

# P2288

# ADDENDUM ENVIRONMENTAL IMPACT ASSESSMENT REPORT EXECUTIVE SUMMARY OF AMMENDMENTS

**RIVERINE COMMNUNITY PARK** 

LIFFORD-STRABANE

**CLIENT: McADAM** 

**APRIL 2022** 





# the paul hogarth company









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# 1.0 INTRODUCTION

This document sets out a summary of the responses to the comments and requests received by An Bord Pleanála (including those made by Department of Applications and P.E. Lusby).

Each comment is listed below with a corresponding response. Many responses reference the main body of text and associated appendices contained within the Environmental Impact Assessment Report (EIAR).

This document also provides summaries of the amendments made to each of the chapters of the EIAR.

# 1.1 An Bord Pleanála Further Information Requests

This section of the Addendum EIAR will list out the 7 no. requests received by the Project Team and will provide the information that is sought under each request. Where it has not been possible to provide an answer directly within this section, the sections within the Addendum EIAR where the requested information has been provided, has been referenced.

1. Provide a detailed and comprehensive response to the issues in the submission from the Department of housing, Local Government and Heritage as co-ordinated by Development Applications Unit on both Nature Conservation and Underwater Archaeology.

Regarding nature conservation, in addition to the issues by the Department, the information to be submitted should include an updated description of the baseline ecological environment of the River Foyle at the location taking into account of pressures on the River Finn SAC, which should be considered in the assessments of impacts of the proposal, alone and in combination with other projects and plans in view of the conservation objectives for the site. This should include existing pressures associated with:

- Existing gravel extraction downstream of the site,
- Discharges from the Wastewater Treatment Works upstream and downstream of the proposed development,
- The location of the site within the floodplain,
- The potential for leachable compounds to enter the River Foyle from the Strabane side of the site.

The NIS should also consider the potential impacts of a flood event during the construction and operational stages of development, the potential release of silt/sediments and other contaminants into the River Finn SAC and how this will be mitigated.

The information should be integrated into a revised Appropriate Assessment Screening Report and Natura Impact Statement (NIS) which shall consider the potential for significant effects to qualifying interest features in view of the conservation objectives, targets and objectives set for the European Sites included in the assessments.

**Response:** DAU's comments and responses to these comments have been provided in Section 1.1.1 of this Chapter.

# Baseline ecological environment

#### Extraction

The influence of both areas of sand and gravel extraction (Islandmore and Lifford river bank north of site) have been considered within the Soils and Waters chapter and deemed to be insignificant. This assessment is followed through into the NIS.

### Waste Water Treatment Works

Consultations with Irish Water indicate that the infrastructure improvements involve the expansion and upgrading of the Lifford WWTW (upstream), involving primary and secondary treatment of sewage effluent to achieve a high standard of effluent in accordance with the Urban Wastewater Treatment Directive is provided to achieve the following discharge standards:

Parameter	Standard
Biological Oxygen Demand	25 mg/l
Suspended Solids	25 mg/l
COD	125 mg/l
рН	6 - 9
Orthophosphate	5 mg/l P
Total Ammonia	10 mg/l N

The newly constructed wastewater treatment plant has capacity for a population equivalent of 3000 PE with a design horizon of 2040, which allows for future domestic, institutional and commercial growth within the agglomeration. The WWTP at Lifford is programmed for completion of commissioning and process proving by the end of June 2022. At this stage the WWTP will be achieving

the discharge standards and therefore this can be considered as a baseline condition with respect to the Riverine development.

The upgraded facility will include a system to manage most regularly-occurring flood events. Flows in excess of Full Flow To Treatment (55.4m³/hr or 2.7xDWF) are diverted to a Stormwater Holding Tank at the head of the WWTP. In the stormwater holding tank the wastewater will just entail settlement. On exceedance of the stormwater storage capacity the excess inflow will overflow to the River Foyle via the outfall. The stormwater holding tank is designed for 2hours at Formula A (i.e. 210m³).

The Strabane WWTW (downstream) is already an upgraded high specification facility with a good compliance record and no pollution events recorded. This poses an insignificant impact to the River Foyle in the baseline condition.

# Leachable compounds form Strabane

Regarding groundwater quality in Strabane, the DWS exceedances for PAH compounds detected in shallow groundwater around the former halting site are likely due to the previous use of the site as railway land and imported Made Ground. However, groundwater samples from boreholes hydraulically downgradient (closer to the Rive Foyle) of the boreholes where organic contamination was detected (and contributing baseflow to the River Foyle), do not show the organic contamination persisting. This contamination is therefore considered as localised and not actively migrating toward the River Foyle. The main surface water discharge drainage the Strabane site, the Nancy Burn, did not show any exceedances of any relevant water quality standards. Risk to the River Foyle SAC from shallow groundwater contamination and surface water inflows is therefore considered negligible.

# Site Infrastructure - Flooding

The construction compounds at Lifford and Strabane are not proposed to be defended from flooding during a major flood event. These facilities include oil and chemical storage, vehicle and machinery refuelling facility, biosecurity washing area, welfare facilities, general storage and offices. Whilst the contractor is obliged by the oCEMP to carry out all activities in accordance with relevant pollution prevention and good practice guidance and procedures, there will be some degree of residual pollution risk during a flood event. If the compound is overwhelmed, this may be due to controlled systems becoming compromised due to the inundation of water.

In the event of a major flood, large portions of the wider urban and rural environment, including numerous associated pollution sources, will be affected by flooding. The river systems will be in full spate during such an event providing massive degrees of dilution potential. Whilst cumulative effects of the numerous off-site pollution sources may be discernible, any possible pollution risk arising from the small scale storage of chemicals and oils at the construction compounds during a flood event would be immeasurably small in the wider environs. Therefore, the risk of pollution arising from the site during a flood event would be considered a **negligible impact**.

2. Provide a detailed and comprehensive description of the construction works for each element of the development proposed on the riverbank and extending into the River Foyle to include the temporary crane pad, slip way and jetty, fishing pods and approaches. The information shall include details of the site preparation, construction methodology, sequencing of works, removal of temporary structures following completion, details of the types of machinery, composition and source of the materials to be used. Precise details of the mitigation measures proposed shall be submitted, that will be employed to prevent sediment and other pollutants formentering the water course during the construction stage. This information shall be fully integrated in the OCEMP and NIS.

**Response:** The following additional construction works information has been provide within Chapter 3 Proposed Development:

# Slipway and Access to Riverside (Section 3.4.4 of Chapter 3)

The proposed slipway c5.0m wide, c30.0m long, with an approximate 1:8 gradient (with a change in elevation of c3.65m), will be constructed via the installation of a structural fill sub-base and fibre mesh reinforced concrete surface course.

The Contractor's detailed installation sequence of the slipway, extending into the river channel, should give due consideration to the following:

Install of basal geotextile separation membrane and install rock armour sequentially from
upstream side to create the slipway. The geotextile separation membrane will be required to
provide segregation of the existing environment and the proposed slipway and to act as a
barrier to lateral sedimentation migration toward the river.

2. In tandem with the installation of the geotextile separation membrane and rock armour, install and compaction of structural fill, with intermittent geogrid reinforcement, working way out and along riverbank in a downstream direction.

Continued install of rock armour to front face and backfill in tandem with the structural fill
material. This will include wrapping of the geotextile separation membrane up existing
riverbank margins and up the inner side of peripheral rock armour.

4. Completion of rock armour install on downstream edge (to protect the slipway from washout during flood event in the construction phase).

5. Completion of site investigation to obtain CBR values on platform.

6. Install of Continual Flight Auger (low vibration) piles and completion of pile testing (if required and if dictated by results of site investigation).

7. Install of cast in-situ, fibre mesh reinforced concrete surface course. Formwork with geotextile separation membrane to be provided and remain in-situ until concrete cured, to act as a barrier to the river channel.

Where appropriate, use of materials should consider the re-use and permanent allocation of the rock armour and fill materials as used for construction of the temporary working platforms, required under section heading, "Proposed Development Pedestrian and Cycle Bridge, Construction Phasing".

# Fishing Pods & Approaches (Section 3.4.5 of Chapter 3)

The fishing pods are proposed to be timber (or similar effect Glass Reinforced Plastic) 3.0m X 3.0m platforms, located immediately outside of the "High Water Mark" and accessed from the proposed riverside access route via 2.0m wide reinforced grass pathways.

The platforms will be constructed via shallow excavations with mass concrete foundations, cast in-situ to support the platform posts.

The reinforced grass path will be constructed via shallow excavations with a granular sub-base, with topsoil and reinforcement grid to surface course.

# Proposed Development Pedestrian and Cycle Bridge and Construction Phasing (Section 3.5 of Chapter 3)

Whilst detailed method statements and programming works will be developed by the Contractor (aligned to the construction stage temporary works design), the proposed phasing of the bridge

installation work will give due consideration to the environmental constraints and requirements outlined in Volume 3, Appendix 3-2, "Bridge Construction Phasing Works" and to the installation technique, outlined below:

# Installation Technique

In response to the prohibition of permanent in-channel works, this bridge installation technique considers two single span lifts;

- Lift one of single span length c30m, between the proposed abutment and the intermediate pier (both located on the Lifford landside of the River Foyle)
- Lift two of single span length circa 90m and weight circa 100T, to achieve a clear span over the River Foyle, between the intermediate pier (Lifford landside) and the proposed abutment (Strabane landside).

# Crane Requirements

To facilitate the single span lift of c90m and c100T, a 1200T structural crane such as the AK 680 1200T will be required. This is a very large crane which will require an additional service crane, somewhere in the region of 200T to 300T capacity, to assemble the 1200T structural crane and load the required ballast of c300T. The out-rigger centres of the structural crane are expected to be c14.5m x 14.5m with a jib length c85-100m long and a lifting radius of c30-35m.

# **Temporary Working Platform Requirements**

To assemble to structural crane (and the bridge, which will be transported to site in section lengths of approximately 30m long), a temporary working platform will be required on land adjacent to the Lifford river bank.

The Contractor's detailed installation sequence of this (land based) temporary working platform, adjacent to the river bank, should give due consideration to the following:

- 1. Install of basal geotextile separation membrane to provide segregation of the existing environment and temporary environment and to act as a barrier to the river.
- 2. Install and compaction of fill, with intermittent geogrid reinforcement and geotextile separation membrane to contain the fill material.
- 3. Completion of site investigation to obtain CBR values on platform.
- 4. Install of Continual Flight Auger (low vibration) piles to support bridge and structural crane assembly.

5. Completion of pile testing.

6. Install of temporary, cast in-situ, reinforced concrete crane platform over the CFA piles.

Formwork with geotextile separation membrane to be provided and remain in-situ until

concrete cured, to act as a barrier to the river.

7. Completion of bridge and structural crane assembly and transfer to lifting location.

8. Removal of the temporary platform by digging around the CFA piles and break down to

c500mm below ground level and subsequent removal of temporary working platform in

reverse order to installation. Removal works to utilise low vibration methods (e.g., the use rock

hammers will not be permitted) and will require the immediate loading and off-site removal

of fill (no temporary storage of removed materials will be permitted).

9. Restoration of original habitat(s).

In consideration of the expected lifting radius of the structural crane, a temporary working platform,

extending into the river channel, will be required to facilitate the single span lift of c90m and c100T.

This temporary working platform is expected to be designed and constructed in the region of:

Platform Area: 1000-1500m<sup>2</sup>

• Perimeter Length: 100-150m

Average Depth: c2-3.5m

The Contractor's detailed installation sequence of the temporary working platform, extending into the

river channel, should give due consideration to the following:

1. Install of basal geotextile separation membrane and install rock armour sequentially from

upstream side to create access and working area of temporary platform. The geotextile

separation membrane will be required to provide segregation of the existing environment and

temporary environment and to act as a barrier to lateral sedimentation migration toward the

river.

2. In tandem with the installation of the geotextile separation membrane and rock armour, install

and compaction of fill, with intermittent geogrid reinforcement, working way out and along

bank in a downstream direction.

3. Continued install of rock armour to front face and backfill in tandem with temporary fill

material. This will include wrapping of the geotextile separation membrane up existing

riverbank margins and up the inner side of peripheral rock armour.

4. Completion of rock armour install on downstream edge (to protect the temporary platform

from washout during flood event).

5. Completion of site investigation to obtain CBR values on platform.

6. Install of Continual Flight Auger (low vibration) piles to support crane throughout the access

and working area of temporary platform.

7. Completion of pile testing.

8. Install of temporary, cast in-situ, reinforced concrete crane platform over piles. Formwork with

geotextile separation membrane to be provided and remain in-situ until concrete cured, to act

as a barrier to the river channel.

9. Placement of structural crane into lifting location, ensuring minimum edge distance

maintained between jacklegs and edge of platform.

10. Completion of bridge lift.

11. Removal of the temporary platform by digging around the CFA piles and break down to

c500mm below bed level and subsequent removal of temporary working platform in reverse

order to installation, i.e., downstream end first. Removal works to utilise low vibration

methods (e.g., the use rock hammers will not be permitted) and will require the immediate

loading and off-site removal of fill (no temporary storage of removed materials will be

permitted). However, where appropriate, there should be due consideration to the re-use and

permanent allocation of the rock armour and fill materials for construction of the proposed

slipway.

12. Restoration of original habitat(s).

Temporary Platform Material Considerations

Type 1 stone below water level - mitigating fines dissipation into the watercourse by reducing the

amount of fines available and by reducing the velocities (through the fill).

Potential use of rounded cobbles below water level - so that if any cobbles were "lost" they could

provide benefit to salmon and other fish species in the river.

Traditional piling matt – to be provided over the clean stone.

A geotextile separation membrane - to be provided over clean stone and any finer fill (e.g., Type 1

<50mm), which will be compacted and tested in order to support the structural crane within the

working area of the platform.

An indicative works programme and construction phasing for the bridge have been developed up to

provide more certainty in relation to the detail of the construction works. These have been

incorporated into the consideration of environmental impact within the Addendum EIAR including the oCEMP and NIS.

3. Provide comprehensive details of the sequencing of the works on the site from the initial site preparation to completion of the development together with details of the duration of each phase.

**Response:** Details of the sequencing of the works on the site, from the initial site preparation to completion of the development, together with details of the duration of each phase, have been provided in Appendix 3-4, "Indicative High Level Construction Phase Programme". These have been incorporated into the consideration of environmental impact within the Addendum EIAR including the oCEMP and NIS.

4. Provide a comprehensive traffic assessment of the construction phase of the proposed development on the local road network. The submitted information shall include details of the predicted daily trips that will be generated by each phase of the development including the transport of all materials/removal of spoil and waste (quantum provided), trips generated by construction workers and visitors to the site. The assessment shall provide details of vehicle types/volumes and details of trip distribution on the local road network during the AM and PM peak and the potential for cumulative effects with other permitted development on both sides of the Border.

**Response:** The Traffic Statement (Appendix 12-1) has been amended in order to take the above requests into consideration.

An indicative high level construction phase programme, developed in response to the Board's Further Information request, provides further clarity in the peak periods of construction traffic in relation to the indictive programme and duration of HGV movements in particular. Each of the other areas referred to within the Further Information request have been considered and addressed under section heading, "Additional Temporary Construction Traffic" (Page 47) of the Traffic Statement. The additional information presented under this heading is as follows:

# **Predicted Daily Vehicle Trips**

The predicted daily trips have been identified in section heading, 'Additional Temporary Construction

Traffic' which represents the most onerous predicted traffic generation movements during the

construction phase. The indicative construction phase programme contained in Appendix F is helpful in considering the time periods of most likely HGV movements over likely 2month periods, October to December for mobilisation and July to September for bridge construction. The volume of fill to be imported during the above periods will amount to less than the predicted 30HGV (one way) movements assessed in the original TS. However, as the contractor will be required to submit a final Construction Environment Management Plan (CEMP) post award of contract the temporary traffic volumes can be raised within that document's construction programme.

# **Cut Fill Balance**

It is expected the cut / fill balance will require the import of approximately 15,000 m<sup>3</sup> - 25,000m<sup>3</sup> of material. However, this is over the construction period of the scheme and can be programmed to ensure no concentrated HGV movements. That said, even with concentrated HGV movement this will amount to less than the original anticipated 30HGV (one way) vehicles considered in the original TS.

