

Aghoo Bridge to Lock 4 Blueway, Ballinamore, Co. Leitrim Screening for Appropriate Assessment

Prepared by:

**Waterways Ireland
Environment & Heritage Section
Scarriff, Co. Clare**

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1 Introduction

This Screening report to inform the Appropriate Assessment (AA) process has been prepared to evaluate the proposed amended design for the Aghoo Bridge to Lock 4 Blueway Project, as shown in Figure 1. Leitrim County Council in partnership with Waterways Ireland are proposing the continuation of the Shannon-Erne Blueway Trail from Aghoo Bridge to Lock 4 – Aghoo. The proposed Blueway will comprise of the construction of approximately 390m of new cycle/pedestrian trail including a new bridge underpass at Aghoo Bridge.

Waterways Ireland is the navigation authority for the Shannon-Erne Navigation. Along the banks of the canalised river and canal sections of the Shannon-Erne Navigation, Waterways Ireland owns and maintains the towpath.

At various locations along the Shannon Navigation and Shannon-Erne Waterway, walkways and cycle routes have been developed in both the rural and urban environments which have proven to be very popular attractions to the region. The Blueway Trail from Aghoo Bridge to Lock 4 is a continuation of the trail starting at Lock 7 and coming through Ballinamore town. The current proposal is to develop a further 390m section of Blueway Trail from Lock 4 – Aghoo to the Aghoo Bridge where it will connect to existing Ballyduff to Aghoo Bridge Walking Trail along the Ballinamore Canal.

The typical construction of the Blueway trail will involve constructing a 3m wide compacted stone unbound dust surface along most of the route. The proposed works shall include a section rock armour bank stabilisation, signage, road markings, fencing and drainage. A new pedestrian underpass shall be provided under Aghoo Bridge which shall be constructed from gabion baskets with a handrail and timber fender.

The report comprises information in support of the Screening of the project in line with the requirements of Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora (hereafter referred to as the Habitats Directive). The evaluations presented in this Screening report have been completed by a qualified and competent ecologist utilising current guidance and scientific information, as well as ecological survey data on the ground.

The purpose of this Screening report is to inform the Appropriate Assessment (AA) process to determine, based on objective scientific information, whether the proposed project, alone and in combination with other plans or projects, has the potential for significant effects on any designated European Site in view of the site's conservation objectives. The Screening conclusion statement is determined based on the project description and detail provided herein, with regard to the works being proposed and completed by Waterways Ireland, and is full and complete. Local ecological interests separate to any Natura 2000 designation were identified on site but are not evaluated or assessed in the context of the current document, which is restricted to the requirements for AA reporting with regard to the Habitats Directive requirements under Article 6(3).

1.1 Statutory Authority of Waterways Ireland

Waterways Ireland is the North/South Implementation Body for the inland navigable waterway systems of Ireland and was established under the British-Irish Agreement, 1999. The statutory remit of Waterways Ireland is to manage, maintain, develop and restore the inland navigable waterways, principally for recreational purposes. The waterways under our remit include the Barrow Navigation, the Royal and Grand Canals, the Shannon Navigation, the Shannon-Erne Waterway, the Erne System and the Lower Bann.

This Screening Report complies with the requirements of Article 6 of the EC Habitats Directive (1992) transposed in Ireland principally through the Planning and Development Act 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) (referred to as the Habitats Regulations herein). In the context of the proposed project, the appropriate legislation is the Birds and Natural Habitats Regulations (2011) and the 'public authority' as the proponent and competent authority is Waterways Ireland; in accordance with Article 42 of the Habitats Regulations:

“The public authority shall determine that an Appropriate Assessment of a plan or project is not required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it can be excluded on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.”

2 THE APPROPRIATE ASSESSMENT PROCESS

2.1 Legislative Context

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations (in particular Part XAB of the Planning and Development (Amendment) Act 2010 and the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477) (referred to as the Habitats Regulations herein) to ensure the ecological integrity (i.e. Conservation Objectives) of these sites. The Birds Directive (2009/147/EC) seeks to protect birds of special importance by the designation of Special Protection Areas (SPAs) for bird species and their habitats listed on Annex I of the Directive. Similarly, the Habitats Directive (92/43/EEC) designates Special Areas of Conservation (SACs) for habitats and species listed in Annex I and Annex II of that Directive.

Ireland has obligations under EU law to protect and conserve biodiversity. This relates to habitats and species both within and outside designated sites. Nationally, Ireland has developed a National Biodiversity Plan (DCHG, 2017) to address issues and halt the loss of biodiversity, in line with international commitments. The vision for biodiversity is outlined: *“That biodiversity and ecosystems in Ireland are conserved and restored, delivering benefits essential for all sectors of society and that Ireland contributes to efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally”*.

Ireland aims to conserve habitats and species, through designation of conservation areas under both European and Irish law. The focus of this Screening is on those habitats and species designated pursuant to the EU Birds and EU Habitats Directives in the first instance, however it is recognised that wider biodiversity features have a supporting role to play in many cases where the Conservation Objectives of designated sites is to be maintained/restored.

Appropriate Assessment (AA) is an assessment of whether a plan or project, alone and in combination with other plans or projects, could have significant effects on a European site in view of the site’s conservation objectives. The requirement of AA is outlined in Article 6(3) and 6(4) of the Habitats Directive (1992). Article 6(3) of the Habitats Directive requires that:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In the light of the conclusions of the assessment of the implications 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.”

Furthermore, Article 6(4) of the Habitats Directive requires that:

“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 a social or economic nature, the Member State shall take all compensatory

measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.”

