



PROJECT REF: P3852

**SUPPORTING INFORMATION FOR OTTER
DEROGATION APPLICATION**

**RIVERINE PROJECT
STRABANE AND LIFFORD**

CLIENT: MCADAM DESIGN

DATE: JULY 2026

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1.0 INTRODUCTION

1.1 Objective of the proposed works

In 2025 MCL Consulting Ltd were appointed by McAdam Design to conduct various ecological surveys in support of the approved Riverine Community Park Project on lands in Strabane and Lifford.

Planning Application Reference number NI: LA11/2022/0207/F

Planning Application Reference number ROI: ABP 311542-21

The works for which this derogation is sought pertains to the Lifford portion of the approved development, for which construction has not yet commenced and is comprised of currently private lands. The final development will entail construction of the 'Riverine Community Park' linking amenity lands in Strabane and Lifford via a newly constructed pedestrian footbridge. The Strabane side will feature boardwalks and footpaths from an existing greenway through wet woodland habitat, to access the pedestrian footbridge spanning the River Foyle to Lifford. A pavilion building will be constructed within the Lifford lands, providing an indoor events space, alongside an outdoor multi-functional space for a range of outdoor activities, a playpark, and provisions for river-based recreational facilities.

This application for a derogation licence relates to the identification of a currently inactive natal den during pre-construction ecology surveys. The structure lies within the Lifford development footprint, and a derogation is being sought in order to exclude the den as a precautionary measure to ensure it will not be utilised by otters during necessary construction-phase clearance works.



Figure 1: Site location



Figure 2: Site boundary

1.2 Statement of Authority

The following table details the qualifications and experience of the ecologists/consultants involved in the preparation of the application and those responsible for carrying out the proposed activity.

Table 1. Statement of authority

Surveyors	Responsibilities	Relevant Experience
Emily Varnals BSc MSc, Principal Ecologist	Application & Derogation	Emily has a BSc in Zoology from the University of Leicester and a MSc in Applied Ecology from the University of Gloucestershire. Emily has experience in carrying out Otter surveys, successfully identifying their field signs and holts/resting places. She has held NIEA licenses for bat derogations, lizard surveys and otter surveys, and an NPWS licence for otter surveys. She is involved in an ongoing badger sett closure in Cavan and has carried out monitoring for sett closures in the UK.
Lewis Shaw BSc ACIEEM, Senior Ecologist	Derogation	Lewis has a BSc in Environmental Science from Ulster University and is an Associate Member of CIEEM. Emily has experience in carrying out Otter surveys, successfully identifying their field signs and holts/resting places. He has held NIEA licenses for bat derogations, lizard surveys, and otter surveys.
David McLorinan Principal Hydrogeologist/Hydro- ecologist	Derogation	David is the Managing Director of MCL Consulting; he has a BSc in Geology and an MSc in Environmental Engineering and is a Chartered Geologist through the British Geological Society. David has experience in the design of ecological compensation schemes for habitat loss, badger sett closures, and artificial sett design.

2.0 BACKGROUND

Planning applications for the Riverine Community Park project were submitted to An Bord Pleanála by Donegal County Council (DCC) and NI Planning by Derry City & Strabane District Council (DCSDC) in early 2022, and were approved in February 2023 and 2024 respectively. The application to An Bord Pleanála was accompanied by an Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS). The project is still within the ITC stage and construction has not yet commenced.

2.1 Approved development

The development aims to address the impact of the conflict in the Lifford and Strabane area, and its hinterlands, by regenerating the border riverside area to create an iconic cross-border community park straddling the River Foyle as a shared space to bring communities together from both sides of the border, to re-connect and form new, long lasting connections and relationships.

Riverine Community Park will be of local and regional importance and will incorporate the core elements of a pedestrian and cycle bridge between Lifford and Strabane, Riverine Park Building, multi-functional outdoor space and external stage provision, play area, river walk and access, landscaped green spaces interlaced with a network of pathways, cycleways and retained wetlands. The development will be supported by car parking provision.

The project will comprise the creation of new community park infrastructure in excess of 11 hectares by utilising agricultural land and wetlands lying along either side of the border connected through the creation of a new pedestrian and cycle bridge between Lifford and Strabane. The bridge will be a single span with an intermediate pier constructed on the Lifford river flood plain, and landing points on either side of the riverbanks. The Park on the Lifford site will be a designed landscape incorporating indoor and outdoor recreational features, smaller meeting & events spaces for programmed activity, complemented using the naturalised flood plain environment on the Strabane site for informal recreation and environmental education/conservation activities. This diversity of offering makes for a more inclusive and freeing sharing experience.

The approved project, although not restricted to, comprises the following key components:

- Building providing indoor space for use on a shared basis for activities including music, drama, multi-media activities on the Lifford side of the proposed development.
- Outdoor flexible multi-functional space to accommodate a range of outdoor programmed & non-programmed activities both small & large scale. The space will have a maximum capacity of c.3,000 persons & will be dual facing for small or large events on the Lifford side of the proposed development.
- A new bridge connection that spans both sides of the River Foyle forming a strong, symbolic statement in terms of the unifying theme of bringing together all of the communities who will use the project.
- Wetland and park space to encourage participants to enjoy & learn key environmental assets of the area.
- River based recreational facilities for the increasing number of water sports groups in Lifford & Strabane will be made available on the Lifford side of the proposed development.
- Family Space incorporating unique play experience, designed to support children focused events & related programming.

2.2 Need for the development

The need for the development has been identified for a considerable time by both Donegal County Council (DCC) and Derry City & Strabane District Council (DCSC) with the key aims of Cross-Community Engagement, Good Relations, and Reconciliation. The site is located in a previously contested area and is now identified as neutral space by both the Catholic Nationalist Republican (CNR) and Protestant Unionist Loyalist (PUL) communities. The development fully accords with the strategic peace and reconciliation policy position of the Northern Ireland Executive, Irish Government and the European Commission as set out within the Peace IV Programme. Stakeholder consultations received 77 letters of support from local groups confirming intent to use and participate. The project has established a community forum of 32 group representatives – 16 from Lifford and 16 from Strabane.

The development will deliver cross-border investment and infrastructure to link people and places by providing a safe recreational facility for use by local residents, recreational users,

and tourists – feeding into local and national tourism strategies. The development will provide direct employment during the construction and development maintenance processes; additionally further employment will be required in the area in servicing the extra numbers of tourists that will be attracted to the area.

3.0 PROPOSED ACTIVITY

The development activities pertaining to this derogation involve the development of an area encompassing a field ditch containing the identified natal den structure. This section of the development involves the relocation of existing hare coursing grounds in order to facilitate the construction of the recreational facilities and lands within Lifford. Figure 3 illustrates in red the relocated hare coursing ground and field boundary to be removed, with the location of the natal den overlaid.



Figure 3: Approved development layout, showing the relocated hare coursing ground in red, with the holt location

The natal den was initially identified during a badger survey of the development site. A D-shaped hole was located on the bank of a hedge and treelined field boundary ditch and hence monitored with a trail camera to determine the holes use by badger. However, footage captured showed 1 recording of an otter briefly investigating the hole and 1 recording of an otter pup exiting the hole the following day. No further footage of otters was captured at this location, and the structure has since been utilised as a rabbit natal hole. Anecdotal evidence from the current landowner also describes the hole as being previously used by foxes.

4.0 ECOLOGICAL SURVEY

4.1 EIAR survey

In 2021, MCL Consulting carried out numerous environmental surveys to inform an EIAR in support of the planning application for the Riverine Community Park project. As part of this package of works, an otter survey was carried out across both Lifford and Strabane areas of the development. This survey recorded in-river otter activity in the River Foyle bisecting the site, as well as evidence of terrestrial activity on the Strabane side of the development including camera trap footage and feeding remains.

4.2 Badger survey

Further survey works were undertaken in 2025-2026 to satisfy conditions of the approved planning applications ABP-311542-21 and LA11/2022/0207/F, including a badger survey of the application site. This survey identified a D-shaped hole with a spoil heap in the bank of a field ditch within a hedgerow with trees, approximately 250m south of a badger sett (inactive as of 2025-2026 surveys) mapped during the 2021 suite of surveys (Figures 4-6). A camera trap was placed on the hole to determine badger use of the structure.

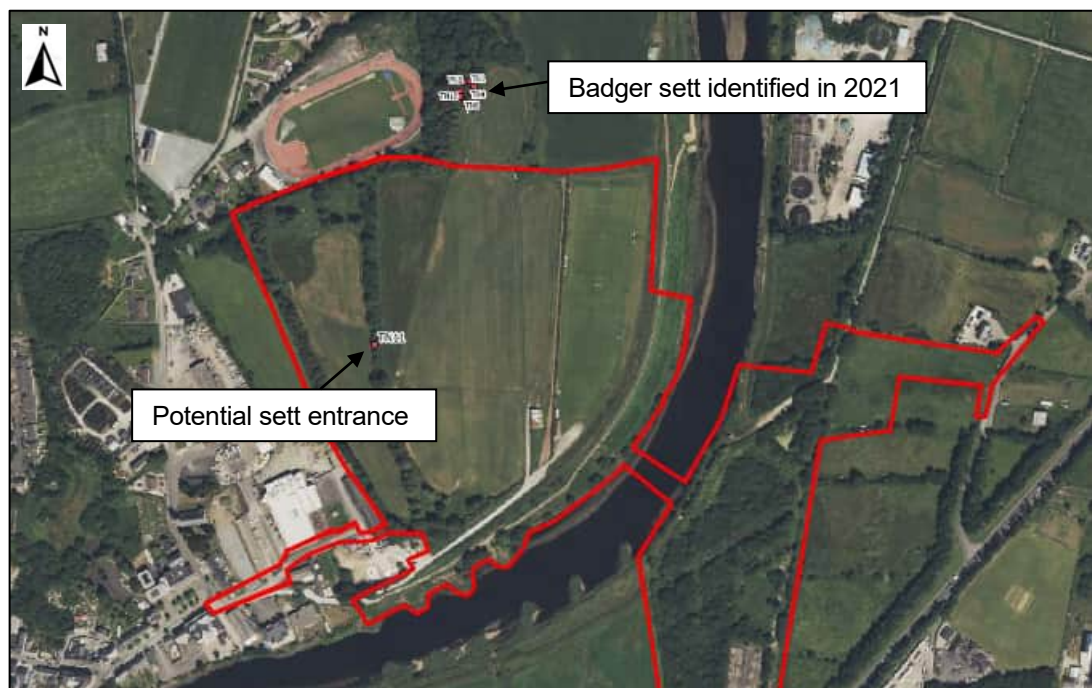


Figure 4: Potential badger sett entrance



Figure 5: D-shaped hole where camera trap was placed during the badger survey



Figure 6: Spoil heap and trail from D-shaped hole to field ditch

The camera trap footage recorded an adult otter briefly investigating the hole on the morning of the 23rd January 2026, the following day in the late afternoon an otter pup emerges from the hole and exits the area (Figures 7 & 8). No further footage of otters was obtained during this period of monitoring, which concluded on the 3rd February 2026. It was concluded that the hole identified could be being utilised as a maternity holt by otter, and therefore monitoring of the holt under licence was recommended.



Figure 7: Otter captured at suspected badger hole



Figure 8: Otter pup leaving suspected badger hole

4.3 Otter survey

Following the findings of the earlier badger survey, a survey of the entire site was conducted to record signs of otter activity. This survey included a site walkover on 3rd February 2026 and an in-river survey of the River Foyle banks on 30th March 2026. This survey recorded slides, spraint, and otter prints, as well as a single observation of an otter entering the River Foyle from the Strabane bank. No further holts or resting places were identified.



Figure 9: Signs of otter activity on site

In addition to the site walkover and in-river survey, a licence was obtained from NPWS (027-2026) in order to monitor the holt with camera traps and determine otter use of the feature. A camera trap was placed on the holt for the period of 18th March – 21st April 2026. No further footage of otters was obtained during this period and a young rabbit was regularly captured using the hole.

4.4 Summary of findings

During onsite badger and otter surveys, an adult otter and a pup were recorded once each on consecutive days on the 23rd-24th January 2026 at a hole initially assumed to be a badger sett entrance. The footage indicates that an adult otter was briefly checking on its pup the

day before the young otter leaves the holt and is not recorded again. These 2 recordings are the only footage of otters obtained during camera trap monitoring periods of 20th January – 3rd February and the 18th March – 21st April 2026. Therefore, the holt is deemed to be inactive as of the 24th January 2026. Throughout the survey periods, no otter spraint, prints or bedding material was identified in proximity to the holt. It has been determined that the holt identified on site is a now inactive natal den, utilised by a young otter prior to dispersing to a holt closer to the main river. Camera trap footage shows the holt in use by rabbits and an American mink, also anecdotal evidence from the landowner suggested previous occupation of the holt by foxes.

Cubs may be raised in holts that differ from ones in which they were born, and young otters may remain in the natal den for 2 to 3 months before venturing out. Otter pups are typically born away from the main river in secluded areas such as reed beds, young conifer plantation, deciduous woodland, and scrubland, that are away from areas of flooding. The mother will take care not to leave any signs of her presence in the area. Although otters will return to the same breeding sites year on year, the exact natal den may differ (Liles, 2003). A natal den may be deemed less desirable to a mother if it is currently occupied by other species, particularly badger or fox.

The identified natal den is situated in the bank of a field drainage ditch that occasionally holds water, connected to the River Foyle via further ditches running throughout agricultural land and woodland patches. Due to D-shape nature of the hole and presence of a spoil heap, it is fair to assume that the den was created by a badger as it is also situated within the territory of a previously identified sett. The den has also been utilised by a range of other opportunistic individuals including fox, rabbit, and American mink. The surrounding area features suitable habitat for further natal dens including field ditches and patches of scrub and woodland.

The field boundary ditch in which the den is situated will be removed in order to facilitate the necessary development of the lands (as discussed in section 2.2), resulting in the direct loss of this natal den. However, the location is surrounded by suitable breeding habitat that will be retained as part of the approved development, including the area of the currently inactive badger sett and other identified inactive mammal holes, which entrances may be utilised as natal dens by otters. Additionally, the presence of other species using the

identified den may deter the female otter from returning to this particular site. Figure 10 illustrates the location of the natal den within the context of habitat to be lost and retained.

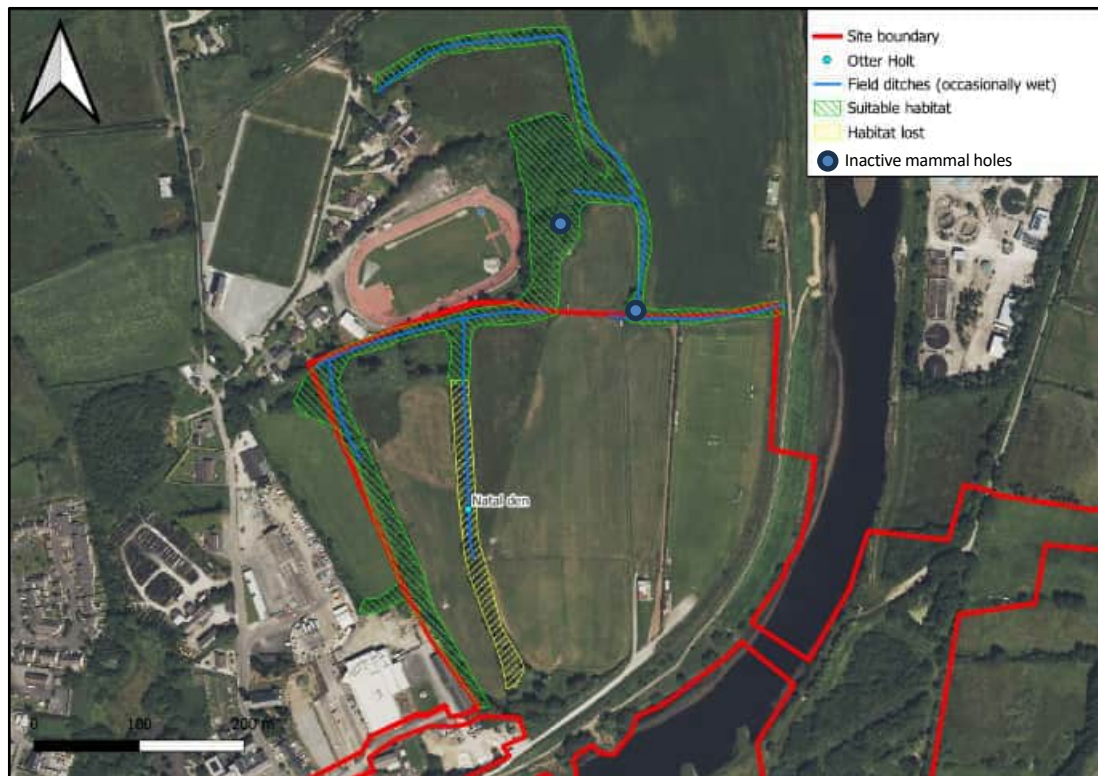


Figure 10: Location of the natal den in habitat to be lost and surrounded by further retained suitable habitat

4.5 Population size and class assessment

The population size recorded to at the natal den location has been 1 adult and 1 young otter. This was determined during camera monitoring from 20th January – 3rd February 2026 and 18th March – 21st April 2026. There has been no evidence of the den being regularly used during any of the monitoring periods, with each otter recorded just once towards the end of January 2026.

Based on the information obtained, the den has been utilised by otters on at least one occasion. As such, otter have been identified as of Local Importance (Higher Value) within the area of the approved development.

5.0 EVIDENCE TO SUPPORT DEROGATION TESTS

The NPWS document, Guidance on the Strict Protection of Certain Animal and Plant Species under the Habitats Directive in Ireland - National Parks and Wildlife Service Guidance Series 1 (2021), was reviewed before undertaking this derogation application.

Article 16 of the Habitats Directive sets out three pre-conditions, all of which must be met before a derogation from the requirements of Article 12 or Article 13 of the Directive can be granted. These preconditions are also set out in Regulation 54 of the Regulations.

The preconditions are:

1. A reason(s) listed in Regulation 54 (a)-(e) applies
2. No satisfactory alternatives exist
3. Derogation would not be detrimental to the maintenance of a population(s) at a favourable conservation status.

It is believed that the pre-conditions for granting a derogation licence have been met, as detailed in the following sections.

5.1 Test 1 – Reason for the Derogation

Of the reasons listed in Regulation 54 (a)-(e), the reason for which this derogation is sought is:

(c) In the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.

The key aims of the Riverine Community Park project are:

- To promote Cross-Community Engagement, Good Relations, and Reconciliation
- To accord with the strategic peace and reconciliation policy position of the Northern Ireland Executive, Irish Government and the European Commission as set out within the Peace IV Programme
- To deliver cross-border investment and infrastructure and feed into local and national tourism strategies

The approved project will provide long-term recreational facilities for the public and tourists through the implementation of indoor and outdoor events spaces and recreational facilities including a playpark and provisions for river-based activities. In terms of public interest, the development is of significant importance and will contribute to social needs on a national level and cross-community relations. Stakeholder consultations received 77 letters of support from local groups confirming intent to use and participate. The project has established a community forum of 32 group representatives – 16 from Lifford and 16 from Strabane

In addition to delivering recreational facilities to the area, the project will align with the objectives of the strategic peace and reconciliation policy position of the Northern Ireland Executive, Irish Government and the European Commission as set out within the Peace IV Programme, and at a local level the development is complementary to the DCSDC Peace IV Action Plan and DCSDC Good Relations strategy.

Furthermore, the project will feed into local and national tourism strategies. The cross-community project will contribute to an increase in revenue for local businesses in both Strabane and Lifford, as they support the additional footfall of members of the public and tourists visiting the park. The approved development will provide direct employment locally during the construction phase, as well as further employment servicing the numbers of tourists that will be attracted to the area and an increased direct employment through the development maintenance process.

Relevant funding has been secured for the project, as such the approved development is tied to funding windows, limiting any delays in the commencement of works.

The commencement of the approved, nationally significant development is dependent upon the derogation activity, the whole project cannot go ahead without it. The exclusion of the natal den is not expected to have a negative impact on the local otter population in the long-term. Mitigation and compensation measures have been incorporated into the construction and design of the project, with the purpose of maintaining and enhancing suitable terrestrial and aquatic habitats for a range of species, including otter.

5.2 Test 2 – Absence of alternative solutions

Details of alternatives regarding the layout and design proposal can be found in Appendix II Table of Alternatives.

5.2.1 Do nothing

In the “do nothing” scenario, the lands would remain in private ownership utilised for hare coursing and other agricultural use, and the space and capital components would not be in place to facilitate delivery of the programming activities and interventions to promote Cross-Community Engagement, Good Relations and Reconciliation. Invasive species would continue to spread along the banks of the River Foyle and surrounding lands and sensitive habitats, and there would be no further enhancement of ecological value through the landscaping scheme.

5.2.2 Proceed without mitigation

Specific mitigation measures have been stipulated through the EIA and planning application process. Those relevant to otter include:

- If an otter is discovered or any activity suggesting otters have been disturbed during construction, all work must cease immediately, and the ecologist should be notified as soon as possible to detail how to proceed
- Compensatory planting scheme be carried out in order to recreate foraging habitat which may be lost due to the proposed site plans
- A minimum of 10 metres should be maintained as a buffer between the proposed development and surrounding water courses
- Fencing designs should provide unrestricted access to the site for the otters in an effort to allow otters to use their extended foraging grounds
- A surface water management plan must be prepared and implemented prior to construction works to avoid potential impacts on the water courses and water quality
- A small culvert or small ledge structure be worked into the bridge landing areas to allow otters free land access across the areas where the bridge makes contact with the banks of the River Foyle

- Mammal gates proposed to be situated at intervals along peripheral fencing within the site to enable badgers and other mammals to move around and in and out of the site unrestricted, thereby not interfering with any foraging

In the absence of mitigation during the operational and construction phases of the development, the local otter population could be impacted by direct harm/injury, and loss of foraging and commuting grounds.

In the absence of the derogation activities – namely the precautionary exclusion process for the currently inactive natal den – the construction phase activities could result in the direct harm, injury, or killing of otters.

5.2.3 Alternative design options

A site selection process was undertaken whereby sites were identified within the Strabane and Lifford town boundaries that were adjacent to each other. The area along the border was investigated fully by both councils and the land to the south of Lifford / Strabane was ruled out due to a large parcel of land designated under the Donegal County Development Plan as a corridor for a future roads project. This led both councils to the only other viable option which is the site of the proposed development.

The Lifford portion of the development is reliant on the acquisition of lands currently used for hare coursing. As part of the acquisition, the hare coursing facility is to be reinstated on lands within the application boundary and north of the area to be developed as part of the park scheme. It is the proposed hare coursing ground that will be constructed over the identified holt. There is no other space within the application boundary for the proposed hare coursing ground, and the approved development cannot go ahead without these acquired lands.

5.3 Test 3 – Impact of a derogation on conservation status

5.3.1 Conservation status assessment

According to the Article 17 Report (NPWS, 2018), the otter population of Ireland is considered to be stable and none of the threats or pressures identified are anticipated to cause significant impact on the species. The conservation status of otters in Ireland is assessed as favourable and stable.