Appendix G contains a cut fill analysis of the proposed scheme. In reality it is expected the import material will be significantly less as the cut / fill analysis contained in Appendix G excludes excavations in relation to construction footprint for drainage, roads, carparks formation levels. Therefore, the actual impact is predicted to be significantly less in terms of traffic movements regarding import material.

# **Other Material Import**

The compressive indictive construction programme is helpful in providing information relation to the construction sequence. The material in relation to the building, carparks, play parks etc are insignificant in relation to the ballast for the bridge and will occur over time, therefore the traffic impact will be modest over a longer period of time within the construction programme. The resulting factor of the latter is the traffic impact will be modest.

# Trips Generated by Workers and Visitors to the Site

Traffic generation of workers and visitors, LGV's are estimated at 10 (one way) trips per day to the compound including workers within the LGV with 20 (one-way trips) for staff arriving at the compounds for work in vans. It is anticipated that contractor's staff will have a slight and temporary adverse local impact considering they are already on the surrounding road network, therefore diverted trip rather than new trips. Visitors to the site are expected to be out of peak hour traffic times and infrequent in nature, it is not expected visitors will have any meaningful implications in relation to the EIAr.

**Vehicle Types and Distribution During Am & PM Traffic Peaks** 

Vehicle types have been described within the body of the original TS, the distribution will be subject

to the awarded contractor but will likely have a balanced approach along the N14/N15 and therefore

approach to the site. It is not expected that any significant HGV movements in particular will occur

within the AM or PM peak periods. With exception to isolated periods of blacktopping roads the latter

would be considered normal in relation to a project of this nature and scale.

**Cumulative Impact and Permitted Development Either Side of Border** 

Please refer to Chapter 15 of the Addendum EIAR for full consideration of the potential for cumulative

impacts arising from the Project in association with other development on both Strabane and Lifford

sides of the Project, as well as the interaction between potential impacts on different environmental

receptors arising from the proposed Project.

The following appendices have also been added to the Traffic Statement to inform the ABP FI request.

Appendix F - Indicative High Level Construction Phase Programme

Appendix G - Cut Fill – Indicative Volumes / Areas

The construction of the proposed scheme has been highlighted within the original TS in terms of HGVs,

LGVs, fuel deliveries, cranes, and oversized loads etc, a maximum of 30 HGV (one way) movements in

relation to crane ballast in preparation for the lift has been identified as the focused period of HGV

traffic over a short period of time. Please refer to the indictive construction phase programme

contained in Appendix F.

5. The proposed park and bridge development are designed to accommodate cyclists and to connect

into existing and proposed cycling infrastructure on both sides of the border. The description of the

development on the Lifford side of the site includes provisions for cycling parking, which is not

detailed in the submitted plans. Request applicant to submit an appropriately scaled site layout

plan showing the location of cycle parking on the site, clearly identifying the number of spaces to

be provided and an assessment of the adequacy to support the proposed development.

Response: The following information relating to cycle parking has been added as Section 3.4.2 of

Chapter 3 Proposed Development:

# **Internal Roads and Parking – Cycle Parking**

The location of the cycle parking has been indicated on Drawing 1383-TPHC-Z0-XX-DR-LA-2001 and as represented in the legend, under "Bicycle Stand Locations, Typical Sheffield Stand". Each stand will accommodate parking of up to two bikes.

The cycle parking locations are:

- 10nr in proximity to the community hub building (accommodating up to 20 bikes)
- 3nr located at the slipway (accommodating up to 6 bikes)
- 5nr located in proximity to the formal play areas (accommodating up to 10 bikes)

Whilst the park is designed primarily to encourage active travel and permeability throughout the Strabane and Lifford park elements and onward travel to proposed / committed greenway infrastructure, cycle parking has been provided to facilitate parking at "dwell" locations such as the community hub building, the slipway and the play facilities. On balance with the available car parking arrangement, there is an approximate 2:1 ratio of car:cycle parking.

An estate-style fence line and 3nr. vehicle gates and 3nr. pedestrian gates will separate the western and eastern car parks, allowing the Riverine Community Park to securely close whilst maintaining access to the Right of Ways.

6. It is a requirement of Annex IV (5) of amending Directive 2014/52/EU that the information contained in the EIAR would include a description of the likely significant effects of the project on the environment during the construction and operational stages of the development and the mitigation measures identified to ensure compliance with the requirements of the Directive. The Board notes for example that the submitted EIAR does not distinguish the impacts/mitigation proposed Biodiversity (Chapter 8) or for Landscape and Visual Impact (Chapter 14) for the two separate phases of the development.

The Board also notes that Chapter 14 describes impacts (such as impacts on the SAC) and mitigation measures (surface water attenuation) which have no relevance to the consideration and assessment of impacts on Landscape and Visual Impact.

The information to be provided should be included as an Addendum to the EIAR.

**Response:** Chapter 8 Biodiversity has been updated to provide likely effects and mitigation for both the construction and operational stages of the Project.

Chapter 14 Landscape and Visual Impact has already been divided between construction and operational phases. Within Chapter 14 the separate construction and operational impacts and mitigations for Lifford are presented in Sections 14.5.1 and 14.5.2 whilst the same for Strabane is presented in Sections 14.7.1 and 14.7.2.

Park Hood are content that the impacts and mitigation measures provided within Chapter 14 Landscape and Visual Impact are relevant particularly with reference to the Special Area of Conservation. They feel it is an important landscape designation upon which the Project will have an influence and that it is more beneficial for the information to be included rather than removed from the Chapter.

However, additional summary information has been provided at the front of Chapter 14 to provided further clarity on the likely effects of the Project during both the construction and operational phases. Further mitigation measures have also been provided.

7. Provide a response to the issues raised in the submission by P.E. Lusby.

Issues raised by P.E. Lusby as follows:

1. Existing flood attenuation measures do not include the Foyle beyond the High Water Mark and no consideration for a Flood Management Plan, of the Foyle, north of the Lifford is contained within the document. The Foyle is a major component of the catchment area and cannot be minimised.

**Response:** The existing flood risk assessment contains sufficient information to address this query. The flood risk assessment (Addendum EIAR Appendix 9.1, Section 4.2.4) demonstrates that development causes no measurable adverse change to flooding elsewhere by displacement and so does not affect flooding / flood storage in the Foyle north of Lifford. The proposed development does not adversely affect flooding north of Lifford (or anywhere else outside the application site) and there is no requirement for any Flood Management Plan to manage pre-existing flood risk outside the site.

2. Statistics on the composition of the base materials of the Foyle flood plain are calculated without the impact of rainfall inclusion. For example, the significant rainfall of 2015 is not included in the analysis. A fuller analysis would reveal the morphological properties of the floodplain and d angers

to life and property within. Recent historic incidences of morphological actions within close proximity of the project site are clear to see and are not mentioned within the documents.

**Response**: Single response to points 2 and 3 provided below under point 3.

3. Fluvial interaction is not assessed in the project documents

Sand and gravel extraction has taken place within the Foyle for a considerable period of time. The most recent and adjacent to, or part of the project site, is on the Donegal embankment opposite the Northern Ireland outflow of the Strabane Waste Water plant. This deposit is not mentioned in the project document. Historically the Belfast Company which was renamed the Londonderry Port and Harbour Commissioners in the 1854 Act used gravel from this area of the Foyle as ballast for sailing ships and is one of the reasons that the limits of the Londonderry Port and Harbour is set within the 1854 Act as to extend from the Lifford Bridge to a Line drawn from Greencastle Fort in the County of Donegal to the Tower on Mulligan Point in the City and County of Londonderry. The Londonderry Port and Harbour Commission is the statutory body under the 1854 Act and is not mentioned in the Project documents. There is also photographic evidence of the Crawford family [Councillor Crawford] unloading sand in 1946 at Lifford adjacent to the project site. No assessment is made within the documents as to the fluvial deposits and loss of channel conveyance which could increase the flood risk to the project site on an annual basis. The available CFRAM documents indicate an improved channel conveyance option adjacent to the site at a cost of 40 million euro and 102 euro to include the benefit to the mouth of the river Deele.

**Response:** The potential for morphological change in the Foyle system is acknowledged. New information has been added to the Flood Risk Assessment (Addendum EIAR Appendix 9.1) to demonstrate the history of morphological across a reach from the River Finn to Islandmore. The potential for morphological change to affect flood risk to the proposed development has been assessed and is determined to be not significant to the proposed development, given the significant existing and proposed flood risk to the development excluding the future effect of morphological change, and the similarly effective nature of mitigation proposed to manage the consequences of that flooding.

The proposed development will not cause a likely significant effect to Foyle system morphology.

The proposed development does not affect existing or proposed gravel extraction from the Foyle system.

The proposed development and project team has been subject to collaborative stakeholder consultation with the Lifford Flood Relief Scheme project team, whose remit it is to bring forward a flood relief scheme following on from further studies developed after the preliminary CFRAM study. The proposed development has not been identified as being incompatible with any flood relief option being considered by that project team.

4. The Flood Risk Assessment for the A5 road project was considered inadequate by the PAC NI and it is the same assessment criteria used in this project.

**Response:** The existing flood risk assessment contains sufficient information to address this query. The Riverine flood risk assessment makes no reliance on the A5WTC Flood Risk Assessment or flood data used in that assessment. The data used in the flood risk assessment is consistent with that being used to inform the planned Lifford Flood Relief Scheme and is fit for purpose.

# 5. Bridge

No assessment as to the constraints, a low bridge at this position, would cause to the management of the Foyle in relation to flood alleviation is contained within the project documents. In the documents at F-P-7 it states that, "The Council shall not permit development that would hinder the maintenance of rivers or drainage channels.

**Response**: The existing flood risk assessment contains sufficient information to address this query. The flood risk assessment (Appendix 9.1, Section 5.10) demonstrates that the bridge is sited with a soffit elevation to meet flood risk criteria (i.e. soffit levels to meet OPW and Dept. for Infrastructure requirements). In obtaining Section 50 and Schedule 6 consents respectively then those regulators would be satisfied that the structure would not impede watercourse maintenance.

#### 6. Human Health

The document is deficient in relation to Human Health. During the winter of 1997 to 1998 Human Health was impacted due to the contamination of Islandmore, which is in close proximity to the project site, with Brucella Abortus. A survey and report carried out by Donegal County Council at the time found evidence of sewage contamination on the land of Islandmore.

This contamination was linked to Brucellosis in humans in subsequent years as detailed by the Quote

In 2002 there were 28 reported cases of human brucellosis in Northern Ireland and since 1998 there have been more than 70 cases reported. Yet, in the period 1985-1997 there had been no reported cases. This disease is normally contracted directly from breeding cattle and this recent upsurge in human brucellosis is directly linked to the current outbreak in Northern Ireland's cattle. Many of these recent cases are farmers who became infected through contact with infected animals. Tackling the disease in cattle is therefore essential if human health is to be protected.

**Response:** The Department of Agriculture, Environment and Rural Affairs' (DEARA) website<sup>1</sup> contains a brief history of Brucellosis which fills in the picture beyond the period of late 1990s – early 2000s referenced by P.E. Lusby.

In this history, DAERA acknowledges the rise in level of Brucellosis in the late 1990s and early 2000s. However, it goes on to point out that a series of measures were introduced to counteract this rise. This history states that in January 2001 annual testing was reintroduced in the Armagh, Enniskillen, and Newry divisional areas. Also in 2001, the Brucellosis Bulk Milk ELISA (Enzyme Linked ImmunoSorbent Assay) (BrBME) was introduced for sampling dairy herds and cull cow sampling was introduced at meat plants. In late 2004 pre-movement testing was introduced.

The history goes on to point out that following extensive testing and other initiatives disease levels began to fall in the 2010s and that Northern Ireland was awarded Officially Brucellosis Free (OBF) status on 6th October 2015.

Due to the above findings, it is not considered that Brucella abortus or Brucellosis pose any threat to public health in relation to the Riverine Project or indeed to Northern Ireland as a whole.

#### 7. Loughs Agency

I constructed the fishing groynes adjacent to the project site on behalf of the Loughs Agency for the benefit of the local population. In understood at the time that the groynes would be maintained and not allowed to inhibit flood capacity. Unfortunately, no maintenance has taken place and the

<sup>&</sup>lt;sup>1</sup> The history of Brucellosis in Northern Ireland | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

groynes are not used and have deteriorated and are a source of invasive plants and barriers to the free flow of the Foyle.

These are also not considered in the documents.

**Response:** The fishing groynes have been considered as part of the wider baseline assessment (Soils and Waters Chapter and Ecology Chapter). The fishing groynes demonstrate evidence of otter activity and are used as points of rest/feeding and so remain an important element of the riverine environment. They also remain viable active fishing points.

All of the fishing groynes on the Strabane side of the site are outside of the red line boundary. Three of the groynes on the Lifford side are within the red line boundary and therefore subject the planning application. The most northerly groyne will re-developed and incorporated into the slipway scheme. The other two groynes are to be restored with planting and retained for fishing amenity.

A comprehensive Invasive Species Management Plan (Appendix 8-13) is included as part of the EIAR which clearly sets out how invasive plants within the site, including those found on and around the fishing groynes, are to be treated and managed. However this management only relates only to areas within the red line boundary of the planning application.

Therefore the Riverine Project will provide enhancement to the Lifford fishing groynes.

#### 8. Sewage

As mentioned above contamination of land in time of high rainfall impacts human health. The potential of the two sewage plants to contaminate the project area has not been evaluated in the documents. In December 2015 Strabane Waste Water Plant was flooded, and no analysis is contained within the documents even though previous sewage overflows in this area have been recorded to circulate adjacent to the project site due to tidal pressures.

It is also noted that in the planning application for the Lifford Wastewater plant no outflow is applied for and the documents are deficient as to the present condition of the outflow.

No consideration is given in the documents regarding storm surge impacts of the sewage works on either side of the Foyle above or adjacent to the project site.

**Response:** Consultations with Irish Water indicate that the infrastructure improvements involve the expansion and upgrading of the Lifford WWTW (upstream), involving primary and secondary

treatment of sewage effluent to achieve a high standard of effluent in accordance with the Urban Wastewater Treatment Directive is provided to achieve the following discharge standards:

Parameter	Standard
Biological Oxygen Demand	25 mg/l
Suspended Solids	25 mg/l
COD	125 mg/l
рН	6 - 9
Orthophosphate	5 mg/l P
Total Ammonia	10 mg/l N

The newly constructed wastewater treatment plant has capacity for a population equivalent of 3000 PE with a design horizon of 2040, which allows for future domestic, institutional and commercial growth within the agglomeration. The WWTP at Lifford is programmed for completion of commissioning and process proving by the end of June 2022. At this stage the WWTP will be achieving the discharge standards and therefore this can be considered as a baseline condition with respect to the Riverine development.

The upgraded facility will include a system to manage most regularly-occurring flood events. Flows in excess of Full Flow To Treatment (55.4m³/hr or 2.7xDWF) are diverted to a Stormwater Holding Tank at the head of the WWTP. In the stormwater holding tank the wastewater will just entail settlement. On exceedance of the stormwater storage capacity the excess inflow will overflow to the River Foyle via the outfall. The stormwater holding tank is designed for 2hours at Formula A (i.e. 210m³).

The Strabane WWTW (downstream) is already an upgraded high specification facility with a good compliance record and no pollution events recorded. This poses an insignificant impact to the River Foyle in the baseline condition.

# 9. Alternatives to the project

The existing infrastructure, Lifford bridge, flood and disused railway embankments linking Islandmore bridge and the existing Foyle bridge were not considered as an alternative to the bridge portion of the project.

**Response:** Amendments have been made to Chapter 5 Considerations of Alternatives to include consideration of the alternatives listed by P.E. Lusby. These are included as part of Table 5-3 of Chapter 5.

1.1.1 DAU Requests

**DAU Comment:** "The Department recommends that Lough Swilly special Protection Area (SPA) (site

code:004075) is screened in for consideration in the Natura Impact Statement."

Response: Lough Swilly SPA has been screened in to the NIS by the Stage 1 Screening for Appropriate

Assessment completed by Delichon Ecology and subsequently assessed within the NIS.

DAU Comment: "...The Department recommends that further Otter friendly measures are

incorporated into the design of the park that seek to create Otter friendly features and increase the

buffer breadth beyond 10m where possible."

Response: Section 2.4.5 of the Otter Survey (Appendix 8-6) provides additional mitigation measures

relating to the potential for habitat loss.

