APPENDIX 8-2

Habitat Regulations Assessment Stage 2

Riverine Community Park Lifford-Strabane

Client: McAdam Design

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1.0 INTRODUCTION

In March 2021 MCL Consulting Ltd were appointed by McAdam Design on behalf of their client to undertake a shadow Habitat Regulations Assessments (sHRA) stage 2 for the proposed development of the new Riverine Community Park. This report looks at the potential of the development to negatively impact on Natura 2000 sites. Certain contents within this stage 2 assessment fall under the stage 3 contents due to the inclusion of proposed mitigation suggested following species-specific surveys.

Article 6 (3&4) of the Habitats Directive states that a HRA must be undertaken for all implicated plans and projects to determine and assess the nature and significance of all impacts which may arise on the integrity of the Natura 2000 network of sites.

1.1 Site Description

The development location exits across the Northern Ireland and Republic of Ireland border. The red line boundary extends across the River Foyle encompassing lands on both the Lifford (ROI) and Strabane (NI) sides.

The **Lifford** site is situated to lands to the west of Station Road in the Town of Lifford, County Donegal, (IGR 233882, 398765). The Lifford area comprises of semi-improved grassland, improved grassland, hedgerows, treelines, and mixed wooded areas. The improved grassland areas are mainly composed of playing pitches and greyhound racing fields. Further west/south-west lies Lifford town: a heavily urbanised area.

The **Strabane** site is situated at Barnhill Road, in the north western area of Strabane, County Tyrone, BT82 0AN (IGR 234119, 398597). Old railway lines ran through the site but are no longer visible/present, embankments are still present. This site includes Wet willow alder ash woodland, artificial ponds, hedgerows, treelines, agricultural fields and reed and large sedge swamps. To the east of the site exists pasture fields with field drains and hedgerows, further southeast lies Strabane Town.

Figure 1: Site location

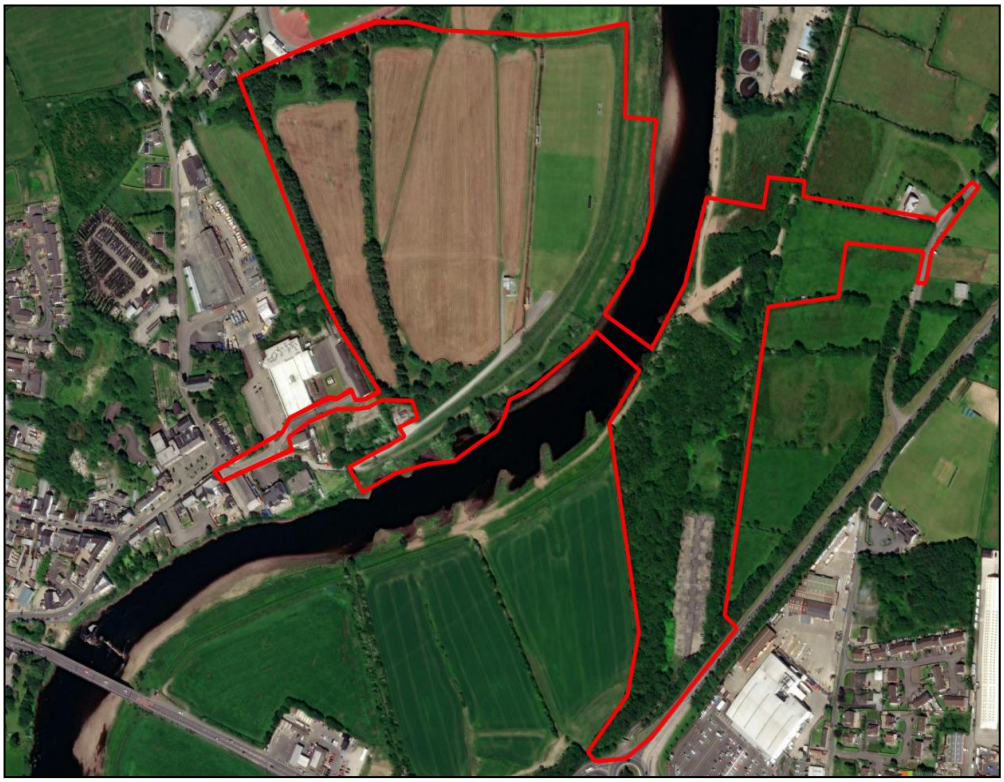

Figure 2: Existing Google Aerial

1.2 Proposed Development

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

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

The project will comprise the creation of new community park infrastructure by utilising agricultural land (Lifford) and former railway land and wetlands (Strabane) lying along either side of the border connected through the creation of a new pedestrian and cycle bridge between Lifford and Strabane. The bridge will be a single span (the central in river piering having been previously discounted through initial consultation with loughs agency), with landing points on either side of the riverbanks. The Park on the Lifford site will be a designed landscape incorporating indoor and outdoor recreational features, smaller meeting & events spaces for programmed activity, complemented by the use of the naturalised flood plain environment on the Strabane site for informal recreation and environmental education/conservation activities. This diversity of offering makes for a more inclusive and freeing sharing experience.

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

- Building providing indoor space for use on a shared basis for activities including music, drama, multi-media activities.

- Outdoor flexible multi-functional space to accommodate a range of outdoor programmed & non-programmed activities both small & large scale. The space will

have a maximum capacity of c.3,000 persons & will be dual facing for small or large events.

- A new bridge connection that spans both sides of the River Foyle forming a strong, symbolic statement in terms of the unifying theme of bringing together all of the communities who will use the project.

- Wetland and park space to encourage participants to enjoy & learn key environmental assets of the area.

- River based recreational facilities for the increasing number of water sports groups in Lifford & Strabane.

- Family Space incorporating unique play experience, designed to support children focused events & related programming.

- Associated car parking at the former halting site, accessed from the roundabout at the Barnhill Road, Strabane.

2.0 HRA OVERVIEW

This report describes the scope of the shadow Habitats Regulation Assessment (sHRA) and, based on the development proposals, the report identifies all relevant designations within a 15km radius of the proposed site.