Over time legal interpretation has been sought on the practical application of the legislation concerning AA, as some terminology has been found to be unclear. European and National case law has clarified a number of issues and some aspects of European Commission (EC) published guidance documents have been superseded by case law. Appropriate Assessment is required to utilise best scientific knowledge in the field, as determined in case law. Competent Authorities must ensure that scientific data (ecological and hydrological expertise) is utilised as appropriate. This report presents a Screening to inform the AA process which is finalised by a determination, to be completed by the appropriate Competent Authority (i.e. Leitrim County Council), in compliance with their obligations under Article 42 (sub-sections 1, 6, 7, 16 and 18) of the Birds and Natural Habitats Regulations, 2011 (as amended).

2.2 Appropriate Assessment Methodology

The AA process follows a step-wise approach, commencing with a Screening Assessment to determine whether Appropriate Assessment is required; progression through the AA process is contingent on the potential for adverse effects on European Sites (SAC/SPA).

Screening Assessment – This process identifies the likely significant impacts upon a European site from a proposed project or plan. Its purpose is to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project which is not directly connected with or necessary to the management of the site as a European Site, individually or in combination with other plans or projects is likely to have a significant effect upon the European site. A project may be “screened-in” if there is a possibility or uncertainty of significant effects upon the European site, thus requiring AA. If there is no evidence to suggest significant effects due to the proposed plan or development the project is “screened-out” and AA is not required.

Appropriate Assessment – Consideration of the project or plan with regard to adverse effects on the integrity of designated European Sites, either alone or in combination with other projects or plans, with respect to the site’s structure and function and its conservation objectives. Additionally, where adverse impacts have been identified, an assessment of the potential mitigation to reduce/minimise/avoid such impacts is required. The AA statement is the responsibility of the appropriate Competent Authority; this decision making is informed by a Natura Impact Statement (NIS). Such an assessment is required where uncertainty of the significance of effect arises or a potential effect has been defined which requires further procedures / mitigation to remove uncertainty of a defined impact.

Assessment of Alternative Solutions – Where adverse effects on a European Site are identified in the AA process (detailed in the NIS), despite the prescription of mitigation, this third stage examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the European Site.

Assessment Where Adverse Impacts Remain - The fourth and final stage is required where an alternative solution is not available. In this situation, the project can only proceed for Imperative

Reasons of Overriding Public Interest (IROPI), despite the plan or project resulting in adverse effects on European Site(s). This stage provides for an assessment of compensation measures to maintain or enhance the overall coherence of the Natura 2000 network.

2.3 Guidance Followed

This report has been carried out using the following guidance:

- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 & PSSP 2/10.¹
- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010)².
- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg (EC 2018)³.
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. Office for Official Publications of the European Communities, Luxembourg (EC 2007)⁴.

¹ NPWS (2010). Legislation Unit, NPWS Department of Environment, Heritage and Local Government, Dublin.

² National Parks and Wildlife Services (2010):

http://www.npws.ie/sites/default/files/publications/pdf/NPWS_2009_AA_Guidance.pdf

³ European Commission (2018)

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/Provisions_Art_6_no_v_2018_endocx.

⁴ European Commission (2007)

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/guidance_art6_4_en.pdf

3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

3.1 Description of the Proposal

The proposed Blueway trail will join with the existing Blueway trail on the southern side of the navigation, at the western side of Aghoo Bridge, near Ballinamore, Co. Leitrim (Figure 1). An underpass will be constructed below the road bridge to allow trail users to cross safely under the road to the eastern side of the road bridge. The trail will then be in the field running adjacent to the public road, ascending the hill towards Lock 4. The trail will cross through the field from the roadside, dropping to meet the existing maintenance strip along the canal alignment. The trail follows the existing maintenance strip, adjacent to the navigation to meet the parking area at Lock 4, and traverses Lock 4 and weir at the existing walkway bridges to the northern side of the navigation. Most of the works are to be completed by Waterways Ireland direct labour force; however, some elements of the work shall be contracted out such as installation of crash barriers along the public road margin and the hire of some plant.

The location of the project is as shown in Figure 1 above, a detailed project works location is presented in Figure 2a and 2b below.

3.1.1 Construction Methodology

Site Access

1. Entry to the site will be made only at the existing gates at the hardstanding to the western side of Aghoo Bridge; off the public road at the eastern side of the bridge; and at Lock 4 to access the eastern end of the route. Site offices, storage, etc. shall be at these same locations. Gates, fences, lights and guards will be provided as necessary.
2. Ongoing Consultation on the final Works Method Statement and schedule with IFI and National Parks and Wildlife.
3. Issue marine notice to inform navigation users of the planned works.
4. IFI to be given 2 week notice for electrofishing and will be kept updated and given notice as to which actual days this will be required.

Stepwise construction methodology

1. A ramp shall be constructed to join the existing trail to the underpass at the start of the new trail.
2. Where existing levels are above design levels, excavation for the trail shall be carried out to the depths shown on the drawings with excavated materials set aside for re-use. This material shall be reused to form a bund where required. Openings shall be provided at 5m centres in bunds to promote dispersal of surface water.
3. Run off from the road discharges into the aforementioned field drain. Further along the trail towards Lock 4 the run off discharges down the bank into the navigation. A large culvert crosses from the high ground on the far side of the road and discharges on the bank above the proposed walkway. A culvert will be required at this location.
4. Substantial bank reconstruction is required over an approximately 50m length of the walkway prior to construction of the proposed trail. This work shall consist of a rock armour revetment

with a side slope of 1 vertical to 1.5 horizontal. The existing bank profile shall be shaped to this gradient prior to construction. The trail shall meet the black top area at Lock 4 through the existing stone piers.