The recommended buffer breadth has been increased from 10m to 15m. This increased buffer zone

has been implemented in full, with mitigation measures within the Soils and Waters and Biodiversity

Chapters updated. In addition, to provide better clarity, the definition, implementation and

management measures for buffer zones are described in detail in these chapters. This includes a range

of additional mitigation measures developed for managing necessary construction works within buffer

zones and close to water margins.

**DAU Comment:** "The Department recommends that the nearest Otter Holt is identified and proximity

to the wider development site, slipway/jetty and bridge site are clearly determined."

Response: Additional Otter Surveys were carried out by MCL Consulting Ecologists on the 29th March,

6<sup>th</sup> April and 11<sup>th</sup> April. These surveys extended to a distance of 1km from the Project site, in

accordance with guidance from the Scottish Borders Council's technical advice. The updated results of

this additional survey are provided within Section 2.4.3 of the Otter Survey (Appendix 8-6).

**DAU Comment:** "Furthermore the Department is concerned that

1. Disturbance to Otter during the construction phase is not sufficiently mitigated (e.g. timing

of year and day are not considered).

Executive Summary of Amendments to EIAR Riverine Community Park

MCL Consulting P2288 **Response:** The Otter Survey (Appendix 8-6) has been updated to reflect that, as no natal den or holt was found in the extended 1km search area, no season constraints have been considered necessary as there is no perceived impact to breeding or otter offspring.

2. Direct loss of riverbank foraging habitat associated with the Bridge, slipway and jetty is insufficiently addressed in the NIS (i.e. what type and proportion of habitat will be lost temporarily and permanently? How will this be mitigated?)

**Response:** Both Otter survey and NIS have been updated to address this concern. Identification has been made for temporary and permanent habitat loss. Measures for replanting for habitat restoration and opportunity for compensatory planting have been added to the otter mitigation.

3. The riparian corridor supports a thin fringe of reed and large sedge swamp, establishing on accumulated alluvial material. This habitat provides key foraging for Otters and efforts should be made to ensure full reinstatement or enhanced coverage of this habitat post construction."

Response: Both Otter Survey and NIS have been updated to address this concern. The Otter Survey addresses both temporary and permeant loss of habitat. The reed and large swamp habitat, as identified in the PEA, is restricted to the fishing groynes on the Strabane river bank which will not be affected by this is development. However some areas of the river margin at Lifford and Strabane will be lost due to the bridge landings and slipway. These areas are mapped as dry meadows and grassy verges (GS2). The loss of these areas of otter habitat is proposed to be compensated for. Whilst temporary loss is mitigated through habitat restoration measures through replanting of disturbed portions of the riverbank, permanent loss has been quantified as far as possible and mitigated through the establishment of compensatory planting along alternative sections on both sides of the riverbank.

**DAU Comment:** "More broadly, many of the finer details remain unconfirmed in the NIS and the NIS conclusions are based on possible not absolute designs (e.g. Completed invasive species management plan must be included in the CEMP before the AA can be completed; the NIS does not include sufficient mitigation for storm discharge from the three rivers complex to ensure no residual impacts on the river Finn SAC)."

**Response:** An indicative works programme and construction phasing for the bridge have been developed up to provide more certainty in relation to the detail of the construction works. These have

been incorporated into the consideration of environmental impact within the Addendum EIAR including the oCEMP and NIS.

The invasive species management plan has been within the oCEMP as Appendix D.

It was previously reported that reconfiguration of an existing storm drainage outlet from the Three Rivers Centre would be required to facilitate the proposed riverside access road and that this proposed reconfiguration would be agreed with the consenting authority at detailed design through the attachment of a planning condition.

However, in response to An Bord Pleanála's Further Information request, following site surveys (manhole inspections and topographical surveys), consultations with the Three Rivers Maintenance team and the Irish Water Project Team for the Wastewater Treatment Works upgrade, it is assumed that the baseline scenario for the Three Rivers Drainage is as such;

the majority of the Three Rivers Complex surface water drains to the North of the Three Rivers Complex, whilst a smaller proportion (assumed c15-20%) drains to an existing soakaway point in proximity to the boundary of the Irish Water Wastewater Treatment Works. There is no direct outlet from the Three Rivers Drainage to the River Foyle and therefore no requirements to manage surface water run-off from the Three Rivers Complex within this proposed development.

**DAU Comment:** "This ambiguity is reflected in the wording used in the NIS (e.g. words such as 'may' and 'possible' etc.). Appropriate Assessment is a scientific process that requires robust assessment based on scientific evidence and objective judgement supported by clear scientific rationale. The Department recommends that the NIS includes more definitive details and it follows, assessment of impacts arising to European sites."

**Response:** The NIS and oCEMP have been updated to include more definitive wording and assessment throughout. This has been aided by the development of an indicative works programme and bridge construction phasing information.

**DAU Comment:** "...As set out above, there are works proposed on the riverbanks and within the river itself and accordingly this Department reiterates its recommendation that an Underwater

Archaeological Impact Assessment (UAIA), including a dive survey, is required in order to assess the potential impact of the development on underwater archaeology."

**Response:** An Underwater Archaeological Impact Assessment (UAIA), including dive survey, was undertaken by ADCO in April 2022 under licences 22R0081 and 22D0020. A full UAIA was not available at the time of writing, however a Memorandum produced at the conclusion of the surveys provided information on the findings. The survey focussed on an 800m long section of intertidal foreshore and riverbank, including the location of the proposed slipway and pedestrian and cycle bridge at Lifford and a 600m long section of intertidal foreshore and riverbank, including the location of the proposed pedestrian and cycle bridge abutment at Strabane. Please refer to Section 13.10 of Chapter 13 and the Underwater Archaeological Impact Assessment Memorandum (Appendix 13-5) for further details.

# 2.0 NEED FOR DEVELOPMENT

No amendments have been required of this Chapter and the originally submitted Need for Development Chapter therefore remains the current and relevant Chapter for the EIAR.

# 3.0 PROPOSED DEVELOPMENT

# 3.1 **EIAR Addendum Information**

Below is a summary of the amendments to this Proposed Development Chapter as a result of the An Bord Pleanála Further Information request and the relocation of the Car Park in the Strabane site, following unsuccessful Land Owner Negotiations.

# 3.1.1 Changes to EIAR due to the Relocation of the Car Park in Strabane

# Proposed Development Summary (Strabane Proposals)

Development of the eastern portion of the new Riverine Community Park (i.e., the area of the development falling within the Derry City & Strabane District Council area) and the creation of new community park infrastructure with multi-purpose community facilities and amenities. The development will include:

- a new area of open space;
- vehicle, cycle and pedestrian access;
- car parking area;
- amenity lighting; and,

• all ancillary development and site services; within the site extending to 6.7 hectares (reduced from the previously reported development area of 7.8 hectares).

# **Proposed Development Strabane**

# **Approach Roads**

The main entrance and exit to the Riverine Community Park in Strabane is designated as the primary vehicle access route for the Park as a whole, encouraging vehicle users from the catchment areas in Ireland and Northern Ireland. The entrance and exit will be located at an existing spur to the A5 Barnhill Roundabout which is currently blocked to vehicle traffic. The Approach Road will be 6.0m wide, reducing in some locations to 5.4m wide, asphalt carriageway, enabling two-way traffic flow.

To enable safe access for pedestrians and cyclists and, following consultation with DfI Roads Development and Control, toucan crossings are proposed at the following locations:

- At an existing uncontrolled crossing on Lifford Road
- At a new proposed crossing on the A5 Barnhill Road.

For details refer to the Traffic Statement, included as Appendix 12-1 within this Addendum EIAR.

# Internal Roads and Parking

An asphalt surfaced car park will include 125 car park spaces and 11 disabled bays. There will be provision for two loading / bus bays. The surface drainage is incorporated within a sustainable drainage strategy using attenuation ponds and swales.

Stormwater is to be captured and dispersed through a "permeable paving" Sustainable Urban Drainage System (SuDS) and discharged to the local watercourse. The permeable pavement will be lined to ensure no infiltration to underlying soils and localised stormwater infrastructure (small diameter PVC pipes and interceptor) will provide additional mitigation to demonstrate protection of the SAC.

# Internal Path Networks

A series of internal pathways are proposed with a mix of surface finishes (asphalt and reinforced grass) and widths, positioned along existing flood embankments, were possible, to minimise ground disturbance. Core network paths are 3.0m wide and are designed for either pedestrian use only and/or pedestrian:cycle use, providing strategic connections within the Riverine Community Park, the new bridge and the Strabane North Greenway. Where core paths are designed for pedestrian:cycle use,

these paths will be asphalt. Where core paths are design for pedestrian use only, these paths will be reinforced grass.

All core paths designed for pedestrian:cycle use will be lit in accordance with the "External Lighting Proposals", detailed within this Chapter.

A 125m timber (or equivalent) boardwalk will be provided to enable controlled visitor access to an area of wet woodland. This boardwalk will be fully accessible and aims to facilitate project animation activities whilst promoting visitor experience.

# Connection to Strabane North Greenway

A section of Derry City and Strabane District Council's, Strabane North Greenway, being developed separately by the Council, extends through the Riverine Proposed Development's Red Line Boundary. It is anticipated that the Strabane North Greenway will be constructed in advance of the Riverine Community Park Development, through Permitted Development.

There has been ongoing dialogue between the Riverine Community Park and Derry City & Strabane District Council (members of the Active & Sustainable Travel Forum, delivering the North West Greenway Action Plan) to ensure that the connections between the Riverine Community Park and the Strabane North Greenway are coordinated. This includes a consistent approach to surface and edging proposals for pedestrian:cycle routes as well as ensuring that a permanent physical connection is provided to Strabane town centre and the wider greenway proposals.

This approach ties into the Derry City & Strabane District Council's Green Infrastructure Framework. It has been agreed between the Riverine Community Park and Derry City & Strabane District Council that the Riverine Proposed Development will provide external lighting to the Strabane North Greenway, in accordance with the "External Lighting Proposals", detailed within this Chapter.

# 3.1.2 Changes to EIAR due to ABP FI Request

# Sequencing of works

Details of the sequencing of the works on the site, from the initial site preparation to completion of the development, together with details of the duration of each phase, have been provided in Appendix 3-4, "Indicative High Level Construction Phase Programme".

Internal Roads and Parking - Cycle Parking

The location of the cycle parking has been indicated on Drawing 1383-TPHC-Z0-XX-DR-LA-2001 and as

represented in the legend, under "Bicycle Stand Locations, Typical Sheffield Stand". Each stand will

accommodate parking of up to two bikes.

The cycle parking locations are:

10nr in proximity to the community hub building (accommodating up to 20 bikes)

• 3nr located at the slipway (accommodating up to 6 bikes)

• 5nr located in proximity to the formal play areas (accommodating up to 10 bikes)

Whilst the park is designed primarily to encourage active travel and permeability throughout the

Strabane and Lifford park elements and onward travel to proposed / committed greenway

infrastructure, cycle parking has been provided to facilitate parking at "dwell" locations such as the

community hub building, the slipway and the play facilities. On balance with the available car parking

arrangement, there is an approximate 2:1 ratio of car:cycle parking.

An estate-style fence line and 3nr. vehicle gates and 3nr. pedestrian gates will separate the western

and eastern car parks, allowing the Riverine Community Park to securely close whilst maintaining

access to the Right of Ways.

Slipway and Access to Riverside

The proposed slipway c5.0m wide, c30.0m long, with an approximate 1:8 gradient (with a change in

elevation of c3.65m), will be constructed via the installation of a structural fill sub-base and fibre mesh

reinforced concrete surface course.

The Contractor's detailed installation sequence of the slipway, extending into the river channel, should

give due consideration to the following:

1. Install of basal geotextile separation membrane and install rock armour sequentially from

upstream side to create the slipway. The geotextile separation membrane will be required to

provide segregation of the existing environment and the proposed slipway and to act as a

barrier to lateral sedimentation migration toward the river.

2. In tandem with the installation of the geotextile separation membrane and rock armour, install

and compaction of structural fill, with intermittent geogrid reinforcement, working way out

and along riverbank in a downstream direction.

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MCL Consulting P2288 3. Continued install of rock armour to front face and backfill in tandem with the structural fill material. This will include wrapping of the geotextile separation membrane up existing riverbank margins and up the inner side of peripheral rock armour.

4. Completion of rock armour install on downstream edge (to protect the slipway from washout during flood event in the construction phase).

5. Completion of site investigation to obtain CBR values on platform.

6. Install of Continual Flight Auger (low vibration) piles and completion of pile testing (if required and if dictated by results of site investigation).

7. Install of cast in-situ, fibre mesh reinforced concrete surface course. Formwork with geotextile separation membrane to be provided and remain in-situ until concrete cured, to act as a barrier to the river channel.

Where appropriate, use of materials should consider the re-use and permanent allocation of the rock armour and fill materials as used for construction of the temporary working platforms, required under section heading, "Proposed Development Pedestrian and Cycle Bridge, Construction Phasing".

Fishing Pods & Approaches

The fishing pods are proposed to be timber (or similar effect Glass Reinforced Plastic) 3.0m X 3.0m platforms, located immediately outside of the "High Water Mark" and accessed from the proposed riverside access route via 2.0m wide reinforced grass pathways.

The platforms will be constructed via shallow excavations with mass concrete foundations, cast in -situ to support the platform posts.

The reinforced grass path will be constructed via shallow excavations with a granular sub-base, with topsoil and reinforcement grid to surface course.

Proposed Development Lifford (Utilities - Stormwater)

Stormwater within the Riverine Park is largely to be captured and dispersed through "soft green" Sustainable Urban Drainage Systems (SuDS). Localised stormwater infrastructure (small diameter PVC pipe) is required at the car park locations and bridge abutment to direct surface water runoff to the SuDS.

The proposed drainage solution along the Lifford Access Road is the installation of traditional drainage infrastructure including uPVC drainage pipes and petro-chemical interceptor with discharge into a cellular soakaway system between the entrance to the Riverine Community park and the Irish Water Waste Water Treatment Works.

#### **Accommodation Works for Three Rivers Centre**

It was previously reported that reconfiguration of an existing storm drainage outlet from the Three Rivers Centre would be required to facilitate the proposed riverside access road and that this proposed reconfiguration would be agreed with the consenting authority at detailed design through the attachment of a planning condition.

However, in response to An Bord Pleanála's Further Information request, following site surveys (manhole inspections and topographical surveys), consultations with the Three Rivers Maintenance team and the Irish Water Project Team for the Wastewater Treatment Works upgrade, it is assumed that the baseline scenario for the Three Rivers Drainage is as such;

the majority of the Three Rivers Complex surface water drains to the North of the Three Rivers Complex, whilst a smaller proportion (assumed c15-20%) drains to an existing soakaway point in proximity to the boundary of the Irish Water Wastewater Treatment Works. There is no direct outlet from the Three Rivers Drainage to the River Foyle and therefore no requirements to manage surface water run-off from the Three Rivers Complex within this proposed development.

#### Proposed Development Pedestrian and Cycle Bridge and Construction Phasing

Whilst detailed method statements and programming works will be developed by the Contractor (aligned to the construction stage temporary works design), the proposed phasing of the bridge installation work will give due consideration to the environmental constraints and requirements outlined in Volume 3, Appendix 3-2, "Bridge Construction Phasing Works" and to the installation technique, outlined below:

#### Installation Technique

In response to the prohibition of permanent in-channel works, this bridge installation technique considers two single span lifts;

• Lift one – of single span length c30m, between the proposed abutment and the intermediate pier (both located on the Lifford landside of the River Foyle)

• Lift two - of single span length circa 90m and weight circa 100T, to achieve a clear span over the River Foyle, between the intermediate pier (Lifford landside) and the proposed abutment (Strabane landside).

#### **Crane Requirements**

To facilitate the single span lift of c90m and c100T, a 1200T structural crane such as the AK 680 1200T will be required. This is a very large crane which will require an additional service crane, somewhere in the region of 200T to 300T capacity, to assemble the 1200T structural crane and load the required ballast of c300T. The out-rigger centres of the structural crane are expected to be c14.5m x 14.5m with a jib length c85-100m long and a lifting radius of c30-35m.

# **Temporary Working Platform Requirements**

To assemble to structural crane (and the bridge, which will be transported to site in section lengths of approximately 30m long), a temporary working platform will be required on land adjacent to the Lifford river bank.