Based on the camera trap footage obtained during the periods 20th January – 3rd February and 18th March – 21st April 2026, it was determined that the hole identified within the development footprint was previously utilised as a natal den and has remained inactive by otter use 24th January 2026. The below listed mitigation measure will be in place to minimise the potential disturbance to otters during the construction and operational phases of the development. Provided that the works are carried out in accordance with the design, best practice and mitigation that is described within this report, long-term significant effects on otters are not anticipated at any geographic scale.

5.3.2 Mitigation measures

All mitigation measures detailed in this section have been developed with reference to TII's *Guidelines for the protection of otters prior to the construction of national road schemes* (2009).

The relocation of the hare coursing facility will span the field boundary ditch in which the inactive natal den is located; therefore, the den structure will be excluded and destroyed to ensure that no otters are present prior to and during the construction of the hare coursing facility. Suitable breeding habitat will be retained within the vicinity of the den, including further field ditches with hedgerow and tree cover, and patches of scrub and woodland, as well as several inactive mammal holes that could be utilised as natal dens.

Prior to the exclusion process, the den will be confirmed inactive following a minimum 5-day period of monitoring. Monitoring of the den will be achieved with use of a camera trap and placing sticks and sand at the entrance of the hole. Following this period the den will be destroyed immediately under the supervision of the licensed ecologist.

If the period of monitoring confirms otter presence (non-breeding), then a one-way gate will be installed at the den entrance. Similarly to the badger exclusion process, the gate will be set to two-way function for a minimum of 3 days, before being set to one-way opening. The den and gate will be monitored for 21-days using the same methods as detailed above; if there are any signs of disturbance by otter at the entrance of the den then this 21-day period will reset. After this the holt will be immediately destroyed. If breeding otters are initially identified at the location, then the exclusion process will only commence once all otters have vacated the structure.

Destruction of the den will be undertaken with suitably sized tracked digger. The digger will commence excavations at least 15m from the den entrance and work towards the structure. Any exposed tunnels will be checked for recent otter activity to ensure the protection of any otters still remaining. Once the structure is confirmed free of otter, the remainder of the den may be destroyed and the entire area back-filled and made safe.

A report detailing the exclusion process procedure and destruction of the den will be submitted to NPWS in accordance with the conditions of the derogation licence.

Further mitigation measures have/will be implemented during the design and construction phases of the approved development, including:

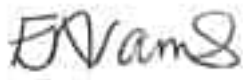
- If an otter is discovered or any activity suggesting otters have been disturbed during construction, all work must cease immediately, and the ecologist should be notified as soon as possible to detail how to proceed
- Compensatory planting scheme be carried out in order to recreate foraging habitat which may be lost due to the proposed site plans
- A minimum of 10 metres should be maintained as a buffer between the proposed development and surrounding water courses
- Fencing designs should provide unrestricted access to the site for the otters in an effort to allow otters to use their extended foraging grounds
- A surface water management plan must be prepared and implemented prior to construction works to avoid potential impacts on the water courses and water quality
- A small culvert or small ledge structure be worked into the bridge landing areas to allow otters free land access across the areas where the bridge makes contact with the banks of the River Foyle

6.0 MONITORING THE IMPACTS OF THE DEROGATION

As per the conditions of the approved development, a pre-commencement of construction otter survey will be carried out by a suitably qualified ecologist of the entire application site, covering both Lifford and Strabane areas of the development.

An updated otter survey will be carried out by a suitably qualified ecologist post-construction of the community park, including further camera monitoring to inform the license return and derogation report.

Report Prepared By: -

A handwritten signature in black ink, appearing to read 'EVarnals', is centered below the text 'Report Prepared By: -'.

Emily Varnals MSc BSc

Principal Ecologist

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Natural England Otters: Advice for Making Planning Decisions. Available at: Otters: advice for making planning decisions - GOV.UK (www.gov.uk)

APPENDICES

Appendix I: P3852 Licenced Otter Survey



PROJECT REF: P3852

LICENCED OTTER SURVEY

**RIVERINE PROJECT
STRABANE AND LIFFORD**

CLIENT: MCADAM DESIGN

DATE: MAY 2026

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1.0 INTRODUCTION

In 2025 MCL Consulting Ltd. were appointed by McAdam Design to conduct various ecological surveys in support of the approved Riverine Community Park Project on lands in Strabane and Lifford. This report follows previous mammal surveys (*P3852 Badger Survey* and *P3852 Otter Survey, MCL*), which identified otter activity at supposed badger sett entrances. As such, licences were sought from NPWS and NIEA in order to monitor these structures using camera traps – this report details the findings of the licenced survey effort.

Works carried out under the following licences:

NIEA: **DSO-001-26**

NPWS: **027-2026**

1.1 Site Location

The subject site straddles the border between Strabane, Northern Ireland (NI) and Lifford, Republic of Ireland (ROI) with the River Foyle flowing between the two towns. The site measures approximately 11.69 hectares in total, with approximately 5.73 hectares on the Lifford side and 5.96 hectares on the Strabane side (Figures 1&2).

On the Strabane side, the site is accessed via a small access road exiting from a roundabout which connects Lifford Road, Barnhill Road, Railway Street, and Bradley Way. The access road leads to a disused concrete hardstand, with the rest of the site consisting of wet woodland and soil embankments.

On the Lifford side, the site is accessed via a small access road which egresses on to Station Road. The subject site on this side consists mostly of open grassed land, with a sports pitch located to the northeast and a band of woodland running in a north-south line to the west of the site.



Figure 1: Site location



Figure 2: Site boundary

1.2 Proposed Developments

The development aims to address the impact of the conflict in the Lifford and Strabane area, and its hinterlands, by regenerating the border riverside area to create an iconic cross-border community park straddling the River Foyle as a shared space to bring communities together from both sides of the border, to re-connect and form new, long lasting connections and relationships.

Riverine Community Park will be of local and regional importance and will incorporate the core elements of a pedestrian and cycle bridge between Lifford and Strabane, Riverine Park Building, multi-functional outdoor space and external stage provision, play area, river walk and access, landscaped green-spaces interlaced with a network of pathways, cycleways and retained wetlands. The development will be supported by car parking provision.

The project will comprise the creation of new community park infrastructure in excess of 11 hectares by utilising agricultural land and wetlands lying along either side of the border connected through the creation of a new pedestrian and cycle bridge between Lifford and Strabane. The bridge will be a single span with an intermediate pier constructed on the Lifford river flood plain, and landing points on either side of the riverbanks. The Park on the Lifford site will be a designed landscape incorporating indoor and outdoor recreational features, smaller meeting & events spaces for programmed activity, complemented using the naturalised flood plain environment on the Strabane site for informal recreation and environmental education/conservation activities. This diversity of offering makes for a more inclusive and freeing sharing experience.

The proposed project, although not restricted to, comprises the following key components:

- Building providing indoor space for use on a shared basis for activities including music, drama, multi-media activities on the Lifford side of the proposed development.
- Outdoor flexible multi-functional space to accommodate a range of outdoor programmed & non-programmed activities both small & large scale. The space will have a maximum capacity of c.3,000 persons & will be dual facing for small or large events on the Lifford side of the proposed development.

-
- A new bridge connection that spans both sides of the River Foyle forming a strong, symbolic statement in terms of the unifying theme of bringing together all of the communities who will use the project.
 - Wetland and park space to encourage participants to enjoy & learn key environmental assets of the area.
 - River based recreational facilities for the increasing number of water sports groups in Lifford & Strabane will be made available on the Lifford side of the proposed development.
 - Family Space incorporating unique play experience, designed to support children focused events & related programming.

Planning Application Reference number NI: LA11/2022/0207/F

Planning Application Reference number ROI: ABP 311542-21

1.3 Previous study

P2288 Otter Survey, MCL 2021

An otter survey carried out by MCL in 2021 recorded in-river otter activity within the site boundary, as well as evidence of terrestrial activity on the Strabane side of the development including camera trap footage and feeding remains. The results are mapped in Appendix II.

P3852 Badger Survey, MCL 2026

An extensive badger survey of the site was carried out from November 2025 – February 2026. During this survey, still images of an otter were caught on a camera trap at an identified main sett on the Strabane side of the development, and an adult otter and pup were recorded at a supposed badger hole within the Lifford portion of the site. These results are mapped in Appendix III.

On the 7th January 2026, a camera trap deployed for a badger survey was collected from the Strabane side of the development. This camera was placed at a low-lying mammal hole (suspected badger entrance) within proximity to an identified main sett, immediately adjacent to a patch of wet woodland to the west, for the purposes of monitoring onsite badger activity. Images of otter were captured on the 3rd and 6th January, showing an otter moving up and down a trail between the mammal holes and the wet woodland area (TN13). The camera was setup to capture only images, no video footage was captured of the otter

activity; therefore, it is difficult to determine the specificities of otter activity at this location and further monitoring of the area under licence was recommended.

On the 3rd February 2026 a camera trap was retrieved from a suspected badger hole on the Lifford side of the development and footage captured showed a young and adult otter active in the area (Figures 7 & 8). The hole was identified during a badger survey on the 20th January and perceived to be dug by badger due to the D-shape of the entrance and indicated recent activity with fresh soil at the top of the mound; therefore, a camera trap was deployed at this location. It is located on the bank of a field ditch, which was not holding water at the time but does hold water further north from the location. Footage obtained showed an adult otter emerging from the ditch up towards the hole on the morning of the 23rd January. The footage clip shows the otter looking in the hole – possibly dropping something in – before turning and heading back into the field ditch. The following day in the late afternoon, a young otter emerges from the hole towards the ditch. It was concluded that the hole identified could be being utilised as a maternity holt by otter, and therefore monitoring of the holt under licence was recommended.

P3852 Otter Survey, MCL 2026

On 3rd February 2026 a site walkover was conducted to record field signs of otter activity. During this walkover, slides, spraint, and prints were all observed and target noted. Additionally, an otter was observed entering the River Foyle from the Strabane bank. These results are mapped in Appendix III.

In addition to the site walkover, on the 30th March 2026, an in-river survey of the riverbanks from a RIB was conducted to search for signs of otter activity and, primarily, further potential holts or resting places. No further signs of otter were identified during this survey.

1.4 Aims and objectives

- Monitoring of potential holt/resting places with camera traps;
- Recommendations for mitigation measures to avoid disturbance or habitat loss, including timing of works, buffer zones, and possible enhancements;
- Guidance on legal protection of otters under UK and NI wildlife legislation throughout construction and operation phases.

1.5 Statement of Authority

MCL Consulting is a Northern Ireland based multidisciplinary environmental consultancy which provides expert advice for a wide range of ecological services in support of Environmental Impact Assessments (EIA).

Emily Varnals BSc, MSc – Senior Ecologist

Licences were held by and fieldwork and reporting carried out by Emily Varnals, a senior ecologist at MCL Consulting. She has an MSc in Applied Ecology (University of Gloucestershire), and a BSc in Zoology (University of Leicester). Emily has a decade of experience in ecological field work – starting with assisting on bat surveys in 2015 – carrying out protected species surveys (including otter) for various consultancies and undertaking ECoW work.

As a Senior Ecologist at MCL, Emily is responsible for co-ordinating, conducting, and reporting on various ecological surveys including PEAs, bat activity/roost potential surveys, biodiversity checklists, breeding bird surveys, badger surveys, otter surveys, habitat management plans, and invasive species management plans.

Emily has gained wide-ranging experience of mammal surveys, with over 6 years' professional practise in conducting various mammal surveys across the UK and Ireland. Most relevantly she has co-ordinated otter surveys on both small and large-scale projects, identifying holts, resting places and signs of activity including spraint, slides, and feeding remains. She has also obtained and worked under licences to disturb otters for development purposes from NIEA and NPWS, utilising camera traps to assess otter use of potential holt structures. She has used her findings from the field to inform and compose appropriate mitigation measures for the protection of otters during construction- and operational-phases of developments.

She holds numerous qualifications including Emergency First Aid at Work + Forestry, SSSTS (site supervisor safety), RLSS Water Safety Awareness (inland waterways), and is a CSCS cardholder.

2.0 LEGISLATION

Otters are listed on Annex IV of the EC Habitats Directive (92/43/EEC) and are protected under the Conservation (Natural Habitats etc.) Regulations 1995 (as amended), known as the Habitats Regulations. Under the Habitats Regulations it is an offence:

- Deliberately to capture, injure or kill a wild animal of a European protected species;
- Deliberately to disturb such an animal while it is occupying a structure or place which it uses for shelter or protection;
- Deliberately to disturb such an animal in such a way as to be likely to;
 - o affect the local distribution or abundance of the species to which it belongs;
 - o impair its ability to survive, breed or reproduce, or rear or care for its young;
 - or
 - o impair its ability to hibernate or migrate;
- Deliberately to obstruct access to a breeding site or resting place of such an animal;
- or
- To damage or destroy a breeding site or resting place of such an animal.

Appropriate licences must be obtained if impacts on otters are anticipated that would otherwise be illegal. There is no provision within the legislation to issue licences to kill otters for the purpose of development.

3.0 METHODOLOGY

3.1 Rationale of Otter Survey

The aim of the licenced otter survey:

- Determine nature of identified mammal holes and ascertain their use by otters.
- To develop suitable mitigation plans in the event of confirmed otter species presence, as appropriate.

3.2 Desk study

A desktop study was undertaken for the site by obtaining otter records from both the NBN atlas (National Biodiversity Network) and CEDaR (Centre for Environmental Data and Recording) within a 2km radius of the site. Aerial maps were also studied to identify potential foraging and commuting habitat surrounding the site.

3.3 Field Study

Camera traps were deployed at two locations (see Appendix I) where otter activity had previously been captured in video and still images. One camera was deployed in Lifford on a mammal hole along a field ditch where a pup and adult otter had been recorded, and another in Strabane at a low-lying hole near a main badger sett where still images of an otter had been captured in a prior survey.

Cameras were deployed from the 18th March – 21st April to allow for a minimum of one month monitoring of the structures and sufficient assessment of the use of the potential holts. The cameras were checked twice during this period to maintain battery life and storage and ensure constant monitoring for extent of the survey. Table 1 below summarises the timings and weather conditions on days that cameras were deployed, checked, and finally collected.

Table 1. Summary of weather conditions and survey periods

Surveyor	Date	Survey Start	Survey Finish	°C	W/S (mph)	Oktas	Ppt
Emily Varnals BSc MSc	18/03/2026	11:00	12:00	10	3	2/8	Clear, calm conditions.
Emily Varnals BSc MSc	30/03/2026	11:30	12:30	13	17	6/8	Windy conditions throughout survey.
Emily Varnals BSc MSc	08/04/2026	11:00	11:45	15	14	2/8	Windy conditions throughout survey.
Emily Varnals BSc MSc	21/04/2026	11:15	12:00	14	17	3/8	Windy conditions throughout survey.

3.3.1 Licenced Otter Survey

Licences were obtained from NPWS and NIEA to monitor potential holt structures in Lifford and Strabane respectively (Licences: NIEA: **DSO-001-26**, NPWS: **027-2026**). Camera traps were placed at two locations within the development site at potential holt structures for a minimum of one month to assess otter use and activity at the locations.

During checks on camera traps, searches for signs of recent otter activity within the monitoring positions were also conducted and any evidence mapped and target noted.

Field signs are important when determining if otters are present or absent within a site. The following field signs are used to evidence:

- spraint;
- anal jelly;
- forage remains (e.g. fish heads, scales);
- slides;
- couches/hovers and;
- holts.

3.3.2 Survey Constraints

No constraints were encountered during the period of monitoring.

4.0 RESULTS

4.1 Desk Study

4.1.1 CEDaR

A request was submitted to CEDaR to identify if any previous historical records of otters were present within 2km of the site; the search provided x9 records of Otter (*Lutra lutra*). The closest record to the development site is at H 339 980, approximately 217m south of the site with x2 records at this point dated 2006 and 2011. No records exist within the site boundary.

4.1.2 NBN Atlas

A search of the NBN Atlas returned x5 records of Otter (*Lutra lutra*) within 2km of the development site. These records are included in the CEDaR dataset detailed in the section above. No records exist within the site boundary.

4.2 Field Study

During the period of monitoring from the 18th March – 21st April, there was no further footage or signs of otter recorded at the potential holt structure within the Lifford side of the development, where previously an otter pup was recorded leaving the hole. Camera trap monitoring of the hole at the Strabane location recorded footage of an otter commuting up and down an adjacent trail, however, no activity within the hole. The following sections describe the findings from each camera collection period.

4.2.1 Camera footage 18/03/2026 – 30/03/2026

Footage obtained from the 18th March – 30th March returned no recordings of otter at the Lifford location. Footage obtained mainly consisted of birds, mice, and a fox (Figure 3).

At the Strabane location, one otter was recorded on the 19th March leaving the water from an adjacent area of wet woodland and inspecting the camera before turning and exiting back into the water. A badger was also captured commuting through the area on the 21st March (Figure 4).

Details of the images of otter captured are presented in Table 2 below.

Table 2. Summary of camera trap results, 18/03/26 - 30/03/26

Date	Location	Description	Image
19/03/2026	Strabane camera	At 06:54pm, footage of an otter was captured entering the field of view from an area of water in wet woodland, it then inspected the camera before turning and heading back toward the water.	

4.2.2 Camera footage 30/03/2026 – 08/04/2026

There were again no recordings of otter at the Lifford location during this period; however, rabbit activity was captured. On the 1st and 6th April footage shows a rabbit active around and investigating the hole. On the 7th April a young rabbit was recorded entering the hole on two occasions, as well as grooming and foraging just outside the entrance. It was recorded again in the 8th April active outside the hole before exiting the area towards the ditch.

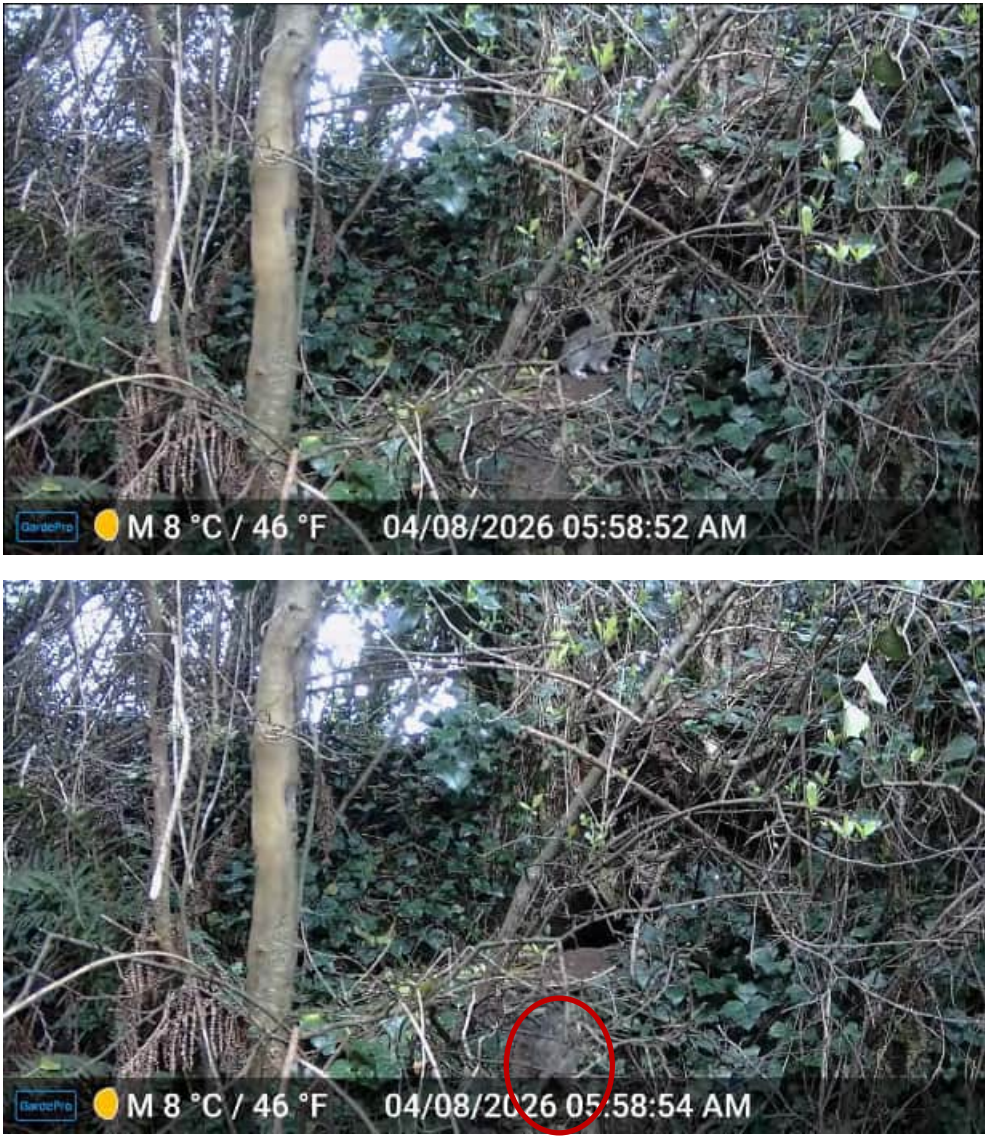
The camera at the Strabane location captured no activity other than badger commuting past the hole and camera on the 4th April (Figure 5).

Details of relevant findings are provided in Table 3 below.

Table 3. Summary of camera trap results, 30/03/26 – 08/04/26

Date	Location	Description	Image
01/04/2026	Lifford camera	A rabbit was recorded investigating the hole, no footage shows the rabbit entering the hole.	
06/04/2026	Lifford camera	A rabbit was again recorded investigating the hole, no footage shows the rabbit entering the hole.	

07/04/2026	Lifford camera	A young rabbit was recorded entering the hole twice and grooming and foraging directly outside the entrance.	 The image block contains two sequential stills from a camera. The top still shows a young rabbit in a wooded area, with a timestamp of 04/07/2026 11:32:46 AM and a temperature of 18 °C / 64 °F. The bottom still shows the same scene, with a timestamp of 04/07/2026 11:31:52 AM and a temperature of 18 °C / 64 °F. The rabbit is visible in the center of the frame, surrounded by dense foliage and trees.
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08/04/2026	Lifford camera	Footage captured shows a young rabbit sitting outside of the entrance before exiting the area towards the ditch.	 The image displays two sequential frames from a video recording. Both frames show a young rabbit in a dense, wooded area with many thin tree trunks and green foliage. The rabbit is positioned in the lower-middle part of the frame, sitting or standing among the branches. In the top frame, the rabbit is visible but not highlighted. In the bottom frame, the rabbit is circled with a red line to draw attention to it. Both frames have a black overlay at the bottom containing a small logo, a sun icon, the text 'M 8 °C / 46 °F', and the timestamp '04/08/2026 05:58:52 AM' for the top frame and '04/08/2026 05:58:54 AM' for the bottom frame.
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4.2.3 Camera collection 08/04/2026 – 21/04/2026

The final camera collection of the survey provided recordings of further recordings of rabbit activity at the Lifford location, as well as one instance of American mink (*Neogale vison*). Footage from the 8th, 10th, 13th, 17th, 19th, and 21st April showed both an adult and a young rabbit active within and around the hole, with a recoding of both of them leaving the hole together on the 13th April. Again, the young rabbit was observed grooming at the entrance of the hole. On the 21st April, an American mink was recorded entering the hole. Otters were not recorded at this location.