5. On completion of construction, a timber post and wire fence shall be constructed as per the drawing. Design and construction of the traffic collision barrier will be completed by appointed qualified persons. Barriers or field gates shall be constructed as per the design drawings. Signage shall be erected as per the design drawings.

The works comprise of the following elements and shall be sequenced as detailed below:

1. Installation of safety barriers, railings and signage at appropriate locations
2. Set up a fuel storage area including setting out a minimum 10m refuelling set-back distance from the watercourse.
3. Placement of all non-bunded pumps on site on drip trays which will be subject to regular inspection and any fuel disposed of accordingly. All plant, machinery and fuel lines will be inspected daily to check for leaks and damage, with faulty (leaking) equipment being removed off site for repair without delay. Spill kits on sites.
4. Arrange with IFI to complete a site inspection to ensure they are happy with the pre-construction site set up. Fisheries may inspect settlement measures before any dewatering pumping commences at the bridge underpass works.
5. Silt curtain/silt fencing will be installed adjacent to all instream works locations. Silt curtains will be deployed across the navigation at the bridge works sites to reduce mobilisation of silt into the channel downstream. Silt fencing will be installed along the bank to prevent bank slippage and washout of sediment to the watercourse from works adjacent to the water.
6. Installation of dams at the bridge underpass. Excavators to work from both sides of Aghoo bridge (upstream and downstream) to create a sand bag and puddle clay dam with access to works area. The same method is to be utilised at the revetment area to dam off the works area there, inspected at required frequency.
7. Dewatering will be undertaken with water to be pumped through grass in field downstream of dam.
8. As water levels reduce IFI will be engaged to complete a fish salvage exercise within the dammed section.
9. The intake for pumps during the pumping will be screened to prevent the intake of fish .
10. Pumps will dewater onto grass area and not directly into navigation.
11. Monitoring of water quality at the outflow of pumps will take place on an ongoing basis. There shall be no direct discharge of waters from pumping to the watercourse.
12. Regular visual inspections of the watercourse downstream of the Lock chamber will be carried out at agreed intervals.
13. IFI will be contacted immediately in the case of any incident relating to pollution of aquatic habitat damage. Working hours and emergency contact numbers are as follows:

- a. IFI Environmental Officer: 087 261 1352
 - b. IFI 24 hour emergency pollution number: 1890 34 74 24
 - c. Leitrim County Council Environmental Hotline: 1890 205205
14. IFI will be notified 48 hours in advance of lock chamber and area between lock and clay dam requiring re-watering post works, to facilitate IFI in carrying out an inspection prior to the re-watering.
 15. IFI will be contacted immediately in the case of any incident relating to pollution of aquatic damage.
 16. Installation of gabions and fill with clean rock
 17. Demobilisation: Remove dams from instream, removal of temporary safety barriers along the road verge, install signage as required. Withdraw marine notice and carry out post construction appraisals with IFI to determine if there are any measures that can be improved upon for future works at this and other sites.

3.1.2 Operational Requirements

As the proposed walkway is to be constructed within Waterways Ireland property along the existing towpath and adjacent to the canal at the bridge underpass, the operational maintenance will be accessed from Waterways Ireland access points at either end of the trail section. Such maintenance works and operational requirements are limited to occasional resurfacing of the unbound crushed stone finish.