The HRA is carried out by the decision maker as the competent authority under the Habitats Regulations. The developer is required to submit enough scientific evidence to enable the authority to complete the HRA and this evidence is submitted in the form of a 'report to inform' or 'shadow' HRA.

Habitats Directive Article 6 assessments are required under the Habitats Directive (92/43/EEC) where a plan or project may give rise to significant effects upon a Natura 2000 site (N2K). Natura 2000 sites are those identified as sites of community importance designated under the Habitats Directive (Special Areas of Conservation, hereafter referred to as SACs) or the Birds Directive (Special Protection Areas, hereafter referred to as SPAs).

For the purpose of this assessment, Ramsar sites are also included as Northern Ireland policy affords them the same protection as Natura 2000 sites. It should also be noted that the phrase 'Appropriate Assessment' is sometimes used more loosely to refer to the whole process set out under Articles 6(3) and 6(4) of the Habitats Directive (Dodd et al., 2008). For the purposes of this assessment, the term 'Habitats Assessment' or the term HRA ("Habitats Regulations Assessment") will be used.

Article 6 of the Habitats Directive sets out provisions which govern the conservation and management of Natura 2000 sites. Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1).

Article 6(3) establishes the requirement for Appropriate Assessment:

"Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives.

In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public".

A Habitats Assessment has a narrow focus i.e. the maintenance of the integrity for any given N2K site, and the assessment of the significance of the effects on the designated interest features (qualifying features) along with the conservation objectives of the site. It is a protection led assessment and should be carried out by adopting the precautionary principle.

The assessment of ecological impacts on Natura 2000 sites is conducted utilising a standard source-receptor-pathway model where, for an impact to be established all three elements of this mechanism must be accounted for. The absence or removal of one of the elements is adequate to conclude that any potential impact is insignificant and/or not relevant to the

assessment. A hazard does not automatically lead to a harmful outcome, but identification of a hazard does mean that there is a possibility of harm occurring, with the actual harm depending upon the exposure to the hazard and the characteristics of the receptor, the source-receptor-pathway model is applied.

2.1 Habitat Assessment

Article 6 (3) of the Habitats Directive sets out the first step in the decision-making process for Habitat Assessment. This article assesses;

- whether the plan or project is connected with the conservation management of the N2K site; and
- whether the plan or project, either alone or in combination with other plans or projects, is likely to have an impact on the conservation value of the N2K site.

If the plan or project is considered to have a potential impact on the N2K site, then it must go through an appropriate assessment, which will consider the potential implications for the N2K site in view of the site's conservation objectives.

Considering the conclusions of the appropriate assessment for the site, the competent authority shall agree to the plan or project only after ascertaining that it will not adversely affect the integrity of the site concerned.

When assessing the potential impacts of the plan or project, the precautionary principle is followed – if it is not possible to rule out a risk of harm on the evidence available, then it must be assumed that the risk still exists and needs to be dealt with through the assessment process. This could be through changes to the plan, through options avoidance or through mitigation.

There may be cases where the assessment indicates a potential impact which cannot be avoided, designed out or mitigated. In such cases, an assessment must be made as to whether there are imperative reasons for overriding public interest (IROPI), which would allow the plan or programme to go ahead. This is covered in Article 6 (4) of the Habitats

Directive – only where there is a positive assessment of IROPI, can the plan/programme progress.

The Habitats Directive recommends a hierarchy of;

- **avoidance/protection** – the plan should aim to avoid any negative impacts by identifying the impacts early and designing the plan to avoid them.
- **mitigation** – should be applied if necessary, during the appropriate assessment stage to the point that no adverse impacts remain. Should it not be possible to fully mitigate all impacts, then the plan may only proceed where there is IROPI.
- **compensatory measures** – should be applied only where the plan has passed the IROPI test.

The assessment can be broken down into 4 main stages:

Stage 1 (Screening) – this stage identifies:

- If the plan or programme is directly connected with, or necessary to the management of N2K sites.
- The potential impact of the plan upon any N2K site, either alone or in combination with other plans or programmes and assesses those impacts.
- All European sites in and around the plan area, and the conservation objectives of those sites which may, potentially, be affected by the plan.

<u>Outcomes from Stage 1 –</u>

- ➢ No significant effects likely; therefore, no further assessment required or
- ➢ Significant effects likely or uncertain; therefore, commence Stage 2.

Stage 2 (appropriate assessment) – this stage considers:

- The method and scope of the assessment.
- The potential impact on any N2K site which may be affected by the plan, either alone or in combination with other plans or programmes.

<u>Outcomes from Stage 2 –</u>

- ➢ No N2K site will be integrally affected by the plan; therefore, no further assessment is required or

- It cannot be certain that there will be no effect from the plan (precautionary principle); therefore, commence Stage 3.

Stage 3 (mitigation) – this stage considers:

- Whether any possible adverse effects on the integrity of the N2K site can be avoided by changes to the plan; e.g. by mitigation which would negate the impact.

Outcomes from Stage 3 –

- The integrity of the N2K site will not be adversely affected; therefore, no further action required or
- There is uncertainty about the potential impact of the plan on a N2K site; therefore alternatives, and potential plan redrafting is required or
- There are no alternatives to the plan proposals, and impacts have been identified; therefore, commence stage 4.

Stage 4 (IROPI) – this stage establishes:

- That there is an over-riding public interest in the plan proceeding even though there may be a significant effect on a N2K site.
- Compensatory measures for the potential impact.

Outcomes from Stage 4 –

- Permission to proceed with the plan, including agreement on suitable compensatory measures.

Stages 3 and 4 are unlikely to be relevant as in the current case, as they deal with the procedure for further assessment which must be followed in cases where, despite a negative assessment, a plan or project must be progressed for reasons of overriding public interest. Most plans and projects are either consented or rejected as a result of the outcomes of Stages 1 or 2.

The following information outlines the dominant potential pathways, along with potential impacts that can affect local Natura 2000 designated sites.