No recordings of otter, badger or other notable species were obtained at the Strabane location during this period.

Details of relevant findings are provided in Table 4 below.

Table 4. Summary of camera trap results, 08/04/26 – 21/04/26

Date	Location	Description	Image
08/04/2026	Lifford camera	Footage of a young rabbit leaving hole and grooming 12:38pm. Adult rabbit entering hole 06:07pm.	

10/04/2026	Lifford camera	Footage recorded a young rabbit active just within the entrance of the hole.	
13/04/2026	Lifford camera	Footage captured a young rabbit grooming itself just outside of the hole at 10:24am. At 03:10pm and adult rabbit is seen investigating the hole. At 6:05pm the adult and young otter are observed leaving the hole together.	

			 
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17/04/2026	Lifford camera	An adult was recorded at the entrance of the hole at 05:19pm, a young rabbit exits the hole shortly after this.	 
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19/04/2026	Lifford camera	At 11:18am a young rabbit is recorded leaving the hole and grooming just outside of the entrance.	 M 14 °C / 57 °F 04/19/2026 11:18:40 AM
21/04/2026	Lifford camera	An American mink was recorded investigating the area and then entering the hole.	 M 11 °C / 51 °F 04/21/2026 07:41:26 AM

4.3 Summary of Results

Camera traps were deployed at two holes, one within the Lifford side of the development and one on the Strabane side. Monitoring took place from the 18th March – 21st April 2026 to establish otter activity at these two locations. The results of this survey are summarised for each location in the following sections.

4.3.1 Strabane

A low-lying hole in the vicinity of a main badger sett was monitored with a camera trap under NIEA licence to assess otter activity. This survey took place after still images of otter were captured at this location during an onsite badger survey. Due to the lack of video footage, it was not possible to determine otter movements in the area, thus camera traps were deployed for this purpose.

Over a period of more than one month, footage of otter was obtained on one day on the 19th March. This footage showed the otter leaving the water from an area of adjacent wet woodland, inspecting the camera, and leaving the area in the same direction. No footage was recorded of otter, or any other protected or notable species, using the hole at this location. Therefore, this hole has not been classified as a holt or resting place for otter; it is assumed that otter use a well-worn mammal trail between the hole and wet woodland for commuting.

4.3.2 Lifford

A D-shaped hole on a field ditch bank was monitored as part of a badger survey in January 2026, and footage was recorded of an adult otter active at the location and a young otter leaving the hole. It was proposed that the hole could be being utilised as a maternity holt, hence a licence was obtained from NPWS to monitor the hole further with the use of camera traps.

During the monitoring period of 18th March – 21st April, no footage of otters was recorded. It is, however, apparent that the structure is now being used by a rabbit and its young, as several recordings show them entering and leaving the hole, as well as the young grooming and foraging in the immediate area. It is therefore concluded that otters are no longer using this hole as a holt or resting place. It is also noted that an American mink – classified as an

Invasive Alien Species (IAS) of Union Concern by the European Union – was recorded entering the hole on the final date of the survey period.

5.0 CONCLUSION

Otters (*Lutra lutra*) and their holts are strictly protected under the terms of the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) and under Annex IV of the EC Habitats Directive (92/43/EEC); they are a European protected species. Therefore, it is an offence to deliberately capture, injure or kill otters, disturb them or their holts, damage or destroy holts or impair their ability to hibernate or migrate as well as breeding sites.

Following a period of monitoring potential holt structures during this survey, and an extensive site walkover and in-river search during a previous survey, **no holts have been confirmed within the site boundary**. Field signs identified do show evidence of foraging and commuting otters within the site boundary.

A hole within the Lifford side of the development was previously proposed to be a maternity holt. On the 23rd January, an adult otter was recorded on a camera – deployed for a badger survey – inspecting the hole and the following day footage showed a young otter leaving the hole. Since this date (24th January), a period of monitoring began on the 18th March until the 21st April and no otters have been recorded at the location. Instead, the hole seems to now be occupied by rabbits. Anecdotal evidence in the form of observations by the landowner, also suggests that the structure was previously used by foxes, which were also recorded at the location during this survey period, in addition to an American mink. This indicates that the structure monitored is utilised by opportunistic individuals of various species at different times. It is possible that in January 2026, the hole was being briefly exploited by a transient young otter while dispersing from its mother.

Monitoring of a low-lying hole within the Strabane side of the development area returned footage of an otter entering the area from the water of adjacent wet woodland before inspecting the camera and leaving the same way. No other footage of otters was captured at this location. Therefore, the subject hole of this survey is not considered a holt or resting place for otters.

5.1 Further works

5.1.1 NPWS consultation

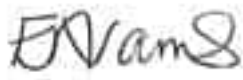
Following the findings of this survey, NPWS should be consulted to determine the most appropriate course of action to facilitate the commencement of the development while protecting onsite ecology.

Mitigation for previously identified onsite foraging and commuting otter activity has been stipulated in the conditions of the approved development.

5.1.2 American Mink

An American Mink, *Neogale vison*, was captured at the Lifford location entering the hole (see Table 4). This species has recently been added to the EU's Invasive Alien Species of Union Concern list, requiring prevention of unintentional introduction, measures for early detection and rapid eradication, and managing species that are already widely spread. A Mink Management Plan should be developed and implemented prior to the commencement of works.

Report Prepared By: -



Emily Varnals BSc MSc
Senior Ecologist

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ADDITIONAL FIGURES



Figure 3: Fox recorded in area of Lifford camera trap, 24/03/2026



Figure 4: Badger recorded commuting past Strabane camera, 21/03/26



Figure 5: Badger captured commuting past camera at Strabane, 04/04/2026



Figure 6: Fox investigating hole at Lifford location, 19/04/2026



Figure 7: Otter captured at Lifford hole during previous badger survey



Figure 8: Otter pup captured at Lifford hole during previous badger survey

APPENDICES

Appendix I: Location of deployed otter cameras



Legend

- Site Boundary
- Otter Cameras

Appendix I: Location of
deployed camera traps

Created by: Emily Varnals

Scale: 1:2500

Date: May 2026



Unit 5, Forty Eight North,
Duncrue Street

Belfast

BT3 9BJ



Appendix II: Map of 2021 Otter Survey results

Target Note (TN)	Description
TN1	Otter caught on trail camera towards eastern boundary of the Strabane side of the site, approx. 170m east of the banks of the River Foyle.
TN2	Foraging remains located on the Strabane side of the site on one of the angling points, a large salmon head
TN3	Foraging remains, patch of scales and small pieces of salmon meat located approximately 2m away from the salmon head
TN4	Otter prints located on the Strabane side of the River Foyle along the sandy banks of one of the angling points
TN5	Otter observed towards the northern area of the site within the River Foyle. Otter was observed foraging and seen traversing north along the river surface at approximately 12:39pm on 06/07/2021
TN6	Otter observed towards the northern area of the site within the River Foyle. Otter was observed foraging and seen traversing north along the river surface at approximately 12:58pm on 06/07/2021
TN7	Two otters were observed floating along the surface of the river along the eastern bank on the Strabane side within the site's northern region at approximately 12:30pm on 15/07/2021
TN8	One of the two otters remained continuously entering and exiting the water for approximately 20 minutes at 12:33pm, it was then observed emerging from the water whilst feeding at approximately 12:50pm on 15/07/2021
TN9	Otter was observed emerging from the water on to the river's western bank on the Lifford side and traversing the bank going south before disappearing west into the vegetation at approximately 12:10pm on 20/07/2021
TN10	Otter observed on the Lifford side of the River Foyle, washing it's face on the banks before it disappeared into the water at approximately 12:28pm on 20/07/2021
TN11	Mammal trails observed leading to and from the river into the greater flooded wet woodland region of the site

Legend

- Otter Target Notes
- Red Lined Boundary

Appendix II: Target note locations

Created by: Ryan Boyle

Reviewed by: Conor Finlay

Client: McAdam Design

Scale: 1:8010 @ A3

Date: 23/07/2021



Unit 5, Forty Eight North, Duncrue
Street
Belfast
BT2 9RL



Appendix III: Map of 2026 Otter Survey results

Target Note (TN)	Description
TN1	Slide into field drain
TN2	Slide into field drain
TN3	Slide into field drain
TN4	Slide into field drain
TN5	Slide into field drain
TN6	Slide into field drain
TN7	Footage captured of a young and adult otter during camera trapping for a badger survey, potential maternity holt adjacent to field drain
TN8	Spraint on riverbank
TN9	Prints on sandy riverbank leading to and from water
TN10	Spraint on rock on sandy riverbank
TN11	Prints on sandy riverbank leading to and from water
TN12	Prints on sandy riverbank
TN13	Image captured of an otter during camera trapping for a badger survey



Legend

- Site boundary
- Target notes

Appendix III: Otter survey target notes, 2026

Created by: Emily Varnals

Reviewed by: Lewis Shaw

Client: McAdam Design

Scale: 1:4500

Date: April 2026



Unit 5, Forty Eight North, Duncrue Street

Belfast

BT3 9BJ

0 100 200 m



Appendix II: Decision notices

PLANNING PERMISSION

Planning Act (Northern Ireland) 2011

Application No: **LA11/2022/0207/F**

Date of Application: **15 February 2022**

Site of Proposed Development: **Vacant land adjacent to and North West of the A5 (Barnhill Road) and West of Park Road Strabane.**

Description of Proposal: **Development of the Eastern portion of the new Riverine Community Park (i.e. that area of the development falling within the Derry City and Strabane District Council area) including new area of open space, access, amenity lighting and a new footbridge to the adjacent Western section of the proposed community park at Lifford, County Donegal**

Applicant: Derry City & Strabane District Council
Address: 98 Strand Road
Derry
BT48 7NN

Agent: Ken O'Sullivan
Address: 1C Montgomery House
478 Castlereagh Road
Belfast
Belfast
BT5 6BQ

Drawing Ref: 01, 07 Rev 1, 08 Rev 1, 09 Rev 1, 10 Rev 1, 11 Rev 1 13, 14 Rev 1, 15 Rev 1, 16, 17, 19, 21, 22 rev 1, 23 rev 1, 26, 27, 29, 30 Rev 1, 31, 32, 33, 34, 35, 36, 37, 38, 40 rev 1, 41 rev 1, 42 rev 2, 43 Rev 1

The Council in pursuance of its powers under the above-mentioned Act hereby

GRANTS PLANNING PERMISSION

for the above mentioned development in accordance with your application subject to compliance with the following conditions which are imposed for the reasons stated:

1. The development hereby permitted must be begun within five years from the date of this permission.

Reason: As required by Section 61 of the Planning Act (Northern Ireland) 2011.

2. Landscaping of the site shall be carried out in accordance with the approved plans prior to the development hereby permitted becoming operational.

Reason: To ensure satisfactory landscaping of the site.

3. If within a period of 5 years from the date of the planting of any tree, shrub or hedge, that tree, shrub or hedge is removed, uprooted or destroyed or dies, or becomes, in the opinion of the Council, seriously damaged or defective, another tree, shrub or hedge of the same species and size as that originally planted shall be planted at the same place, unless the Council gives its written consent to any variation.

Reason: To ensure the provision, establishment and maintenance of a high standard of landscape.

4. A Verification Report shall be submitted in writing and agreed with Planning Authority in order to identify the proposed remedial measures have been incorporated into the development.

Reason: To ensure the protection of health of site end-users

5. If during the development works, new contamination or risks are encountered which have not previously been identified, works shall cease and the Planning Authority shall be notified immediately. This new contamination shall be fully investigated in accordance the Environment Agency (EA) update to the Model procedures for the management of land contamination (CLR11); Land Contamination: Risk Management (LCRM) guidance available at <https://www.gov.uk/guidance/landcontamination-how-to-manage-the-risks>. In the event of unacceptable risks being identified, a suitable risk assessment shall be completed and a remediation strategy shall be agreed with the Planning Authority in writing, and subsequently implemented and verified to its satisfaction.

Reason: Protection of environmental receptors and to ensure protection of health of site end users, to ensure the site is suitable for use.

6. After completing the remediation works under Condition 5; and prior to occupation of the development, a verification report shall be submitted in writing and agreed with Planning Authority. This report shall be completed by competent persons in accordance with the Land Contamination: Risk Management (LCRM) guidance available at <https://www.gov.uk/guidance/landcontamination-how-to-manage-the-risks>. The verification report shall present all the remediation, waste management and monitoring works undertaken and demonstrate the effectiveness of the works in managing all the risks and wastes in achieving the remedial objectives.

Reason: Protection of environmental receptors and protection of health to ensure the site is suitable for use.

7. Construction work, which is audible at any noise sensitive property outside the site, shall only take place between the hours of 07.30 - 18.00 hours on Monday to Friday, 08.00 - 13.00 hours on Saturday with no such working on Sunday or Public Holidays. Outwith these hours, work at the site shall be limited to emergency works, or construction work that is not audible at any noise sensitive property; unless otherwise agreed in advance with the Environmental Health Department of Derry City and Strabane District Council. Reason: To control noise levels from construction noise at noise sensitive locations.

Reason: To protect residential amenity.

8. Mechanical plant used on site shall be fitted with effective exhaust silencers.

Reason: To protect residential amenity.

9. Prior to commencing the developer shall install a wheel wash facility at the site entrance(s) and maintain the wheel wash in operational condition throughout the lifetime of the construction phase of the development.

Reason: To minimise the off-site migration of dust and soil and protect residential amenity

10. The operators of all construction site traffic (e.g. lorries, excavators etc.) exiting the site shall make use of the wheel wash facility (required under Condition 3) prior to entering onto public roads, to ensure mud and other wastes are not tracked onto public roads.

Reason: To minimise the off-site migration of dust and soil and protect residential amenity.

11. Site roads and stockpiles (e.g. soils) with the potential to give rise to dust shall be regularly watered, as appropriate, during dry and/or windy conditions to minimise the off-site deposition of dust.

Reason: To protect residential amenity and human health.

12. The mitigation measures described in Appendix 1-3 Strabane Schedule of Mitigation Measures for Noise/ Vibration and Dust shall be implemented at all times.

Reason: To protect residential amenity and human health.

13. Prior to commencement of the development hereby permitted a Final CEMP (Construction Environmental Management Plan) shall be submitted to and agreed with Council. This shall include details of mitigation measures to be implemented during the construction phase of development to control noise, vibration and dust impact upon residential amenity and protect the wider environment.

Once approved, the Construction Environmental Management Plan shall be adhered to at all times, unless otherwise agreed in writing with the Planning Authority.

Reason: In the interests of health and safety

14. No site works of any nature or development shall take place until a programme of archaeological work (POW) has been prepared by a qualified archaeologist, submitted by the applicant and approved in writing by Derry City & Strabane District Council in consultation with Historic Environment Division, Department for Communities. The POW shall provide for:

- The identification and evaluation of archaeological remains within the site;
- Mitigation of the impacts of development through licensed excavation recording or by preservation of remains in-situ;
- Post-excavation analysis sufficient to prepare an archaeological report, to publication standard if necessary; and
- Preparation of the digital, documentary and material archive for deposition.

Reason: To ensure that archaeological remains within the application site are properly identified and protected or appropriately recorded.

15. No site works of any nature or development shall take place other than in accordance with the programme of archaeological work approved under condition 14.

Reason: To ensure that archaeological remains within the application site are properly identified, and protected or appropriately recorded.

16. A programme of post-excavation analysis, preparation of an archaeological report, dissemination of results and preparation of the excavation archive shall be undertaken in accordance with the programme of archaeological work approved under condition 14. These measures shall be implemented and a final archaeological report shall be submitted to Derry City & Strabane District Council within 12 months of the completion of archaeological site works, or as otherwise agreed in writing with Derry City & Strabane District Council.

Reason: To ensure that the results of archaeological works are appropriately analysed and disseminated and the excavation archive is prepared to a suitable standard for deposition.

17. At least 8 weeks prior to commencement of construction and once a contractor has been appointed, a final Construction Environmental Management Plan (CEMP) and Construction Method Statements (CMS) shall be submitted and agreed in writing to the Planning Authority.

Reason: To ensure effective avoidance and mitigation measures have been planned for the protection of the water environment.

18. Immediately prior to the commencement of works, the site shall be subject to a re-survey for otters and a report submitted to the Planning Authority within 6 weeks of completion. In the event where a new otter holt is discovered, all works shall cease immediately, and advice shall be sought from the NIEA Wildlife Team Natural Heritage & Conservation Areas

Reason: To protect otters and minimise impacts to Designated Site selection features.

19. Immediately prior to the commencement of works the site shall be subject to a re-survey for badger and a report submitted to the Planning Authority within 6 weeks of completion. In the event where a new badger sett is discovered, all works shall cease immediately, and advice shall be sought from the NIEA Wildlife Team.

Reason: To protect badgers and their setts.

20. No development activity, including ground preparation or vegetation clearance, shall take place until protection zones, clearly marked with posts joined with hazard warning tape, have been provided around each badger sett entrance which are to be retained (i.e. identified main sett, any newly identified setts which are to be retained etc.), at a radius of 25 metres. No works, vegetation clearance, disturbance by machinery, dumping or storage of materials shall take place within the protection zones unless an appropriate Wildlife Licence has been obtained from NIEA. The protection zones shall be retained and maintained until all construction activity has been completed on site.

Reason: To protect badgers and their setts.

21. PIR Lighting on site shall be installed and managed, including output levels (e.g. 5%) and on/off times as detailed within Chapter 7 Biodiversity Section 7.1 Additional Information (Environmental Statement Addendum, MCL Consulting, published to the NI Planning Portal 11/01/2023) and Environmental Statement – FEI Addendum (McAdam Design Ltd, published to the NI Planning Portal 25/10/2023).

Reason: To reduce impacts on bats from lighting proposals.

22. No development activity shall commence until a competent ecologist has

been appointed to oversee construction works and the implementation of otter/badger mitigation measures as necessary, and details of the appointed ecologist, including duties, responsibilities, and timings of visits, has been submitted to the Council and agreed.

Reason: To ensure implementation of mitigation measures for species and habitats.

23. To prevent hinderance to foraging access for otters, there shall be no creation of obstructions within the river itself, or along the riverbank during construction or thereafter.

Reason: To minimise impacts to Designed Site selection features.

24. Prior to commencement of development, the mitigation measure for otters from the Environment Statement addendum of exclusion fencing to be installed around the halting area during construction phase, shall be implemented and adhered to at all times.

Reason: To minimise impacts to Designated Sites and site selection features.

25. Any surface water discharging to a watercourse during the construction phase of the development must first pass through appropriate treatment, such as sediment traps.

Reason: To minimise impacts to Designated Sites and site selection features.

26. Prior to commencement of in-river works, a suitable barrier shall be erected around the works site. The barrier shall be adequate to prevent egress of water from the construction site into River Foyle and Tributaries ASSI/SAC and shall be removed upon completion of construction.

Reason: To minimise impacts to Designated Sites and site selection features

27. The development hereby permitted located within the land take associated

with the planned route of the A5 Western Transport Corridor (A5WTC), as generally indicated on drawing no 15 Rev 1 'A5 Vesting Boundary Plan' (Dwg No. RVCP-MCA-Z3-XX-DR-CE-2171 P03) date received 10 March 2023 published to the register on 26 February 2024 and drawing 43 Rev 1 'A5 Development Proposal Overlay' (Dwg No. RVCP-MCA-Z3-XX-DR-CE-2169 P04) submitted 09 March 2023 published to the register on 26 February 2024, is temporary and shall be vacated when the Statutory Orders are made for Section 1 of the A5WTC.

Reason: To ensure that delivery of the A5 Western Transport Corridor scheme is not prejudiced.

28. Prior to commencement of any part of the development hereby permitted, a Construction Phase Traffic Management Plan shall be submitted to the planning authority and approved in writing and thereafter implemented.

Reason: In the interests of road safety and the convenience of road users.

29. Prior to the development hereby permitted becoming operational, the existing vehicular access from Lifford Road Roundabout shall be permanently closed and the kerbline, verge and footway provided in accordance with drawing 07 Rev 1 'Strabane Proposed Civil Plans Sheet 1' (Dwg No. RVCP-MCA-Z3-XX-DR-CE-2160 P05) date received 09 March 2023 and published to the register 27.02.2024.

Reason: In the interests of road safety and the convenience of road users.

30. Prior to the development hereby permitted becoming operational, the detailed design of the signalised crossings on Barnhill Road and Lifford Road shall be submitted to the planning authority and approved in writing and thereafter implemented as generally indicated on drawing 14 Rev 1 'Proposed A5 Crossing' (Dwg No. RVCP-MCA-Z3-XX-DR-CE-2170 P04) date received 09 March 2023 and published to the register on 26 February 2024. As part of this submission a Stage 1/2 Road Safety Audit shall be submitted to and agreed by the planning authority

Reason: To ensure that the road works considered necessary to provide a proper, safe and convenient means of access to the site are carried out at the appropriate time.

31. On completion of construction of the signalised crossings on Barnhill Road

and Lifford Road as required under condition 32, a Stage 3 and subsequent Stage 4 Road Safety Audit shall be submitted to and agreed by the planning authority and thereafter implemented as agreed.

Reason: In the interest of road safety and to provide an assurance that all safety requirements have been implemented.

32. Prior to the development hereby permitted becoming operational, a Service Management Plan shall be submitted to the planning authority and approved in writing and thereafter implemented.

Reason: In the interests of road safety and the convenience of road users.

33. The development shall be carried out in accordance with approved drawings;

01, 13, 16, 27, 38 date stamped received 03 January 2023 and published to the register on 11 January 2023.

07 Rev 1, 08 Rev 1, 09 Rev 1, 10 Rev 1, 11 Rev 1 date received 09 March 2023 and published to the register on 27 February 2024.

14 rev 1, 15 Rev 1 date stamped received 10 March 2023 and published to the register on 26 February 2024

17, 19, 21, 26, 29, 31, 32, 33, 34, 35, 36, 37 date stamped received 15 February 2022 and published to the register on 26 November 2022.

22 Rev 1, 23 Rev 1 date stamped received on 10 March 2023 and published to the register on 26 February 2024.

30 Rev 1, 40 Rev 1, 41 Rev 1, 42 Rev 2 and 43 Rev 1 published to the register on 26 February 2024.

Reason: To ensure the development is carried out in accordance with the approved plans.

Informatives

1. DfI Roads

A portion of the proposed development is within the landtake associated with the planned route of the A5 Western Transport Corridor dual carriageway (A5WTC), a Flagship project of the Northern Ireland Executive, and as provided for within the associated Notice of Intention to make a Direction Order and Notices of Intention to make Vesting Orders.