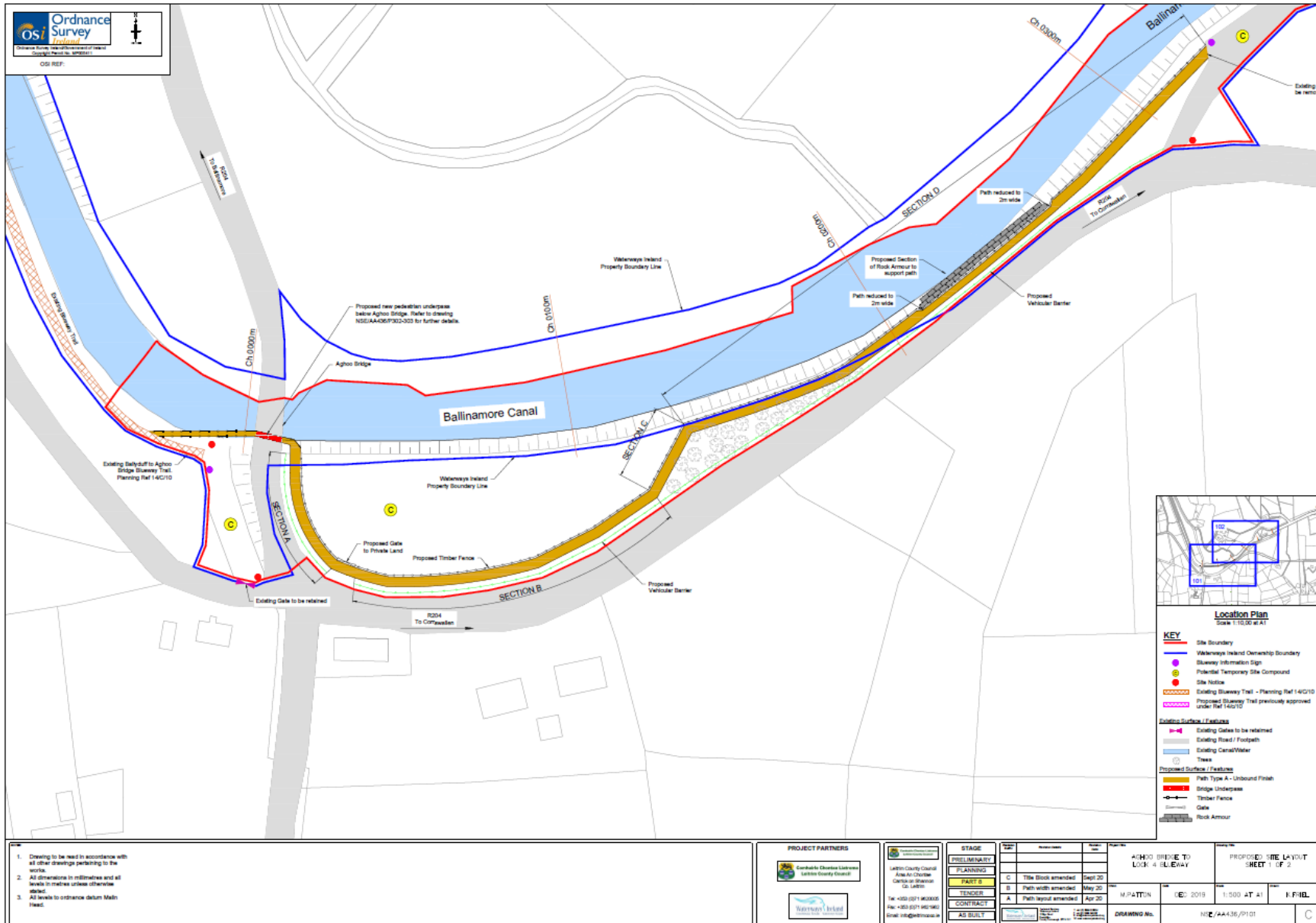


Figure 1a. Location and layout of the proposed project from west to east

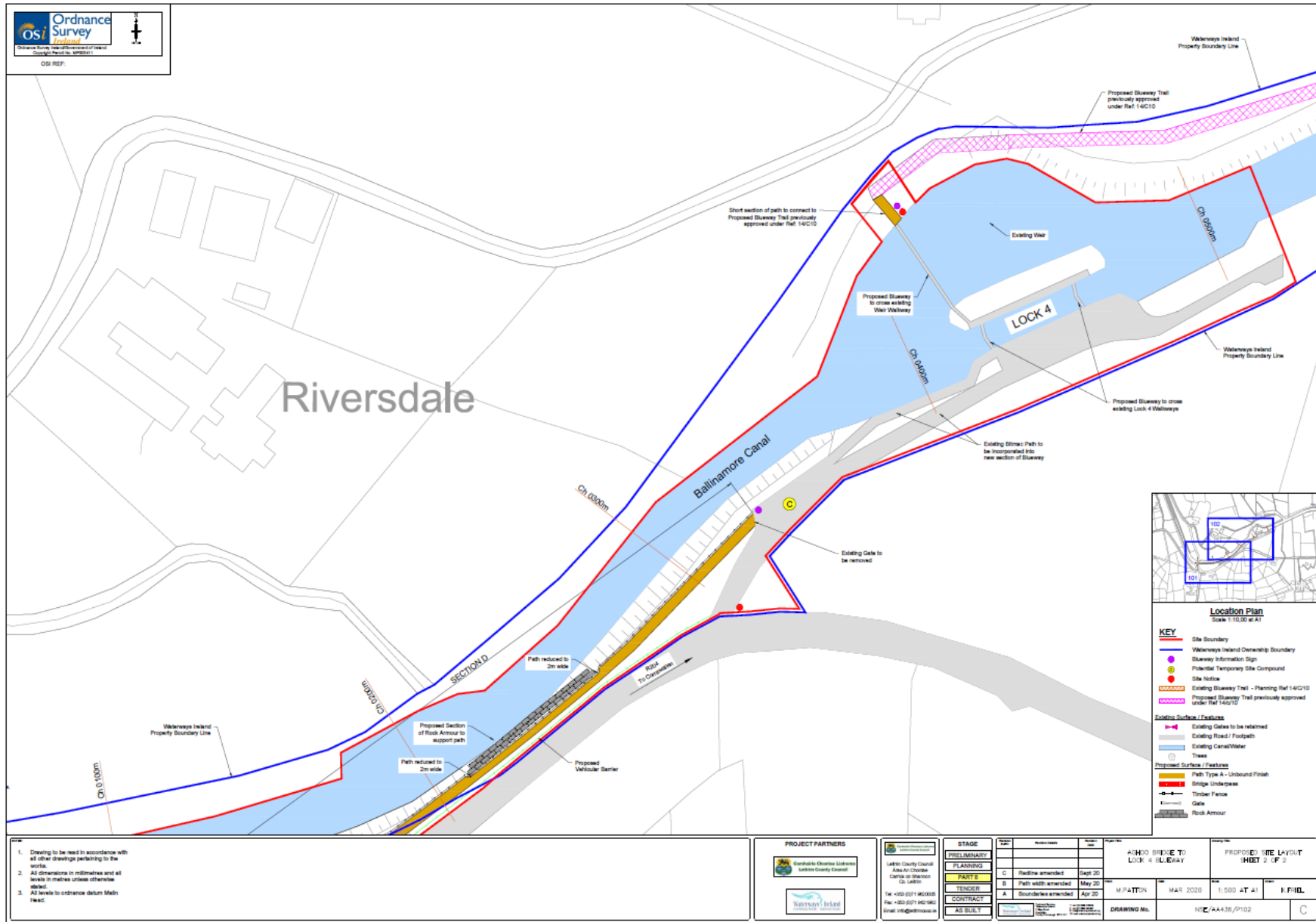


Figure 2b. Location and layout of the proposed project from west to east

4 Overview of the Receiving Environment

The proposed Aghoo Bridge to Lock 4 Blueway Project comprises a section of Blueway amenity recreation trackway extending along the southern bank of the Ballinamore Canal, Co. Leitrim. The project is located in a predominantly agricultural context of grazing pasture, with coniferous forestry plantation located to the south (Figure 3).