- Disturbance: Physical, noise, lighting, invasive species etc.

- Noise during construction and operational activities could have adverse impacts on sensitive species.
- Increased human activity close to sensitive habitats and species may cause disturbance that could impact negatively on these features and lead to displacement of sensitive species from certain locations.
- The spread of invasive species may have acute or chronic impacts on sensitive species.

- Alterations to the hydrological cycle including water borne pollutants
  - Chemical contaminants such as transport fuels, clean and waste reaching aquatic environment during construction and operation of development.
  - Surface runoff from surfaces or release from construction works and operational activities can increase nutrient composition of wastewater thereby affecting aquatic systems.

- Aerial pollution
  - Emission of gases.
  - Production of dust.

- Land contamination
  - Waste arising/spilling of chemicals through development/maintenance could cause contamination of land which could cause harmful impacts directly or indirectly on habitats or species.

2.2 Identified sites for stage 2 AA

European sites, also referred to as Natura 2000 (N2K) sites, consist of the following:

- **Special Areas of Conservation (SACs)** – sites designated for flora, fauna and habitats of Community interest under the EU Habitats Directive.

- **Special Protection Areas (SPAs)** – sites designated for rare, vulnerable or migratory birds under the EU Birds Directive.

- Further screening took place to include sites hydrologically linked to those directly impacted by the proposed scheme.

- Further screening too place upon consultation with NIEA to include site's listed as having harbour and grey seals as features up to 180km from proposed site location.

Within Ireland, it is government policy to extend the requirements for potential impacts on sites, to those sites which are yet to be fully declared as N2K sites, namely candidate SACs and potential SPAs. This consideration of impact also covers any proposed additions or extensions to the existing N2K sites.

NI policy also affords Ramsar sites the same protection as N2K sites, which are wetland sites of global importance, listed under the Convention on Wetlands of International Importance. Whilst most Ramsar sites overlap with N2K sites, some have distinct boundary differences. In line with government policy, this sHRA will treat Ramsar sites in the same way that it considers N2K sites. In terms of the requirement for assessment; it is also normal practice to assess the additional features of underlying ASSI designations.

For the purposes of this assessment, N2K will be used to cover all the above sites listed under European designated sites.

2.3 Identified Designations

The results for all identified designations are presented and are summarised in Table 1 below. In addition, a descriptive summary for each site has been paraphrased from the NIEA and NPWS designated sites websites

Table 1: Designations within 15km

Designation	Name	Distance	Summary of Features	Site zone of influence
SAC	River Finn	Within, on the Lifford side.	- Atlantic Salmon *Salmor salar* - Otter *Lutra lutra* - Oligotrophic wates containing very few minerals of sandy plains *Littorelletailia uniflorae* - Northern Atlantic wet heath with *Erica tetralix* - Blanket bogs - Transition mires and quaking bogs	Designation overlaps with site's redline boundary.
SAC	River Foyle and Tributaries	Within, on the Strabane side.	- Atlantic Salmon - Water courses of plain to montane levels with the *Ranunculus fluitans* and *Callitricho-Batrachion* vegetation - Otter	Designation overlaps with site's redline boundary.

Table 2: Additional Designations Screened

Designation	Name	Distance	Summary of Features	Site zone of influence
RAMSAR, SPA & ASSI	Lough Foyle	25.7km	- Wetland complex including intertidal sand and mudflats with extensive seagrass beds, saltmarsh, estuaries and associated brackish ditches - A wetland, which plays a substantial hydrological, biological and ecological system role in the natural functioning of a major river basin which is located in a trans-border position. - Notable fish species: Allis Shad *Alosa alosam,* Twaite Shad *A.fallax fallax,* Smelt *Osmerus eperlanus* and Sea Lamprey *Petromyzon marinus* and Atlantic salmon - Internationally important populations of water fowl	No spatial overlap, no direct land-take. Possible hydrological connection, however, due to setback distance and benign nature of development, negligible pathway predicted.
SAC	Donegal Bay (Murvagh) Bay	46km	-The site includes the estuary of the River Eske, which flows through Donegal town, and the estuary of the River Erne which flows through Ballyshannon. Much of the shoreline is rocky or stony, with well-developed littoral reefs in places. There are also extensive stretches of sandy beach, especially from the Murvagh peninsula southwards to Rossowlagh and at the outer part of the Erne estuary. Shingle or cobble beaches are also represented. There are extensive areas of intertidal flats associated with the Eske Estuary, reflecting the very sheltered conditions in this part of the bay.	No spatial overlap, no direct land-take. Negligible pathway to affect features due to setback distance.

Designation	Name	Distance	Summary of Features	Site zone of influence
			These have been shown to be biotope rich. Elsewhere a narrow fringe of intertidal flats are exposed at low tides. Salt marshes are found in the sheltered conditions of the innermost part of the bay. A number of small, grassy, islands occur in the innermost part of the bay. The shallow bay waters overlie mostly sandy substrates though reefs occur in places. -Wetlands -Great Northern Diver -Light-bellied Brent Goose -Common Scooter -Sanderling	
SAC	The Maidens	107km	- Reed - Sandbanks which are slightly covered by sweater all the time - Grey seal - Common Seal - Harbour porpoise	No spatial overlap, no direct land-take. Negligible pathway to affect features due to setback distance.
SPA	Lough Swilly	16.6km	- Great Crested Grebe Podiceps - Grey Heron - Whooper Swan Cygnus - Greylag Goose - Shelduck - Wigeon - Teal - Mallard - Shoveler - Scaup - Goldeneye - Red-breasted Merganser - Coot - Oystercatcher - Knot - Dunlin - Curlew - Redshank - Greenshank - Black-headed Gull - Common Gull - Sandwich Tern - Common Tern - Greenland White-fronted goose - Wetlands & Waterbirds	No spatial overlap, no direct land-take. Negligible pathway to affect features due to setback distance and lack of hydrological links.

3.0 CONSERVATION OBJECTIVES

This section provides the background information of the Natura 2000 sites which have been screened to require assessment and the underlying reasoning behind this.