The Contractor's detailed installation sequence of this (land based) temporary working platform, adjacent to the river bank, should give due consideration to the following:

- 1. Install of basal geotextile separation membrane to provide segregation of the existing environment and temporary environment and to act as a barrier to the river.
- 2. Install and compaction of fill, with intermittent geogrid reinforcement and geotextile separation membrane to contain the fill material.
- 3. Completion of site investigation to obtain CBR values on platform.
- 4. Install of Continual Flight Auger (low vibration) piles to support bridge and structural crane assembly.
- 5. Completion of pile testing.
- 6. Install of temporary, cast in-situ, reinforced concrete crane platform over the CFA piles. Formwork with geotextile separation membrane to be provided and remain in-situ until concrete cured, to act as a barrier to the river.
- 7. Completion of bridge and structural crane assembly and transfer to lifting location.
- 8. Removal of the temporary platform by digging around the CFA piles and break down to c500mm below ground level and subsequent removal of temporary working platform in reverse order to installation. Removal works to utilise low vibration methods (e.g., the use rock

hammers will not be permitted) and will require the immediate loading and off-site removal

of fill (no temporary storage of removed materials will be permitted).

9. Restoration of original habitat(s).

In consideration of the expected lifting radius of the structural crane, a temporary working platform,

extending into the river channel, will be required to facilitate the single span lift of c90m and c100T.

This temporary working platform is expected to be designed and constructed in the region of:

Platform Area: 1000-1500m<sup>2</sup>

Perimeter Length: 100-150m

Average Depth: c2-3.5m

The Contractor's detailed installation sequence of the temporary working platform, extending into the

river channel, should give due consideration to the following:

1. Install of basal geotextile separation membrane and install rock armour sequentially from

upstream side to create access and working area of temporary platform. The geotextile

separation membrane will be required to provide segregation of the existing environment and

temporary environment and to act as a barrier to lateral sedimentation migration toward the

river.

2. In tandem with the installation of the geotextile separation membrane and rock armour, install

and compaction of fill, with intermittent geogrid reinforcement, working way out and along

bank in a downstream direction.

3. Continued install of rock armour to front face and backfill in tandem with temporary fill

material. This will include wrapping of the geotextile separation membrane up existing

riverbank margins and up the inner side of peripheral rock armour.

4. Completion of rock armour install on downstream edge (to protect the temporary platform

from washout during flood event).

5. Completion of site investigation to obtain CBR values on platform.

6. Install of Continual Flight Auger (low vibration) piles to support crane throughout the access

and working area of temporary platform.

7. Completion of pile testing.

8. Install of temporary, cast in-situ, reinforced concrete crane platform over piles. Formwork with

geotextile separation membrane to be provided and remain in-situ until concrete cured, to act

as a barrier to the river channel.

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9. Placement of structural crane into lifting location, ensuring minimum edge distance maintained between jacklegs and edge of platform.

10. Completion of bridge lift.

11. Removal of the temporary platform by digging around the CFA piles and break down to c500mm below bed level and subsequent removal of temporary working platform in reverse order to installation, i.e., downstream end first. Removal works to utilise low vibration methods (e.g., the use rock hammers will not be permitted) and will require the immediate loading and off-site removal of fill (no temporary storage of removed materials will be permitted). However, where appropriate, there should be due consideration to the re-use and permanent allocation of the rock armour and fill materials for construction of the proposed slipway.

12. Restoration of original habitat(s).

Temporary Platform Material Considerations

Type 1 stone below water level - mitigating fines dissipation into the watercourse by reducing the amount of fines available and by reducing the velocities (through the fill).

Potential use of rounded cobbles below water level - so that if any cobbles were "lost" they could provide benefit to salmon and other fish species in the river.

Traditional piling matt – to be provided over the clean stone.

A geotextile separation membrane - to be provided over clean stone and any finer fill (e.g., Type 1 <50mm), which will be compacted and tested in order to support the structural crane within the working area of the platform.

3.1.3 Changes to oCEMP

Section 1 Introduction

The introduction chapter has been revised to reinforce the commitment for the contractor to adhere to the contents of this the oCEMP, including all mitigation and environmental control requirements contained within. The revision also better defines the status of the oCEMP and its relationship with a Final CEMP.

Section 2 Site Description

The site description section has been updated to provide more background information.

Section 3 Description of the Proposed Development

The description of the proposed development has been amended to reflect the change in the location

of the main car park in Strabane.

The management of the Three Rivers Drainage previously passing through the access portion of the

site has been dealt with by Irish Water as part of their upgrading and expansion works to Lifford

WWTW and is therefore no longer part of the Riverine development. A new SuDs Drainage system will

be implemented for the site runoff. Drainage for a portion of the Lifford access road will be provided

by a conventional piped drainage system, discharging to a soakaway via an interceptor.

Section 4 Biodiversity

This section has been amended to include the full Invasive Species Management Plan as an appendix

to the oCEMP, as requested by DAU.

Section 5 Soils & Waters

This section has been updated to reflect the increase in the size of the buffer zone to watercourses

from 10m (original EIAr) to 15m (EIAr Addendum), as requested by DAU. The updated section also

implements the restricting of fuel storage and refuelling operations to the Construction Compounds.

Section 7 Vibration

This section has been updated to prohibit the use of vibrating rollers to compact soils, as an additional

measure to protect badgers and aquatic species during the groundworks.

Section 9 Archaeology

A new Section has been added to reflect the findings and outcomes of a recent programme of

underwater archaeological works. Additional Construction Phase involving construction phase text

excavations and construction phase archaeological monitoring measures, based on the identification

of log boat fragments on river banks within and around the site.

Section 10 Natura Impact Assessment

A section has been added discussing the updates and outcomes of the updated Natura Impact

Assessment, and also detailing the roles of the various Clerk of Works. This section also introduces

further definition of Buffer Zones, implementation measures for buffer zones, detailing the range of

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restrictions and mitigations which apply to buffer zones and providing a framework for managing any

necessary works within Buffer Zones.

**Section 11 Construction Specifics** 

This section has been updated to provide an itemised Indicative Works Programme and detailed

description of the construction phasing for the bridge works, to remove ambiguity in relation to the

details construction works. The updated CEMP has therefore been based on a more in-depth

knowledge of the details of the construction works.

**Additional Appendices** 

Appendix A: Schedule of Mitigation (Lifford and Strabane)

Appendix D: Invasive Species Assessment and Management Plan

Appendix F: Indicative Works Programme

Appendix G: Bridge Construction Works Phasing Drawings

**Updated Appendices** 

Appendix H: Pollution Incident Report Form – Revised Form Provided

4.0 SCREENING, SCOPING AND CONSULTATION

Following the receipt of the correspondence from the Board and DAU, a meeting was arranged with

DAU in order to better understand the requirements for a response.

This Addendum Screening, Scoping and Consultation Chapter summarises the outcomes of the

discussions with DAU. No other consultation was carried and the information relating to Screening,

Scoping and Consultation contained within the originally submitted Chapter therefore remains the

current and relevant assessment for the EIA.

4.1.1 **Department Applications Unit Consultation** 

In addition to a response from the Board, a response was also received from the Department of

Housing, Local Government and Heritage as co-ordinated by Development Applications Unit (DAU).

Following receipt of this correspondence, a consultation meeting was held on 31st Match 2022

between members of the Project team and DAU via Microsoft Teams, following confirmation from the

Board that written permission was not required for such a meeting.

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Minutes from this meeting are included as the table below, as requested by DAU.

# Summary of DAU Meeting 31st March 2022 | 14:00 to 15:00 | MS Teams

Agenda	Topic	Presentation Summary	Discussions and Outcomes
Point			
1	Introductions	Attendees:  McAdam Design  Clare Morris, Project Manager, ICT  MCL Consulting  David McLorinan, Project Manager, Environmental	Apologies: None
		Ryan Boyle, Lead Ecologist Emily Taylor, Ecologist Conor Findlay, Ecologist  DAU/EAU Emmett Johnston, Ecological Assessment Unit (EAU) NPWS, Department of Housing, Local Government and Heritage.	
		Donegal County Council Shane Sweeney, Project Manager, Client	
2	Current status of NI Application	McAdam Design advised DAU of the current planning situation with the Project re Strabane application design change in relation to main Riverine Scheme car park on Strabane side necessitated pausing of planning submission to allow for Environmental Statement and Planning Drawings to be modified.	DAU did not object to the EIAR Addendum and revised NIS being inclusive of wider updates implemented for Strabane due to the car park design change.

Agenda	Topic	Presentation Summary	Discussions and Outcomes
Point			
		Original application had not been validated at the point of the design change.	
		Design change resulted in the need to change various environmental assessments including Biodiversity (with appendices), Soils and Waters, Flood Risk Assessments and SuDS Designs, Landscape and Visual.	
		Application now duly made 15 <sup>th</sup> February 2022. MCL advised DAU that the outcome of design change is that the current ROI application was now out of kilter with current NI application since ROI application includes out of date details of site layout.	
		MCL advised DAU that the design change also resulted in alterations to SuDS drainage systems serving the site, which had to account for land conditions in the halting area (new location of car park). This effects the NIS which will have to be amended.	
		MCL advised DAU that within the Addendum EIAR all relevant sections of EIAR and NIS will be updated to bring the application in line with the revised	

Agenda Point	Topic	Presentation Summary	Discussions and Outcomes
		Strabane designs as well as dealing with the consultation responses and ABP response.	
3	An Bord Pleanála response to EIAR	MCL Advised DAU that ABP response to EIAR has expanded on the scope required by DAU in terms of content of NIS.	DAU confirmed they coordinate development applications that are referred to the DHLGH and do not represent ABP who are the decision-making authority in this instance. DHLGH are a statutory
		McAdam Design shared ABP response with DAU MCL asked DAU what, if any, input they have had to the ABP response.	consultee and ABP must be cognisant of their observations and concerns. Given that the application is live EAU/DAU are comfortable discussing relevant nature conservation matters
		Confirm to DAU that there are also areas of overlap, therefore it is important that the ABP response is also considered in these discussions to achieve agreement on the content of the revised NIS to satisfy both parties.	raised by ABP on the back of the DAU submission, so long as minutes were recorded and included in the submission to the Further Information request by ABP. EAU were happy to provide guidance in relation to content of addendum and revised NIS.
		MCL checked with DAU if they are happy to discuss relevant elements of ABP response relating to NIS either as part of discussions relating also to their response within this meeting.	Underwater archaeology beyond remit of representative from EAU/DAU in attendance and therefore cannot be commented directly on.
4	Whopper Swans/Lough Swilly SPA	MCL advised DAU that as part of the revised submission Whooper Swans with reference to Lough Swilly will be screened in at Stage 1 and assessed at Stage 2 within the NIS.	Consideration for the species presence needs to be shown due to their use of the site for seasonal and daily migrations. Roosting grounds were highlighted by DAU to the south of the site that are linked to European sites; Lough Swilly and Lough Foyle SPA's.

Agenda Point	Topic	Presentation Summary	Discussions and Outcomes
		MCL advised DAU that the original NIS screened in Whopper Swans wither respect to Lough Foyle but not with respect to Lough Swilly on the basis of distance.	Further consideration to potential impacts on this species must be considered within the screening process.  MCL Agreed to include extended assessment of WhooperSwans in NIS as directed by DAU.
5	Otters (Survey)	MCL advised DAU that current otter survey actually included assessment for otter activity on the river banks and margins, through the site and extending 300m north and south of the red line limit (current report states 30m).  MCL advised DAU that otter survey is currently being updated to include a search area of 1km on both sides of the river upstream and downstream of the red line site in order to extend the search to locate the holt.  MCL stated that we feel that this survey extent is reasonable but may not locate a holt.  MCL advised DAU that results of updated otter survey will be included in revised otter report irrespective of the findings.	DAU advised that reasoning to justify 1km extent of revised survey needs to be supported by peer reviewed or grey literature references.  DAU advised further consideration needs to be given to the otters (e.g. artificial lay ups included in slipway design) due to the recorded data from previous survey visits illustrating high levels of otter activity on site.  Should the holt not be located within the increased search area, that is considered acceptable to DAU so long as the survey methodology for surveys was appropriate and the 1km distance justified. The purpose of these surveys is to eliminate risk to core Otter breeding habitat.  DAU advised that current or baseline conditions (as referred to by ABP) appear to support a high level of otter activity and that this is relevant to the NIS assessment.

Agenda Point			Discussions and Outcomes
rome			MCL agreed to update otter report with survey justifications and new findings.
6	Otters (Mitigation)	MCL advised DAU that mitigation with respect to otters will be updated based on the results of the extended otter survey, including if necessary, consideration of timing of works.	DAU advised that mitigation needs to be better highlighted and further detailed to ensure that likely impacts will be reduced to negligible/non-significant levels.
		MCL advised DAU that revised NIS to include screening in assessment of temporary and permanent habitat loss with mitigation where possible and remedial recommendations to reinstate habitat.	DAU advised that more detail is required with regards to loss of habitat regarding the otters, particularly along the riverbanks at the slipway and bridge landing sites. Immediate short term and long-term habitat loss should be quantified, and mitigation implemented to reduce the impacts of
		MCL advised DAU likely permanent loss of habitat will involve bridge landing and jetty only.  MCL advised DAU likely temporary loss will involve crane and construction pads.	this where possible, to include wildlife solutions.  Mitigation including lay-up area, access pipework e.g. at slipway could be included.
		·	MCL agreed to update otter mitigation and habitat restoration.
7	Wording of NIS	MCL advised DAU that wording in the NIS will be strengthened to provide better clarity on outcomes	DAU advised that wording within the NIS, specifically with regards to mitigation and proposed methodologies is clarified with clear definitions

Agenda Point	Topic	Presentation Summary	Discussions and Outcomes
Point		of screening, assessment and effects of mitigation,	without ambiguity as far as practically possible.
		cumulative impacts and residual impacts.	Illustration of all potential outcomes to be discussed
			and considered with more committed approaches
			defined.
			DAU advised that language should be more decisive
			and committed, avoiding language which suggests
			uncertainty such as "may" and "possibly".
			MCL Agreed to update NIS with more robust wording
8	Construction Designs, oCEMP	McAdam Design advised that EIAR and NIS is based	DAU advised that further elaboration and detail
0	Construction Designs, occivii	on outline construction designs and sequencing	would be required on construction operations for
		produced by McAdam Design for a contractor led	various stages of the project e.g. constraints on
		construction process.	construction operation times throughout the year,
		construction process.	operating distances from the river. Further detail
		McAdam Design advised that a degree of flexibility	would be required for the various areas of the site
		must be built into these designs to enable a	and development stages. The detail should be
		contractor to adopt their own construction	sufficient to allow an assessment of the likely risks to
		management and phasing of works which must take	the QI for the European site.
		into account all of the restrictions and mitigation	
		measures within the EIAR.	DAU advised that more targeted and detailed
			mitigations are required for areas where
		MCL advised DAU that the mitigation within the EIAR	environmental risks are considered to be more
		and NIS is designed to be applicable to anticipated	significant.
		construction methodologies and phasing, without	
		having specific details on the construction and	DAU advised that ABP ecologists need certainty to
		phasing.	complete their appropriate assessment. There needs

Agenda Point	Topic	Presentation Summary	Discussions and Outcomes
Tome		On that basis MCL advised that the EIAR includes an oCEMP, rather than an inflexible CEMP tying the contractor to a particular construction method and sequencing arrangement, due to the nature of the construction contract.	to be as much certainty as possible with regards to construction methodology, specifically with regards to bridge construction and temporary construction and crane pads within the NIS. Whilst DAU appreciate that some implementation details would be up to the contractor, where there are a number of possible construction or sequencing options, these should all be considered with specific mitigation set for each if necessary.
			Broad agreement that whilst the fine detail of the construction methods and sequencing may not be known at this stage, mitigation should cover all anticipated construction and sequencing events in order to bring more certainty to the oCEMP and hence the NIS.
9	Invasive Species Management Plan and oCEMP	MCL advised DAU that a detailed summary of the invasive species management plan was included within the oCEMP.  It may the case that this has been missed by DAU.	DAU advised that the ISMP within the oCEMP should be more prominent so that it is not missed by readers.  DAU advised that AA and EIA are individual processes and cross-referencing EIAR documents within the NIS is generally discouraged and that the full ISMP should be included as an appendix to the NIS.
			MCL advised that some relevant assessments e.g. land contamination, flood risk are very bulky and it would not be practical to include all relevant

Agenda Point	Topic	Presentation Summary	Discussions and Outcomes
			environmental assessments as addendum to the NIS as they are already included as Appendices to the EIAR.
			Agreement that full ISMP is included as an addendum to the NIS but that it is not necessary to replicate all other relevant environmental assessments within the NIS if they are included within the EIAR, provided they are clearly referenced.
			DAU advised that the oCEMP should be comprehensive and cover all likely construction activities, sequencing and events. Consideration should be given to further timing restrictions for construction works avoiding periods of high rainfall (red & orange) to avoid periods when discharges were being made from the WWTW.  MCL advised that there were already considerable seasonal and other constraints for the construction works and that the compliance record for the WWTW did not seem to be weather related. Hence there would be no benefit to constraining developments to avoid periods when the WWTW may be discharging as an emergency measure.