Figure 3. Satellite aerial imagery of the study area, from Aghoo Bridge to Lock 4 (Bing imagery).

The Ballinamore Canal is an artificial waterbody connecting the Shannon navigation to the Lough Erne navigation to the north east and is fed by the Woodford River to the west of Ballinamore town. As an artificial waterbody it is unassigned for Water Framework Directive (WFD) water quality monitoring, including Environmental Quality Indicators (EQIs) such as biological water quality, macrophytes and fish.

An ecological walkover of the proposed route alignment was completed on the 29th of October, 2019. This survey characterised the ecological constraints present within the works area, including the potential for pathways for impacts connected to any qualifying interests of the European Sites within the Zone of Influence (Zoi) of the Project.

A photographic survey of the proposed Blueway route alignment is presented below, with ecological annotation provided as context with regard to sensitivities relating to European Sites within the wider study area.

Aghoo Bridge to Lock 4 Blueway – Ecological walkover and photographic survey



Plate 1 Existing crushed stone walkway at the western end of the project, to which the new Blueway will connect.



Plate 2 Aghoo Bridge, the pedestrian underpass will be connected to the right side of the bridge arch, as viewed from this image.



Plate 3 Otter spraint recorded from rock armour at Aghoo Bridge, evidence of White-clawed crayfish remains were noted.



Plate 4 Existing hardstanding at the western end of the proposed project, adjacent to Aghoo Bridge. This will be used as a site compound for the works.



Plate 5 After crossing below Aghoo Bridge, the route follows the outer boundary of this field adjacent to the public road.



Plate 6 The route exits the field into the woodland corridor adjacent to the Ballinamore Canal, in the background of this image.



Plate 7 Existing trail within beech dominated woodland adjacent to the public road and Ballinamore Canal.



Plate 8 View east towards Lock 4 along the narrow section of the route.



Plate 9 Approaching Lock 4 the route passes through immature Alder woodland.



Plate 10 Open waste ground and fencing at the approach to Lock 4.



Plate 11 View of the existing facilities at Lock 4, the eastern terminal end of the proposed development.

5 SCREENING ASSESSMENT

5.1 Introduction

This stage of the process identifies any likely significant effects upon European Sites from the proposed development, either alone or in combination with other projects or plans. The Screening Assessment is progressed in order to determine:

- Whether the project can be excluded from AA requirements because it is directly connected with or necessary to the management of a European site; and
- Whether the project has the potential to give rise to significant effects on a European site, either alone or in combination with other projects or plans, in view of the site's conservation objectives or conversely, that the potential for significant effects cannot be excluded.

In the instance of this project, the proposal is not directly connected to or necessary for the management of any European site, therefore the potential for significant effects must be evaluated, as per the second test.

5.2 Identification of Relevant Natura 2000 Sites

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

- Source(s) – e.g. noise disturbance, habitat loss, pollution.
- Pathway(s) – e.g. drains and streams connecting to European Sites; increased human activity; creation of barriers to movement/migration.
- Receptor(s) – Qualifying habitats and species of European Sites.

The designated European Sites identified in the wider study area of the proposed development are detailed in Table , showing the designated site name, code and distance of separation. Designated European Sites were considered within a 15km buffer, in line with published guidance (NPWS, 2010); these are identified in Figure 4. Potential pathways for impacts affecting European Sites outside of this buffer were also evaluated; however, given the size and scale of the proposed works, no pathways for effects at this extent were identified.

All sites which were considered are shown in Figure 4; no additional SPA or SAC sites were screened in following this process. It is vital that an assessment of potential source-pathway-receptor links is undertaken to assess potential impact links between the receptor (European Sites) and source (proposed development) to establish the risk of any likely significant effects. Additional designated sites including proposed Natural Heritage Areas (pNHA's), Natural Heritage Areas and RAMSAR sites were also reviewed, as although they do not form part of the Appropriate Assessment, they often provide important supporting functions to European Sites.

Information collected on the sensitivity of the Qualifying Interests (i.e. the stated Conservation Objectives) of each European Site identified in Table was assessed with reference to the proposed development, including any likely significant effects from the construction and operation.