The Riverine Project involves development works that partially overlap with the **River Finn SAC** and **River Foyle and Tributaries SAC** boundaries. The site is also hydrologically linked to the **Lough Foyle SPA (on both border sides) and RAMSAR**. Therefore, due to these works within the above designations boundaries a screening process has been applied to this project. Further consultation held between the previous project ecologist and NIEA also highlighted the need for screening regarding sites where harbour and grey seals were an identified feature. Therefore, assessment range was increased to 180km from the proposed site to also include **The Maidens SAC and Donegal Bay SPA**.

3.1 Designated Sites

River Finn SAC (002301)

Distance: Within the sites redline boundary

Descriptive summary:

This site comprises almost the entire freshwater element of the River Finn and its tributaries the Corlacky, the Reelan sub-catchment, the Sruhamboy, Elatagh, Cummirk and Glashagh, and also includes Lough Finn, where the river rises. The spawning grounds at the headwaters of the Mourne and Derg Rivers, Loughs Derg and Belshade and the tidal stretch of the Foyle north of Lifford to the border are also part of the site. The Finn and Reelan, rising in the Bluestack Mountains, drain a catchment area of 195 square miles. All of the site is in Co. Donegal. The underlying geology is Dalradian Schists and Gneiss for the most part though quartzites and Carboniferous Limestones are present in the vicinity of Castlefinn. The hills around Lough Finn are also on quartzite. The mountains of Owendoo and Cloghervaddy are of granite felsite and other intrusive rocks rich in silica. There are many towns along the river but not within the site, including Lifford, Castlefinn, Stranolar and Ballybofey.

Qualifying features

Table 3: Qualifying features of River Finn SAC

Feature Types	Natura 2000 codes	Count and Season
Habitat	3110	Oligotrophic Water containing very few minerals
Habitat	4010	Wet Heath
Habitat	7130	Blanket Bogs (Active)
Habitat	7140	Transition Mires
Species	1106	Atlantic Salmon *Salmo salar*
Species	1355	Otter *Lutra lutra*

As the Proposed Scheme is not located on the main river body of the River Finn habitat features identified for this site are not suspected to be impacted by the proposed Riverine Scheme as the River Finn flows into the River Foyle where the site is located. However, there is potential for impact to Atlantic salmon and otter.

Table 4: 1106 – Atlantic Salmon – *Salmo salar*

Identified attributes and targets identified by NPWS in order to maintain the favourable conservation of Atlantic salmon in the River Finn

Attribute	Measure	Target	Notes
Distribution: extent of anadromy	Percentage of river accessible	100% of river channels down to second order accessible from estuary	Artificial barriers block salmons' upstream migration, thereby limiting species to lower stretches and restricting access to spawning areas
Adult spawning fish	Number	Conservation limit (CL) for each system consistently exceeded	A conservation limit (CL) is defined by the North Atlantic Salmon Conservation Organisation (NASCO) as "the spawning stock level that produces long term average maximum sustainable yield as derived from the adult to

Attribute	Measure	Target	Notes
			adult stock and recruitment relationship". The target is based on the Standing Scientific Committee on Salmon (SSCS) annual model output of CL attainment levels. See SSCS (2016). Attainment of CL estimates are derived from direct counts of adults (rod catch, fish counter) or indirectly by fry abundance counts
Salmon fry abundance	Number of fry/5 minutes electrofishing	Maintain or exceed 0+ fry mean catchment-wide abundance threshold value. Currently set at 17 salmon fry/5 minutes sampling	The target is the threshold value for rivers currently exceeding their conservation limit (CL)
Out-migrating smolt abundance	Number	No significant decline	Smolt abundance can be negatively affected by a number of impacts such as estuarine pollution, predation and sea lice (*Lepeophtheirus salmonis*)
Number and distribution of redds	Number and occurrence	No decline in number and distribution of spawning redds due to anthropogenic causes	Salmon spawn in clean gravel
Water quality	EPA Q value	At least Q4 at all sites sampled by EPA	Q values based on triennial water quality surveys carried out by the Environmental Protection Agency (EPA)

Table 5: I355 – Otter – *Lutra lutra*

Identified attributes and targets identified by NPWS in order to maintain the favourable conservation of otters in the River Finn

Attribute	Measure	Target	Notes
Distribution	Percentage positive survey sites	No significant decline	Measure based on standard otter survey technique. Favourable Conservation Status (FCS) target, based on 1980/81 survey findings, is 88% in SACs. Current range is estimated at 93.6% (Reid et al., 2013)
Extent of terrestrial habitat	Hectares	No significant decline. Area mapped and calculated as 390ha along river banks/lake shoreline/ around ponds	No field survey. Areas mapped to include 10m terrestrial buffer along river banks and around water bodies identified as critical for otters (NPWS, 2007)
Extent of freshwater (river) habitat	Kilometres	No significant decline. Length mapped and calculated as 182.2km	No field survey. River length calculated on the basis that otters will utilise freshwater habitats from estuary to headwaters (Chapman and Chapman, 1982)
Extent of freshwater (lake) habitat	Hectares	No significant decline. Area mapped and calculated as 354ha	No field survey. Area mapped based on evidence that otters tend to forage within 80m of the shoreline (NPWS, 2007)
Couching sites and holts	Number	No significant decline	Otters need lying up areas throughout their territory where they are secure from disturbance (Kruuk and Moorhouse, 1991; Kruuk, 2006)
Fish biomass available	Kilograms	No significant decline	Broad diet that varies locally and seasonally, but dominated by fish, in particular salmonids, eels and sticklebacks in freshwater (Bailey and Rochford, 2006; Reid et al.,

Attribute	Measure	Target	Notes
			2013)
Barriers to connectivity	Number	No significant increase	Otters will regularly commute across stretches of open water up to 500m e.g. between the mainland and an island; between two islands; across an estuary (De Jongh and O'Neill, 2010). It is important that such commuting routes are not obstructed