Agenda	Topic Presentation Summary		Discussions and Outcomes	
Point				
			Broad agreement was reached to address baseline	
			conditions within the NIS as far as possible, based on	
			readily available information.	
10	Three Rivers Drainage	MCL advised DAU that detailed design for	DAU advised that if more than one option is being	
		management of the Three Rivers drainage is being	considered or included in the application each	
		undertaken by McAdam Design for inclusion within the application and EIAR.	should be assessed in the NIS and EIAR.	
			DAU advised that consideration should be given to	
		McAdam Design described 2 options being	cumulative effects and potential positive impacts	
		considered for the management of the Three Rivers	from the proposed works. Should be assessed and	
		Drainage: Option 1 comprising discharge to	screened accordingly as part of the baseline to	
		underground stratum via a soakaway within the	determine the long-term outcome impacts.	
		park, and Option 2 a discharge to the Roughan		
		Stream. Both options include the use of an	DAU advised proposed options appeared acceptable,	
		interceptor to treat the runoff waters prior to	with Option 1 preferable, due to the inclusion of	
		discharge.	SUDs based systems but will need further	
			assessment and screening in NIS.	
		MCL advised DAU that both design options being considered are considered an improvement to the		
		current discharge arrangements (involving direct		
		discharge of untreated discharge water to the Foyle		
		via a pipe).		
		MCL advised that NIS will be updated to include		
		consideration of measures to be implemented to		
		protect SAC from this discharge.		

Agenda	Topic	Presentation Summary	Discussions and Outcomes		
Point					
11	Underwater Archaeology NOT DISCUSSED		-		
12	ABP Discussions	MCL advised DAU of ABP requirement to screen into	<u>Unauthorised Gravel Extractions</u>		
		NIS assessment of baseline site conditions with	DAU advised that unauthorised extraction at		
		respect to various items listed by DAU.	Islandmore had ceased due to enforcement action		
		MCL advised of concerns over having to assess these	taken by Donegal County Council (further details to		
		matters within the NIS as not all details of each are	be sought from relevant Council section) and that		
		known or openly available and screening in may lead	some restoration was being agreed with the		
		to perceived 'gaps' in the assessment due to lack of	landowner.		
		available information / details.	DAU noted that otter activity appeared to be high		
			despite the current baseline.		
		MCL advised that some areas of the site will be			
		undefended from flooding. These will involve some	<u>WWTW Discharges</u>		
		elements of materials storage (oils, chemicals, salt	DAU expected that cessation of unauthorised		
		etc.) for maintenance (maintenance Depot) and to a	quarrying and upgrades to Lifford WWTW would		
		lesser extent Accommodation Works Stand. The risk	result in improvements to baseline water quality		
		of pollution has been mitigated as far as possible	metrics. Timing of implementation of works at		
		through storage management and minimisation, but	WWTW will be relevant to in combination		
		some residual pollution risk remains during a flood	assessment. Discharge limits are not set to protect		
		event. On the basis of circumstances, the pollution	the QI of the SAC.		
		risk is considered low due to dilution effects.			
			General, construction phase flooding etc		
			DAU advised that the assessment of current and		
			future post development baseline conditions is		
			relevant to the cumulative impact assessment.		

Agenda Point	Topic	Presentation Summary	Discussions and Outcomes
			The impacts of the development must be considered in combination with the baseline risks and pressures that contribute to current conditions.
			Any residual impacts from flooding events during construction and operational development phases should be considered and mitigated as far as possible, e.g. through tank bunding, safe materials storage etc. DAU appreciate that there is a degree of reasonableness in managing impact of the development during such extreme natural events.

# 5.0 CONSIDERATION OF ALTERNATIVES

## 5.1 **EIAR Addendum Information**

Below is a summary of the amendments to this Consideration of Alternatives Chapter as a result of the An Bord Pleanála Further Information request and the relocation of the Car Park in the Strabane site, following unsuccessful Land Owner Negotiations.

The Chapter 5 Appendix was in no way impacted by the amendments and has therefore not been included as part of this EIAR Amendment. Please refer to the originally submitted Appendix.

## 5.1.1 Changes to EIAR due to the Relocation of the Car Park in Strabane Site

#### **Amendments to Strabane Proposals**

Development of the eastern portion of the new Riverine Community Park (i.e., the area of the development falling within the Derry City & Strabane District Council area) and the creation of new community park infrastructure with multi-purpose community facilities and amenities. The development will include:

- a new area of open space;
- vehicle, cycle and pedestrian access; car parking area;
- amenity lighting; and,
- all ancillary development and site services; within the site extending to 6.7 hectares (reduced from the previously reported development area of 7.8 hectares).

In addition, the following Alternatives have been amended and/or included within the contents of this chapter;

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

- Assessment against the A5 Western Transport Corridor (A5WTC).
- Assessment against the proposed Strabane North Greenway.

Under 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":

No change.

Under Table 5-3, "Assessment of Specific Layout and Design Proposals following Statutory Consultation"

- Excavation of the existing halting site infrastructure (including concrete slabs and utilities) and the provision of car park infrastructure.
- Drainage Proposals to [Strabane] Car Park.

# Changes to EIAR due to ABP FI Request

In response to An Bord Pleanála's Further Information request and accompanying Submissions, the following Alternatives have been amended and/or included within the contents of this chapter;

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

No Change

Under 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":

No change

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

- Submission from PE Lusby, Islandmore River Foyle: Consideration of the existing bridge and embankment infrastructure to connect the Strabane and Lifford elements of the park across the River Foyle.
- Response to the DAU Submission, regarding the Natura Impact Assessment: Assessment of the
   Three Rivers Complex and Access Road Surface Water Requirements.

# **5.1.2Tables of Alternatives and Proposed Layout and Designs**

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

Reason for Change	Development	Planning Jurisdiction	Alternative Layout / Design Proposal <sup>2</sup>	Proposed Layout / Design	Commentary to Proposed Layout / Design	Residual Environmental Impact
Changed as a result of Strabane Car Park Relocation	Assessment against the A5 Western Transport Corridor (A5WTC)	Strabane	Proposal to locate the car park within land to the north of the proposed development boundary to reduce Riverine Community Park infrastructure within the A5 WTC Vesting Boundary. Excavation of existing halting site and seeding out of wildflower meadow to enhance visitor experience.	Proposal to locate Car Park within the existing halting site (located south-east of the Proposed Development) and within the A5 WTC Vesting Boundary (segregated vehicle:pedestrian:cycle access will be provided).	Whilst it was agreed that the location of the Car Park to the north of the proposed development boundary would have been the optimum solution, this land remains in private ownership and cannot be procured by the Council for integration into the proposed development (due to inability to come to mutually beneficial landowner agreements).	<ul> <li>Reduction in disturbance to Invasive Species</li> <li>Reduction in detrimental visual impacts to nearby domestic dwellings</li> <li>Reduction in noise impact to nearby domestic dwellings</li> <li>Reduction in land take for development such that agricultural lands are left undisturbed</li> <li>Reduction in extent of lighting required due to much shorter access road, reducing light spill impacts</li> <li>Reduction in tree felling requirement resulting in increased habitat retention</li> <li>Removal for the need of SuDS detention basin construction and cut</li> <li>Use of SuDS systems remains valid to manage runoff from car park via permeable hardstanding, source control water treatment and environmental water discharge via full retention interceptors to local watercourse</li> </ul>
Changed as a result of Strabane Car Park Relocation	Assessment against the proposed Strabane North Greenway	Strabane	Proposal to deliver a Riverine pedestrian:cycle route in addition to the Strabane North Greenway or alternatively, to integrate the construction of the Strabane North Greenway into the Riverine Proposed Development and Construction timeline.	Provision of the Strabane North Greenway separate to and, in advance of, the Riverine Proposed Development with provision of:  • a designated Riverine pedestrian:cycle access route, to/from the A5 Barnhill Roundabout to the Carpark  • a designated Riverine pedestrian:cycle access route, to/from the Strabane North Greenway to the Bridge, running east-west through the parkland,  • pedestrian only routes, running south-north through the parkland, segregated from the Strabane North Greenway  • access points within the proposed car park and from the pedestrian only routes, to connect the Strabane North Greenway to the proposed development.	Site constraints (i.e., encroachment into wetland areas) would not permit provision of a Riverine pedestrian:cycle route in addition to the Strabane North Greenway.  To maintain delivery of the Strabane North Greenway (under a separate funding agreement, delivery programme and governance structure), implementation of the Strabane North Greenway within the Riverine Proposed Development and Construction	<ul> <li>Reduction in alternative construction corridor and reduction in requirements for tree/limb felling resulting in increased habitat retention</li> <li>Reduction in alternative construction corridor and interface with invasive species.</li> <li>Reduction in alternative construction corridor and avoidance of wetland areas, reducing probability of contamination and disturbance of waterbodies.</li> <li>Reduction in extent of lighting required due to much shorter access road, reducing light spill impacts</li> <li>Reduction in the degree of required cut/fill and ground disturbance</li> </ul>

<sup>&</sup>lt;sup>2</sup> Alternatives as previously prepared stage D concept design (produced by MWA partnership) as part of the successful funding application to SEUPB

timeline was assessed as
unfeasible.
The combination of the
Strabane North Greenway and
Riverine pedestrian:cycle and
pedestrian only infrastructure
within the Riverine Park, will
provided enhanced visitor
experience to users.

# 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

Reason for Change	Proposal	Planning Jurisdiction	Commentary to Proposed Layout / Design	Residual Environmental Impact
No Change				

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

Reason for Change	Layout / Design Feature	Receiving	Alternative Layout / Design Proposal	Proposed Layout / Design	Rationalisation of Proposed Layout /	Residual Environmental Impact
		Environment			Design	
Changed as a result	Excavation of Halting	Strabane	To leave the existing halting site	Excavation of the existing halting site	The flood risk assessment simulated a	Removal of existing hardstanding
of Strabane Car Park	Site		infrastructure (including concrete slabs	infrastructure (including concrete	model version of the alternative to	surface, utilities and the provision of
Relocation			and utilities) in situ to avoid excavation	slabs and utilities) and the provision	represent the effect of adding a	improved carpark infrastructure
			works in environmentally sensitive	of car park infrastructure.	400mm clean cover layer to	incorporating SuDS. This included
			areas and reduce materials removed		contaminated land within the traveller	permeable hardstanding and the
			off site. This would include the		halting site.	provision of a separation membrane
			provision of 400mm imported topsoil			at the base of the drainage collection
			and sown out with a wildflower mix to		The modelled outcome was found to	layer under the car park to prevent
			create a locally raised wildflower		cause an offsite effect on Park Road.	downward leakage of runoff into the
			meadow.		The hydraulics were investigated and	underlying made ground soils and
					the effect was determined to be as a	shallow groundwater system
					result of the land raising pushing an	(hydraulically linked to SAC). Waters
					existing flow-path east which	within the drainage collection layer
					exacerbates existing flooding in that	are instead directed laterally through
					area.	two full retention interceptors
						(designed to control sediment and
					The land affected is a local road and	prevent release of oils) and
					agricultural land. Given the rigidity of	discharging to the local watercourse.
					the NI planning policy, there would be	

Reason for Change	Layout / Design Feature	Receiving	Alternative Layout / Design Proposal	Proposed Layout / Design	Rationalisation of Proposed Layout /	Residual Environmental Impact
		Environment			Design	
					a presumption against permitting any	The use of alternative, low vibration
					increased flood risk off-site that cannot	method for removal of hardstanding
					be mitigated. Given the effect is to a	not involving the use of rock hammers
					conveyance route rather than loss of	or similar percussive methods will
					flood storage, mitigation is unlikely be	ensure no residual vibration impact.
					technically viable to the point where	
					neutrality can be proven in a flood risk	
					assessment.	
					In addition, the halting site was	
					considered the only viable solution to	
					the location of the proposed carpark	
					site, following unsuccessful landowner	
					negotiations to secure the alterative	
					carpark location to the north of the	
					development site.	
Added as a result of	Drainage Proposals to	Strabane	Provision of Infiltration systems to	SuDS discharge to a neighbouring	The following design hierarchy was	The drainage adopts all viable SuDS
Strabane Car Park	Car Park		allow surface water runoff to infiltrate	watercourse - The Park Road Drain	used to assess the surface water	mechanisms taking into account
Relocation			and filter through to the sublayer layer	will provide means of discharge for	management solutions:	constraints of ground conditions
			before returning to the water table.	the Strabane site.	Infiltration	(contamination) and viable discharge
					Utilisation of an existing	pathways. The discharge of the SuDS
					watercourse	scheme drainage from the car park to
						the Park Road Drain via full retention
					Infiltration systems were considered	interceptors provides a high
					unsuitable for the reasons set out	performance system to protect local
					below:	water quality with negligible residual
						environmental impact.
					Infiltration tests undertaken at	
					proposed car park location indicate	The design will require a greater
					that infiltration is not suitable due to	degree of maintenance compared to a
					the low permeability. In addition, the	fully-fledged SuDs scheme, due to the
					presence of contamination within the	interceptors need to be maintained in

Reason for Change	Layout / Design Feature	Receiving	Alternative Layout / Design Proposal	Proposed Layout / Design	Rationalisation of Proposed Layout /	Residual Environmental Impact
		Environment			Design	
					underlying soils has been noted and no	the operational phase to sustain
					infiltration will be permitted where	performance, but this maintenance
					there is a risk of mobilising	would have been required in any case
					contaminates.	for a conventional piped drainage
						system, without the environmental
					However, where ground conditions are	benefits provided by the SuDS
					favourable for infiltration elsewhere	elements.
					within the wider Riverine Park site,	
					SuDS solutions have been proposed.	
Added in response	Consideration of the	Lifford and	Extract from Islandmore River Foyle, PE	A new pedestrian and cycle bridge	Ensuring inclusive access and mobility	Alternative bridge at Islandmore likely
to ABP FI	existing bridge and	Strabane	Lusby Submission: "The existing	which will be a transboundary	within and across the entirety of the	to have a range of residual impacts
(Islandmore River	embankment		infrastructure, Lifford bridge, flood and	structure, providing the iconic and	park, promoting safe and accessible	due to increased traffic journeys
Foyle, PE Lusby	infrastructure to		disused railway embankments linking	symbolic connection between the two	infrastructure to all park users, either	required to access such a bridge.
Submission)	connect the Strabane		Islandmore bridge and the existing	currently separated lands either side	wheeling, walking or cycling, across a	
	and Lifford elements of		Foyle bridge were not considered as an	of the border.	length of c130m rather than c1.5km (if	
	the park across the		alternative to the bridge portion of the		via Lifford Bridge) or c7km to c8.5km (if	
	River Foyle.		project".	The proposed bridge location is	via the Island More Bridge).	
				positioned to ensure best connection		
			Island More Alternative	between both sides of the Riverine	Utilising existing flood embankments to	
			Baseline description of the Island More	Park. The bridge design takes	facilitate elevated pedestrian:cycle	
			Bridge (co-ordinates 234820, 400788,	inspiration from the historic railway	routes across the park, to maximise the	
			NMS Registration Number 40907133):	by proposing a steel truss design.	visual and physical connection to the	
			This is the remains of an eight-span		River Foyle.	
			bridge carrying former Dundalk	The pedestrian and cycle bridge will		
			(Barrack Street) to Derry (Foyle Road)	have an overall length of	Recognising the site's existing railway	
			railway line over the River Foyle, built	approximately 115m. It will have two	heritage via the proposed steel truss	
			c. 1880, replacing fabric from an earlier	spans. The larger span will extend	design.	
			wooden bridge to site, built c. 1847.	across the river with a length of		
			Now out of use with the deck and	approximately 88m. The second span	Mitigating environmental impact by	
			parapets removed (railway closed in	will extend over land from the Lifford	minimising works to span the Foyle and	
			1965). Seven groups of three metal	riverbank to raised ground. The	its tributaries (e.g., removing the need	
			Doric columns (on circular-plan) having		to span the River Deele and	