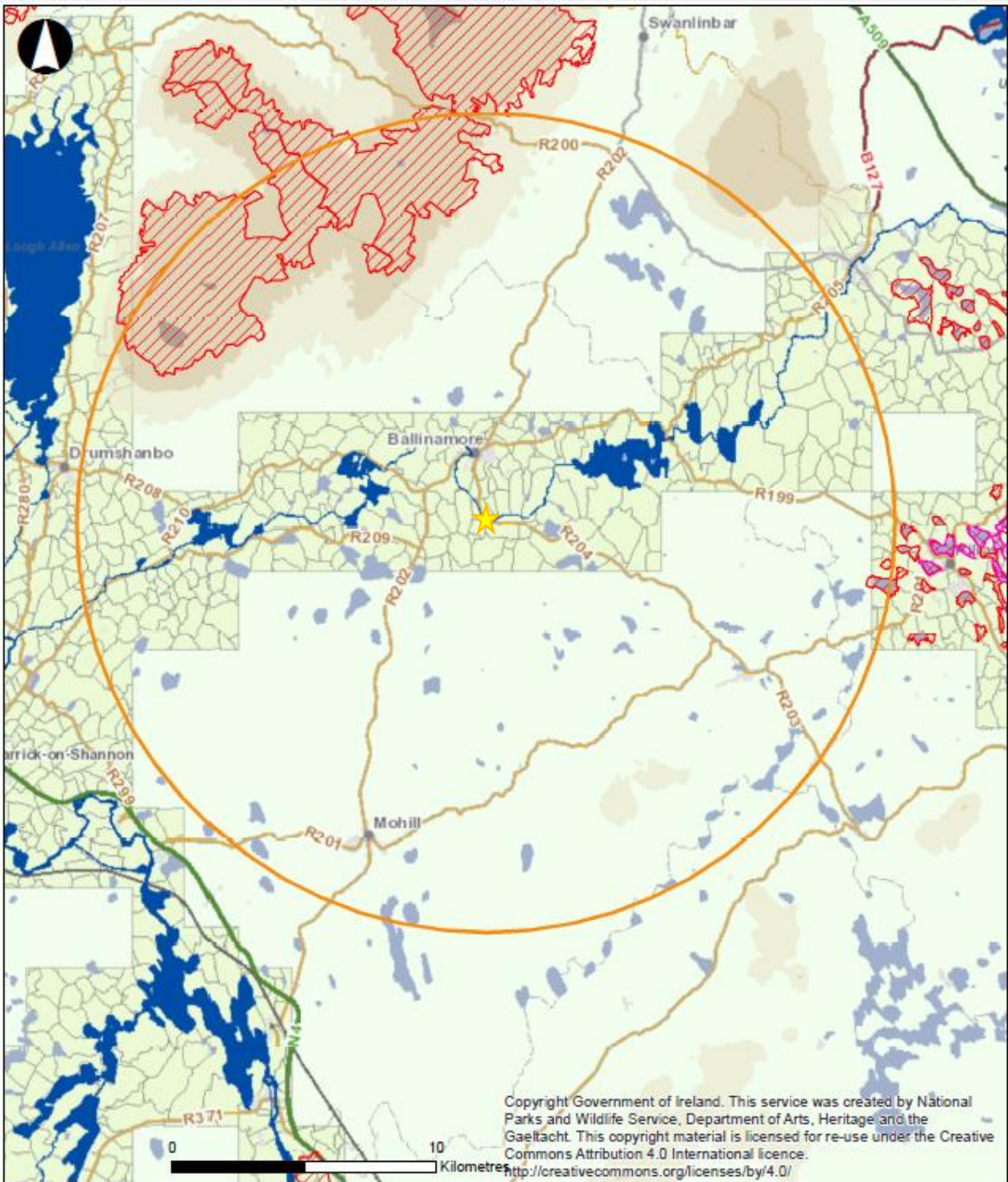
The potential for hydrological pathways to connect potential impacts arising from the project with European Sites downstream of the proposed works have been examined, with regard to the potential for significant effects in the absence of protective measures or measures intended as mitigation for the avoidance of impacts on the sensitivities of a European Site.

As outlined in Table 1, the Cuilcagh-Anierin SAC and the Lough Oughter and Associated Loughs SAC European sites are identified as the only sites within a 15km radius of the proposed development. The Lough Oughter and Associated Loughs SAC is the only European site with potential connectivity to the proposed project by reason of hydrological pathways at a distance of over 33km downstream from the proposed development. The qualifying interests of this SAC are:

- Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation [3150]
- Bog woodland [91D0]
- *Lutra lutra* (Otter) [1355]

Table 1: List of designated European Sites identified within a 15km buffer of the study area for the proposed Aghoo Bridge to Lock 4 Blueway

European Site	Distance (km)	Qualifying Interests	Water dependant species / habitats (y/n)	Potential pathways for connectivity (construction / operation)
Cuilcagh - Anierin Uplands SAC (000584)	11km NW	<p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110] Natural dystrophic lakes and ponds [3160] Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] Blanket bogs (* if active bog) [7130] Transition mires and quaking bogs [7140] Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220] Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110] Siliceous rocky slopes with chasmophytic vegetation [8220] <i>Hamatocaulis vernicosus</i> (Slender Green Feather-moss) [6216]</p>	Yes	No - this site is spatially isolated from the proposed development and is located in upland habitats with no hydrological connection to the proposed Blueway route. There are no pathways for disturbance with regard to the qualifying interests, taking account of the nature and scale of the proposal, in addition to the absence of any hydrological connectivity.
Lough Oughter and Associated Loughs SAC (0007)	14km E	<p>Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> - type vegetation [3150] Bog woodland [91D0] <i>Lutra lutra</i> (Otter) [1355]</p>	Yes	Yes - this site is spatially isolated from the proposed development; however, the Ballinamore Canal, i.e. the Woodford River, is hydrologically connected to the SAC lake complex. The proposed development at Aghoo Bridge / Lock 4 is approximately 33km upstream of the closest hydrological connection to the SAC boundary.





	<h2>Aghoo Blueway - European Sites</h2>	NOTES
Scale: 1:200,000	Date: 29/06/2020	Aghoo Blueway - European Sites
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Figure 4. Designated European Sites within a 15km radius of the proposed Blueway project.