Any development within the landtake is temporary and shall be vacated when the Statutory Orders are made for Section 1 of the A5WTC. The orders include Direction Order and Vesting Order.

It should not be assumed that this approval implies that no other part of this development would not be affected by the proposed A5 Western Transport Corridor project.

The developer and their successors in title should note that the development is, and will remain, private. DfI Roads has not considered, nor will it at any time in the future consider, this area to constitute a "street" as defined in The Private Streets (Northern Ireland) Order 1980 as amended by the Private Streets (Amendment) (Northern Ireland) Order 1992.

Responsibility for the development rests solely with Derry City and Strabane District Council and their successors in title.

Highway design shall be in accordance with the current relevant standards of the Design Manual for Roads and Bridges (DMRB).

The submission of the Road Safety Audits shall be carried out in accordance with the requirements stipulated in the current version of GG119 of the Design Manual for Road and Bridges (DMRB).

The developer will not be released from their liabilities under licence agreement for the development hereby approved until the Road Safety Audit process has been completed in accordance with the Design Manual for Road and Bridges standard and any recommendations implemented to the satisfaction of DfI Roads.

The developer is required to enter into a licence agreement with the Department for Infrastructure, Roads for the carrying out of the road works approved, prior to the commencement of any works to the public road network.

The licence agreement shall be issued through DfI Roads Network Planning Private Streets Section, Western Division, Co Hall, Omagh and the developer should allow up to four months for completion of the licence. Accordingly the developer is advised to make an early application for the issue of the licence. The developer should also initiate early discussions for the satisfactory programming/phasing of the proposed road works.

It is a DfI Roads requirement that all structures which fall within the scope of the current version of CG300 Technical Approval of Highways Structures: Volume 1: Design Manual for Roads and Bridges shall require Technical Approval. Details shall be submitted to the Technical Approval Authority through DfI Roads Western Division, County Hall, 1 Drumragh Avenue, Omagh, BT79 7AF.

Geotechnical activities which require Geotechnical Certification shall be submitted to Engineering Policy and Parking Services through DfI Roads, Western Division, County Hall, 1 Drumragh Road, Omagh, BT79 7AF. Geotechnical Certification shall be in accordance with the Department for Infrastructure's Geotechnical Certification procedures as laid down in the current version of CD 622 Managing Geotechnical Risk: Volume 4: Design Manual for Roads and Bridges.

It is DfI Roads' requirement for works, including temporary works, which impact the progression of traffic and non-motorised users that the Applicant contact DfI Roads – Traffic Section at an early stage and prior to commencement of the works to this development so that a detailed programme of works and any required / associated traffic management proposals and permits shall be agreed.

The assessment of the requirement for any Road Restraint Systems (RRS) shall be carried out in accordance with the Director of Engineering Memorandum 'Provision of Road Restraint Systems - DEM 163/17'.

No alterations to any existing Road Restraint System (RRS) nor erection of new RRS are permitted until a satisfactory design has been submitted to and approved by DfI Roads in accordance with the Director of Engineering Memorandum 'Provision of Road Restraint Systems - DEM 163/17'.

The approval does not empower anyone to build or erect any structure, wall or fence or encroach in any other manner on a public roadway (including a footway and verge) or on any other land owned or managed by DfI Roads for which separate permissions and arrangements are required.

All construction plant and materials shall be stored within the curtilage of the site.

It is the responsibility of the Developer to ensure that water does not flow from the site onto the public road (including verge or footway) and that existing road side drainage is preserved and does not allow water from the road to enter the site. This planning approval does not give authority to discharge any drainage into a DfI Roads drainage system.

2. Natural Environment Division

The applicant's attention is drawn to the following link, for standing advice on protection of

the terrestrial and water environment:

- <https://www.daera-ni.gov.uk/articles/standing-advice-0>

Bats and Otter

The applicant's attention is drawn to The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended), under which it is an offence:

- a) Deliberately to capture, injure or kill a wild animal of a European protected species, which includes the otter (*Lutra lutra*) and all species of bat;
- b) Deliberately to disturb such an animal while it is occupying a structure or place which it uses for shelter or protection;
- c) Deliberately to disturb such an animal in such a way as to be likely to;
 - i. affect the local distribution or abundance of the species to which it belongs;
 - ii. Impair its ability to survive, breed or reproduce, or rear or care for its young; or
 - iii. Impair its ability to hibernate or migrate;
- d) Deliberately to obstruct access to a breeding site or resting place of such an animal;

or

- e) To damage or destroy a breeding site or resting place of such an animal.

If there is evidence of bat and/or otter activity on the site, all works should cease immediately and further advice sought from the Wildlife Team, Northern Ireland Environment Agency, Klondyke Building, Cromac Avenue, Gasworks Business Park, Belfast BT7 2JA. [REDACTED]

Badgers

The applicant's attention is drawn to Article 10 of the Wildlife (Northern Ireland) Order 1985 (as amended) under which it is an offence to intentionally or recklessly:

- kill, injure or take any wild animal included in Schedule 5 of this Order, which includes the badger (*Meles meles*);
- damage or destroy, or obstruct access to, any structure or place which badgers use for shelter or protection;
- damage or destroy anything which conceals or protects any such structure;
- disturb a badger while it is occupying a structure or place which it uses for shelter or protection.

Any person who knowingly causes or permits to be done an act which is made unlawful by any of these provisions shall also be guilty of an offence.

If there is evidence of badger on the site, all works should cease immediately and further advice sought from the Wildlife Team, Northern Ireland Environment Agency, Klondyke Building, Cromac Avenue, Gasworks Business Park, Belfast

BT7 2JA. [REDACTED]

When a licence may be required: Any works within 25 metres of a badger sett will require a wildlife licence to be obtained from NIEA. Licence applications should be made to the Wildlife Team, Northern Ireland Environment Agency, Klondyke Building, Cromac Avenue, Gasworks Business Park, Belfast BT7 2JA. [REDACTED]

Any blasting or piling within 100 metres of a badger sett will require a wildlife licence to be obtained from NIEA. Licence applications should be made to the Wildlife Team, Northern Ireland Environment Agency, Klondyke Building, Cromac Avenue, Gasworks Business Park, Belfast BT7 2JA. [REDACTED]

Birds

The applicant's attention is drawn to Article 4 of the Wildlife (Northern Ireland) Order 1985 (as amended) under which it is an offence to intentionally or recklessly:

- kill, injure or take any wild bird; or
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- at any other time take, damage or destroy the nest of any wild bird included in Schedule A1; or
- obstruct or prevent any wild bird from using its nest; or
- take or destroy an egg of any wild bird; or
- disturb any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturb dependent young of such a bird.

Any person who knowingly causes or permits to be done an act which is made unlawful by any of these provisions shall also be guilty of an offence. It is therefore advised that any tree or hedgerow loss or vegetation clearance should be kept to a minimum and removal should not be carried out during the bird breeding season between 1st March and 31st August.

3. Marine Licensing

The applicant should be made aware that all construction or deposition works below the Mean High Water Spring Tide (MHWST) mark are subject to licensing under the Marine and Coastal Access Act 2009. If any elements of the construction in this proposal cross the

intertidal area below the MHWST mark, contact must be made with the Marine Licensing Team, DAERA Marine and Fisheries Division, 1st Floor, Klondyke Building, Gasworks Business Park, Cromac Avenue, Belfast BT7 2JA, [REDACTED] to apply for a Marine Construction Licence.

The applicant should be aware that it is an offence under the Marine and Coastal Access Act 2009 to carry out a licensable marine activity except in accordance with a marine licence granted by the DAERA Marine and Fisheries Division. Conviction of such an offence may

incur a fine of up to £50,000 and/or two years imprisonment.

4. MAT

MAT would draw attention to the Guidance for Pollution Prevention (GPP) documents available on NetRegs and DAERA standing advice.

These include GPP5 "Working and Maintenance In or Near Water" and GPP 21 "Pollution Incident Response Planning".

<https://www.daera-ni.gov.uk/publications/standing-advice-development-may-have-effectwater-environment-including-groundwater-and-fisheries>

5. Water Management Unit

The applicant should comply with all the relevant NIEA Standing Advice documents and Guidance for Pollution Prevention (PPG/GPPs) in order to minimise the impact of the project on the environment. Paying particular attention to:

- Understanding your environmental responsibilities - good environmental practices: GPP 1
- Use and design of oil separators in surface water drainage systems: GPP 3
- Works and maintenance in or near water: GPP 5
- Working at construction and demolition sites: PPG 6
- The safe operation of refuelling facilities: PPG 7
- Safe storage and disposal of used oils: GPP 8
- Vehicle Washing and Cleaning GPP 13
- Pollution incident response planning: GPP 21
- Dealing with spills: GPP 22
- CIRIA guidance documentation C532 'Control of water pollution from construction sites: guidance for consultants and contractors.
- The applicant must refer and adhere to all the relevant precepts contained in DAERA Standing Advice Pollution Prevention Guidance.
- The applicant must refer and adhere to the relevant precepts in DAERA Standing Advice Discharges to the Water Environment.

- Control of Pollution (Oil Storage) Regulations (Northern Ireland) 2010.

The applicant should note that the above list is not exhaustive.

NIEA Standing Advice can be viewed at:

<https://www.daera-ni.gov.uk/publications/standing-advice-development-may-have-effectwater-environment-including-groundwater-and-fisheries>

Guidance for Pollution Prevention (PPG/GPPs) documents can be obtained at:

<https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gppdocuments/CIRIA> Guidance can be obtained here:

https://www.ciria.org/ci/Civil_infrastructure/CIRIA_guidance.aspx

The applicant must refer and adhere to all the relevant precepts contained in DAERA Standing Advice Industrial and Commercial Developments.

The applicant must refer and adhere to all the relevant precepts contained in DAERA Standing Advice Pollution Prevention Guidance.

The applicant must refer and adhere to the relevant precepts in DAERA Standing Advice Discharges to the Water Environment.

The applicant should be informed that it is an offence under the Water (Northern Ireland) Order 1999 to discharge or deposit, whether knowingly or otherwise, any poisonous, noxious or polluting matter so that it enters a waterway or water in any underground strata. Conviction of such an offence may incur a fine of up to £20,000 and / or three months imprisonment.

The applicant should ensure that measures are in place to prevent pollution of surface or groundwater as a result of the activities on site, both during construction and thereafter.

6. Regulation Unit

The purpose of the Conditions is to ensure that any site risk assessment and remediation work is undertaken to a standard that enables safe development and end-use of the site such that it would not be determined as contaminated land under the forthcoming Contaminated Land legislation i.e. Part III of the Waste and Contaminated Land Order (NI) 1997. It remains the responsibility of the developer to undertake and demonstrate that the works have been effective in managing all risks.

The applicant should ensure that the management of all materials onto and off this site are suitably authorised through the Waste and Contaminated Land (Northern Ireland) Order 1997, the Waste Management Licensing Regulations (Northern Ireland) 2003 and the Water Order (Northern Ireland) 1999.

RU recommend that the applicant consult with the Water Management Unit within the NIEA regarding any potential dewatering that may be required during the redevelopment works including the need for discharge consent. Discharged waters should meet appropriate discharge consent Conditions.

Certain types of work with asbestos in soils and construction and demolition (C&D) materials can only be done by those who have been issued with a licence by HSENI. This is work which meets the definition of 'licensed work with asbestos' in Regulation 2(1) of the Control of Asbestos Regulations (Northern Ireland) (2012) (the Regulations). These Regulations can be viewed at:
http://www.legislation.gov.uk/nisr/2012/179/pdfs/nisr_20120179_en.pdf.

The Regulations and the accompanying Approved Code of Practice and guidance (The Control of Asbestos Regulations 2012: Managing and working with asbestos (L143)) apply to all work with asbestos, including managing the risks related to exposure to asbestos from work with asbestos contaminated soil or C&D materials in addition to CL:AIRE's Industry Guidance entitled:

Control of Asbestos Regulations 2012, Interpretation for managing and working with asbestos in soils and C&D materials 2016 that can be viewed at:

<https://www.claire.co.uk/projects-and-initiatives/asbestos-in-soil>.

All works associated with asbestos contaminated land must be carried out by competent persons so that the site reports can be relied upon and works completed in compliance with the Regulations and in a manner likely to be minimise consequential risks.

Prior to disposing waste materials to a suitable facility, waste classification needs to be completed of the materials either in-situ or of excavated materials in accordance with the EWC codes. Details of this classification can be found in the Northern Ireland Waste Classification Technical Guidance WM3 v1.1.NI at:
<http://www.daera-ni.gov.uk/publications/waste-classification-technicalguidance>

Should the materials be classified as Hazardous waste then this material will need to be consigned off site as hazardous waste. NIEA should receive the waste consignment notices 72 hours in advance of any movements off site and waste materials moved off site only by a registered carrier (i.e. ROC permitted). Also, if the material is hazardous, it should be WAC tested to determine a suitable landfill for disposal. Note there are no landfills in Northern Ireland licensed to take non-asbestos hazardous wastes, so this material would need to be disposed at a suitable site in England or Scotland.

7. DFI Rivers

Under the terms of Schedule 6 of the Drainage (Northern Ireland) Order 1973 the applicant must submit to DfI Rivers, for its consent for any proposal to carry out works which might affect a watercourse such as culverting, bridging, diversion, building adjacent to, breaking down/damaging embankments or discharge of storm

water etc. Failure to obtain such consent prior to carrying out such proposals is an offence under the aforementioned Order which may lead to prosecution or statutory action as provided for.

Developers should acquaint themselves of their statutory obligations in respect of watercourses as prescribed in the Drainage (Northern Ireland) Order 1973, and consult DfI Rivers accordingly on any related matters.

Any proposals in connection with the development, either temporary or permanent which involve interference with any watercourse at the site:- such as diversion, culverting, bridging; or placing any form of structure in any watercourse, require the written consent of DfI Rivers. Failure to obtain such consent prior to carrying out such proposals is an offence under the Drainage Order which may lead to prosecution or statutory action as provided for.

Any proposals in connection with the development, either temporary or permanent which involve additional discharge of storm water to any watercourse require the written consent of DfI Rivers. Failure to obtain such consent prior to permitting such discharge is an offence under the Drainage Order which may lead to prosecution or statutory action as provided for.

If, during the course of developing the site, the developer uncovers a watercourse not previously evident, he should advise the local DfI Rivers office immediately in order that arrangements may be made for investigation and direction in respect of any necessary measures required to deal with the watercourse.

Where a designated watercourse flows through or adjacent to a development site, it is considered essential that a working strip of minimum width 5m is left along the bank in order to facilitate future maintenance of the watercourse by DfI Rivers.

Where an undesignated watercourse flows through or adjacent to a development site, a working strip of appropriate width is required to be retained to, in future, enable riparian land owners to fulfil their statutory obligations/responsibilities.

8. Environmental Health

Waste - Adequate arrangements should also be place for the storage and disposal of waste. In order to protect amenity, the developer should under no circumstances burn any waste materials on the site. Such actions are contrary to the provisions of the Clean Air (Northern Ireland) Order 1981 and the Clean Neighbourhoods and Environment Act (Northern Ireland) 2011.

Invasive Species - An Invasive Species Assessment and Invasive Species Management Plan (Appendix 8-13) dated January 2022 was submitted by MCL consulting. This plan shall be implemented during the construction and operation of the Project for the various Invasive Species identified.

Light Pollution - Any lighting associated with the proposal has the potential to have a negative impact on the use and enjoyment of nearby residential properties. The Environmental Health Service would advise that all lighting associated with the

proposal should be optically controlled and directed in such a manner as to minimise light pollution from glare and spill.

Guidance notes for the reduction of light pollution can be obtained from the institution of Lighting Engineers, Lennox House, 9 Lawford Road, Rugby, Warwickshire, CV212DZ available at <https://www.theilp.org.uk/documents/obtrusivelight/>

9. Loughs Agency

It is an offence under Section 46/47 of the Foyle Fisheries Act (1952) to remove or disturb the riverbed of a watercourse within the Foyle and Carlingford area without the consent of Loughs Agency. Loughs Agency recommend the developer submit Section 46/47 applications for each piece of in-stream works to be carried out, whether temporary or permanent, to ensure impacts on the aquatic environment are minimised through appropriate mitigation measures.

The applicant should demonstrate best environmental practice when working close to watercourses, as per environmental guidance in GPP 5: Works and maintenance in or near water. The potential for deleterious matter to enter a watercourse is of primary concern. Impacts on the aquatic environment such as a decrease in water quality can cause a significant impact upon various life history stages of fish species.

The applicant should also be aware that it is an offence under section 41 of the Foyle Fisheries Act (1952) to cause pollution which is detrimental to fisheries interests.

10. NI Water

NIW public sewer/s traversing the proposed development site. No construction to be made, trees planted or other obstruction made within 3 metres (or 1.5 times the depth; whichever is greater) of sewers. A diversion may be necessary. The applicant is advised to obtain a records map from NIW and establish the exact location of the infrastructure within the site, and how it may affect the proposal.

Further Consultation with NIW Developer Services

████████████████████ is required.

Further information, guidance notes and applications can be downloaded from NIW website at <https://www.niwater.com/servicesfor-developers/homeowners/close-proximity/sewer/>.

No development should be commenced until a Sewer Adoption Agreement has been authorised by NI Water to permit a connection to the public sewer in accordance with the Water and Sewerage Services (Northern Ireland) Order 2006 and Sewerage Services Act (Northern Ireland) 2016.

A formal water / sewer connection application must be made for all developments [prior to occupation], including those where it is proposed to re-use existing connections.

All services within the development should be laid underground.

Development shall not be occupied until the foul water drainage works on-site and off-site have been submitted to and approved by the relevant authority and constructed by the developer in line with approved design.

Statutory water regulations are in force, which are designed to protect public water supplies against contamination, undue consumption and misuse. All internal plumbing installation must comply with the current Water Supply (Water Fittings) Regulations (Northern Ireland).

Applicants should contact NI Water's Water Fittings Regulations team via [REDACTED] if they have any queries.

The applicant is advised to contact Waterline on [REDACTED] or [REDACTED]. Alternatively, guidance notes and application forms are available to download from NI Water website at <https://www.niwater.com>

If during the course of developing the site the developer uncovers a pipe not previously evident, NI Water should be contacted immediately via Waterline [REDACTED]. NI Water will carry out an investigation, and, provide guidance and direction in respect of any necessary measures to deal with this issue.

11. Historic Environment Division

Please refer to the HED guidance document Development and Archaeology: Guidance on Archaeological Works in the Planning Process which contains advice on how to fulfil the requirements of the archaeological conditions attached to your planning approval. Please allow sufficient time in advance of the commencement of site works for the agreement of the programme of archaeological work document with the planning authority and for your archaeological consultant to obtain an archaeological excavation licence. For guidance on the preparation of the programme of archaeological work please contact:

Historic Environment Division – Heritage Development & Change Branch, Ground Floor, 9 Lanyon Place, Belfast, BT1 3LP. [REDACTED]

Email: [REDACTED]

Quote reference: SM11/1 TYR004:010 and LA11/2022/0207/F

12. NIE

The developer should maintain statutory clearance from NIE Networks' equipment during the construction and operational phases of the project and also during future

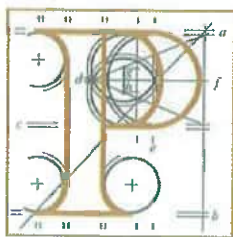
maintenance programmes in accordance with HSE Guidance Note GS6

"Avoidance of Danger from Overhead Electric Lines" and HSE Booklet HS(G)47
"Avoiding danger from underground services". Further information is also available
at www.nienetworks.co.uk/Safety-Environment.

13. When making this decision the Council has taken into consideration
environmental information within the terms of the Planning (Environmental Impact
Assessment Regulations) (Northern Ireland) 2017.

Dated: 28 February 2024

Authorised Officer: A McNee



An
Bord
Pleanála

Board Order
ABP-311542-21

Planning and Development Acts 2000 to 2021

Planning Authority: Donegal County Council

APPLICATION by Donegal County Council for approval under section 226 and section 177AE(3) of the Planning and Development Act, 2000, as amended, in accordance with plans and particulars, including an Environmental Impact Assessment Report and a Natura Impact Statement, lodged with An Bord Pleanála on the 30th day of September, 2021, as amended by further information received on the 28th day of April, 2022.

PROPOSED DEVELOPMENT

A new community park with multi-purpose community facilities and amenities and will include:

- Construction of a single storey community resource building with a gross internal floor area 305 square metres, for use as community space including office and refreshment use;
- Construction of a 300 square metres maintenance compound, surrounded by 2.25 metre high ibex fencing and access gates, to include installation of an approximate 4.0 metre high by 6.0 metre wide by 9.0 metre long prefabricated maintenance shed vehicle storage, washdown area and material storage;
- Provision of a multi-functional outdoor space and external stage area to accommodate a variety of outdoor events;
- Creation of play areas, a river walk and river access;
- Construction of walkways and cycleways;

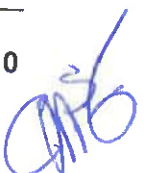
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AMG

- Associated landscaping inclusive of the wetlands of the River Foyle;
- Amenity lighting;
- Provision of car parking with 74 spaces and provisions for cycle parking;
- Site Security including estate style fencing, 2.4 metre high security fencing and lockable vehicle and pedestrian gates;
- Construction of a one-way traffic access road 4.5 metres in width and a two-way traffic access road 6 metres in width, with a combined length of 265 metres to be provided internally within the park;
- Demolition of the existing spectator stand and the construction of a new spectator stand to accommodate 123 spectators;
- Relocation of existing hare coursing track and the construction of greyhound training runs;
- Provision of an informal parking area to accommodate 8 cars;
- Provision of a new 10 kilovolt ESB Substation and diversion underground of existing Megavolt (10 kilovolt/20 kilovolt) ESB overhead cables traversing the site;
- Provision of ground mounted electrical kiosk;
- Provision of a new wastewater pumping station for onward transfer of foul wastewater to the local network;
- Reconfiguration of existing cinema drainage soakaway;
- Works on the foreshore including construction of a cast in-situ concrete slipway, 5 metres wide, with adjoining steps of natural stone paving and the provision of a reinforced grass path to a new timber fishing pod; and,
- all ancillary development, accommodation works and site services; on a site extending to 14.9 hectares.

All located at Station Road, Lifford, County Donegal.

DECISION

APPROVE the above proposed development based on the reasons and considerations set out below.

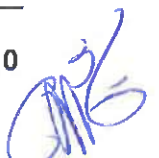


REASONS AND CONSIDERATIONS

In coming to its decision, the Board had particular regard to the following:

- (a) Directive 2014/52/EU amending Directive 2011/92/EU (The EIA Directive) on the assessment of the effects of certain public and private projects on the environment,
- (b) Directive 92/43/EEC (The Habitats Directive) and Directive 79/409/EEC as amended by 2009/147/EC (The Birds Directive) which sets out the requirements for the conservation of natural habitats and wild fauna and flora throughout the European Union,
- (c) the policies and objectives of the County Donegal Development Plan 2018-2024,
- (d) the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on a European Site,
- (e) the conservation objectives, qualifying interests and special conservation interests for the River Finn Special Area of Conservation (Site Code:002301) and River Foyle and Tributaries Special Area of Conservation (Site Code: UK0030320),
- (f) the relative provisions of the Water Framework Directive,
- (g) the nature, scale and limited duration of the proposed works as set out in the application for approval,
- (h) the information submitted in relation to the potential impacts on habitats, flora and fauna, including the revised Natura Impact Statement,
- (i) the submissions and observations received in relation to the proposed development and the responses to further information, and
- (i) the report of the Inspector.