Further details of the conservation objectives can be found on the NPWS website at: https://www.npws.ie/sites/default/files/protected sites/conservation_objectives/CO002301.pdf

Lough Foyle (004087) – (ROI side of lough)

Distance: 31.1km northeast of site

Descriptive summary:

The site comprises a section of the western shore of Lough Foyle from Muff to north of Vances Point in Co. Donegal. The site is part of the larger cross-border Lough Foyle complex which regularly supports in excess of 20,000 wintering waterbirds. The majority of the wintering waterbirds that utilise this site occur along the southern and eastern shoreline of Lough Foyle in Derry, which is also designated as an SPA in Northern Ireland. The site is selected as a Special Protection Area (SPA) under the E.U. Birds Directive, as it is part of an internationally important wetland site that regularly supports in excess of 20,000 wintering waterbirds. The assemblage of birds that utilise Lough Foyle includes internationally important populations of Whooper Swan (917), Light-bellied Brent Goose (3,765) and Bar-tailed Godwit (2,059), and nationally important populations of a further 20 species: Red-throated Diver (28), Great Crested Grebe (148), Bewick's Swan (43), Greylag Goose (391), Shelduck (468), Wigeon (9,011), Teal (660), Mallard (1,635), Eider (143), Red-breasted Merganser (82), Oystercatcher (3,101), Golden Plover (4,562), Lapwing (4,024), Knot (499), Dunlin (4,991), Curlew (2,265), Redshank (988), Black-headed Gull (2,212), Common Gull (2,846) and Herring Gull (1,261) – all counts are five year mean peaks for the entire Lough Foyle complex during the period 1995/96 to 1999/2000. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds. Lough

Foyle SPA is of high ornithological importance as it is part of an internationally important wetland site that regularly supports internationally important populations of Whooper Swan, Light-bellied Brent Goose and Bar-tailed Godwit, and nationally important populations of a further 20 species. Of note is that five of the species which occur regularly, i.e. Red-throated Diver, Bewick's Swan, Whooper Swan, Golden Plover and Bar-tailed Godwit are listed on Annex I of the E.U. Birds Directive.

Qualifying features

Table 6: Qualifying features of Lough Foyle SPA

Feature Types	Natura 2000 codes	Count and Season
Species	A001	Red-throated Diver
Species	A005	Great Crested Grebe
Species	A037	Bewick's Swan
Species	A038	Whooper Swan
Species	A043	Greylag Goose
Species	A046	Light-bellied Brent Goose
Species	A048	Shelduck
Species	A050	Wigeon
Species	A052	Teal
Species	A053	Mallard
Species	A063	Eider
Species	A069	Red-breasted Merganser
Species	A130	Oystercatcher
Species	A140	Golden Plover
Species	A142	Lapwing
Species	A143	Knot
Species	A149	Dunlin
Species	A157	Bar-tailed Godwit
Species	A160	Curlew
Species	A162	Redshank

Feature Types	Natura 2000 codes	Count and Season
Species	A179	Black-headed Gull
Species	A182	Common Gull
Species	A184	Herring Gull
Habitat	A999	Wetland and Waterbirds

Due to the site's set back distance, 31.1km, from Lough Foyle and proposed mitigation for riverine habitats, breeding birds, fish and otters it is not considered there will be any impacts upon the Lough Foyle SPA. Although it is hydrologically linked to the proposed Riverine Scheme impacts are considered to be primarily localised further upstream closer to the proposed site location. As the majority of the conservation objectives for Lough Foyle relate to birds which are not confined by specific habitats or borders it is considered that proposed mitigation will encompass bird species which may travel upstream along the avifauna commuting corridor.

Further details of the conservation objectives can be found on the NPWS website at: https://www.npws.ie/sites/default/files/protected sites/conservation_objectives/CO002301.pdf

Donegal Bay (004151)

Distance: 46km west/south-west from site

Descriptive summary:

Donegal Bay SPA is a very large, marine-dominated, site. It extends from Doorin Point to the west of Donegal Town to Tullaghan Point in County Leitrim, a distance of approximately 15 km along its north-east/south-west axis. It varies in width from about 3 km to over 8 km. The site includes the estuary of the River Eske, which flows through Donegal Town, and the estuary of the River Erne, which flows through Ballyshannon. Much of the shoreline is rocky or stony, with well-developed littoral reefs in places. There are also extensive stretches of sandy beaches, especially from the Murvagh peninsula southwards to Rossnowlagh and at the outer part of the estuary of the River Erne. Shingle or cobble beaches are also represented. There are extensive areas of intertidal flats associated with the estuary of the River Eske, reflecting the very sheltered conditions in this part of the bay. These have been shown to be biotope rich, and supporting a range of macro-invertebrates, including

polychaete worms (*Hediste diversicolor*, *Arenicola marina* and *Nephtys hombergii*) and bivalves (*Scrobicularia plana*, *Cerastoderma edule* and *Macoma balthica*). Elsewhere, a narrow fringe of intertidal flats is exposed at low tides. Salt marshes are found in the sheltered conditions of the innermost part of the bay. A number of small, grassy, islands occur in the innermost part of the bay. The waters of the shallow bay overlie mostly sandy substrates, though reefs occur in places.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Great Northern Diver, Light-bellied Brent Goose, Common Scoter and Sanderling. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Qualifying features

Table 7: Qualifying features of Donegal Bay SPA

Feature Types	Natura 2000 codes	Count and Season
Species	A003	Great Northern Diver
Species	A046	Light-bellied Brent Goose
Species	A065	Common Scoter
Species	A144	Sanderling
Habitat	A999	Wetland and Waterbirds

Due to the site's set back distance, 46km, from Donegal Bay and proposed mitigation for riverine habitats, breeding birds, fish and otters it is not considered there will be any impacts upon the Donegal Bay SPA. There is no site overlap between the proposed Riverine Scheme and Donegal Bay, it is also not hydrologically linked to the proposed Riverine Scheme separated by constant land mass from the proposed site location. As the majority of the conservation objectives for Donegal Bay relate to birds which are not confined by specific habitats or borders it is considered that proposed mitigation will encompass bird species which may travel upstream along the avifauna commuting corridor.