5.2.1 Overview of the Lough Oughter and Associated Lakes SAC

Lough Oughter and its associated loughs occupy much of the lowland drumlin belt in north and central Cavan between Upper Lough Erne, Killeshandra and Cavan town. The site is a maze of waterways, islands, small lakes and peninsulas including some 90 inter-drumlin lakes and 14 basins in the course of the Erne River. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation [3150]
- Bog woodland [91D0]*
- *Lutra lutra* (Otter) [1355]

As well as the habitats and species listed above, the site also contains areas of dry woodland, marsh, reedbed and wet pasture. Drainage within the area is inefficient and the water levels are prone to natural fluctuation as a result. The regularly flooded areas still accommodate a variety of specialist plant species such as Amphibious Bistort (*Polygonum amphibium*) and Marsh Foxtail (*Alopecurus geniculatus*), as well as rarer species such as Needle Spike-rush (*Eleocharis acicularis*) and Lesser Marshwort (*Apium inundatum*).

The lakes and basins are shallow, and the water well mixed and nutrient rich (eutrophic). The aquatic flora is varied with several pondweed species such as Blunt-leaved Pondweed (*Potamogeton obtusifolius*), Shining Pondweed (*Potamogeton lucens*), Broad-leaved Pondweed (*Potamogeton natans*), Reddish Pondweed (*Potamogeton alpinus*) and Various-leaved Pondweed (*Potamogeton gramineus*). Typical in the zone of aquatic plants are Yellow Water-lily (*Nuphar lutea*), Canadian Pondweed (*Elodea canadensis*), Mare's-tail (*Hippuris vulgaris*), Water Milfoil (*Myriophyllum spicatum*), Brooklime (*Veronica beccabunga*), Water-dropwort species (*Oenanthe* spp.) and Water-starwort (*Callitriche* sp.). The aquatic community includes species of limited distribution in Ireland such as the Duckweed species *Lemna gibba* and *Spirodela polyrhiza*.

The site supports a substantial population of water birds including internationally important numbers of Whooper Swan (average peak 231) and nationally important numbers of Tufted Duck (average peak 247) and Cormorant (average peak 130), as well as important numbers of species such as Greenland White-fronted Goose, Great Crested Grebe, Wigeon, Teal and Pochard. Lapwing, Snipe and Golden Plover also utilise the wet grassland areas. Wildfowl Sanctuaries exist at Inchin Lough, Derrygid Lough, Farnham Lough, Derrybrick Lough, Derrinishbeg Lough and Annagh Lough. Part of the site is designated a Special Protection Area (SPA) under the E.U. Birds Directive.

Otter, a species listed on Annex II of the E.U. Habitats Directive, occurs at the site. Irish Hare has also been recorded. Both of these species are listed in the Irish Red Data Book and are legally protected under the Wildlife Act, 1976.

The main threats to the quality of the site are water polluting activities (such as run-off from fertiliser and slurry application, and sewage discharge) which have raised the nutrient status of some lakes to hypertrophic. Housing and boating developments are on the increase, both adjacent to and within the site. There is also significant fishing and shooting pressure on and around the lakes. Increased afforestation has resulted in some loss of wetland habitat and also loss of feeding ground for wintering birds such as Greenland White-fronted Goose.

The Lough Oughter area contains important examples of two habitats listed on Annex I of the E.U. Habitats Directive and supports a population of the Annex II species, Otter. The site as a whole is the best inland example of a flooded drumlin landscape in Ireland and has many rich and varied biological communities. Nowhere else in the country does such an intimate mixture of land and water occur over a comparable area, and many of the species of wetland plants, some considered quite commonplace in Lough Oughter and its associated loughs, are infrequent elsewhere.

SAC Conservation Objectives

The NPWS Conservation Objectives for the Lough Oughter and Associated Lakes SAC (NPWS, 2020)⁵ require the maintenance of habitats and species within Natura 2000 sites at favourable conservation condition which will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and the Annex II species for which the SAC has been selected:

- Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation [3150]
- Bog woodland [91D0]*
- *Lutra lutra* (Otter) [1355]

5.3 Potential for Significant Effects on the Lough Oughter and Associated Lakes SAC

This section documents the final stage of the screening process. It is vital that an assessment of potential source-pathway-receptor links is undertaken to assess potential impact links between the receptor (European Sites) and source (proposed development) to establish the risk of any likely significant effects. It used the information collected on the sensitivity of the Qualifying Interests of each European Site and describes any likely significant effects from the construction, operation and decommissioning stages of the proposed project. This assumes the absence of mitigation measures with the exception of those which have been iteratively incorporated into the design stage in the interest of environmental sustainability, as specified in the project proposal. The Screening

⁵ NPWS (2020) Conservation objectives for Lough Oughter and Associated Loughs SAC [000007]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.

Assessment identifies the potential likelihood of significant effects arising from the proposed development, both in isolation and potentially in combination with other plans or projects.

From an investigation of the potential construction and operational phase impacts which may arise from the development, it is concluded that the zone of impact is limited to the immediate vicinity of the proposed development and the adjacent waterway within the footprint of the works extending downstream to the enclosed waterway at Lock 4. Based on the water management controls in place within the lock sections on the canal system, the hydrological pathways to the Lough Oughter and Associated Loughs SAC downstream are effectively negated, with regard to the potential for significant water quality or hydromorphological effects which may have implications for the conservation objectives of the SAC.