Appropriate Assessment: Stage 1:



The Board considered the revised Natura Impact Statement and all other relevant submissions and carried out both an appropriate assessment screening exercise and an appropriate assessment in relation to the potential effects of the proposed development on designated European Sites.

The Board noted that the proposed development is not directly connected with or necessary for the management of a European Site.

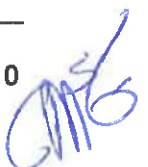
In completing the screening for appropriate assessment, the Board accepted and adopted the screening assessment and conclusion carried out in the Inspector's report that the River Finn Special Area of Conservation (Site Code: 002301) and the River Foyle and Tributaries Special Area of Conservation (Site Code: UK0030320) are the only European Sites for which there is a possibility of significant effects and which, must therefore be subject to appropriate assessment.

Appropriate Assessment: Stage 2:

The Board considered the revised Natura Impact Statement and all other relevant submissions and carried out an appropriate assessment of the implications of the proposed development for the European Sites in view of the sites' conservation objectives, namely the River Finn Special Area of Conservation (Site Code: 002301) and the River Foyle and Tributaries Special Area of Conservation (Site Code: UK0030320). The Board concluded that the information before it was adequate to allow the carrying out of an appropriate assessment. In completing the appropriate assessment, the Board considered, in particular, the following:

- i. the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,
- ii. the mitigation measures which are included as part of the current proposal,
- iii. the conservation objectives for the European Sites, and
- iv. the views contained in the submissions.

In completing the appropriate assessment, the Board accepted and adopted the appropriate assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the integrity of the aforementioned European Sites, having regard to the sites' conservation objectives.



In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Sites, in view of the sites' conservation objectives and there is no reasonable doubt as to the absence of such effects.

Environmental Impact Assessment

The Board completed an environmental impact assessment of the proposed development taking account of:

- (a) the nature, scale, location and extent of the proposed development,
- (b) the Environmental Impact Assessment Report (EIAR) and associated documentation submitted in support of the application, including the further information,
- (c) the submissions received during the course of the application, and
- (d) the Inspector's report.

The Board considered that the Environmental Impact Assessment Report and EIAR addendum, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development and identifies and describes adequately the direct, indirect, secondary and cumulative effects of the proposed development on the environment. The Board agreed with the examination, set out in the Inspector's report, of the information contained in the Environmental Impact Assessment Report and associated documentation submitted by the applicant and submissions made in the course of the planning application.

Reasoned Conclusions on the Significant Effects

The Board considered that the main significant direct and indirect effects of the proposed development on the environment are, and would be mitigated, as follows:

- **Population and Human Health:** Positive impacts in terms of the provision of enhanced open space and recreational facilities which benefit both communities on both sides of the Border.

- **Biodiversity:** Habitat loss associated with construction will impact on habitats of low ecological value with no rare or protected species recorded. Potential impacts to habitats and faunal species, aquatic fauna, avian species and bats would be mitigated by the implementation of the measures during the construction and/or operational phases set out in the revised Environmental Impact Assessment Report
- **Land soil and water (Flooding):** The site will continue to be subject to fluvial flooding but will not increase flood risk on the site or contribute to flood risk elsewhere.
- **Material assets (Roads & Traffic):** will be mitigated during construction by the measures set out in the revised Environmental Impact Assessment Report and Traffic Assessment. The impacts during the construction stage will be short term, temporary and capable of effective mitigation. Traffic during the operational stage will be accommodated without significant adverse effects on the road network.

The Board is satisfied that the reasoned conclusion is up to date at the time of making the decision.

The Board completed an environmental impact assessment in relation to the proposed development and concluded that, subject to the implementation of the mitigation measures proposed as set out in the Environmental Impact Assessment Report, and subject to compliance with the conditions set out below, the effects of the proposed development on the environment, by itself and in combination with other plans and projects in the vicinity, would be acceptable. In doing so, the Board adopted the report and conclusions of the Inspector.

Having considered the totality of the Environmental Impact Assessment Report, associated documentation submitted with the application and the report of the Inspector, the Board concluded that any likely significant effects on the environment would be mitigated by the mitigation measures proposed by the applicant.

Proper Planning and Sustainable Development /Likely effects on the environment:

It is considered that, subject to compliance with the conditions set out below, the proposed development would not have significant negative effects on the environment or the community in the vicinity, would not pose a risk to water quality, would not contribute to flooding on the site or increase flood risk downstream, would not seriously injure the amenities of property in the vicinity, would not adversely impact on the cultural, archaeological and built heritage of the area and would constitute an acceptable public amenity use at this location. The proposed development accords with international and national objectives to deliver shared infrastructure projects of mutual benefit within the border region of Ireland and Northern Ireland and is in accordance with the proper planning and sustainable development of the area.

Conditions

1. The proposed development shall be carried out and completed in accordance with the plans and particulars lodged with the application, and the further plans and particulars received by the Board on the 28th day of April, 2022 except as may otherwise be required in order to comply with the following conditions. Where any mitigation measures or any conditions of approval require further details to be prepared by or on behalf of the local authority, these details shall be placed on file and retained as part of the public record.

Reason: In the interests of clarity and the proper planning and sustainable development of the area and to ensure protection of the environment.

2. The mitigation measures and monitoring commitments identified in the Environmental Impact Assessment Report (EIAR), the Addendum EIAR and other plans and particulars submitted with the application shall be implemented in full.

Reason: In the interests of clarity and the protection of the environment during the construction and operational phases of the development.

3. The mitigation measures contained in the revised Natura Impact Statement shall be implemented in full.

Reason: In the interests of clarity and the proper planning and sustainable development of the area and to ensure the protection of European Sites.

4. Construction works shall be undertaken in accordance with best practice and relevant guidance in relation to all matters as set out in the outline Construction and Environmental Management Plan (oCEMP) received by An Bord Pleanála on the 28th day of April 2022. These measures shall be integrated in full into the final CEMP by the eventual contractor as a means of effective implementation of all measures. This plan shall provide details of intended construction practice for the development, including hours of working, noise management measures, surface water management proposals, the management of construction traffic and off-site disposal of construction waste. The CEMP shall be retained on file as part of the public record.

Reason: In the interest of protecting the environment.

5. Construction works shall be confined to between 0700 and 1900 hours Monday to Friday inclusive and between 0800 hours and 1400 hours on Saturdays and not at all on Sundays or Bank Holidays.

Reason: To safeguard the amenities of property in the vicinity.

6. A suitably qualified freshwater ecologist shall be retained by the local authority to oversee the site set up and construction of the proposed development and implementation of the mitigation measures relating to ecology set out in the revised Natura Impact Statement. The ecologist shall be present during the construction works. Upon completion of the works, an ecological report of the site works shall be prepared by the appointed ecologist to be retained on the file as part of the public record.

Reason: In the interest of nature conservation and the protection of terrestrial and aquatic biodiversity.

7. The local authority, or any agent acting on its behalf shall retain the services of a suitably qualified and experienced bat specialist to survey the site for the presence of bat roosts, prior to commencement of development. In the event that any roosts are identified, the National Parks and Wildlife Service shall be consulted regarding how best to deal with such roosts. The removal of any roosts identified shall be carried out only under licence from the National Parks and Wildlife Service.

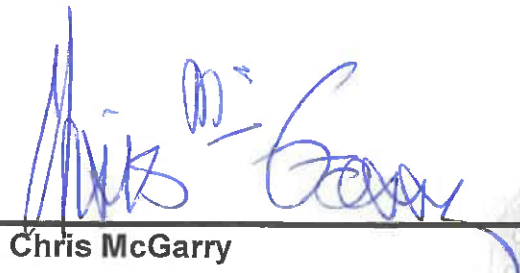
Reason: In the interests of protecting ecology and wildlife in the area.

8. The local authority, or any agent acting on its behalf, shall retain the services of a suitably qualified and experienced ecologist to survey the site for the presence of badger, prior to commencement of development. In the event that any setts are identified, the National Parks and Wildlife Service shall be consulted regarding how best to deal with such setts. The removal of any setts identified shall be carried out only under licence from the National Parks and Wildlife Service.

Reason: In the interests of protecting ecology and wildlife in the area.

9. The local authority, and any agent acting on its behalf, shall facilitate the preservation, recording, protection or removal of archaeological materials or features that may exist within the site. In this regard the local authority shall-
- (a) employ a suitably qualified archaeologist who shall access the site and monitor all excavation and site works, and
 - (b) provide suitable arrangements acceptable to the Department of Housing Local Government and Heritage for the recording and removal of any archaeological material which is considered appropriate to remove.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.



Chris McGarry

**Member of An Bord Pleanála
duly authorised to authenticate
the seal of the Board.**

Dated this 14th day of February 2023

Appendix III: Table of alternatives

5.4.3 Tables of Alternatives and Proposed Layout and Designs

Table 5-1: Assessments of Proposals where there may be Conflicts and/or Opportunities with Other Developments

Development	Planning Jurisdiction	Alternative Layout / Design Proposal ²	Proposed Layout / Design	Commentary to Proposed Layout / Design	Residual Environmental Impact
Assessment against the A5 Western Transport Corridor (A5WTC)	Strabane	Proposal to locate Car Park within the existing halting site location.	Relocation of the proposed Car Park from the existing halting site location (located south-east of the Proposed Development). Reduction of Riverine Community Park infrastructure within the A5 WTC Vesting Boundary (segregated vehicle:pedestrian:cycle access will be provided). Excavation of existing halting site and seeding out of wildflower meadow to enhance visitor experience.	The proposed location of the Car Park will maintain the status-quo of Riverine Community Park infrastructure pre and post A5 WTC Works. Reducing infrastructure within the A5 WTC Vesting Boundary will enable the A5 WTC to take position of the area during works. The proposed layout negates changes to the current A5 WTC design proposals and delivery programme. Post A5 WTC Construction, an option to maintain the vehicle:pedestrian:cycle entrance to the Riverine Community Park, in proximity to the proposed entrance, has been supported by both the Riverine and A5WTC Project Teams.	Removal of existing hardstanding surface and the provision of improved grassland and wildflower meadow with biodiversity benefits, habitat creation and ameliorating downstream flooding. The use of alternative, low vibration method for removal of hardstanding not involving the use of rock hammers or similar percussive methods will ensure no residual vibration impact.
Assessment against the proposed Strabane North Greenway	Strabane	Proposal to deliver the Strabane North Greenway, north-south, through the Riverine Community Park to the A5 Barnhill Roundabout. Options included delivery of the Strabane North Greenway in addition to a Riverine pedestrian:cycle route and alternative, delivery of the Strabane North Greenway in-lieu of a Riverine pedestrian:cycle route.	Provision of a designated Riverine pedestrian:cycle route, north-south, through the Riverine Community Park to the entrance at the A5 Barnhill Roundabout. Alignment of the proposed Riverine pedestrian:cycle route will be such to maximise visitor experience in proximity to the existing wetland. Landscaped (soft-green) SuDS drainage features will segregate the pedestrian:cycle route from vehicle access route. The Riverine pedestrian:cycle route will connect to the Strabane North Greenway at the northern boundary of the proposed development. Access points within the proposed car park will connect the (re-routed) Strabane North Greenway to the proposed development.	Site constraints (i.e., encroachment into wetland areas) would not permit provision of a designated Riverine and Strabane North Greenway Route, segregated from the proposed Riverine vehicle access road. To maintain delivery of the Strabane North Greenway (under a sperate funding agreement), implementation of the Strabane North Greenway in-lieu of a Riverine pedestrian:cycle route was unachievable given delivery and funding programmes.	Reduction in alternative construction corridor and reduction in requirements for tree/limb felling. Reduction in alternative construction corridor and interface with invasive species. Reduction in alternative construction corridor and avoidance of wetland areas, reducing probability of contamination and disturbance of waterbodies.

² Alternatives as previously prepared stage D concept design (produced by MWA partnership) as part of the successful funding application to SEUPB

Table 5-2: Assessment of Specific Layout and Design Proposals against the 2017 CWMF Stage 2(i) / RIBA Stage D Concept Design, i.e., The Alternative Layout and Design Proposal

Proposal	Planning Jurisdiction	Commentary to Proposed Layout / Design	Residual Environmental Impact
Approach Road to Lifford	Lifford	Following appointment, DCC confirmed that the vehicle entrance to the Lifford site and Community Pavilion was to utilise the existing council site, rather than the existing riverside access road. This created the opportunity to relocate the primary access road and existing agricultural access road outside of the Special Area of Conservation (SAC). In addition, this removed vehicular / pedestrian conflict long the riverside and, as agricultural access was no longer required, facilitated a significantly improved connection between the river and the parkland. Whilst vehicle access along the river will be facilitated, this will be restricted to statutory bodies and emergency services. By removing the need for agricultural access and thus, machinery, the clear span under the bridge could be lowered.	Removal of visitor traffic and agricultural traffic from the SAC and removal. Reduction in construction works and materials within SAC.
Bridge Location	Lifford and Strabane	Relocating the Bridge was initially considered to improve movement within the park. As part of an original larger scheme (pre Stage D in 2017) the bridge landings (on Strabane & Lifford) were centrally positioned but as part of the Stage D proposals, the landing, particularly in the Lifford side was 'butting' the northern boundary. A slight shift to the bridges location upstream meant that the landing was retained at the centre of the park. This improves access and circulation to the parkland and to riverside. The increased distance also allows achievement of DA/DDA compliance on all pathways without relying on engineered ramps. It is proposed that the bridge location would be repositioned approximately 67m upstream of the location proposed in the initial concept design by MWA. At this location the bridge would consist of two spans. On the Lifford side there would be an overland span of approximately 27m. The main span over the river would be approximately 88m. The bridge spans would be no greater than the MWA proposal and the overall bridge length would be reduced.	Whilst the relocated bridge remains outside of a NIEA (and ecologically designated) 25m exclusion zone, the revised bridge location is now approximately 40m north of an environmentally sensitive receptor. Mitigation measures to reduced environmental impacts to this receptor have been included within the oCEMP. Mitigation measures include piling by Continual Flight Auger (CFA) to reduce noise and vibration, works during a restricted time period (seasonal working) and all other measures in accordance with licence condition from NIEA.
Community Pavilion	Lifford	Given the nature of the two sites, with the Strabane site being rich in ecology and the Lifford site already developed for agricultural use, it was agreed between the councils that the Strabane site should be maintained as an environmental asset and natural play area as much as possible and that the Lifford site should contain the structural play and building elements. The initial concept development for the Community Pavilion was based around reducing the concept floor plan from 440m ² to 280m ² . This was driven by budget requirements and constraints, as assessed by the Quantity Surveyor. Key early design decisions included reducing the curved building footprint and changing the indoor circulation spaces to all become external. This was in part to reduce the footprint but also a key concept to blend the boundary between inside and outside spaces and celebrate the natural surroundings. All the spaces had to be reduced in size to allow the full schedule of accommodation to be delivered in a significantly reduced footprint. Mirroring the building plan allowed the community refreshment area to be positioned adjacent to the toddler play area and abut the main north-south axial path.	Reduction in building footprint resulting in reduction in required land reprofiling to ensure the building remains outside of the 1:100year flood event, consequently minimising reduction in flood storage area and adverse impact on flood risk. Reduction in construction works and materials resulting in reduction in carbon footprint and impacts on air, noise and climate. Rotation of building to maximise passive solar gain.
Alignment of Existing Flood Embankment	Lifford	To improve the visual link from the community pavilion to the River, the existing flood embankment is proposed to be realigned on a circular path closer towards the pavilion. Under the alternative proposal, the embankment was to retain its original alignment.	Whilst there is a reduction in flood storage availability following the realignment of the existing embankment, the flood risk assessment has modelled an increase in flood depth that is contained within the proposed development boundary. This will be mitigated by landscape development to include flood resilient construction / selection of flood resilient palette of materials and finishes. Vulnerable equipment (M&E, lighting etc) to be sited at a flood resilient level (1% AEP + Climate Change or greater). All works to embankments to be subject to OPW Section 9 Authorisation.

Table 5-3: Assessment of Specific Layout and Design Proposals following Statutory Consultation

Layout / Design Feature	Receiving Environment	Alternative Layout / Design Proposal	Proposed Layout / Design	Rationalisation of Proposed Layout / Design	Residual Environmental Impact
Lighting Considerations	Strabane	During consultation with NIEA, NIEA requested that lighting plans strongly consider red wildlife lighting where lighting is absolutely essential.	Luminaires to comply with the ILP Guidance Note 08/18 Bats and Artificial Lighting achieved by: LED Luminaires; Colour temperature warm white (2700k); Upward Light Output Ratio = 0% (except for bridge feature lighting); Good lens control to avoid light spillage Implementation of controls to prevent unnecessary lighting thereby reducing light pollution, electrical energy consumption and carbon emissions. Seasonal lighting, presence and absence control and adaptive lighting can be used, i.e., Seasonal lighting – lighting only comes on at dusk; Presence & Absence control – Lanterns only come on during use and go off again a short time after; Adaptive lighting – lighting levels can be increased or reduced down to zero depending on the usage expected.	These proposals aim to provide an aesthetically pleasing, low maintenance and uniformly lit external space to enable users to orientate themselves, identify other users, detect potential hazards, discourage crime and engender a feeling of safety and security. These aims cannot be achieved by red wildlife lighting, introducing health and safety risks to Park users. In addition, there is no precedent for proposed developments such as Riverine to adopt red wildlife lighting in the balance of perceived Health & Safety risks and impacts to wildlife. If the proposals are not accepted, the alternative will be to remove lighting in its entirety. To mitigate environmental risks and provide consistency across the entire Riverine Community Park, the lighting strategy as proposed for Strabane will be implemented in Lifford.	Whilst red wildlife lighting would provide the optimum solution in mitigating environmental impact, this lighting specification introduced residual health and safety impacts on park users. Environmental impacts will be mitigated by the adoption and implementation of lighting and controls in accordance with the ILP Guidance Note 08/18 Bats and Artificial Lighting.
Pathway Infrastructure	Strabane	Provision of pathway infrastructure along the historic railway embankment and DfI Rivers flood embankment.	Provision of pathway infrastructure along the historic railway embankment and DfI Rivers flood embankment	Pathway infrastructure within Strabane has been reduced to mitigate environmental impacts and in response to consultation with NIEA and the designation of “Exclusion Zones”. Given the environmental sensitives within the Strabane site, a section of pathway infrastructure was removed and remains uncompensated.	Construction and operational works have been removed from within the designated Exclusion Zones thereby maintaining the status quo or the receiving environment.
Wastewater Collection - Slipway	Lifford	During consultation with Loughs Agency, Loughs Agency requested a boat wash down facility at the slipway to mitigate the risks associated with the spread of Asian Clam.	No boat wash down facility will be provided.	Whilst the boat wash down facility may reduce the risks associated with the spread of Asian Clam, on assessment, a wash down facility was considered, on balance, to introduce more environmental risks, such as, wash down of petro-chemicals or harmful substance found on private boats or vehicles in the vicinity of the slipway and the receiving River Foyle SAC and unenforceable interventions which may not be actioned by the general public. Signage is to be erected at the slipway to advise users to follow Loughs Agency biosecurity guidance.	Promotion of use of the waterway may lead to an increase risk of spread of Asian Clam, which has not been identified within the study area. Removal of a wash down facility reduces the risk of contamination of the SAC by means of petro-chemicals and/or harmful substances.
Excavation of Halting Site	Strabane	To leave the existing halting site infrastructure (including concrete slabs and utilities) in situ to avoid excavation works in environmentally sensitive areas and reduce materials removed off site. This would include the provision of 400mm imported topsoil and sown out with a wildflower mix to create a locally raised wildflower meadow.	Excavation of the existing halting site infrastructure (including concrete slabs and utilities) and the provision of topsoil and wildflower mix to create a wildflower meadow at existing ground levels.	The flood risk assessment simulated a model version of the alternative to represent the effect of adding a 400mm clean cover layer to contaminated land within the traveller halting site. The modelled outcome was found to cause an offsite effect on Park Road. The hydraulics were investigated and the effect was determined to be as a result of the land raising pushing an existing flow-path east which exacerbates existing flooding in that area.	Removal of existing hardstanding surface and the provision of improved grassland and wildflower meadow with biodiversity benefits, habitat creation and ameliorating downstream flooding. The use of alternative, low vibration method for removal of hardstanding not involving the use of rock hammers or similar percussive methods will ensure no residual vibration impact.

Layout / Design Feature	Receiving Environment	Alternative Layout / Design Proposal	Proposed Layout / Design	Rationalisation of Proposed Layout / Design	Residual Environmental Impact
				The land affected is a local road and agricultural land. Given the rigidity of the NI planning policy, there would be a presumption against permitting any increased flood risk off-site that cannot be mitigated. Given the effect is to a conveyance route rather than loss of flood storage, mitigation is unlikely be technically viable to the point where neutrality can be proven in a flood risk assessment.	

Appendix IV: Landscape plan

GENERAL

- Riverine Community Park Boundary NI
- Adjoining Proposed under ROI Jurisdiction
- Site Boundary Application under Road Act, Section 51(2)

SURFACES

- S01 - Proposed Asphalt Surface
Footway and cycleway
Refer to engineers drawings and specification
- S02 - Proposed Asphalt Surface
Parking and vehicular roads
Refer to engineers drawings and specification
- S05 - Natural Stone Paving
Around pavilion and outdoor seating areas
Refer to drawing xxx and xxxxxx
- S06 - Proposed Boardwalk
Refer to drawing xxx and xxxxxx
- S07 - Reinforced Grass
Refer to drawing xxx and xxxxxx
- Existing Asphalt Surface
Refer to engineer's specification and details

FURNITURE

- Proposed Benches
Refer to specification
Be Bench with back and armrest, no code typical bench
- Picnic Bench
Refer to specification
- Proposed Litter Bins
100 bins with single 30L, recycled bin adjacent to Community Pavilion. Refer to specification
- Proposed Lighting Columns
For all lighting and M&E. Refer to M&E layouts and detail
- Proposed Signage Wall
Refer to drawing xxx and xxxxxx

SOFTWORKS

- Existing Trees & Planting
Refer to tree constraints plan & arboricultural report
- Proposed Trees
Refer to planting plan, schedule and details xxxxx
- Proposed Native Wetland Trees
Refer to planting plan, schedule and details xxxxx
- Proposed Amenity Grassland Mix
Refer to planting plan & schedule
- Proposed Wildflower Mix 1
Refer to planting plan & schedule
- Proposed Native woodland
Refer to planting plan & schedule
- Proposed Native shrubs
Refer to planting plan & schedule
- Proposed Ornamental shrubs
Refer to planting plan & schedule
- Proposed Bulbs
Refer to planting plan & schedule

- +EX 0.00 Existing Levels
- +0.00 Proposed Levels
For detailed levels refer to engineers drawing information

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Rev	Issue Date	Description	App
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Project Manager, Civil & Structural Engineers

McAdam
ENHANCING LOCAL COMMUNITIES

16 Montgomery House
478 Castlereagh Road
Belfast, BT5 6BQ

www.mcadamsdesign.co.uk



Project Status: TENDER

Project: RIVERINE COMMUNITY PARK

Drawing: LANDSCAPE GENERAL ARRANGEMENT
PLAN PART 02 - STRABANE

Scale: 1:500 @ A0

Drawn Date	DM	Checked Date	DM	Approved Date	DM

Project	RVCP	Organization	TPHC	Zone	-20	Level	-XX	Type	-DR	Role	-LA	Number	1002	Revision	T00
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Project Number	1383	Status code & Description	T00 TENDER
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All dimensions are in metres. Figured dimensions to be taken in preference to scaled dimensions. Dimensions to be checked on site. © 2021 McAdam Design Ltd.