Reason for Change	Layout / Design Feature	Receiving	Alternative Layout / Design Proposal	Proposed Layout / Design	Rationalisation of Proposed Layout /	Residual Environmental Impact
		Environment			Design	
			remains of metal cross-bracing	second span will have a length of	reinstatement works to the Historic	
			between. Located to the north of	27m.	Island More Bridge where in channel	
			Lifford, spans border with Northern		works may not be ruled out).	
			Ireland.			
					Ensuring dispersal of visitors	
			Baseline description of the		throughout the site, maximising	
			Pedestrian:cycle Routes between		opportunities to promote the project	
			Riverine (Strabane site and Lifford Site),		animation activities and visitor	
			via Island More, utilising the existing		experience, without diverting visitors	
			flood and discussed railway		onto existing footways along the A38,	
			embankments:		N15 or N14 highways, external to the	
					site.	
			Starting in Strabane, a northbound			
			route, c2km to 2.5km along the existing			
			embankments, would lead to the			
			historic Island More Bridge. The deck			
			and parapets of the bridge would			
			require reinstatement to allow crossing			
			onto Island More.			
			Once on Island More, a route of			
			c1.25km to 1.5km would continue			
			northwards, traversing Island More			
			before reaching an existing (in use)			
			bridge structure, spanning an			
			additional c100m across the River			
			Foyle, to lands near Lifford.			
			A southward journey of c3.75km to			
			4.5km would be required to reach the			
			proposed Riverine Park. In addition, the			
			southward journey from Island More to			

Reason for Change	Layout / Design Feature	Receiving	Alternative Layout / Design Proposal	Proposed Layout / Design	Rationalisation of Proposed Layout /	Residual Environmental Impact
		Environment			Design	
			the Riverine site would require a			
			crossing, c25m to c50m in length, over			
			the River Deele.			
			The total traversed length of this			
			alternative route, to connect the			
			Strabane and Lifford elements of the			
			Riverine Park, would be c7km to 8.5km.			
			(All distances are approximate in			
			consideration of unknown			
			landownership, site constraints and			
			required environmental mitigation			
			measures).			
			<u>Lifford Bridge Alternative</u>			
			Baseline description of the Lifford			
			Bridge: The Lifford Bridge links the A38			
			(Strabane) and the N15 (Sligo) / N14			
			(Letterkenny) road networks across the			
			River Foyle. For the most part, the A38			
			and N15 are single carriageway with central turning lanes, flanked by			
			footpaths either side with intermittent			
			vehicle access to a petrol station,			
			service provisions, industrial units and			
			agricultural lands. Along the A38, the			
			speed limit is 40mph and along the			
			N15, the speed limit is 50km/h.			
			1125) the speed limit is solding in			
			In addition, the proposed N14/N15 to			
			A5 Link Scheme involves the design of a			

Reason for Change	Layout / Design Feature	Receiving	Alternative Layout / Design Proposal	Proposed Layout / Design	Rationalisation of Proposed Layout /	Residual Environmental Impact
		Environment			Design	
			road linking the proposed A5 WTC in			
			Co. Tyrone, Northern Ireland to the			
			existing N15 in County Donegal. The			
			scheme connects to the A5 Western			
			Transport Corridor at Junction 7			
			southwest of Strabane. The scheme is			
			currently on hold and construction will			
			be progressed in parallel with the			
			construction of this section of the			
			A5WTC. This impacts of this scheme			
			have been considered within the wider			
			context of this EIA and specifically			
			within the Traffic Impact Assessment,			
			Chapter 12, Material Assets.			
			Baseline Description of			
			Pedestrian:Cycle Routes: The existing			
			Pedestrian: Cycle Routes between			
			Riverine (Strabane site and Lifford Site),			
			via Lifford Bridge are c1.5km in length,			
			along the existing A38 and N15 public			
			highway infrastructure, extending			
			along Bridge Street, Foyle View and			
			Station Road in Lifford. There are no			
			segregated cycle provisions. These			
			provisions may be subject to change			
			following the proposed N14/N15 to A5			
			Link Scheme.			
Added in Response	Assessment of the	Lifford	Three Rivers Complex Existing	The proposed solution is the	The following design hierarchy was	The access drainage element is a
to the DAU	Three Rivers Complex		Infrastructure & Baseline Scenario	installation of traditional drainage	used to assess the surface water	minor component of the Riverine
Submission,	and Access Road		It was previously reported that	infrastructure including uPVC	management solutions:	drainage, most of which has been
regarding the			reconfiguration of an existing storm	drainage pipes and petro-chemical	• Infiltration	managed through SuDS. Using

Reason for Change	Layout / Design Feature	Receiving	Alternative Layout / Design Proposal	Proposed Layout / Design	Rationalisation of Proposed Layout /	Residual Environmental Impact
		Environment			Design	
Natura Impact	Surface Water		drainage outlet from the Three Rivers	interceptor with discharge into a	Utilisation of an existing	traditional drainage system where no
Assessment	Requirements		Centre would be required to facilitate	cellular soakaway system at a	watercourse	alternative is available is acceptable
			the proposed riverside access road and	sufficient depth below ground level		environmentally, and implementing a
			that this proposed reconfiguration	(to achieve suitable falls and pipe	It is recognised that the use of a fully	SuDs soakaway protected by an
			would be agreed with the consenting	cover), located between the entrance	natural, soft green SuDS solution is the	interceptor for the access drainage
			authority at detailed design through	to the Riverine Community park and	optimum solution to surface water	provides adequate protection to
			the attachment of a planning condition.	the Irish Water Waste Water	management.	groundwaters and the River Foyle, so
			However, in response to An Bord	Treatment Works.		therefore presents as a negligible
			Pleanála's Further Information request,		However, in consideration of the	residual impact.
			following site surveys (manhole		existing ground profiles, both within	
			inspections and topographical surveys),		the Proposed Development's Red Line	
			consultations with the Three Rivers		Boundary and adjacent land in private	
			Maintenance team and the Irish Water		ownership, a fully natural solution	
			Project Team for the Wastewater		could not be facilitated, for the reasons	
			Treatment Works upgrade, it is		set out below:	
			assumed that the baseline scenario for			
			the Three Rivers Drainage is as such;		Proposed swales within the Riverine	
					Park could be used to clean, control	
			the majority of the Three Rivers		and discharge the access road surface	
			Complex surface water drains to the		waterrunoff. Howeverthe levels of	
			North of the Three Rivers Complex,		the existing road network considered	
			whilst a smaller proportion (assumed		against the proposed levels of the	
			c15-20%) drains to an existing		swales do not provide sufficient falls, or	
			soakaway point in proximity to the		depth of cover to any pipework	
			boundary of the Irish Water		provisions, to suitably transfer surface	
			Wastewater Treatment Works.		water runoff to the proposed swales.	
			There is no direct outlet from the Three		Installation of an additional swale along	
			Rivers Drainage to the River Foyle and		the side of the access road was	
			therefore no requirements to manage		considered, but again, the levels of the	
			surface water run-off from the Three		existing (and proposed) road network,	

Reason for Change	Layout / Design Feature	Receiving	Alternative Layout / Design Proposal	Proposed Layout / Design	Rationalisation of Proposed Layout /	Residual Environmental Impact
		Environment			Design	
			Rivers Complex within this proposed		did not achieve sufficient falls to drain	
			development.		to the additional swale.	
			Access Road Surface Water		To address the issues of levels,	
			<u>Requirements</u>		localised level changes were	
			For consideration in this EIAr, the		considered (to achieve the necessary	
			alternatives for the Lifford Access Road		falls and covers within the red line	
			proposed to the south of the Three		boundary and outside of private land	
			Rivers Complex, are as follows:		ownership). However, when the	
					required increases in levels were	
			Alternative 1: Permeable Surfacing		reviewed, it was apparent that these	
			connecting to the Proposed SuDS		would result in negative impacts on the	
			system within the Park:		wider flood storage area and	
			The access road drainage would be		consequently, the Flood Risk	
			incorporated into the soft green SuDS		Assessment.	
			solution within the Riverine Park in			
			order to naturally treat, attenuate and		An exercise to consider a "net-zero	
			dissipate surface water run-off from		change" to the wider flood storage	
			the proposed Access Road.		area was completed, i.e., where	
					localised levels were increased,	
			Alternative 2: Installation of		compensatory level reductions,	
			traditional drainage infrastructure and		through the installation of swales	
			discharge to the Roughan Stream		would be provided in proximity to	
			i.e., the provision of uPVC drainage		these increased levels. However, the	
			pipes, interceptor and attenuation		required volume of level reductions (to	
			system. Due to the ground levels of the		balance the level increases), could not	
			existing road network and the levels of		be accommodated due to site	
			the existing sheugh, this would result in		constraints (including existing	
			the provision of a very shallow pipe		infrastructure and available land area).	
			network system in terms of pipe		As such, a net-zero increase in	
			gradients and cover.		proposed ground levels could not be	
					achieved.	

Reason for Change	Layout / Design Feature	Receiving	Alternative Layout / Design Proposal	Proposed Layout / Design	Rationalisation of Proposed Layout /	Residual Environmental Impact
		Environment			Design	
					The introduction of a permeable	
					surface solution was also considered to	
					mitigate risk of reduction to flood	
					storage area and associated impact on	
					the Flood Risk Assessment; a	
					permeable surface material with a sub-	
					base of drainage stone of suitable void	
					space to provide compensatory flood	
					storage area.	
					However, given the underlying, low	
					permeability ground conditions, this	
					solution still required the transfer of	
					surface water flow (through falls in the	
					permeable make-up) to an infiltration /	
					soakaway system.	
					Again, in order to achieve the	
					necessary falls within the proposed	
					permeable surface make-up, the	
					solution was found to still require	
					increase in levels to the existing road	
					network retained in private ownership	
					and outside of the red line boundary	
					and therefore this option was	
					discounted.	

6.0 POLICY

No amendments have been required of this Chapter and the originally submitted Need for

Development Chapter therefore remains the current and relevant Chapter for the EIAR.

7.0 POPULATION AND HUMAN HEALTH

The correspondence received from both the Board and DAU contains no specific request of any

additional information relating to Population and Human Health. The correspondence received by P.E.

Lusby contains one point relating to Human Health in the form of a request for the EIAR to consider

the impact of Brucella Abortus/Brucellosis. A response to this has been provided in Section 1.1 of this

document.

The relocation of the car park on the Strabane side has had no material change to the impacts on

Population and Human Health. The relocation of the car resulted in an improved outcome for Noise

and Air Impacts, as summarised in Chapter 8 Air and Climate, and Chapter 9 Noise and Vibration.

The originally submitted Chapter for Population and Human is therefore still the current and relevant

Chapter for assessment.

8.0 BIODIVERSITY

Following a recent consultation response from ABP and DAU the Biodiversity Chapter of this EIAR has

been amended to better highlight the potential impacts and mitigation suggestions for the

construction phase and the operational phase independently as requested. All other comments and

requested amendments have been made and can be found within each independent Appendices for

this Chapter.

9.0 LANDS, SOILS AND WATERS

Below is a summary of the amendments to this Soils & Waters Chapter as a result of the An Bord

Pleanála Further Information request and National Parks and Wildlife Service, Development

Applications Unit's (DAU) Submission.

Hydrology (Section 9.6.10)

Executive Summary of Amendments to EIAR Riverine Community Park

MCL Consulting

Consultations with Irish Water indicate that the infrastructure improvements involve the expansion and upgrading of the Lifford WWTW, involving primary and secondary treatment of sewage effluent to achieve a high standard of effluent in accordance with the Urban Wastewater Treatment Directive is provided to achieve the following discharge standards:

Parameter	Standard
Biological Oxygen Demand	25 mg/l
Suspended Solids	25 mg/l
COD	125 mg/l
рН	6 - 9
Orthophosphate	5 mg/l P
Total Ammonia	10 mg/l N

The newly constructed wastewater treatment plant has capacity for a population equivalent of 3000 PE with a design horizon of 2040, which allows for future domestic, institutional and commercial growth within the agglomeration. The WWTP at Lifford is programmed for completion of commissioning and process proving by the end of June 2022. At this stage the WWTP will be achieving the discharge standards and therefore this can be considered as a baseline condition with respect to the Riverine development.

The upgraded facility will include a system to manage most regularly-occurring flood events. Flows in excess of Full Flow To Treatment (55.4m³/hr or 2.7xDWF) are diverted to a Stormwater Holding Tank at the head of the WWTP. In the stormwater holding tank the wastewater will just entail settlement. On exceedance of the stormwater storage capacity the excess inflow will overflow to the River Foyle via the outfall. The stormwater holding tank is designed for 2hours at Formula A (i.e. 210m³).

The majority of the Three Rivers Complex surface water drains to the North of the Three Rivers Complex, whilst a smaller proportion (assumed c15-20%) drains to an existing soakaway point in proximity to the boundary of the Irish Water Wastewater Treatment Works. There is no direct outlet from the Three Rivers Drainage to the River Foyle and therefore no requirements to manage surface water run-off from the Three Rivers Complex within this proposed development.

#### Hydrogeomorphology (Section 9.6.11)

Consideration has been given to potential for significant morphological change affecting the hydrology and flood characteristics of the Foyle river system in the vicinity of the site. Morphological characteristics have been established by investigation of a morphological timeline established by

reference to the Ordnance Survey Northern Ireland (OSNI) historic map series available via the Public Records Office (PRONI) portal, and Ordnance Survey Ireland (OSI) map series via the OSI Geohive.

Mapping has been reviewed between Clady approximately 6km to the south (upstream) of Lifford, and the north of Islandmore approximately 6m north (downstream of Strabane across a time series from 1832 – 1846 to 1957 and present-day contemporary mapping.

A visual timeline of morphological change across the reach of interest is shown on the Site Specific Flood Risk Assessment (**Appendix 9-1**) – refer to SSFRA Section 3.5.

The key points of note derived from the analysis are as follows:

- There is evidence of significant morphological change (movement of sandbanks / bars) upstream of Lifford Bridge at the confluence of the Rivers Mourne and Finn.
- There is evidence of significant morphological change (movement of sandbanks, riverbank mobility) downstream of the site at the Islandmore bifurcation, and a general trend showing a reduction in exposed sand/gravel banks at and downstream of the Riverine site.
- The channel location, width and form immediately adjacent to the Riverine site appears to be generally static.

# **Impact Assessment**

#### Baseline Conditions (Section 9.8.2)

A solution for the Three Rivers Complex runoff drainage has been implemented by Irish Water as part of their upgrades to the Lifford WWTW. All runoff captured from this adjoining complex now discharges to the underlying soils via a series of soakaways, with no direct discharge to the River Foyle and no interaction with the Riverine drainage. This impact therefore needs to be considered only as a baseline condition within the EIAr. The discharges are unlikely to cause any discernible influence on the quality of surface waters or groundwater within the Riverine site and the overall environmental impact of the discharges is considered **negligible impact**.

Upgrade works to the Lifford WWTW, due to be operational by June 2022, will result in significant improvements to environmental performance in relation to compliance, quality of discharge waters to the River Foyle and flood impact resilience is provided by an overcapacity effluent storage tank. The overall environmental impact of the effluent discharge from the Lifford WWTW discharges in the baseline condition is therefore considered to pose a **negligible impact**.

Unauthorised quarrying activities at Islandmore, some 1.4km north and downstream of the site have been ceased through enforcement action taken by regulators. Unauthorised quarrying in the baseline condition is therefore considered to pose a **negligible impact**.

#### Management of Surface Runoff Waters (Section 9.8.2)

The development applies the use of SuDS processes and structures to manage most site runoff in an environmentally sound manner with respect encouraging infiltration, and managing surface water discharge flows and quality. Ground elevation constraints in the vicinity of the Lifford access road meant utilising more traditional piped drainage and interceptor treatment to manage some of the road runoff in the western corner of the Lifford site. However, this system adopts a SuDs infiltration soakaway to dissipate the treated runoff the underlying soils, creating a sustainable solution for drainage management. The proposal therefore poses no **negligible impact**.