Taking account of the conservation objectives listed for the SAC, the hydrological pathways connecting this site to the proposed development are evaluated in the context of the sensitivities of the qualifying interests. The distance of separation alone is approximately 33km along the length of the canal system, furthermore the canal itself and the Lough Oughter SAC complex are both identified as eutrophic waterbody systems with low sensitivity to water quality and nutrient input pressures which could potentially arise from the proposal. There are no pathways for disturbance, noise, resource demand or other impact pathways which would have the potential for significant effects on these QIs.

Given the small scale of the works, impact pathways are restricted to the local context (works footprint and immediate vicinity) and are evaluated below in terms of potential to give rise to significant effects on the qualifying interests of the SAC.

5.3.1 Potential Direct Effects

The proposed development is located at a distance of approximately 14km from the Lough Oughter SAC complex and over 33km following the hydrological pathway of the Ballinamore Canal system. The distance of separation ensures that there is no potential for direct impacts on this SAC which could have the potential for significant effects on the qualifying interests of the European site.

Based on the above, the proposed project will not prevent the maintenance or restoration of the favourable conservation condition of the QI habitats and species; there are no pathways for impacts identified which would be likely to cause any deterioration in conservation condition. There are therefore no permanent, direct impacts on the QIs within the footprint of the proposed development, within the required temporary works area, or at a distance from the site.

There are no other European Sites within a 15km radius or for which pathways for potential direct effects exist within a wider zone of influence of the proposed development.

5.3.2 Potential Indirect Effects

The proposed development is hydrologically connected to the Lough Oughter SAC complex. From a review of the construction methodology and an evaluation of the construction inputs and operational maintenance, the potential for disturbance impacts arising from the works to extend over 14km to the closest boundary of the SAC is evaluated as very unlikely. There are no indirect disturbance impacts arising which would have the potential for significant effects on Otter, listed as a qualifying

interest of the SAC. There is no potential for indirect disturbance effects with regard to the Annex I habitats listed for this European site.

The potential for the proposed works to give rise to water quality impacts are evaluated to be limited to the local context. The works elements required to deliver the proposed construction methodology as outlined do not have the potential for significant water quality pollution impacts which would extend to a distance of 33km downstream. This is taking account of the extent of instream works, the materials and methods proposed and the management system (water level management and lock gate system) in place on the Ballinamore Canal, an artificial waterbody. There are therefore no indirect water quality impacts identified arising during the construction or operational phase of the development which would have the potential to give rise to significant effects on the qualifying interests of the SAC.

Based on the above, the proposed project will not prevent the maintenance or restoration of the favourable conservation condition of the QI habitats and species and there are no pathways for impacts identified which would be likely to cause any deterioration of their conservation condition. There are no other European Sites within a 15km radius or for which pathways for potential indirect effects exist within a wider zone of influence of the proposed development.

5.3.3 Potential Cumulative and In-combination Effects

The proposed development is being submitted to Leitrim County Council via the Local Authority Part 8 process. From a review of the online Leitrim County Council Planning Search there are no plans or projects identified in progress, authorised, or within the planning process which would have the potential to overlap spatially or temporally with the proposed development leading to cumulative or in-combination effects during the construction phase. Such effects are evaluated with regard to the potential for water quality impacts, disturbance, land-take and resource requirements which could interact with the qualifying interests of the Lough Oughter SAC complex at a distance from the proposed development.

Waterways Ireland are continuing the development of Blueway and Greenway multi-usage amenity facilities along the Ballinamore Canal navigation, interacting with Leitrim and Cavan Local Authorities. These developments are completed as independent sections and overlap where completed and operational portions interact with the new proposed development sections. With regard to operational interactions and the potential for cumulative impacts, there are no identified pathways whereby disturbance, water quality or resource requirements could give rise to significant effects on the qualifying interests or conservation objectives of the Lough Oughter and Associated Lakes SAC.

6 CONCLUSION STATEMENT

The proposed development comprises the construction and operational maintenance of an unbound crushed stone trackway extending from Aghoo Bridge to Lock 4 on the Ballinamore Canal, due south of Ballinamore, Co. Leitrim. The trackway will require an underpass below Aghoo Bridge and the public road, following the southern bank of the canal within Waterways Ireland property.

The project is located outside of any designated European Site. The closest designation is 11km to the northwest. However, the only impact pathways identified with regard to the zone of influence for the proposal are to the Lough Oughter and Associated Lakes SAC, approximately 14km to the east over land or 33km downstream via the hydrological pathway of the Ballinamore Canal.

From an evaluation of the project description and the consideration of potential impact pathways with connectivity to the wider environment, there are no other SAC or SPA sites within proximity of the proposed development, and no pathways for impacts are identified whereby indirect effects may occur affecting other European Sites at a distance from the proposed works.

On the basis of the project description provided by Waterways Ireland, to be delivered through construction and operational phase by Waterways Ireland, and taking account of the ecological information and data provided to inform this assessment, including best scientific evidence in the field, it has been evaluated that the potential for likely significant effects on the qualifying interests and the conservation objectives of the Lough Oughter and Associated Lakes SAC can be excluded in the absence of protective measures or mitigation measures to avoid significant effects, and in view of best scientific evidence in the field.

The Screening for AA has determined that there is not potential for significant direct, indirect or cumulative impacts which could affect the qualifying interests/special conservation interests of the European sites within the study area. It is therefore concluded, beyond reasonable scientific doubt, that the proposed project will not give rise to significant effects, either individually or in combination with other plans and projects, within the identified European Site(s).

On the basis of objective scientific information, this Screening has therefore excluded the potential for the proposed project, individually or in combination with other plans or projects, to give rise to any significant effect on a European Site. Consequently, it is concluded that the proposed project does not require Appropriate Assessment.