Further details of the conservation objectives can be found on the NPWS website at: https://www.npws.ie/sites/default/files/protected sites/conservation_objectives/CO002301.pdf

Lough Foyle (UK9020031) – (NI side of lough)

Distance: Within the sites redline boundary

Descriptive summary:

Lough Foyle is situated on the north coast of Northern Ireland immediately downstream and extending to the north-east of the city of Londonderry. The site is comprised of a large shallow sea lough which includes the estuaries of the rivers Foyle, Faughan and Roe. The site contains extensive intertidal areas of mudflats and sandflats, saltmarsh and associated brackish ditches. The Special Protection Area includes the whole of Lough Foyle Area of Special Scientific Interest (ASSI} and the intertidal area of Magilligan ASSI in Lough Foy le extending south of Magilligan Point. The boundary of the Special Protection Area is entirely coincident with that of the Lough Foyle Ramsar site and it overlaps with Magilligan candidate Special Area of Conservation. The site qualifies under Article 4.1 of EC Directive 79/409 on the Conservation of Wild Birds by regularly supporting, in winter, internationally important numbers of the following 3 species: Whooper Swan Cygnus cygnus (the five year peak mean for the period 1991/92 to 1995/96 was 890, which comprises 5.6% of the international population); Light-bellied Brent Goose Branta bernicla hrota (the five year peak mean for the period 1991/92 to 1995/96 was 3730 which comprises 18.7% of the international population} and Bar-tailed Godwit Limosa lapponica (the five year peak mean for the period 1991/92 to 1995/96 was 1896 which comprises 1.9% of the international population}.

Qualifying Feature (s) & Conservation Objectives:

Table 8: Qualifying features and Conservation Objectives of the River Foyle and Tributaries SAC

Feature Types	Feature	Size/extent/population	Conservation Objectives
Species	Bewick's Swan wintering population	78	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site, • Distribution of the species within site, • Distribution and extent of habitats supporting the species, • Structure, function and supporting processes of habitats supporting the species.

Feature Types	Feature	Size/extent/population	Conservation Objectives
Species	Whooper Swan wintering population	890	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Species	Golden Plover wintering population	4891	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by

Feature Types	Feature	Size/extent/population	Conservation Objectives
			the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Species	Bar-tailed Godwit wintering population	1896	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the

Feature Types	Feature	Size/extent/population	Conservation Objectives
			species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Species	Light-bellied Brent Goose wintering population	3730	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the

Feature Types	Feature	Size/extent/population	Conservation Objectives
			species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Great Crested Grebe wintering population	220	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and

Feature Types	Feature	Size/extent/population	Conservation Objectives
			extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Cormorant wintering population	118	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats

Feature Types	Feature	Size/extent/population	Conservation Objectives
			supporting the species
Assemblage species	Greylag Goose wintering population	67	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Shelduck wintering population	287	To maintain or enhance the population of the qualifying species, To maintain or enhance the

Feature Types	Feature	Size/extent/population	Conservation Objectives
			range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Wigeon wintering population	8107	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no

Feature Types	Feature	Size/extent/population	Conservation Objectives
			significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Teal wintering population	751	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term:

Feature Types	Feature	Size/extent/population	Conservation Objectives
			• Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Mallard wintering population	1694	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site

Feature Types	Feature	Size/extent/population	Conservation Objectives
			• Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Eider wintering population	50	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting

Feature Types	Feature	Size/extent/population	Conservation Objectives
			processes of habitats supporting the species
Assemblage species	Red-breasted Merganser wintering population	73	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Oystercatcher wintering population	2028	To maintain or enhance the population of the qualifying species,

Feature Types	Feature	Size/extent/population	Conservation Objectives
			To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Lapwing wintering population	3084	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained,

Feature Types	Feature	Size/extent/population	Conservation Objectives
			To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Knot wintering population	441	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long

Feature Types	Feature	Size/extent/population	Conservation Objectives
			term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Dunlin wintering population	5606	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the

Feature Types	Feature	Size/extent/population	Conservation Objectives
			species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Assemblage species	Curlew wintering population	2038	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function

Feature Types	Feature	Size/extent/population	Conservation Objectives
			and supporting processes of habitats supporting the species
Assemblage species	Redshank wintering population	812	To maintain or enhance the population of the qualifying species, To maintain or enhance the range of habitats utilised by the qualifying species, To ensure that the integrity of the site is maintained, To ensure there is no significant disturbance of the species and, To ensure that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
Waterfowl assemblage	Waterfowl Assemblage	37310	Maintain species diversity contributing to the Waterfowl

Feature Types	Feature	Size/extent/population	Conservation Objectives
	wintering population a (Component species: Bewick's Swan, Whooper Swan, Golden Plover, Bar tailed Godwit, Light-bellied Brent Goose, Great Crested Grebe, Cormorant, Greylag Goose, Shelduck, Wigeon, Teal, Mallard, Eider, Red-breasted Merganser, Oystercatcher, Lapwing, Knot, Dunlin, Curlew, Redshank)		Assemblage
Habitat	Habitat extent		Maintain or enhance the area of natural and semi-natural habitats used or potentially usable by Feature bird species. (2056.13 ha intertidal area) subject to natural processes
			Maintain the extent of main habitat components subject to natural processes

Feature Types	Feature	Size/extent/population	Conservation Objectives
Habitat	Roost site locations		Maintain or enhance sites utilised as roosts

River Foyle & Tributaries (UK0030320)

Distance: 31.1km northeast of site

Descriptive summary:

The SAC includes the River Foyle and its tributaries i.e. that part of the River Finn which lies within Northern Ireland, the River Mourne and its tributary the River Strule (up to its confluence with the Owenkillew River) and the River Derg, along with two of its sub-tributaries, the Mourne Beg River and the Glendergan River. In total, the area encompasses 120km of watercourse and is notable for the physical diversity and naturalness of the banks and channels, especially in the upper reaches, and the richness and naturalness of its plant and animal communities. Of particular importance is the population of Atlantic Salmon *Salmo salar*, which is one of the largest in Europe. Research has indicated that each sub-catchment within the system supports genetically distinct populations.

