site?: The project is not directly connected with or necessary to the management of any Natura 2000 sites.

Are there no other projects or plans that together with the project or plan being assessed could affect any Natura designated sites?

A number of other projects were reviewed via the Longford County Council Planning application finder[5]. The Bord na Móna Biodiversity Action Plan (2016-2021) was also reviewed. It is considered that the proposed Greenway is in line with long-term environmental policies drawn up to avoid or negate environmental impacts. Therefore, no cumulative or in combination impacts arising from these plans is predicted. No other plans of projects were noted that in combination with this proposed project are likely to lead to impacts to any designated sites.

5.3.1 Assessment of Significance of Effects

Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site:

The proposed project will not significantly affect any Natura 2000 sites.

Explain why these effects are not considered significant:

- Scale and duration of works are limited.
- No physical connectivity to any Natura 2000 sites
- Nature of the proposed development.

Direct impacts upon the Natura 2000 Site:

- None Predicted

Indirect impacts upon the Natura 2000 Site:

- Potential for temporary disturbance to bird species that may use areas of cutover bog as a result of the construction works.

5.4 Data collected to carry out the assessment

The following sources of data were employed:

[5]https://longfordcoco.maps.arcgis.com/apps/webappviewer/index.html?id=19502a11070f4f278d82912cc9a9d43d

- Environmental Protection Agency Database
- NBDC database (www.biodiversity.ie)
- NPWS protected species database and online mapping
- Historical OSI Maps
- NPWS protected species database and online mapping.
- NPWS Site Synopsis and Conservation Objectives Lough Ree SPA and SAC.
- Longford County Council Planning Database

Level of assessment completed

- Desk Study
- Site visits and surveys in October 2020
- JNCC Phase 1 Habitat Assessment
- Fossitt Level III Habitat Recording

5.5 Overall Conclusions

Impacts to the Lough Ree SPA and SAC and or any other Natura 2000 designated sites as a result of the proposed Greenway construction are extremely unlikely. A possible minor risk of temporary disruption during construction to a number of designated bird species for which Lough Ree has received its designation may exist. Again, this is extremely unlikely. It is concluded that a full Appropriate Assessment is not required.

6 References

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Appendix A: Designated sites with 15km of the proposed greenway route