Appendix V: Invasive Species Management Plan



Project Number: P2288-1 Issue 1
Invasive species report and management plan

Riverine Community Park
Lifford-Strabane

Client: McAdam Design

Issued: August 2021

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1.0 INTRODUCTION

1.1 REPORT INTRODUCTION

MCL Consulting Ltd (MCL) was appointed by McAdam Design to undertake an invasive species survey and implement an invasive species management plan on the lands for a proposed cross community park known as Riverine, which is straddling the River Foyle between the eastern area of Lifford Town, County Donegal, Republic of Ireland and the western area of the town of Strabane in County Tyrone, Northern Ireland.

The project will comprise the creation of new community park infrastructure in excess of twenty-three hectares either side of the border connected through the creation of a new pedestrian and cycle bridge between Lifford and Strabane. The park on the Lifford site will be a designed landscape incorporating indoor and outdoor recreational features, smaller meeting & events spaces for programmed activity, complemented by the use of the naturalised flood plain environment on the Strabane site for informal recreation and environmental education/conservation activities.

1.2 INVASIVE PLANT SPECIES OVERVIEW

1.2.1 INVASIVE SPECIES LEGISLATION

Northern Ireland

Japanese knotweed, Giant Hogweed and Himalayan Balsam are listed on Schedule 9 of the Wildlife (Northern Ireland) Order 1985 as amended by the WANE Act in 2010. The Wildlife and Countryside Act 1981 / Wildlife (Northern Ireland) Order 1985 controls the spread of these invasive plants into wild habitats. Part I (WILDLIFE – Miscellaneous), Section 14, Clause 2 of the Act states:

“if any person plants or otherwise causes to grow in the wild any plant which is included in “Part II of Schedule 9, he shall be guilty of an offence.”

Under the Environmental Protection Act 1990, Duty of Care Regulations 1991, Invasive species material and soil containing rhizomes and seeds must be removed to an appropriate licensed landfill site for disposal, accompanied by appropriate Waste Transfer documentation.

N.B. The Responsibility for dealing with invasive weeds rests with individual landowners. Strategic, widespread control is currently not the sole responsibility of any statutory organisation.

The current Northern Ireland Environment Agency policy on disposal of Japanese knotweed, Giant Hogweed, and Himalayan Balsam material and contaminated soils follows the Environment Agency guidelines and thereby places a duty of care on all waste producers to ensure Japanese knotweed is disposed of at a suitable licensed landfill site and that the site operator is notified in advance.

Republic of Ireland

Japanese Himalayan, Giant Hogweed, and Himalayan balsam are all listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No. 477 of 2011).

Under the European Communities (Birds and Natural Habitats) Regulations 2011, Regulation 49 places restrictions on the introduction of any plant species listed in Part 1 of the Third Schedule. A person shall be guilty of an offence if they: plant, disperse, allow or cause to disperse, spread or cause to grow the plant in the Republic of Ireland.

To move soil in the Republic of Ireland that contains Japanese knotweed, Giant Hogweed and Himalayan Balsam material, rhizomes or seeds will require a license from National Parks and Wildlife Service (NPWS).⁴⁷

1.3 JAPANESE KNOTWEED OVERVIEW

Japanese Knotweed (*Fallopia japonica*), is a non-native highly invasive plant species originally from Japan and was distributed throughout Europe in the 1800s as an ornamental plant. After being naturalised in the UK in the late 1800s, the species soon spread through the UK due to its invasive properties.

Reproduction is primarily by vegetative regeneration of rhizomes and fresh stems. The rhizome system may extend from a parent plant up to 7 metres laterally and to a depth of 2

- 3 metres. Very small fragments of rhizome (as little as 0.7 grams – about the size of a fingernail) can give rise to new plants.

Established Japanese knotweed with large reserves of stored energy contained within the rhizome system can be vigorous enough to penetrate hard surfaces such as bitumen, concrete and even foundations. The threat from Japanese Knotweed to buildings and property is real, making sites containing Japanese Knotweed difficult to sell as banks and lenders can often refuse mortgages.

1.3.1 JAPANESE KNOTWEED GROWING SEASON

Japanese knotweed will begin to shoot in spring (March- April) through the appearance of reddish, purple fleshy shoots that emerge from crimson buds at ground level.

These grow rapidly through the summer (May -July) and produce dense stands of tall bamboo like canes (up to 7ft), with heart shaped leaves up to 15cm in length.

Flowering occurs in late summer towards the end of the growing season (August-October), producing clusters of small, creamy-white flowers at the points where the leaves join the stem.

Towards the end of autumn, (November) leaves begin to turn a yellowy-brown and eventually drop. The hollow canes will turn brown and die off.

The cycle will commence again in spring through new shoots.

JAPANESE KNOTWEED GROWING SEASON	J	F	M	A	M	J	J	A	S	O	N	D
-------------------------------------	---	---	---	---	---	---	---	---	---	---	---	---

	Appearance of shoots
	Summer Growth Period
	Onset of Flowering
	Winter dieback (visible canes)

1.3.2 JAPANESE KNOTWEED TREATMENT

Japanese knotweed can be controlled using both physical, or chemical methods or a plan may include a hybrid technique of both.

Physical methods include the excavation (dig & dump, onsite burial, root barrier or soil screening).

Dig and Dump

The “dig and dump” method involves the excavation of Japanese Knotweed material and infected soils until the rhizomes are longer present which could be as deep as 3m.

All the contaminated material and soils are then transported to a licenced landfill via licenced haulage for disposal.

This is often the most expensive way of eradication and is only recommended if other options are not viable.

Onsite burial

Onsite burial method involves the excavation of Japanese Knotweed and infected soils until the rhizomes are longer present this could be as deep as 3m.

The contaminated material can then be buried onsite in which a depth of 5m cover is required, however this depth can be reduced if the contaminated soils and material are encapsulated with a cell membrane.

This is only viable in certain ground conditions where the required depths are achievable.

Root Barrier

A root barrier is a physical membrane that protects structures, hardstanding etc and stops encroachment of Japanese knotweed. It's often used along with other methods like herbicidal treatments, excavation, screening and sifting, helping to prevent the plant's spread. It is effectively a preventative measure not to be used as a standalone measure.

Soil Screening

The soil screening method involves the excavation of Japanese Knotweed material and infected soils. The soil is processed via an allu bucket or similar where Japanese Knotweed rhizome material is separated from the soil material.

The contaminated Japanese Knotweed material can then be removed from site at a vastly reduced amount with the “clean” soils being re-engineered into the site.

Although more cost effective than dig & dump, there are still sizeable costs involved.

The physical control of Japanese Knotweed can occur at any time of the year, after an initial survey detailing the location of the stands and possible spread of rhizomes.

Chemical control is through the application of herbicide (usually Glyphosate), this can be applied through foliar application by spraying or weed wiping. Herbicide can also be applied by stem injection, or by cut and filling the stems. Herbicide treatment can take up to 3 years treatment followed by 2 years monitoring for regrowth.

Glyphosate Treatment	J	F	M	A	M	J	J	A*	S*	O*	N	D
----------------------	---	---	---	---	---	---	---	----	----	----	---	---

	Suitable for Use
*	Preferred period of Use

1.4 HIMALAYAN BALSAM OVERVIEW

Himalayan Balsam (*Impatiens glandulifera*) a non-native invasive terrestrial plant species. Since it was introduced, it has spread to most parts of Ireland, and is listed on Schedule 9 of the Wildlife (Northern Ireland) Order 1985. The species frequently grows along the banks of watercourses. It can also establish itself in damp woodland, flushes, mires and similar damp semi-shaded ground conditions. In Ireland It is the tallest annual species of plant (completes its life cycle in one year) due to its rapid growth, it shades out most of the native flora species. Individual plants can reach 2m in height, the plant have translucent fleshy stems, pink-purple slipper-shaped flowers and large oval pointed leaves with obvious teeth around their edges. Each tooth carries a small globular ‘gland’ and produces large numbers of flowers which are followed by ‘seed pods’ about 25mm long. When mature and dry, the fruits split open explosively if touched, flinging the seeds a considerable distance (>7m) from the parent plant.

1.4.1 HIMALAYAN BALSAM SPREAD

Himalayan Balsam is spread via seed, each plant produces about 2,500 seeds which fall to the ground, and with several parent plants close together, seeds can occur at a density of between 5000-6000 seeds per square metre. The seeds float, making watercourses a prime route for dispersal of the species. Seeds can also begin to germinate in water on their way to new sites. Seeds may also be transported unintentionally by wildlife, machinery, grazing livestock and people using sites for recreation. Plants may still be grown for aesthetic purposes and can be easily spread in garden waste and soil.

1.4.2 HIMALAYAN BALSAM CONTROL METHODS

Himalayan Balsam can be controlled by using Physical or chemical methods, both treatment methods should aim to control flowering before seeds have developed and have had the chance to spread and are most effective before June.

TREATMENT	J	F	M	A	M	J	J	A	S	O	N	D
Glyphosate												
Mechanical												

	Optimal Treatment Time
	Suboptimal

1.4.3 HIMALAYAN BALSAM CHEMICAL CONTROL METHODS

Himalayan Balsam can be chemically controlled using a Glyphosate based herbicide. This can be through foliar spray or weed wiping in areas of mixed growth.

Herbicide treatment should be carried out in the springtime before flowering but late enough to ensure that germinating seedlings have grown up sufficiently to be adequately covered by the spray. Only recommended approved Glyphosate can be used working near a watercourse.

1.4.4 HIMALAYAN BALSAM PHYSICAL CONTROL METHODS

Physical or mechanical control methods for Himalayan Balsam include repeated cutting or mowing, and regular grazing. Access to the sides of riverbanks can be difficult and

inaccessible stands can quickly recolonise accessible cleared areas, so vigilance is needed if an area is to be effectively cleared.

Small infestation can easily be controlled by hand-pulling as the species is shallow rooted. Padded gloves should be worn to avoid risk of injury to hands. Seeds are not very robust and only survive for up to 18 months so a two-year control programme can be successful in eradicating this plant if there is not further infestation from upstream or adjacent sites.

To avoid additional spread do not disturb plants if seeds pods are visible (usually sometime after May). Programmes should be undertaken in April or early May. If hand pulling after this time, bag plant tops to prevent seed spread.

1.5 GIANT HOGWEED OVERVIEW

Giant hogweed (*Heracleum mantegazzianum*), is a non-native invasive terrestrial plant which is listed on Schedule 9 of the Wildlife (Northern Ireland) Order 1985. The species is a tall, cow parsley-like plant with thick bristly stems that are often purple-blotched.

The flowers are white and held in umbels, (flat-topped clusters, like those of carrots or cow parsley), with all the flowers in the umbel facing upwards. The flower heads can be as large as 60cm (2ft) across. It can reach a height of 3.5m (11.5ft) or more and has a spread of about 1-2m (3.5-7ft).

Giant hogweed is usually biennial, forming a rosette of jagged, lobed leaves in the first year before sending up a flower spike in the second year and then setting seed. True biennials only live for two years, dying after flowering, but giant hogweed does not always behave as a true biennial and in fact some are perennial, coming up year after year.

1.5.1 GIANT HOGWEED SPREAD

Giant Hogweed spread depends entirely on seed dispersal to spread. The majority of seeds fall within 4m of a parent plant (60-90%) resulting in densely populated localised and prolific patches. Seed dispersal is often exacerbated by other natural and human mechanisms: -

- Wetlands: Flowing water can spread Giant Hogweed seed, where it colonises bare and floodplain sediments downstream of the parent plant. Distance of dispersal can be increased by flood events. Some Sewage Treatment Works have also been the source of Hogweed seed.

- Transport Margins: Seeds produced by populations growing alongside roadside margins can be transported long distances by vehicle tyres
- Public site or grazing land: Seeds can be unintentionally transported by livestock / humans or when flowers are taken for aesthetic value. Some are planted deliberately in exotic gardens.
- Wind: Localised dispersal is frequently aided by wind, especially during the winter months.

1.5.2 GIANT HOGWEED CONTROL METHODS

Giant Hogweed can be controlled by using Physical or chemical methods.

Physical control may be preferred for small stands because chemical control creates open sites for the establishment of other invasive species, involves risks of contamination of nearby waters and can cause unwanted plant community changes. Treatment with chemicals can be regarded as a first step, followed by sowing grass mixtures and the use of manual methods or combined chemical and manual methods to re-establish a dense vegetation cover. Unfortunately, giant hogweed plants have a high regeneration ability which allows them to survive some manual control measures.

TREATMENT		F	M	A	M	J	J	A	S	O	N	D
Glyphosate												
Mechanical												

	Optimal Treatment Time
	Suboptimal

1.5.3 GIANT HOGWEED PHYSICAL CONTROL METHODS

Manual and mechanical control methods include root cutting, cutting the plant, covering the soil, mowing, ploughing and removing the umbels (flower heads). Except for root cutting, manual control will not cause immediate death of the plant. All other methods will need two to three treatments per year for several years to deplete the root reserves and kill the plants. All methods will need to occur for multiple years until no new plants grow from the seed bank. Monitor the site for at least three more years to make sure no new seedlings appear.

1.5.4 GIANT HOGWEED CHEMICAL CONTROL METHODS

Giant hogweed is susceptible to systemic herbicides, such as glyphosate and triclopyr, and the application of these herbicides is considered effective and cost efficient. Herbicide application can be used for controlling a single plant or large stands of giant hogweed. These systemic herbicides will be absorbed by the leaves and will move into the root to prevent regrowth. Triclopyr is a selective herbicide that acts only on broadleaf plants and will not harm grasses in the area. Glyphosate is non-persistent in the soil but is also a non-selective herbicide. Areas sprayed with triclopyr can recolonize with grasses and other herbaceous species within the same growing season, this can help suppress Giant Hogweed recolonization.

Spray Giant Hogweed leaves with an herbicide containing triclopyr or glyphosate as the active ingredient. Use the recommended manufacturer's dose and follow label instructions. Apply the herbicide between late April and early June when hogweed leaves are green and actively growing. A follow-up treatment, in July or August, may be needed for the plants that did not die from the first herbicide application (e.g. seedlings, now leaf rosettes, which were once covered by leaves of the plants originally sprayed). During this follow-up treatment it is strongly recommended to remove any flower heads present to decrease next year's seed source. Giant hogweed plants can be sprayed through mid-October as long as they are still green and not dying back. It is easiest to spray before the plants grow overly tall. Options for dealing with tall plants are: spray them as they are, cut them down to ground level and spray the re-growth, or carefully cut the plants above waist height and spray remaining leaves. To be successful in eradicating giant hogweed, herbicide treatments (or another control method) will have to be repeated for multiple years, in order to kill the plants missed the prior year as well as the plants emerging from the seedbank.

Spray during dry and calm weather. Cover leaf surfaces thoroughly with spray droplets, but do not spray to the point that liquid is dripping off the leaves. Dye added to the herbicide can help see where has been already sprayed. Do not apply herbicide to non-target organisms as you want the other plants to live and revegetate the area. Do not cut or dig up the plant until the top growth has died back. If the leaves remain green several weeks or a month after the initial treatment, spray them with herbicide again.

1.5.5 GIANT HOGWEED DANGERS

Giant Hogweed can be dangerous to human health, wildlife, pets and livestock causing severe burns and blisters.

The sap of Giant Hogweed contains toxic chemicals known as furanocoumarins. When the sap comes into contact with the skin, and in the presence of sunlight, they cause a condition called Phyto-photodermatitis: a reddening of the skin, often followed by severe burns and blistering. The burns can last for several months and even once they have died down the skin can remain sensitive to light for many years

2.0 SURVEY DESCRIPTION

For the purpose of this report the findings will record Lifford and Strabane in separate sections (Lifford in Section 3 and Strabane in Section 4).

2.1 SURVEY LIMITATIONS

The findings from this survey are the result of a visual inspection only and should not be taken as a guarantee that invasive plant species are not present on the property or neighbouring properties.

Invasive plants can sometimes be concealed by landowners or occupants deliberately or by accident. This includes the physical removal of the plants stems and crowns, mowing lawns or covering the suspect area with turf, hard standing, landscape fabric, ornamental gravel, bark mulch etc.

Invasive species which have undergone herbicide treatment may not be visible at the time of survey.

During winter, some invasive plant species like Japanese Knotweed can lay temporary dormant, which leaves no viable material above ground. Larger, more mature stands, dead canes can remain in place and provide a clear visual marker of the plant's location. However, on young or disturbed growth, canes can fall over and be blown away, leaving no indication of knotweed whatsoever. For these reasons, we recommend conducting surveys during the growing season of Invasive plant species (wherever possible), where plant growth presence is much more evident.

Some highly invasive species like Himalayan Balsam may also encroach to a significantly larger area from the beginning to the end of the season so may look quite different from when it was originally surveyed.

The survey conducted at Riverine has taken place at an optimal time during the growing season.

2.2 SITE LOCATION / DESCRIPTION LIFFORD & STRABANE

The subject site straddles the border between Strabane, Northern Ireland (NI) and Lifford, Republic of Ireland (ROI) with the River Foyle flowing between the two towns. The site measures approximately 11.69 hectares in total, with approximately 5.73 acres on the Lifford side and 5.96 acres on the Strabane side.

On the Strabane side, the site is accessed via a small access road exiting from a roundabout which connects Lifford Road, Barnhill Road, Railway Street, and Bradley Way. The access road leads to a disused car park, with the rest of the site consisting of woodland with a laneway through the site along the Eastern Boundary.

There is a clearing just North of the disused carpark which consists of grassland.

An access lane towards the river through the woodland is in the Northern Portion of the Site.

There is an agricultural field in the North East of the site which is used for grazing live stock.

On the Lifford side, the site is accessed via a small access road which egresses on to Station Road. The subject site on this side consists mostly of open grassed land, with a sports pitch located to the north east and a band of woodland running in a north-south line to the west of the site.

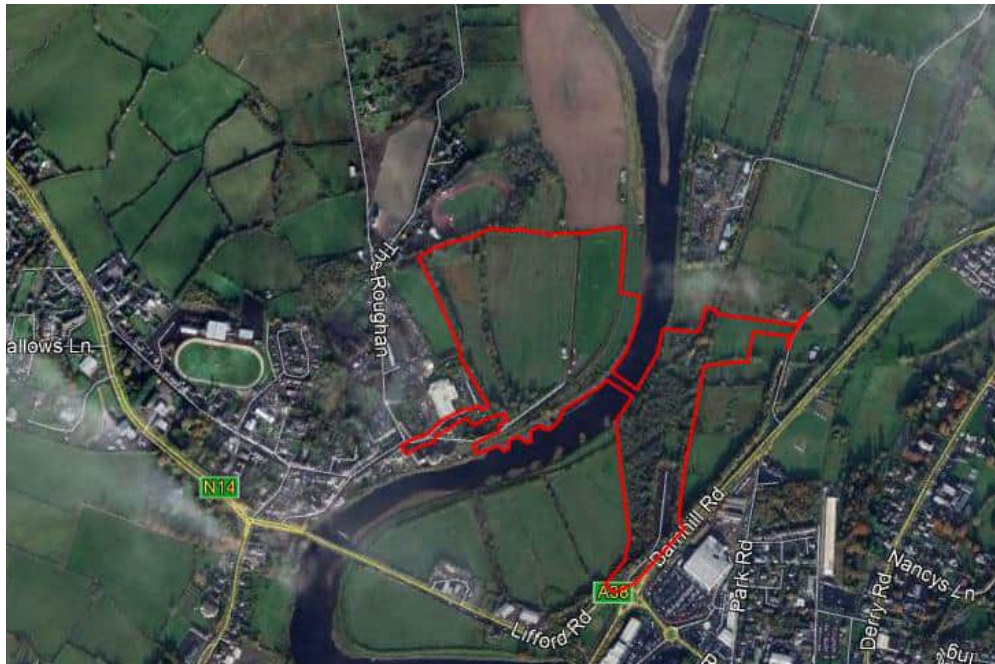


Figure 1. Site red line boundary

2.3 SURVEY METHOD LIFFORD & STRABANE

A comprehensive site walkover / survey was undertaken on the 21st June 2021 to establish the presence, location and extent of any Invasive Plant Species.

The survey was undertaken by an Ecologist & Invasive species PCA qualified from MCL Consulting. The survey included checking all borders, boundaries, hedgerows, overgrown areas, woodland, lane ways, pathways, riverbanks, watercourses, fields and associated lands for Invasive plant species.

The location and extent of the Invasive species was photographed, a description recorded, and location was mapped out with GNNS survey equipment.

The walkover and approximate extent of the survey of all lands is shown in the blue boundary in Figure.2.



Figure 2. Site Survey area

There were invasive plant species observed during an extensive site walkover. This includes Japanese Knotweed, Giant Hogweed, and Himalayan Balsam which were all observed on both Lifford and Strabane sites.

The locations and extents of all invasives plants as surveyed are presented in site drawings as DWG.2 (lifford) and DWG.3 (Strabane) at the back of the report.

3.0 LIFFORD SURVEY FINDINGS

Invasive Species was observed to be present on the Lifford side this include:

- Japanese Knotweed at 3 No. locations (JK14, JK15, JK16)
- Giant Hogweed at 1 No. locations (GH2)
- Himalayan Balsam at 3 No. locations (HB8, HB9, HB10)

3.1 JAPANESE KNOTWEED

JK 14 was observed on the southern side of the existing riverside path. The approximate area of the stand was 30m² which was in a linear formation along the path.

The stand had undergone some herbicide treatment as the Japanese Knotweed was experiencing die back.

The canes of JK14 had dried and were brown/ black in colour, no leaves were apparent in the stand not exceeding heights 1.5m.

Likely rhizome spread of the stand would cover an area of approximately 195m².

JK 15 was observed on the Northern side of the existing riverside path approximately 15m North East of JK14. The approximate area of the stand was 35m².