The area is also important as a river habitat. In their upper catchments, the rivers are all fast-flowing spate rivers with dynamic flow regimes characterised by sequences of rapid, riffle and run. Although the banks may have been modified in the past, the channels are natural and composed of large cobble substrate with scattered boulders and sandy marginal deposits, while cobble side and point bars Page 5 of 26 and discrete sand deposits are common features. At the top end of the River Derg and its two tributaries, the aquatic flora reflect the highly acidic character of the water, with mosses and liverworts dominant. Beds of Stream Water Crowfoot *Ranunculus penicillatus* var. *penicillatus* occur where the flow is less dynamic. The River Foyle below Strabane is slow-flowing and is influenced by a tidal regime, rising and falling with the tidal cycle. Aquatic plants in the channel are extremely limited, particularly in the more saline areas; here, fucoids make up the main component. Otter *Lutra lutra* is found throughout the system. A small population of the now rare Freshwater Pearl Mussel *Margaritifera margaritifera* was still present in the Mourne River in the mid-nineties.

Qualifying Feature (s) & Conservation Objectives:

Table 9: Qualifying features and Conservation Objectives of the River Foyle and Tributaries SAC

Feature Types	Feature	Size/extent/population	Conservation Objectives
Species	Atlantic Salmon *Salmo salar*	10,001 – 100,00	Maintain and if possible, expand existing population numbers and distribution, and improve age structure of population.
			Maintain and if possible, enhance extent and quality of suitable Salmon habitat – particularly chemical and biological quality of the water and the condition of the river channel and substrate.
Species	Otter *Lutra lutra*	C*	Maintain and if possible, increase population numbers and distribution
			Maintain extent and quality of suitable Otter habitat, particularly chemical and biological quality of the water and all associated wetland habitats
Habitat	Water courses of plain to montane levels with the *Ranunculus flultans* and *Callitricho-Batrachion*	16.44 ha	Maintain and if possible, enhance extent and composition of community.
			Improve water quality.
			Improve channel substrate quality by reducing siltation.
			Maintain and if feasible enhance river morphology.

The Maidens (UK0030384)

Distance: 108km northeast of site

Descriptive summary:

The Maidens SAC is formed by a group of small rocky reefs off north east Larne. Just two of these are large enough to be considered islands, known as West Maiden with an abandoned lighthouse and East Maiden with a functioning lighthouse. The rare habitats and species communities found at The Maidens are considered to be a consequence of the regional hydrographic conditions. The Maidens SAC is within the North Channel, which connects the Atlantic to the Irish Sea, experiencing currents of up to 4 knots as the currents from the channel grow when they rise over the plateaus. The region is also in close proximity to deep upwelling water, all of which contributes to the habitats and communities which are of particular conservation interest. There a number of deep-water reef species supporting unique hydroid and sponge assemblages, only known to occur in the Maidens, Rathlin Island and a few sites in the Sound of Jura. In addition to the reef habitat, there are also sedimentary habitats such as shallow stable sandy gravels and sand with maerl as well as coarse sediment. The Maidens SAC was designated based on the following primary marine features: reef, sandbanks which are slightly covered by seawater, grey seal (Halichoerus grypus).

Qualifying Feature (s) & Conservation Objectives:

Table 10: Qualifying features and Conservation Objectives of The Maidans SAC

Feature Types	Feature	Size/extent/population	Conservation Objectives
Habitat	Reef	2550 ha	Maintain and enhance, as appropriate extent of the reefs
			Allow the natural processes which determine the development, structure, function and distribution of habitats associated with the reefs, to operate

Feature Types	Feature	Size/extent/population	Conservation Objectives
			appropriately.
			Maintain and enhance, as appropriate, viability, distribution and diversity of typical species within this habitat.
Habitat	Sandbanks which are slightly covered by sea water all the time	200 ha	Maintain extent and volume of sandbanks which are always slightly covered by sea water, subject to natural processes.
			Allow the natural processes which determine the development, structure and extent of sandbanks which are always slightly covered by sea water, to operate appropriately.
			Maintain and enhance, as appropriate, viability, distribution and diversity of typical species within this habitat.
Species	Grey Seal *Halichoerus grypus*	50 individuals	Maintain, and if feasible enhance population numbers and distribution.
			Maintain and enhance physical features used by Grey

Feature Types	Feature	Size/extent/population	Conservation Objectives
			Seals within the site.
Species	Common Seal *Phoca vitulina*	D	No significant decrease in population against national trends, caused by on-site factors
Species	Harbour Porpoise *Phocoena phocoena*	D	

Lough Swilly SPA (004075)

Distance: 16.6km north-west of site

Descriptive summary:

Lough Swilly is a long sea inlet cut through a variety of metamorphic rocks, situated on the west side of the Inishowen Peninsula in north Co. Donegal. The SPA comprises the inner part of Lough Swilly from just east of Letterkenny northwards to Killygarvan (c. 2 km north of Rathmullan) on the west side and to c. 2 km south of Buncrana on the east side; it includes the adjacent Inch Lough. Also forming part of the site is a series of improved pasture and arable fields on the south side of Lough Swilly between Farsetmore and Inch Levels - these are of importance to geese and swans. It includes sections of the estuaries of the River Swilly, the River Leannan and the Isle Burn and the predominant habitat is a series of extensive sand and mud flats which are exposed at low tide.