#### Site Infrastructure (Section 9.8.2)

Whilst the Hub Building is proposed to be evaluated out of the flood plain, the spectator stand and the maintenance compound are not proposed to be defended. In the event of a major flood, large portions of the wider urban and rural environment, including numerous associated pollution sources, will be affected by flooding. The river systems will be in full spate during such an event providing massive degrees of dilution potential. Whilst cumulative effects of the numerous off-site pollution sources may be discernible, any possible pollution risk arising from the small scale storage of chemicals and oils at the maintenance compound and spectator stand during a flood event would be immeasurably small in the wider environs. Therefore, the risk of pollution arising from the site during a flood event would be considered a **negligible impact** 

#### Mitigation Measures - Definition and Details of Buffer Zones (Section 9.9.1)

Increased buffer zone size throughout for local watercourses from 10m (previous EIAr) to 15m (EIAT Addendum).

Two forms of environmental protection buffer zone, are proposed, as follows: -

- 15m Buffer to all watercourses / areas of standing water.
- 100m Bufferto RiverFoyle SAC.

These are required to be established during the construction works to provide a safeguard against routinely carrying out high pollution-risk activities close to high risk pollution pathways linked to the SAC. The high risk pollution pathways have been identified through the EIA process as being local waterways / streams connected to the SAC, and overland flow of rainfall dependent runoff. Both of these pathways could potentially rapidly transfer contaminants from construction lands directly into the SAC.

Providing a pathway buffer, within which construction activities are severely restricted, between the source and the receptor provides a range of safeguards such as:-

- Allowing greater attenuation potential for dissipation / breakdown or capture of pollutants in the event of an un-noticed spillage.
- Allowing a period of time to react to a pollution event to clean it up or contain it before it reaches the receptor.
- Providing space within which additional pathway controls can be put in place where necessary, e.g. lined cut off trench or sump.
- Preventing direct release of contaminants to water.
- Allowing a zone for airbourne dust generated from construction works etc to settle out of the atmosphere.

## **Defining the Extent of a Buffer Zone (Section 9.9.1)**

It is important for proper adherence to the Site Rules with respect to implementing the buffer zone mitigation, that trained site managers, construction workers and environmental monitoring staff should be able to easily recognise the limits of buffer zones whilst on site, and therefore the limits of all 15m buffer zones must be clearly defined by marker tape and/or posts. Silt fencing must also be placed around the entire perimeter of each buffer zone (including the SAC buffer zone) at the 15m limit to prevent water-laden sediment flowing toward watercourses.

Where appropriate, these boundary markers can also be used to restrict access to the buffer zones.

Each buffer zone should be assigned a reference number which should be displayed at the buffer boundary limit for easily identification of which buffer works are being completed near or within. This will assist in record keeping and incident reporting.

#### Defining Activity Restrictions within Buffer Zones (Section 9.9.1)

It is important to properly define what construction activities are prohibited within buffer zones and what activities can be carried out on a routine basis within buffer zones. The buffer zones seek to limit construction activities, not to preclude activities altogether.

The following activities shall be routinely banned from being carried out within buffer zones: -

- Oil storage, oil drums / cans and refuelling activities.
- Chemical storage (including road salt).
- Vehicle servicing / mechanical repairs.
- Vehicle / machinery parking, Lay-up or washing down.
- Concrete Mixing, washing out.
- Storing of stockpiles of soil, clay, cement, vegetation or any wastes.
- Placement of welfare units.
- Vehicle movements, unless these cannot be avoided by using an alternative route.
- Ground disturbance, excavations, vegetation stripping, application of chemicals\*
  - \* Unless being carried out as part by trained personnel as part of the implementation of the Invasive species management system

#### Activities within Buffer Zones Subject to Additional Controls and Authorisation (Section 9.9.1)

Given that the development is riverine in nature, it is recognised that there will be a range of construction works required to be undertaken in close proximity to some watercourses (within the buffer zones) to implement the new park infrastructure. These would include:-

- Excavations and piling works to install bridge abutments.
- Works (ground strip, piling, concreting, breaking out) to construct and deconstruct a temporary working platform on the river bank (Lifford).
- In-river construction and de-construction of Crane Pad (rock armour, geotextiles, granular fill emplacement) and installation of bridge by crane.
- Widening and realignment works to existing riverside embankments and former railway embankments, laying of bitmac surfacing.
- Infilling of watercourse channel and re-routing of watercourse (Roughan Stream, Lifford).
- Earthworks around wetlands and watercourses, including (Strabane) removal of hardstanding, installation of SuDS system and interceptors, laying of new car park surfacing.
- Excavation and removal of invasive plant species.
- Ancillary works such as lighting installations, vegetation cutting back, landscape planting, installation of fences and gates.

For all activities with buffer zones, the following mitigation measures will apply:

- Where possible silt fencing shall be installed between the activity and any downslope watercourse at the maximum achievable buffer zone distance, or at an appropriate break in slope or natural containment feature if present.
- Where installation of silt fending is not feasible, Installation of shallow (0.2m deep)
  elongate cut-off trench downslope of the activity to catch sediment etc and prevent it
  reaching the watercourse. Reinstatement thereafter.
- Silt traps must be deployed in any minor watercourses immediately downstream of the
  works and inspected on a daily basis with any captured debris / silt removed to the waste
  storage area at the construction compound. The silt traps must be removed following
  completion of works within the buffer zone.
- Plant nappy style drip trays shall be deployed around all portable oil-containing equipment. These must be inspected on a daily basis and renewed as necessary with all contaminated materials removed from the site with 24 hours.
- Double skinned fuel/oil bowsers only to be used. Bowsers to be locked at all times during
  transport, with access to the fuel controlled by the site manager. Bowsers shall be
  brought into to the buffer zone as and when required for refuelling of static plant only
  (cranes and piling rigs) and removed immediately to the construction compound
  thereafter. No fuel/oil bowsers shall be stored within the buffer zone.
- It is permissible to undertake emergency repairs and essential maintenance of static plant, whilst positioned in the buffer zone, provided all appropriate oil spill prevention and clean-up measures are in place, including deployment of plant nappies under any works and spill kits are available at close quarters within the buffer zone.
- Non-putrescible wastes to be stored in covered skips or covered bins which must be removed to the construction compound for emptying on a twice weekly basis. No putrescible wastes permitted in buffer zones.
- The following activities are not permitted within Buffer Zones:-
  - Chemical storage (including road salt).
  - Vehicle servicing / mechanical repairs (apart from undertaking emergency repairs to static plant – cranes and piling rigs).

- Vehicle / machinery parking, Lay-up or washing down.
- Concrete Mixing, washing out.
- Storing of stockpiles of soil, clay, cement, vegetation or any wastes.
- Placement of welfare units.
- All works within buffer zones must be approved in advance by the site manager.

All buffer zones shall be inspected in a daily basis by the Environmental Clerk of works and records kept of these inspections. The inspection must include assessment of the conditions of mitigation measures such as condition and status of silt traps, general site conditions, any evidence of increased pollution risk or spillages, with any significant findings reported immediately to the site manager for appropriate remedial actions to be undertaken if necessary.

# 10.0 AIR AND CLIMATE

# 10.1 **EIAR Addendum Information**

The correspondence received from the Board, DAU and P.E. Lusby contains no specific request for any additional information relating to Air and Climate. Therefore, the only additional information relating to Air and Climate provided within this Chapter is to provide an update to the layout on the Strabane side of the Project, required due to a change in location of the Strabane car park.

Overall, the change in location of the car park has not had a material change on the Air and Climate impacts of the Project. By relocating the car park from the north east corner of the Strabane site, to the south of the site, the distance from the nearest receptor to the Project boundary has increased, therefore resulting in an improvement (less impact) in Air impact. Climate impact remains unchanged.

This is shown through an amendment to Table 10-6 as shown below.

Table 10-6: Sensitive Receptor Location assessed in DMRB Screening Model

Receptor Reference &		Distance to Project boundary	Grid Ref	erence
Location				
R1	16 Park	~390m north-east of proposed car parking area in	234361	398784
	Road,	SW corner of the proposed Riverine Community		
	Strabane	Park (Strabane)		
R2	31 Park	~490m north-east of proposed car parking area in	234467	398866
	Road,	SW corner of the proposed Riverine Community		
	Strabane	Park (Strabane)		
R3	1 Canal	185m west of proposed car parking area in SW	234302	398307
	Side,	corner of the proposed Riverine Community Park		
	Strabane	(Strabane)		
R4	Station	135m south-west of proposed entrance to the	233615	398471
	Road,	proposed Riverine Community Park (Lifford)		
	Lifford			
R5	The	165m west of proposed entrance to the proposed	233569	398510
	Diamond,	Riverine Community Park (Lifford)		
	Lifford			
R6	The	165m west of site boundary of the proposed	233483	398738
	Roughan,	Riverine Community Park (Lifford)		
	Lifford			
R7	The	20m north-west of boundary of the hare coursing	233562	398932
	Roughan,	grounds within the proposed Riverine Community		
	Lifford	Park (Lifford)		

At the original car park location, the nearest receptor was R1, at a distance of 10m. Now, with the car park relocated, the nearest receptor is R3, at an increased distance of 185m.

Furthermore, the revised car location has resulted in a minor change to the number of parking spaces provide on the Strabane side. There will now be 135 parking spaces provided on the Strabane side. The number of spaces provided on the Lifford side (76) remains unchanged.

# 11.0 NOISE AND VIBRATION

## 11.1 EIAR Addendum Information

The correspondence received from the Board, DAU and P.E. Lusby contains no specific request for any additional information relating to Noise and Vibration. Therefore, the only additional information relating to Noise and Vibration provided within this Chapter is to provide an update based on the revised layout on the Strabane side of the Project, required due to a change in location of the Strabane car park.

Overall, the change in location of the car park has not had a material change on the Noise and Vibration impacts of the Project. By relocating the car park from the north east corner of the Strabane site, to the south of the site, the distance from the nearest receptor to the Project boundary has increased, therefore resulting in an improvement (less impact) in Noise and Vibration impacts.

This is shown through an amendment to Table 11-7 as shown below.

Table 11-7: Sensitive Receptor Location assessed in DMRB Screening Model

Receptor Reference & Location		Distance to Development boundary	Grid Reference	
R1	16 Park Road, Strabane	~390m north-east of proposed car parking area in SW corner of the proposed Riverine Community Park (Strabane)	234361	398784
R2	31 Park Road, Strabane	~490m north-east of proposed car parking area in SW corner of the proposed Riverine Community Park (Strabane	234467	398866
R3	1 Canal Side, Strabane	~185m west of proposed car parking area in SW corner of the proposed Riverine Community Park (Strabane)	234302	398307
R4	Station Road, Lifford	~135m south-west of proposed entrance to the proposed Riverine Community Park (Lifford)	233615	398471

Receptor Reference & Location		Distance to Development boundary	Grid Reference	
R5	The Diamond, Lifford	~165m west of proposed entrance to the proposed Riverine Community Park (Lifford)	233569	398510
R6	The Roughan, Lifford	~165m west of site boundary of the proposed Riverine Community Park (Lifford)	233483	398738
R7	The Roughan, Lifford	~25m north-west of boundary of the hare coursing grounds within the proposed Riverine Community Park (Lifford)	233562	398932

At the original car park location, the nearest receptor was R1, at a distance of 10m. Now, with the car park relocated, the nearest receptor is R3, at an increased distance of 185m. This results in a lower worst-case predicted noise level at both R1 and R2.

In the case of R1, the worst case predicted noise level associated with car park construction works (With 30T Excavator, & 40T Dumper Truck) reduced from 64 to 41 dB(A) and from 65 to 43dB(A) for car park construction works (With Asphalt Spreader & Vibratory Roller).

In the case of R2, the worst case predicted noise level associated with car park construction works (With 30T Excavator, & 40T Dumper Truck) reduced from 51 to 39 dB(A) and from 53 to 41dB(A) for car park construction works (With Asphalt Spreader & Vibratory Roller).

Furthermore, the revised car location has resulted in a minor change to the number of parking spaces provide on the Strabane side. There will now be 135 parking spaces provided on the Strabane side. The number of spaces provided on the Lifford side (76) remains unchanged.

## 12.0 MATERIALS ASSETS

# 12.1 EIAR Addendum Information

The key amendments made in the Material Assets Chapter can be found within Appendix 12-1 Traffic Statement. The amendments made within the Traffic Statement can be found in a summary at the

front of that document. These amendments have been driven by Point 6 of the Board's correspondence as summarised in Chapter 1 of this Addendum EIAR.

## 13.0 CULTURAL HERITAGE

## 13.1 EIAR Addendum Information

Below is a summary of the amendments to the Cultural Heritage Chapter as a result of the An Bord Pleanála Further Information request and National Parks and Wildlife Service, Development Applications Unit's (DAU) Submission and consideration for a Underwater Archaeological Impact Assessment.

#### **13.1.1** Description of Development

The proposed project is described in detail in **Chapter 3**, but will include a cross-border community park, comprising complementary facilities located on the Lifford and Strabane banks of the River Foyle and linked by a pedestrian and cycle bridge. The Riverine Community Park is proposed as an iconic cross border Community Park within Lifford (County Donegal), Republic of Ireland (ROI) and Strabane (County Tyrone), Northern Ireland currently, divided by the River Foyle.

The proposed development at Lifford will include the construction of a community resource building, compound area, multi-function outdoor space, play areas, walkways and cycleways, carparking, internal roads and paths and ancillary development works. There will also be works on the foreshore, including the construction of a 5m wide cast *in situ* concrete slipway, with adjoining steps of natural stone paving and the provision of a reinforced grass path to a new timber fishing pod.

At Strabane, the proposed development will include open space, carparking, vehicle, cycle and pedestrian access and ancillary development works.

A pedestrian and cycle bridge over the River Foyle will connect the sites at Lifford and Strabane. The bridge will be a steel truss design with an overall length of 115m. (Refer to **Chapter 3** for further details).

#### 13.1.2 Underwater Archaeological Impact Assessment

An Underwater Archaeological Impact Assessment (UAIA) was undertaken by ADCO in April 2022 under licences 22R0081 and 22D0020. A full UAIA was not available at the time of writing, however a

Memorandum produced at the conclusion of the surveys provided information on the findings. The survey focussed on an 800m long section of intertidal foreshore and riverbank, including the location of the proposed slipway and pedestrian and cycle bridge at Lifford and a 600m long section of intertidal foreshore and riverbank, including the location of the proposed pedestrian and cycle bridge abutment at Strabane. Please refer to the Underwater Archaeological Impact Assessment Memorandum for further details.

A metal detection survey was carried out at the impact locations at Lifford, as well as at sample locations, including the Strabane side of the channel. Ferrous and non-ferrous fragments were identified, mostly consisting of modern debris and nineteenth-century material. Nothing of archaeological significance was identified.

Two fragments of logboats were identified on the foreshore, having been washed downstream during recent flooding. A preliminary assessment and recoding of the finds was undertaken on site and their locations were logged by differential GPS. One of the finds (Find no. 22D0020:001) was discovered 9m south of the works area for the bridge structure at Lifford. The second find (Find no. 22D0020:002) was identified 58m upstream of the works area for the proposed bridge. No archaeological finds are reported as having been found within the works areas for the proposed bridge (including the temporary crane pad) or slipway.

Due to the logboat fragments being loose on the surface of the foreshore and therefore prone to being washed away during flooding, they were relocated to a suitable sub-tidal location outside of the works area for the bridge. The logboat fragments were partially re-buried to ensure that they are kept in anaerobic conditions to aid in their preservation. The location of the re-burial site has been communicated to National Monuments Service and the National Museum of Ireland. Given their relocation upstream, the logboat fragments will not be impacted by the proposed bridge or slipway construction, however, further measures to ensure their preservation have been recommended in the UAIA.

The logboat fragments were not in situ finds, having been washed downstream during recent flooding events. Chance finds of logboats on the foreshore that have been washed downstream during flooding events is not uncommon along this stretch of the River Foyle. Two logboats were discovered on the Strabane foreshore in March 2022. These were examined by Dr Niall Gregory, who determined that

these were medieval in date and that this brought the number of recorded logboats in this area to 15 (McBride BBC News NI, 27/03/2022).

The UAIA notes that there are no direct or indirect impacts on known archaeology as a result of the proposed development. However, it notes that the proposed works have a moderate-high potential to directly impact previously unrecorded archaeology. The UAIA considers the impacts to be moderate and permanent in duration.