The stand had undergone herbicide treatment as the Japanese Knotweed was experiencing die back. At the time of the survey the canes of JK15 had dried and were brown/ black in colour, no leaves were apparent in the stand.

Likely rhizome spread of the stand would cover an area of approximately 225m².

Jk16 was observed on the bank of the River Foyle east of the riverside path close to the proposed bridge landing site.

The stand covered an area of approximately 12m².

The stand had under herbicide treatment with the stand experiencing dieback.

There was regrowth noted closer to the water's edge the growth was stunted and leaves were discoloured and disfigured.

Likely rhizome spread of the Jk16 could cover as much as 80m².

3.1.1 Japanese Knotweed Table:

JK	PROXIMITY TO WATER (>12m)	PLANT HEIGHT (m)	VISABLE AREA (m ²)	PLANT VISIBLE ONSITE	DISTANCE FROM BOUNDARY >7M
14	NO	1.5-2.0m	30m ²	YES	NO
15	NO	1.5-2.0m	35m ²	YES	NO
16	YES	1.5-2.0m	12m ²	YES	NO

3.2 GIANT HOGWEED

Giant Hogweed was located at No.1 location GH2 along the bank of the River Foyle at the proposed slipway site.

The plants were spread out over an area of approximately 40m².

At the time of the survey it was apparent that the Giant Hogweed GH2 had been treated with herbicide as there were signs of dead plant material.

3.3 HIMALAYAN BALSAM

Himalayan Balsam was noted in 3 locations at the time of the survey HB8, HB9, HB10.

HB8 was noted along the banks of the River Foyle it covered an area of approximately 1300m².

The Himalayan Balsam had reached heights of approximately 1m and was in good health. Some plants had begun to flower but seeding had not occurred at this stage.

HB9 is located just south of JK16 was along the banks of the River Foyle at the proposed bridge landing site it covered an area of approximately 270m².

The Himalayan Balsam had reached heights of approximately 1m and was in good health. Some plants had begun to flower but seeding had not occurred at this stage.

HB10 is located just to the North of JK16 along the banks of the River Foyle it covered an area of approximately 100m².

The Himalayan Balsam had reached heights of approximately 1m and was in good health. Some plants had begun to flower but seeding had not occurred at this stage.

4.0 STRABANE SURVEY FINDINGS

Invasive Species was observed to be present on the Strabane side this include:

- Japanese Knotweed at 13 No. locations (JK1-JK13)
- Giant Hogweed at 1 No. location (GH1)
- Himalayan Balsam at 7 No. locations (HB8, HB1-HB7)

4.1 JAPANESE KNOTWEED

JK 1 was observed on the southern side along the western side of the concrete hardstanding area.

This was the most significant infestation noted on site with an approximate area of 425m² which was in a linear formation along the edge of the carpark.

The dimensions of the stand JK1 is approximately 55m long by 9m depth the stand was observed growing in a good healthy condition, the plants were leafy, and of typical colour.

Typical height of the growth in this area was 2.5m-3m and average thickness of the stems were around 2cm-3cm, the leaves were around 5-7cm wide and growing plentiful for the size of the plant.

Total rhizome spread of JK1 could cover as much as 900m².

JK 2 was located north of the concrete hardstanding area with an approximate area of 35m².

The dimensions of the stand JK1 is approximately 8m long by 5m depth the stand was observed growing in a good healthy condition, the plants were leafy, and of typical colour

Typical height of the growth in this area was 2.5m-3m and average thickness of the stems were around 2cm-3cm, the leaves were around 5-7cm wide and growing plentiful for the size of the plant.

It is likely that total rhizome spread of the infestation could cover approximately 150m².

JK 3 was observed in a wooded area north of the concrete hardstanding area with an approximate area of 80m².

The dimensions of the stand JK1 is approximately 25m long by 7.5m wide.

The stand was observed growing in a good healthy condition, the plants were leafy, and of typical colour

Typical height of the growth in this area was 2.5m-3m and average thickness of the stems were around 2cm-3cm, the leaves were around 5-7cm wide and growing plentiful for the size of the plant.

It is likely that total rhizome spread of the infestation could cover approximately 340m².

JK 4 was observed growing within a clay bund next to the path/lane way with an approximate area of 35m².

The dimensions of the stand JK 4 is approximately 7.5 long by 6m wide.

The stand was observed growing in a good healthy condition, the plants were leafy, and of typical colour

Typical height of the growth in this area was 2.5m-3m and average thickness of the stems were around 2cm-3cm, the leaves were around 5-7cm wide and growing plentiful for the size of the plant.

It is likely that total rhizome spread of the infestation could cover approximately 170m².

JK 5 was observed growing north west of the clearing beside a utilities pole on the edge of the main wetland which covers an area of approximately 85m².

The dimensions of the stand JK 4 is approximately 7.5 long by 6m wide.

The stand was observed growing in a good healthy condition, the plants were leafy, and of typical colour

Typical height of the growth in this area was 2.5m-3m with an average thickness of stems around 2cm-3cm, the leaves were around 5-7cm wide and growing plentiful for the size of the plant.

It is likely that total rhizome spread of the infestation could cover approximately 280m².

JK 6 was observed growing north west of the clearing next to the lane way covering an area of approximately 75m² in close proximity to JK7

The dimensions of the stand JK 6 is approximately 16m long by 5m wide.

The stand was observed growing in a good healthy condition, the plants were leafy, and of typical colour

Typical height of the growth in this area was 2.5m-3m and average thickness of the stems were around 2cm-3cm, the leaves were around 5-7cm wide and growing plentiful for the size of the plant.

It is likely that total rhizome spread of the infestation could cover approximately 270m².

JK 7 was observed growing north west of the clearing next to the lane way covering an area of approximately 105m² near JK6

The dimensions of the stand JK 7 is approximately 14m long by 14m wide at the widest points.

The stand was observed growing in a good healthy condition, the plants were leafy, and of typical colour

Typical height of the growth in this area was 2.5m-3m and average thickness of the stems were around 2cm-3cm, the leaves were around 5-7cm wide and growing plentiful for the size of the plant.

It is likely that total rhizome spread of the infestation could cover approximately 310m².

JK 8 was observed growing along the southern side the Nancy burn just of the lane way approximately 100m².

The dimensions of the stand JK 6 is approximately 13m long by 8.5m wide.

The stand was observed growing in a good healthy condition, the plants were leafy, and of typical colour

Typical height of the growth in this area was 2.5m-3m and average thickness of the stems were around 2cm-3cm, the leaves were around 5-7cm wide and growing plentiful for the size of the plant.

It is likely that total rhizome spread of the infestation could cover approximately 290m².

JK 9 was observed growing along the northern side of the Nancy burn across from JK8 just of the lane way covering approximately 75m².

The dimensions of the stand JK 9 is approximately 20m long by 4m wide.

The stand was observed growing in a good healthy condition, the plants were leafy, and of typical colour.

Typical height of the growth in this area was 2.5m-3m and average thickness of the stems were around 2cm-3cm, the leaves were around 5-7cm wide and growing plentiful for the size of the plant.

It is likely that total rhizome spread of the infestation could cover approximately 270m².

JK 10 was observed growing where the eastern path meets the old railway embankment covering an area of approximately 10m².

The dimensions of the stand JK 9 is approximately 5m long by 2m wide.

The stand had experienced die back, canes had dried and were discoloured with no leaves, this is most likely from herbicide treatment but there was some minimal regrowth that had occurred.

It is likely that total rhizome spread of the infestation could cover approximately 70m².

JK 11 was observed along the lane way just North East from JK10 in the proposed carpark covering approximately 45m².

The dimensions of the stand JK 11 is approximately 7m long by 7m wide.

The stand had experienced die back, canes had dried and discoloured with no leaves, this is likely that total rhizome spread of the infestation could cover approximately 200m².

JK 12 was observed along the lane way just North from JK11 (outside red line boundary) covering an area of approximately 120m².

The stand had experienced some die back in patches, these canes had dried and discoloured with no leaves.

There was a mixture of regrowth throughout the stand which had achieved Heights of 1m, at the time of the survey

It is likely that total rhizome spread of the infestation could cover approximately 400m².

JK 13 was observed along the lane way just North from JK12 (outside the red line boundary) covering an area of approximately 40m².

The stand was observed growing in a good healthy condition, the plants were leafy, and of typical colour

Typical height of the growth in this area was 1m-1.5m and average thickness of the stems were around 2cm, the leaves were around 5-7cm wide and growing plentiful for the size of the plant.

It is likely that total rhizome spread of the infestation could cover approximately 200m².

JKO1 was observed along the path next to the river at the North of the site as an outlying plant.

This was a single plant which cover an area of >1m.

The plant was observed growing in a good healthy condition, the plants were leafy, and of typical colour

Typical height of the growth in this area was 1m-1.5m and average thickness of the stems were around 2cm, the leaves were around 5-7cm wide and growing plentiful for the size of the plant.

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4.1.1 Japanese Knotweed Table:

JK	PROXIMITY TO WATER (>12m)	PLANT HEIGHT (m)	VISABLE AREA (m ²)	PLANT VISIBLE ONSITE	DISTANCE FROM BOUNDARY >7M
1	NO	2.5-3.0m	425	YES	NO
2	NO	2.5-3.0m	35	YES	NO
3	NO	2.5-3.0m	80	YES	NO
4	NO	2.5-3.0m	35	YES	NO
5	YES	2.5-3.0m	85	YES	NO
6	No	2.5-3.0m	75	YES	NO
7	YES	2.5-3.0m	105	YES	NO
8	YES	2.5-3.0m	100	YES	NO
9	YES	2.5-3.0m	70	YES	NO
10	NO	1m	10	YES	NO
11	NO	1m	45	YES	YES
12	NO	1m	120	YES	YES
13	NO	1.5m-2m	40	YES	YES
JKO1	YES	1.5-2m	>1m	YES	YES

4.2 GIANT HOGWEED

Giant Hogweed was located at No.1 location (GH1) along the bank of the River Foyle under a tree.

The Giant Hogweed plants were spread out over an area of approximately 40m².

At the time of the survey The Giant Hogweed had reach heights in excess of 2m, with some small plants towards the edge of the infestation.

The plants were observed in good health and of typical colour flowering had begun in some plants, but seed dispersal had not yet occurred.

4.3 HIMALAYAN BALSAM

Himalayan Balsam was noted at No.7 locations at the time of the survey HB1- HB7.

HB1 was noted along the banks of the River Foyle and down along the east side of the old railway embankment, the infestation also extended along the railway embankment around to where the badger setts were located.

The plants were generally 1m -1.5m at the but some had exceeded these heights. At the time of the survey plants were beginning to flower but seed dispersal had not yet occurred.

The footprint of the infestation was in excess of 1500m².

HB2 was observed along the lane way which continues North along the old railway embankment.

The Himalayan Balsam plants were generally 1m -1.5m but some had exceeded these heights. At the time of the survey plants were beginning to flower but seed dispersal had not yet occurred.

The footprint of the infestation was in excess of 3000m².

HB3 was observed along the lane way which accesses the river. The infestation surrounds JK10 with an area of around 150m².

The Himalayan Balsam plants were generally 1m -1.5m but some had exceeded these heights. At the time of the survey plants were beginning to flower but seed dispersal had not yet occurred.

HB4 was observed along the lane way just North of HB3 and covers an area of around 200m².

The Himalayan Balsam plants were generally 1m -1.5m but some had exceeded these heights. At the time of the survey plants were beginning to flower but seed dispersal had not yet occurred.

HB5 was observed along the lane way just opposite HB4in the proposed car park and covers an area of around 70m².

The Himalayan Balsam plants were generally 1m -1.5m but some had exceeded these heights. At the time of the survey plants were beginning to flower but seed dispersal had not yet occurred.

HB6 was observed along the lane way just to the North of Jk11 and covers an area of around 70m².

The Himalayan Balsam plants were generally 1m -1.5m but some had exceeded these heights. At the time of the survey plants were beginning to flower but seed dispersal had not yet occurred.

HB7 was observed the edge of the concrete hardstanding area and covers an area of around 2000m².

The Himalayan Balsam plants were generally 1m -1.5m but some had exceeded these heights. At the time of the survey plants were beginning to flower but seed dispersal had not yet occurred.

5.0 REMEDIATION

5.1 INVASIVE SPECIES MANAGEMENT PLAN / RECOMMENDATIONS

From the findings in Section 2. and Section 3 the following Invasive Management plan was developed to control / eradicate Japanese Knotweed, Giant Hogweed, and Himalayan Balsam for the lands on the Lifford Side Section 5.2 and Strabane.

The location of and extent of the Invasive species, with potential rhizome spread are shown in DWG1.

6.0 INVASIVE SPECIES MANAGEMENT PLAN LIFFORD

6.1 JAPANESE KNOTWEED

The proposed plan is to feature two main objectives to deal with the Japanese Knotweed (JK14, JK15 & JK16):

- The in-situ herbicide treatment of the Japanese Knotweed. (JK16)
- The excavation of Japanese Knotweed contaminated material which lies in areas critical to the development and relocated to a set aside containment area for continued herbicide treatment. (JK14 & JK15).

Table.1 below summarises the management plan approach for each stand of Japanese Knotweed for the construction and operational phases.

JK	CRITICAL TO DEVELOPMENT	CONSTRUCTION PHASE	OPERATIONAL PHASE
14	YES	Excavate & Relocate to CA1	Monitored
15	YES	Excavate & Relocate to CA1	Herbicide applied & monitored
16	NO	Fenced off & Herbicide applied	Herbicide applied & monitored

Table.1

6.1.1 JAPANESE KNOTWEED INSITU HERBICIDE TREATMENT

In situ Herbicide treatment of JK16

It is recommended to treat the Japanese Knotweed stand JK16 in situ as it is situated in an area that is not critical to the development which will not be disturbed during construction.

The herbicide treatment can be applied through various methods depending on the size of plants at the time of treatment. This would be through foliar application via Knapsack spot spraying or weed wiping and stem injection if the plants stems are large enough.

It is likely that application via Knapsack spot spraying would be used in this instance.

The herbicide applied will be Glyphosate based (Round up Proactive or similar) as it is approved for use in both forestry and aquatic environments, the product is also rain safe in 1hr.

The herbicide will be applied in accordance with the manufacturer's instructions, at the recommended dosage during suitable conditions by fully certified Technician/s (PCA accredited and PA 6 and PA 6W certified).

Any treatment will be recorded in accordance with the Control of Pesticides Regulations 1986.

It is proposed to treat the Japanese Knotweed when it is actively growing, twice per season for a minimum of 3 years, with the treatment beginning August 2021 with a follow up treatment applied August - October.

The treatment will recommence the following season 2022 with an herbicide application in June-August with a follow up application treatment later in the season August -October.

The treatment will follow the same pattern for the following season in 3 year (2023) with an herbicide application in June- August with a follow up application treatment later in the season August -October.

After the scheduled treatment plan has finished (after year 3) the area will be continued to be monitored for any sign of regrowth for a period of at least 2 years (Years 4 & 5)

If any regrowth appears it will be re-treated using the same method as before via herbicide application.

6.1.2 JAPANESE KNOTWEED TO BE RELOCATED

Japanese Knotweed stands of JK 14 & JK15

The areas affected by Japanese Knotweed JK14 JK15 will be along with the infected soils will be excavated and relocated to a set aside area CA1 for continued treated shown in DWG.3.

The areas are within an area which are going to be developed therefore it is recommended to relocate the stands and subsequent infected materials

The infected areas will be excavated out until there is no more visible signs of the rhizome which could be as deep as 3m, but most likely around 2m.

This material will be selected by the onsite supervisor who will decide the extent of the excavation footprint and depth based on visual inspections. This material selected by the onsite supervisor will then be moved either by excavator or dump truck to the containment area for on-going treatment. It is recommended that the onsite supervisor is adequately trained (PCA) or similar.

6.1.3 MATERIAL TO BE RELOCATED

The potential Rhizome spread is most likely to be around 3m-3.5m from the edge of the visible growing plant base on the size and maturity of the stand. This has been assumed at 3.5m to base the potential Rhizome spread.

There would be 2 significant areas that would contain Japanese Knotweed Rhizomes JK14 and JK15 for relocation.

JK14 with a potential Rhizome spread of 200m² X 2m Depth = 400m³.

JK15 with a potential Rhizome spread of 200m² X 2m Depth = 400m³.

Total amount to be relocated to treatment area 800m³.

6.1.4 CONTAINMENT TREATMENT AREA

The set aside treatment area (CA1) needs to be large enough to hold around 950m³ of infected material (800m³ of Japanese Knotweed infected material & 150m³ Himalayan Balsam of Infected Material), the location is shown in DWG.2 with dimensions of 30m X 15m covering a footprint of approximately 450m².

The height of the treatment area will be approximately 2.1m in height.

The containment area (CA1) is based on what is excavated from the No.2 Japanese Knotweed Stands JK14 & JK15 and the stripped Himalayan Balsam infected soils, therefore the size and scale of the containment area will be reduced if there is significantly less contaminated material which has been excavated.

6.1.5 THE RELOCATION OF JAPANESE KNOTWEED INFECTED SOILS

The soils and material that have been selected for relocation can then be placed in the containment area (CA1) via dump truck or by excavator. There will be a designated haul route to and from the containment area to ensure greater biosecurity, by reducing the chance of further spread to other areas. This haul route will be monitored via visual inspections to ensure no infected material is has fell on to the haul route during transportation.

Site management of the relocation to the containment area includes making sure the dump trucks are not overfilled, while transporting infected material.

During excavation adequate membrane will be laid beside the excavation while excavators are loading infected material on to dump trucks. So that any material falling from the excavators' bucket can be caught in the membrane and reduce spread.

6.2 HIMALYAN BALSAM

The proposed plan is to feature two main objectives to eradicate/control the Himalayan Balsam (HB8-HB10):

- The in-situ herbicide treatment of the Himalayan Balsam. (HB8 Partial, HB10)
- The stripping of lands that contain Himalayan Balsam which lie in areas critical to the development are to be relocated to a set aside containment area for continued herbicide treatment and monitoring. (H8 Partial, HB9)

It is necessary to strip the lands in development critical areas that contain Himalayan Balsam as this is best suited to timescale of the project.

In situ herbicide application is not a viable option in the development critical areas as this requires a 2-year treatment plan, therefore the stripping of these lands and relocation of material is the preferred treatment option.

Table 2. that follows summarises the management plan approach for each area of the Himalayan Balsam for the construction and operational phases.

HB	CRITICAL TO DEVELOPMENT	CONSTRUCTION PHASE	OPERATIONAL PHASE
HB8	PARTIAL	Strip & Relocate to CA1/ Apply herbicide what remains in situ	Herbicide applied & monitored
HB9	YES	Excavate & Relocate to CA1	Herbicide applied & monitored
HB10	NO	Fenced off & Herbicide applied	Herbicide applied & monitored

Table.2

6.2.1 HERBIDE TREAMENT

It is proposed to treat the Himalayan Balsam infestations HB8, HB9, and HB10 in situ via herbicide application during periods of active growth.

The herbicide treatment process, the most efficient way is via foliar application through Knap sack spot spraying by certified technicians.

A glyphosate-based Herbicide (Round up Proactive) will be used as it is approved in both forestry and aquatic environments, the product is also rain safe in 1hr.

The herbicide will be applied in accordance to the manufacturers' recommendations to the recommended dosage for the treatment of each Invasive Species.

Appropriate PPE, including Coverall, Face shield, gloves, and rubber boots, will be worn while the carrying out of the spraying.

Spraying will only be carried out only in suitable weather conditions, to reduce spray drift.

The Knap sacks used will be calibrated, and the relevant details of spraying will be recorded as industry standard.

Long lance sprayers may be used in areas that are hard to reach or inaccessible.

6.2.2 TIMING

Herbicide application should be carried out during periods of active growth, before flowering but late enough to ensure that germinating seedlings have grown up sufficiently to be adequately covered by the herbicide (50+ cm would be suitable).

The initial application should ideally be carried out in May/June with subsequent treatments/monitoring likely being required in July/August. (via the treatment process in 6.2.1).

The 2nd season would follow the same course followed by 2 years of monitoring.

6.2.3 MONITORING

The site will be continued to be monitored for a minimum of 2 years for any signs of regrowth upon completion of 2 years herbicide treatment. Any regrowth will be treated with herbicide using the same techniques used previously on site.

Due to the location of the site on the banks of the River Foyle, further recolonisation may occur from seed dispersal from the river especially on the riverbank.

6.2.4 STRIPPING OF HIMALYAN BALSAM

This involves the stripping of ground critical to the development and moved to a set aside non-critical part of the site for continued herbicide treatment.

A midi or standard excavator with a wide grading/ Ditching bucket will be used to strip the infected soils from the site and transport the material to a bunded treatment area via dumper.

The areas will be stripped to a depth of 150mm, the extent of the areas will be confirmed by the supervisor during excavation.

Based on the survey estimated that approximately an area of as much as 5000m² would need to be stripped as part of this process.

This would result in $(1000\text{m}^2 \times 150\text{mm} = 150\text{m}^3)$ 150m³ of material being moved from critical development area to the set aside treatment area (CA1).

The removal of the infected soil will be supervised by a suitable qualified Invasive species technician/surveyor who will designate the area and extent for removal to the required depth.

This will be inspected visually so that there are no visible signs of invasive species plant material or seeds in areas that are to be developed.

The Invasive species in the treatment area will be treated for at least 2 seasons and will be continued to be monitored for regrowth.

The remaining infestations of Invasive Species which are not proposed to be stripped will be fenced off and treated in situ via herbicide application also for at least two seasons and monitored for regrowth.

6.3 GIANT HOGWEED

6.3.1 HERBIDE TREAMENT

The Giant Hogweed on located on site has already undergone herbicide treatment it is proposed to continue this process and treat the Giant Hogweed (GH2) in situ.

The herbicide treatment process, the most efficient way is via foliar application through Knap sack spot spraying by certified technicians.

A glyphosate-based Herbicide (Round up Proactive) will be used as it is approved in both forestry and aquatic environments, the product is also rain safe in 1hr.

The herbicide will be applied in accordance to the manufacturers' recommendations to the recommended dosage for the treatment of each Invasive Species.

Appropriate PPE, including Coverall, Face shield, gloves, and rubber boots, will be worn while the carrying out of the spraying.

Spraying will only be carried out only in suitable weather conditions, to reduce spray drift.

The Knap sacks used will be calibrated, and the relevant details of spraying will be recorded as industry standard.

6.3.2 TIMING

It is recommended to treat the Giant Hogweed twice per season for a period of at least 2 years.

The 1st foliar spraying for Giant Hogweed commencing between late April and June (if possible) before seeding and flowering, also Giant Hogweed can become less accessible later in the season due to increasing heights.

A follow up treatment later in the season should be applied for any late germinating plants before seed set.

The 2nd season would follow the same course followed by 2 years of monitoring.

6.3.3 MONITORING

The site will be continued to be monitored for a minimum of 2 years for any signs of regrowth upon completion of 2 years herbicide treatment. Any regrowth will be treated with herbicide using the same techniques used previously on site.

Due to the location of the site on the banks of the River Foyle, further recolonisation may occur from seed dispersal from the river especially on the riverbank.

6.4 BIOSECURITY

To ensure biosecurity on site and reduce the spread of the invasive species throughout the site and on to other sites the following measures are to be implemented:

- Erect fencing around the invasive species (Japanese Knotweed & Giant Hogweed) and place relevant signage
- Erect Fencing around Containment Treatment Area and relevant signage.

During Excavation Works

-The Invasive Species technician /Surveyor is responsible for the biosecurity onsite and will be present for the duration of the works. These responsibilities include site management, restrict personal and movement to designated areas, restrict access to site, clean maintain PPE, equipment and plant machinery.

-Plant machinery to remain onsite for the duration of the works, and not to move to other jobs until thoroughly cleaned and safe to do so by supervisor.

-Plant Machinery are to restrict to in movement around the site, and within given work areas and haul route to from containment area.

-Plant machinery will remain on site in restricted area until excavation, and replacement to the containment area have been completed.

-Recommend the use of rubber tyre plant wherever possible rather than tracked plant.

-Plant machinery to be thoroughly cleaned down upon completion of works including tracks, tyres, buckets, trailers etc and material place in the containment area.

-PPE especially boots to be deep clean and any material placed in containment area.

-Cleaning of Plant Machinery and PPE will be overseen and undertaken by onsite Invasive Species supervisor who will instruct if the plant and personal are safe to leave.

6.5 UPDATE SURVEY

It is recommended before that before any of the excavation or stripping elements of the treatment strategies to update the Invasive Species survey and management plan if required.

This is due to the nature of site along situated along the river Foyle which the lands are at risk from further spread of invasive species.

7.0 INVASIVE SPECIES MANAGEMENT PLAN STRABANE

7.1 JAPANESE KNOTWEED

The proposed plan is to feature 2 main objectives to eradicate/control with the Japanese Knotweed (JK14, JK15 & JK16):

- The in-situ herbicide treatment of the Japanese Knotweed. (JK1, JK2, JK3, JK5 JK01)
- The excavation of Japanese Knotweed contaminated material which lies in areas critical to the development and relocated to a set aside containment area for continued herbicide treatment. (JK4, JK5, JK6, JK8, JK9, JK10, JK11,)

Table.3 below summarises the management plan approach for each stand of Japanese Knotweed for the construction and operational phases.

JK	CRITICAL TO DEVELOPMENT	CONSTRUCTION PHASE	OPERATIONAL PHASE
JK1	NO	Fenced off & Herbicide applied	Herbicide applied & monitored
JK2	NO	Fenced off & Herbicide applied	Herbicide applied & monitored
JK3	NO	Fenced off & Herbicide applied	Herbicide applied & monitored
JK4	YES	Excavate & Relocate to CA2	Monitored
JK5	NO	Fenced off & Herbicide applied	Herbicide applied & monitored
JK6	YES	Excavate & Relocate to CA2	Monitored
JK7	YES	Excavate & Relocate to CA2	Monitored
JK8	PARTIAL	Excavate & Relocate to CA2	Herbicide applied & Monitored
JK9	YES	Excavate & Relocate to CA2	Monitored
JK10	YES	Excavate & Relocate to CA2	Monitored
JK11	YES	Excavate & Relocate to CA2	Monitored

Table.3

7.1.1 JAPANESE KNOTWEED INSITU HERBICIDE TREATMENT

In situ Herbicide treatment of JK1, JK2, JK3, JK5 & JKO1

It is recommended to treat the Japanese Knotweed stands JK1, JK2, JK3, JK4, JK5 in situ as they are located areas that are not critical to the development which will not be disturbed during construction.

The herbicide treatment can be applied through various methods depending on the size of plants at the time of treatment. This would be through foliar application via Knapsack spot spraying, weed wiping and also stem injection if the plants stems are large enough.

It is likely that application via Knapsack spot spraying would be used in this instance.

The herbicide applied will be Glyphosate based (Round up Proactive or similar) as it is approved for use in both forestry and aquatic environments, the product is also rain safe in 1hr.

The herbicide will be applied in accordance with the manufacturer's instructions, at the recommended dosage during suitable conditions by fully certified Technician/s (PCA accredited and PA 6 and PA 6W certified).

Any treatment will be recorded in accordance with the Control of Pesticides Regulations 1986.

It is proposed to treat the Japanese Knotweed when it is actively growing, twice per season for a minimum of 3 years, with the treatment beginning August 2021 with a follow up treatment applied August - October.

The treatment will recommence the following season 2022 with an herbicide application in June-August with a follow up application treatment later in the season August -October.

The treatment will follow the same pattern for the following season in 3 year (2023) with an herbicide application in June- August with a follow up application treatment later in the season August -October.

After the scheduled treatment plan has finished (after year 3) the area will be continued to be monitored for any sign of regrowth for a period of at least 2 years (Years 4 & 5)

If any regrowth appears it will be re-treated using the same method as before via herbicide application.

7.1.2 JAPANESE KNOTWEED TO BE RELOCATED

Japanese Knotweed stands of JK 4, JK6, JK7, JK8, JK9, JK10, JK11

The areas affected by Japanese Knotweed JK14 JK15 along with the infected soils will be excavated and relocated to a set aside area CA2 for continued treated shown in DWG.3.

The areas are within an area which are going to be developed therefore it is recommended to relocate the stands and subsequent infected materials

The infected areas will be excavated out until there is no more visible signs of the rhizome which could be as deep as 3m, but most likely around 2m.

This material will be selected by the onsite supervisor who will decide the extent of the excavation footprint and depth based on visual inspections. This material selected by the onsite supervisor will then be moved either by excavator or dump truck to the containment area for burial. It is recommended that the onsite supervisor is adequately trained (PCA) or similar.

7.1.3 MATERIAL TO BE RELOCATED

The potential Rhizome spread is most likely to be around 3m-3.5m from the edge of the visible growing plant base on the size and maturity of the stand. This has been assumed at 3.5m to base the potential Rhizome spread.

There are 7 stands of Japanese Knotweed and infected material JK4, JK6, JK7, JK8, JK9, JK10, JK11 for relocation.

JK4 with a potential Rhizome spread of $170\text{m}^2 \times 2\text{m Depth} = 340\text{m}^3$.

JK6 & JK7 with a potential Rhizome spread of $500\text{m}^2 \times 2\text{m Depth} = 1000\text{m}^3$.

JK8 & JK9 (Partial Removal) with a potential Rhizome spread of $170\text{m}^2 \times 2\text{m Depth} = 340\text{m}^3$.

JK10 with a potential Rhizome spread of $50\text{m}^2 \times 2\text{m Depth} = 100\text{m}^3$.

JK11 with a potential Rhizome spread of $120\text{m}^2 \times 2\text{m Depth} = 240\text{m}^3$

Total amount to be relocated to treatment area 2020m^3 .

7.1.4 CONTAINMENT TREATMENT AREA

The set aside treatment area (CA2) needs to be large enough to hold around 2750m^3 of infected material (2020m^3 of Japanese Knotweed infected material & 750m^3 Himalayan Balsam of Infected

Material), the location is shown in DWG.4 with an irregular shape and dimensions of 80m X 20m covering a footprint of approximately 1250m².

The height of the treatment area will be approximately 2.2m in height.

The containment area (CA2) is based on what is excavated from the No.7 Japanese Knotweed Stands JK4 & JK6-JK11 and the stripped Himalayan Balsam infected soils, therefore the size and scale of the containment area will be reduced if there is significantly less contaminated material which has been excavated.

7.1.5 THE RELOCATION OF JAPANESE KNOTWEED INFECTED SOILS

The soils and material that have been selected for onsite burial can then be placed in the constructed lined containment cell via dump truck or by excavator. There will be a designated haul route to and from the containment area to ensure greater biosecurity, by reducing the chance of further spread to other areas. This haul route will be monitored via visual inspections to ensure no infected material is has fell on to the haul route during transportation.

Site management of the relocation to the containment cell includes making sure the dump trucks are not overfilled, while transporting infected material.

During excavation adequate membrane will be laid beside the excavation while excavators are loading infected material on to dump trucks. So that any material falling from the excavators' bucket can be caught in the membrane and reduce spread.

7.2 HIMALYAN BALSAM

The proposed plan is to feature 2 main objectives to eradicate/control the Himalayan Balsam (HB1-HB7):

- The in-situ herbicide treatment of the Himalayan Balsam. (HB1 Partial, HB7)
- The stripping of lands that contain Himalayan Balsam which lie in areas critical to the development are to be relocated to a set aside containment area for continued herbicide treatment and monitoring. (HB2,HB3,HB4, HB5, HB6)

It is necessary to strip the lands in development critical areas that contain Himalayan Balsam as this is best suited to timescale of the project.

In situ herbicide application is not a viable option in the development critical areas as this requires a 2-year treatment plan, therefore the stripping of these lands and relocation of material is the preferred treatment option.

Table 4. that follows summarises the management plan approach for each area of the Himalayan Balsam for the construction and operational phases

HB	CRITICAL TO DEVELOPMENT	CONSTRUCTION PHASE	OPERATIONAL PHASE
HB1	PARTIAL	Strip & Relocate/ Apply herbicide what remains in situ	Herbicide applied & monitored
HB2	YES	Strip & Relocate	Herbicide applied & monitored
HB3	NO	Fenced off & Herbicide applied	Herbicide applied & monitored
HB4	YES	Strip & Relocate	Herbicide applied & monitored
HB5	YES	Strip & Relocate	Herbicide applied & monitored
HB6	YES	Strip & Relocate	Herbicide applied & monitored
HB7	NO	Fenced off & Herbicide applied	Herbicide applied & monitored

Table.4

7.2.1 HERBIDE TREATMENT

It is proposed to treat the Himalayan Balsam infestations HB1-HB7 in situ via herbicide application during periods of active growth.

The herbicide treatment process, the most efficient way is via foliar application through Knap sack spot spraying by certified technicians.

A glyphosate-based Herbicide (Round up Proactive) will be used as it is approved in both forestry and aquatic environments, the product is also rain safe in 1hr.

The herbicide will be applied in accordance to the manufacturers' recommendations to the recommended dosage for the treatment of each Invasive Species.

Appropriate PPE, including Coverall, Face shield, gloves, and rubber boots, will be worn while the carrying out of the spraying.

Spraying will only be carried out only in suitable weather conditions, to reduce spray drift.

The Knap sacks used will be calibrated, and the relevant details of spraying will be recorded as industry standard.

Long lance sprayers may be used in areas that are hard to reach or inaccessible.

7.2.2 TIMING

Herbicide application should be carried out during periods of active growth, before flowering but late enough to ensure that germinating seedlings have grown up sufficiently to be adequately covered by the herbicide (50+ cm would be suitable).

The initial application should ideally be carried out in May/June with subsequent treatments/monitoring likely being required in July/August. (via the treatment process in 6.21).

The 2nd season would follow the same course followed by 2 years of monitoring.

7.2.3 MONITORING

The site will be continued to be monitored for a minimum of 2 years for any signs of regrowth upon completion of 2 years herbicide treatment. Any regrowth will be treated with herbicide using the same techniques used previously on site.

Due to the location of the site on the banks of the River Foyle, further recolonisation may occur from seed dispersal from the river especially on the riverbank.

7.2.4 STRIPPING OF HIMALAYAN BALSAM

This involves the stripping of ground critical to the development and moved to a set aside non-critical part of the site for continued herbicide treatment.

A midi or standard excavator with a wide grading/ Ditching bucket will be used to strip the infected soils from the site and transport the material to a bunded treatment area via dumper.

The areas will be stripped to a depth of 150mm, the extent of the areas will be confirmed by the supervisor during excavation.

Based on the survey estimated that approximately an area of as much as 5000m² would need to be stripped as part of this process.

This would result in (5000m² x 150mm = 750m³) 750m³ of material being moved from critical development areas to the set aside treatment area (CA2).

The removal of the infected soil will be supervised by a suitable qualified Invasive species technician/surveyor who will designate the area and extent for removal to the required depth.

This will be inspected visually so that there are no visible signs of invasive species plant material or seeds in areas that are to be developed.

The Invasive species in the treatment area will be treated for at least 2 seasons and will be continued to be monitored for regrowth.

The remaining infestations of Invasive Species which are not proposed to be scrapped will be fenced off and treated in situ via herbicide application also for at least 2 seasons and monitored for regrowth.

7.3 GIANT HOGWEED

7.3.1 HERBIDE TREAMENT

It is proposed to treat the Giant Hogweed (GH1) in situ via herbicide application.

The herbicide treatment process, the most efficient way is via foliar application through Knap sack spot spraying by certified technicians.

A glyphosate-based Herbicide (Round up Proactive) will be used as it is approved in both forestry and aquatic environments, the product is also rain safe in 1hr.

The herbicide will be applied in accordance to the manufacturers' recommendations to the recommended dosage for the treatment of each Invasive Species.

Appropriate PPE, including Coverall, Face shield, gloves, and rubber boots, will be worn while the carrying out of the spraying.

Spraying will only be carried out only in suitable weather conditions, to reduce spray drift.

The Knap sacks used will be calibrated, and the relevant details of spraying will be recorded as industry standard.

7.3.2 TIMING

It is recommended to treat the Giant Hogweed twice per season for a period of at least 2 years.

The 1st foliar spraying for Giant Hogweed commencing between late April and June (if possible) before seeding and flowering, also Giant Hogweed can become less accessible later in the season due to increasing heights.

A follow up treatment later in the season should be applied for any late germinating plants before seed set.

The 2nd season would follow the same course followed by 2 years of monitoring.

7.3.3 MONITORING

The site will be continued to be monitored for a minimum of 2 years for any signs of regrowth upon completion of 2 years herbicide treatment. Any regrowth will be treated with herbicide using the same techniques used previously on site.

Due to the location of the site on the banks of the River Foyle, further recolonisation may occur from seed dispersal from the river especially on the riverbank.

7.4 BIOSECURITY

To ensure biosecurity on site and reduce the spread of the invasive species throughout the site and on to other sites the following measures are to be implemented:

- Erect fencing around the invasive species (Japanese Knotweed & Giant Hogweed) and place relevant signage
- Erect Fencing around Containment Treatment Area and relevant signage.

During Excavation Works

-The Invasive Species technician /Surveyor is responsible for the biosecurity onsite and will be present for the duration of the works. These responsibilities include site management, restrict personal and movement to designated areas, restrict access to site, clean maintain PPE, equipment and plant machinery.

-Plant machinery to remain onsite for the duration of the works, and not to move to other jobs until thoroughly cleaned and safe to do so by supervisor.

-Plant Machinery are to restrict to in movement around the site, and within given work areas and haul route to from containment area.

-Plant machinery will remain on site in restricted area until excavation, and replacement to the containment area have been completed.

-Recommend the use of rubber tyre plant wherever possible rather than tracked plant.

-Plant machinery to be thoroughly cleaned down upon completion of works including tracks, tyres, buckets, trailers etc and material place in the containment area.

-PPE especially boots to be deep clean and any material placed in containment area.

-Cleaning of Plant Machinery and PPE will be overseen and undertaken by onsite Invasive Species supervisor who will instruct if the plant and personal are safe to leave.

7.5 UPDATE SURVEY

It is recommended before that before any of the excavation or stripping elements of the treatment strategies to update the Invasive Species survey and management plan if required.

This is due to the nature of site along situated along the river Foyle which the lands are at risk from further spread of invasive species.

8.0 APPENDICES

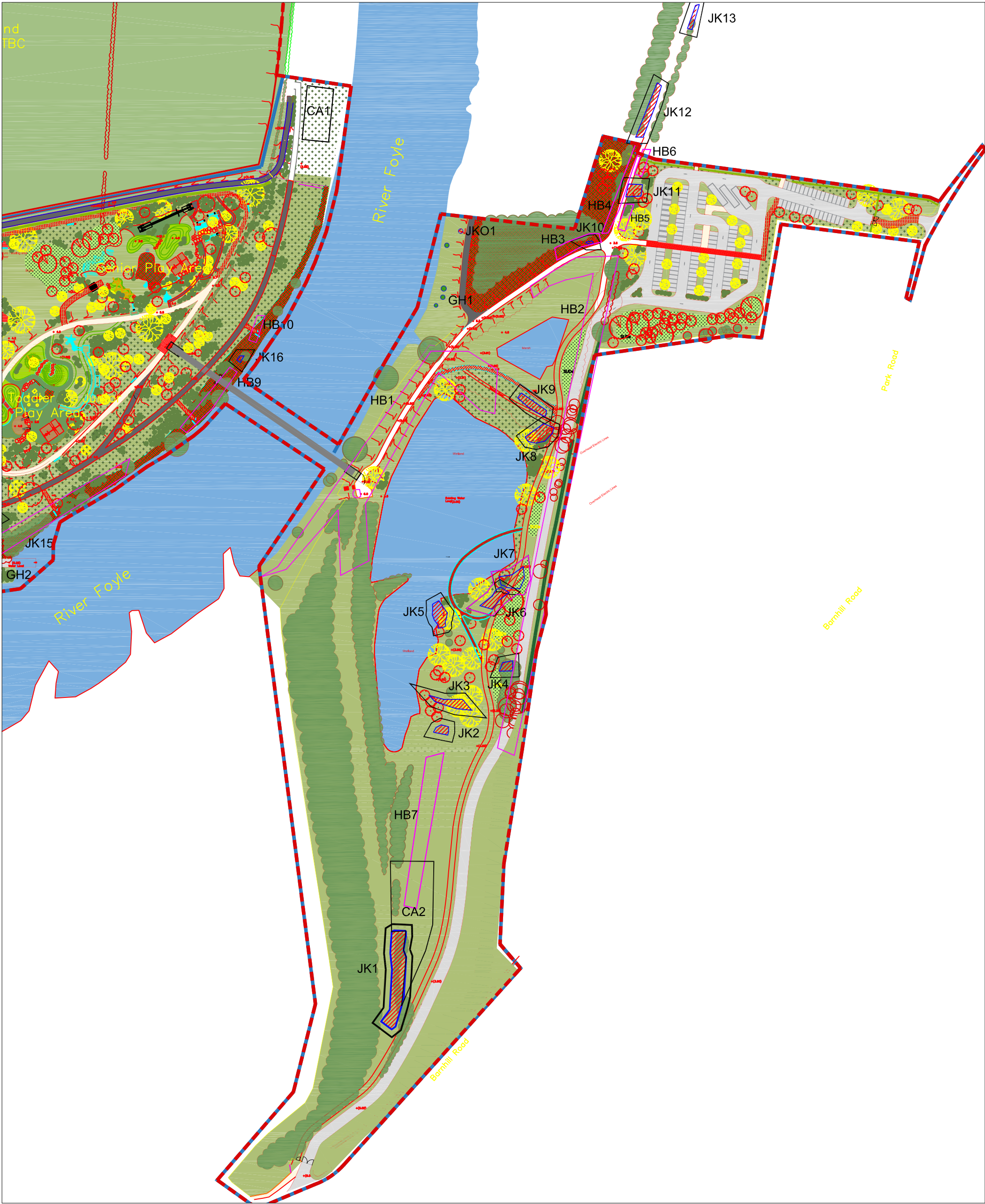
DWG



- Key:
- JK1 Japanese Knotweed ID & Location
 - Potential Rhizome Spread (3.5m)
 - HB1 Himalayan Balsam ID & Location
 - GH1 Giant Hogweed ID & Location

Riverine Lifford & Strabane		
DWG.1		
Invasive Species Location (JUNE 2021)		
Scale 1:2500		Date 20/06/21





Key:

JK1

Japanese Knotweed ID & Location

HB1

Himalayan Balsam ID & Location

GH1

Giant Hogweed ID & Location

CA2

Containment Treatment Area
(1250m2)

Potential Rhizome Spread (3.5m)

DWG.3	Riverine Lifford & Strabane	
Scale 1:2000	Strabane Invasive Species Location with Containment Treatment Area (JUNE 2021)	
Date 20/06/21		

Multidisciplinary Environmental Consultants

MCLCONSULTING

Unit 5, Forty Eight North, Duncrue Street, Belfast
BT3 9BJ



Key:

- JK1 Japanese Knotweed ID & Location
- Potential Rhizome Spread (3.5m)
- HB1 Himalayan Balsam ID & Location
- GH1 Giant Hogweed ID & Location
- CA1 Containment Treatment Area

Riverine Lifford & Strabane		
DWG.2		
Lifford Invasive Species Location with Containment Treatment Area (JUNE 2021)	Scale 1:1250	Date 20/06/21

MCL CONSULTING

Unit 5, Forty Eight North, Duncrue Street, Belfast BT3 9BJ



Key:

JK1

Japanese Knotweed ID & Location

Potential Rhizome Spread (3.5m)

HB1 Himalayan Balsam ID & Location

GH1 Giant Hogweed ID & Location

CA1 Containment Treatment Area Lifford

CA2 Containment Treatment Area Strabane

Riverine Lifford & Strabane

DWG.4

Proposed Site Layout
with Containment Treatment Area
(Post Relocation & Treatment)

Scale
1:2500

Date
20/06/21



Unit 5, Forty Eight North, Duncrue Street, Belfast
BT3 9BJ

PHOTOS FROM SURVEY 22/06/21

Photos from survey 22nd June 2021- Lifford



Plate.1 JK14 growing along pathway



Plate.2 JK15 growing along pathway

Photos from survey 22nd June 2021- Lifford



Plate.3 JK16 growing along riverbank.



Plate.4 Himalayan Balsam along the River Bank. (HB8)

Photos from survey 22nd June 2021- Lifford



Plate.5 Himalayan Balsam along lane way (HB8)



Plate.6 Himalayan Balsam rivers edge (HB9)

Photos from survey 22nd June 2021- Lifford



Plate.7 Himalayan Balsam along lane way (HB8)

Photos from survey 22nd June 2021- Strabane



Plate.1 JK1 growing along disused carpark.



Plate.2 JK2 growing along the north edge of disused carpark.

Photos from survey 22nd June 2021- Strabane



Plate.3 JK3 growing in overgrown area North of the disused carpark.



Plate.4 JK5 growing near to pond next to utilities pole.

Photos from survey 22nd June 2021- Strabane



Plate.5 JK6 & JK7



Plate.6 JK8 & JK9 Growing along the drain

Photos from survey 22nd June 2021- Strabane



Plate.7 JK10 growing along the access lane



Plate.8 JK11 growing along the access lane

Photos from survey 22nd June 2021- Strabane



Plate.9 JK12 growing along the access lane



Plate.10 JK13 growing along the access lane

Photos from survey 22nd June 2021- Strabane



Plate.11 JKO1 growing along path along river side.



Plate.12 GH1 beside the path along river side.

Photos from survey 22nd June 2021- Strabane



Plate.13 GH1 along path along river side



Plate.12 HB1 near to the badger sets

Photos from survey 22nd June 2021- Strabane



Plate.13 HB2 along the lane way



Plate.14 HB3 along the access lane

Photos from survey 22nd June 2021- Strabane



Plate.15 HB along the laneway



Plate.15 HB5 along the laneway