# 13.1.3 Construction Phase – Direct Impacts (River Foyle)

Works on the foreshore will include:

- construction of a cast concrete slipway measuring approximately 40m length and 5m in width,
  which will extending approximately 15m across the intertidal foreshore and into the subtidal
  zone. The slipway will have adjoining steps (natural stone paving) and a reinforced grass path
  to a new timber fishing pod.
- construction of abutments for a 115m long pedestrian and cycle bridge over the River Foyle, and;
- the establishment of footpath and associated landscaping along the riverbank.

In addition, a temporary crane pad, extending into the river channel, is required to be constructed to support the crane that will be used to lift the bridge into place. (Refer to Chapter 3 for further details). An Underwater Archaeological Impact Assessment (UAIA) was undertaken by ADCO to determine the impact these works may have on cultural heritage features. No designated cultural heritage sites are recorded within these areas. Survey works for the UAIA resulted in the identification of two logboat fragments within the survey area at Lifford. These fragments had been washed downs tream during recent flooding events and were identified outside the areas associated with the construction of the bridge abutments and slipway. The logboat fragments were relocated to a suitable sub-tidal location outside of the works area for the bridge. Given their re-location upstream, the logboat fragments will not be impacted by the proposed bridge or slipway construction. No archaeological finds are reported to have been found within the areas surveyed for the UAIA (see UAIA Memorandum for further details).

The UAIA notes that there are no direct impacts on known archaeology as a result of the proposed development. However, it notes that the proposed works have a moderate-high potential to directly

impact previously unrecorded archaeology. The UAIA considers the impacts to be moderate and permanent in duration.

The construction of the bridge will require deep foundations for the abutments and therefore substantial ground reduction works on either side of the river. Ground reduction works to enable the foreshore and riverbank construction (bridge abutments, slipway, etc.) has the potential to uncover and impact on previously unrecorded archaeological material. A programme of archaeological mitigation will be put in place during these works to ameliorate the potential negative impact on such archaeological material.

#### 13.1.4 Construction Phase - Indirect Impacts (River Foyle)

The UAIA notes that there are no indirect impacts on known archaeology as a result of the proposed development. It is not envisaged that the works at this location will not result in any indirect impacts during Construction Phase.

#### 13.1.5 Construction Phase – Mitigation (River Foyle)

No in-channel works are proposed, therefore no mitigation measures are deemed necessary.

The UAIA Memorandum provides a suite of recommended mitigation measures for the intertidal/riverbank areas. This includes, pre-construction archaeological recording of the two logboat fragments, archaeological testing of the works areas associated with the bridge abutment and slipway at Lifford and archaeological monitoring of associated areas of the bankside/riverbed and intermediate bridge pier (refer to UAIA Memorandum for details).

Archaeological testing at the location of the bridge abutments and slipway would take place at the edge of a major river, subject to tidal movements. The testing shall take place at the beginning of the construction phase, when a main contractor has been appointed, due to the following concerns and environmental issues:

- Health & safety
- Risks to contamination of the river from run-off and silts
- Inundation of test trenches and associated difficulty with recording potential archaeological finds.

For these reasons, archaeological works close to the riverbank will be done at the commencement of construction, with a contractor on site with the capability to deal with such issue and risks. Adequate

time and resources will be allocated to these works to ensure a full archaeological assessment is undertaken.

Archaeological mitigation in this portion of the proposed development shall be part of an overall archaeological mitigation strategy for the wider development and should be presented in an archaeological impact assessment report.

As logboat fragments have been deposited within this stretch of the River Foyle following previous flooding events, there is potential for similar occurrences prior to and during construction of the proposed development. To identify the existence of such finds, it is proposed that the foreshore area is inspected by a qualified maritime archaeologist immediately prior to and periodically during the construction programme (particularly following heavy flooding events). Any finds shall be reported to the National Monuments Service and the National Museum of Ireland, including a description of the find, its location and condition. If necessary and only in consultation with the National Monuments Service and the National Museum of Ireland, logboat fragments may require careful removal to ensure their preservation.

#### 13.1.6 Monitoring

A programme of archaeological work is proposed during the early stages of construction to assess impacts on potential subsurface archaeology. A suitably qualified archaeologist will be on site during these works. An archaeologist/built heritage specialist/conservation specialist shall be employed to visit and record the condition of any built heritage features within the development site (with particular regard to the extant recorded industrial heritage within the Strabane portion of the works) during and after Construction Phase. A short report on the condition of the built heritage will be compiled and either form an appendix of the archaeological report (for the archaeological programme) or a separate report to be issued to DfC:HED. An archaeologist shall be retained throughout the construction phase of the project to provide advice.

# 14.0 LANDSCAPE AND VISUAL

## 14.1 **EIAR Addendum Information**

Below is a summary of the amendments to this Landscape and Visual Impact Chapter as a result of the An Bord Pleanála Further Information request and the relocation of the Car Park in the Strabane site, following unsuccessful Land Owner Negotiations.

#### 14.1.1 Changes to EIAR due to Relocation of the Car Park on Strabane Side

#### **Strabane Potential Impacts**

The car park, accommodating approximately 136 car spaces including spaces for people with mobility difficulties, along with 2 bus spaces, will be located in the former halt site and accessed via the roundabout connecting Lifford Road, Barnhill Road, Railway Street and Bradley Way. The project will remodel existing tracks, contours and gradients, minimising the extent of cut and fill. The wetland will be conserved, developing and retaining existing vegetation where appropriate and supplementing with indigenous species enhancing this existing and currently underused environmental asset.

## 14.1.2 Changes to EIAR due to ABP FI Request

Summary description of the likely significant effects of the project on the environment during construction;

The most significant effects of construction works on the landscape character will be on the Lifford side, which will house the majority of built development. This will change from approximately 14 acres (5.6 hectares) of largely managed grassland to a construction site. The construction works on the Strabane side comprise the bridge landing, car park, paths and boardwalk along with planting and will be less intrusive as the majority of the site of approximately 14 acres (5.6 hectares) will be retained. The extent of the impact on the landscape will be mainly limited to within the site area due to its enclosed nature with mature boundaries of woodland and field boundary vegetation. Existing vegetation will be largely retained and protected where possible. Inevitably there will be some delays and disturbance from construction vehicle traffic, particularly on Station Road. There is some degree of separation and distance between residents and the site so significant impact is unlikely. Pedestrians will have some visibility of the works from those areas of the site that are more apparent during construction, especially the river banks.

Summary description of the likely significant effects of the project on the environment during operation;

Once operational the Lifford side of the site will become a designed park with recreational indoor and outdoor facilities and spaces. The buildings occupy a small parcel of land, adjacent to existing recreational facilities. The bridge is sited on the curve of the river and is not dominant, integrating into the landscape, when viewed from outside of the park. From within the park, it will be a feature encouraging communities to share the play areas, community hub and events as well as giving greater access to the river and walking routes through woodland and wetland habitats. Existing tree and hedge planting along with proposed new planting will contain and enclose the proposed park. The landscape and visual impact of the development on the Strabane side, glimpsed in the main from the Lifford side of site will be positive as the undeveloped woodland and wetland will be managed and enhanced with further planting and management techniques. There will be increased traffic, particularly on the Lifford side.

# Description of mitigation measures proposed to avoid, prevent, reduce or offset any identified significant adverse effect identified;

Construction is estimated to last between 9 to 12 months. Good construction management practice will be adhered to, informed by the relevant Construction Management Plans. The building works are largely contained within the site and enclosed by the existing dense, mature woodland strips and vegetative boundaries. Any removal of vegetation will be compensated for by extensive new tree, shrub and wildflower grassland planting. The pedestrian bridge connects the two towns physically and symbolically and is designed as a single span structure to mitigate against potential negative impact to the river/riverbank and associated habitat. Its visual association and reference to history and the heritage of the area will reinforce a sense of place. Hard surfaces have been kept to a minimum with asphalt confined to the entrance/egress road, parking and main pathways. A Sedum roof or similar is proposed to the building structure for aesthetic and energy efficiency. Existing tracks, contours and gradients will be used for new path networks to minimise site impact and the carbon footprint. The park is accessible by foot from Lifford and Strabane but there is also ample car parking space. The proposals will introduce an attractive recreational amenity for all ages with safe public access to the river and enhance this currently underused environmental asset.

# Schedule of Mitigation Measures

Environmental	Potential Impacts	Mitigation Measures	Phase –
Topic	(without Mitigation)		Operational / Construction
Landscape and Visual	Lifford: Change in nature of the landscape character from largely managed grassland to construction site.	<ul> <li>This will be for a limited time span, estimated at 9 to 12 months.</li> <li>The size and scale of the proposed works are small and localised when set in the context of the surrounding environment.</li> <li>Good construction management practice will be adhered to informed by Construction Management Plans.</li> <li>The building works are largely contained within the site and the dense, mature woodland strips and vegetative boundaries to the west will be retained and screen the works.</li> <li>Existing tracks, contours and gradients will be used for new path networks to minimise site impact and the carbon footprint.</li> <li>Reuse of earth material for landform rather than removal from site.</li> </ul>	Construction
	Strabane: construction of the bridge landing, paths and boardwalk.	The construction works are largely contained within the site and screened by the existing mature boundary trees and planting, particularly to the south of the site and by the mature trees lining Barnhill Road.	Construction
	Strabane: Entrance/egress and car parking located on existing halting site	The existing access road from the roundabout to the halting site is to be repurposed and resurfaced and is screened by retained naturalised vegetation.	Construction
	Strabane: Removal of vegetation to accommodate pedestrian paths including the Strabane North Greenway.	Existing vegetation is to be largely retained and protected where possible. Any removal will be compensated for by extensive new tree, shrub and wildflower planting to enhance existing habitats, create new ones and increase biodiversity. Existing tracks, contours and gradients will be used for new path networks to minimise site impact and the carbon footprint.	Construction

Environmental Topic	Potential Impacts (without	Mitigation Measures	Phase – Operational /
	Mitigation)		Construction
	Strabane: Management of the landscape, increasing access to more diverse habitats and improved biodiversity.	Landscape impact will be positive. Glimpses of the site from Lifford Road bridge and the Lifford side of the site will be positive.	Operation
	Lifford: Change in nature of the landscape character to designed park with recreational indoor and outdoor facilities.	<ul> <li>The buildings occupy a small parcel of land, adjacent to existing recreational facilities: the cinema and community centre.</li> <li>Existing tree, hedgerow and shrub planting contains and encloses the proposed park:</li> <li>Narrow strip of woodland along western boundary to be retained along with dense, mature trees and planting retained to the west of the site adjacent to the Community Centre and in the proposed car parking area and entrance to the site.</li> <li>New boundary hedgerow planting to the north of the Lifford site.</li> <li>New native and specimen trees planting to the north and in the central areas.</li> <li>New shrub planting to the north east area around the Senior Play Area.</li> <li>Greater access to riverside.</li> </ul>	Operation
	New pedestrian bridge across River Foyle	Single span structure reduces the negative impact to river/riverbank. Construction Management Plans to minimise disturbance, with focussed, managed lighting to minimise light pollution in area.	Construction
	New pedestrian bridge across River Foyle	The pedestrian bridge has little visibility from the south west on Lifford Bridge due to the curve of the River Foyle. Further screening is provided by existing woodland north of the site and along Barnhill Road. Single span structure to reduce potential negative impact to landscape and visual amenity. Visual association and reference to history and heritage of the area reinforces a sense of place and will be a feature linking communities.	Operation
	Removal of vegetation including trees from	Planting protection will be managed through BS5837:2012 to minimise loss and/or damage during construction.	Construction and Operation

Environmental Topic	Potential Impacts (without	Mitigation Measures	Phase – Operational /
	Mitigation) Lifford/Strabane side.	Existing areas of native planting will be increased and supplemented to improve biodiversity. Reference will be taken from the National Biodiversity Action Plan (NI) and the Biodiversity Species List for County Donegal (ROI). Replacement planting will	Construction
	Strabane: Disturbance of wetland habitat during construction.	be of a reasonable specification for immediate visual impact and amenity.  An elevated boardwalk and timber guarding will minimise disruption to existing habitats, planting and wildlife.  Proposed development will include conservation of the wetland areas with proactive biodiversity and environmental training programmes to encourage its	Construction and operation
	Introduction of vehicular roads and pedestrian and cycle paths.	enhancement and protection.  Hard surfaces have been kept to a minimum and confined to the asphalt entrance/egress road and parking, and main pathways. Secondary paths will use either reinforced grass or bound local aggregate. Irish Limestone paving will be used around the Hub building. Accessibility will be a key consideration and design focus for all areas to be accessible for all and limit stepped and ramped access where possible.	Construction and Operation

# 15.0 CUMULATIVE IMPACTS, INTERACTIONS & MAJOR ACCIDENTS AND DISASTERS

# 15.1 **EIAR Addendum Information**

Below is a summary of the amendments to this Cumulative Impacts and Interactions & Major Accidents and Disasters Chapter as a result of the relocation of the Car Park in the Strabane site, following unsuccessful Land Owner Negotiations.

# 15.1.1 Changes to EIAR due to the Relocation of the Car Park in Strabane Site

The below is amended text provided under Section 15.3.2 of this Chapter relating to cumulative impacts involving the A5 Western Transport Corridor and the Strabane North Greenway.

### A5 Western Transport Corridor

The A5 Western Transport Corridor (A5 WTC) is a Northern Ireland Executive led scheme which will provide 85 kilometres of dual carriageway from south of Londonderry at New Buildings to the border at Aughnacloy. It will improve links between the urban centres in the west of the province (Strabane, Newtownstewart, Omagh, Ballygawley and Aughnacloy) and provide a strategic link with international gateways.

Originally, the car park on the Strabane side of the Project was proposed to be located within land to the northeast of the Project in order to reduce Riverine Community Park infrastructure within the planned A5 WTC Vesting Boundary. Excavation of the former halting site, situated to the south of Strabane side was to be carried out (concrete and sub-base removed) and the lands restored with imported soils and seeded out as a wildflower meadow.

However, the proposed car park on the Strabane side was then relocated to within the former halting site and therefore within the A5 WTC Vesting Boundary. Whilst it was agreed that the location of the car park to the northeast of the Project would have been the optimum solution, this land remains under private ownership and cannot be procured by the Council for integration in the Project. The original agricultural lands proposed for the car park will not now be developed in any way.

On 07/10/2021 the Client Team (DCC and DCSDC) and Riverine Project Team attended a meeting with DfI WTC A5 project team. During this meeting, DCSDC advised that the lands proposed as the northem carpark could not be acquired and that the carpark of the Riverine Development would be relocated to the halting site. DfI WTC A5 advised that a realignment to the A5 proposals were being considered following recent consultations; details of the realignment were not available at the meeting and remain unavailable (as of Dec 2021) when requested by the Riverine Project Team in advance of resubmission.

It was agreed that connectivity to the Riverine Development and the community should be maintained during and post A5 development. High level discussions, including alternative and/or potential carpark locations (either temporarily or permanently) were briefly discussed. However, no commitment was made due in part to the extent of the A5 realignment not being known.

Agreement on future infrastructure or interface issues, between the A5 and Riverine will be developed once identified following further design evolution of the A5 realignment. It has been agreed that during the Riverine development, regular working groups between the projects will be maintained to inform

of progress and discuss shared project matters. With these regular working groups in place, it is anticipated that any potential cumulative impacts between the projects can be avoided/ mitigated against.

#### Strabane Northern Greenway

As well as the North West Greenway project, a section of DCSDC's, Strabane North Greenway, being developed separately by DCSDC, extends through the Riverine Proposed Development's Red Line Boundary. It is anticipated that the Strabane North Greenway will be constructed in advance of the Riverine Community Park Development, through Permitted Development.

There has been ongoing dialogue between the Riverine Project Team and DCSDC (as members of the Active & Sustainable Travel Forum, delivering the North West Greenway Action Plan) to ensure that the connections between the Riverine Community Park and the Strabane North Greenway are coordinated. This includes a consistent approach to surface and edging proposals for pedestrian:cyde routes as well as ensuring that a permanent physical connection is provided to Strabane town centre and the wider greenway proposals.

This approach ties into the Derry City & Strabane District Council's Green Infrastructure Framework. It has been agreed between the Riverine Project Team and DCSDC that the Riverine Proposed Development will provide external lighting to the Strabane North Greenway, in accordance with the "External Lighting Proposals", as detailed in Chapter 3.

Due to the close working relationship between the Riverine Project Team and the Greenway team, it is not anticipated that there will be any cumulative impacts between the projects.