Lough Swilly is a fine example of a large, natural sea inlet which is estuarine in character. The site supports an excellent diversity of wintering waterfowl for which it is the most important site in the north-west. It is of international importance because total numbers easily exceed 20,000 birds but it also has internationally important populations of *Cygnus cygnus*, *Anser anser* and *Anser albifrons flavirostris*. The *Anser anser* population represents over 27% of the All-Ireland total, whilst the flock of *Anser albifrons flavirostris* is the largest in the country outside of the Wexford Slobs. In addition, there are at least 18 species which occur in numbers of national importance. Of particular note are the populations of *Tadorna tadorna* (5.3% of the All - Ireland total), *Calidris alpina* (6.1% of total) and *Tringa totanus* (4.8% of total). The site also supports regionally important numbers of *Pluvialis apricaria*

and *Limosa lapponica*. The wintering birds of Lough Swilly have been well-monitored since the early 1980s

Qualifying features

Table 11: Qualifying features of Lough Swilly SPA

Feature Types	Natura 2000 codes	Count and Season
Species	Great Crested *Grebe Podiceps cristatus*	Wintering
Species	Grey Heron Ardea cinerea	Wintering
Species	Whooper Swan Cygnus cygnus	Wintering
Species	Greylag Goose *Anser anser*	Wintering
Species	Shelduck *Tadorna tadorna*	Wintering
Species	Wigeon *Anas penelope*	Wintering
Species	Teal *Anas crecca*	Wintering
Species	Mallard *Anas platyrhynchos*	Wintering
Species	Shoveler *Anas clypeata*	Wintering
Species	Scaup *Aythya marila*	Wintering
Species	Goldeneye *Bucephala clangula*	Wintering
Species	Red-breasted *Merganser Mergus serrator*	Wintering
Species	Coot *Fulica atra*	Wintering
Species	Oystercatcher *Haematopus ostralegus*	Wintering
Species	Knot *Calidris canutus*	Wintering
Species	Dunlin *Calidris alpina*	Wintering
Species	Curlew Numenius *arquata*	Wintering
Species	Redshank *Tringa totanus*	Wintering
Species	Greenshank *Tringa nebularia*	Wintering
Species	Black-headed Gull *Chroicocephalus ridibundus*	Breeding
Species	Common Gull Larus *canus*	Wintering
Species	Sandwich Tern *Sterna sandvicensis*	Breeding

Feature Types	Natura 2000 codes	Count and Season
Species	Common Tern *Sterna hirundo*	Breeding
Species	Greenland White-fronted goose *Anser albifrons flavirostris*	Wintering
Habitat	Wetlands & Waterbirds	

3.2 NBN Atlas

A search of the NBN returned no species recorded within the proposed developments boundary.

3.3 Impact Predictions

The purpose of designating and managing Natura 2000 sites is to maintain at or restore to 'favourable conservation status' the habitats and species listed within the Directives for which the sites are notified; individual conservation objectives encapsulate an overall aim of maintaining or achieving favourable conservation status for each feature and maintaining the integrity of the site as a whole.

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

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

Article 6(3) of the Habitats Directive requires that prior assessment is conducted regarding the established conservation objectives for each designated site. A general conservation objective encapsulating an overall aim of maintaining 'favourable conservation status' has been applied in relation to each Natura 2000 site and in relation to each site feature for the purposes of initial analysis.

3.4 Potential impacts

Disturbance of Qualifying Features – Construction

This report is looking at the development of the proposed Riverine Scheme site involving the construction of a foot/bicycle path bridge, public pathways, recreational areas and carparks, construction and installation of a jetty for boat and small craft access to the River Foyle, storm water management, accommodation works, Three River's Complex: drainage management and groundwork investigations (within the SAC). The bridge construction, car parking at the spillway (jetty) and ground investigations are located within the SAC on both banks of the River Foyle as a single span bridge structure. The stormwater management, accommodation works and Three Rivers Complex: drainage management are proposed for discharge into the SAC. The remainder of the proposed development extends beyond the boundaries of the SAC site. Despite the proposed development extending beyond the local fauna and flora species that occupy the borderline between the two may impacted. We will look at the effects of the construction process, works location, effects of access, mobilisation and demobilisation of equipment. During the completion of the development works, impacts that arise could include:

1. The potential of sediment/silt and pollutant to enter SAC's;
2. Direct habitat loss/fragmentation
3. Noise disturbance from machinery and drilling activities
4. The potential for the spread of non-native invasive species

Sediment and pollutants

Construction works involved the construction and installation of a single span foot/bicycle path bridge stretching both of the banks of the river, construction and installation of a jetty for boat and small craft access to the River Foyle and groundwork investigations (within the SAC). This will give rise to localised disturbance of the silt and mud substate of the

riverbanks. Excessive inputs of silts can reduce suitability for salmon, smother eggs, choke fish and disrupt feeding and commuting behaviour. A Construction Environmental Management Plan (CEMP) is being devised by MCL Consulting to ensure the protection of the environment. Key highlights include the appointment of an Ecological Clerk of Works (ECoW) and the use of specialised equipment to mitigate impacts, which include:

- Bunded fuel bowser
- Spill kits
- Plant nappies
- Silt traps
- Biodegradable lubricant
- Designated skips according to waste type (recyclable/non-reuclable/biodegradable)

Due to the location or the proposed carpark on the Strabane side of the site, within the old halting area located within the sites southern corner, there is a perceived risk of runoff water from the car park potentially introducing pollutants and hydrocarbons into the water systems. Therefore, it has been recommended that the SUDS scheme be developed to create an environmentally safe drainage system to protect the nearby riverine habitat from potential pollution through surface runoff. The SuDS Drainage scheme is detailed in the Sustainable Drainage Strategy (**Appendix 9-3**) but in summary comprises hardstanding incorporating areas of permeable surfacing which allows infiltration of runoff waters into a permeable substrate. The substrate will be hydraulically sealed from the underlying made ground (under the permeable substrate) using an impermeable membrane to prevent downward migration of runoff into the underlying groundwater system. This prevents any enhancement of mobilisation of any contamination in the made ground soils, and also prevents any oil spillage from entering the groundwater system. The infiltrated runoff within the substrate layer, which will provide SuDS source control for sediment and pollutants, is captured by a series of laterally-laid perforated pipes, directing the runoff to one of two suitably-sized Class 1 full retention interceptors, discharging to the Park Road Drain along the eastern site boundary. This drainage system will prevent the release of oil to the environment from worst case accidental spillages under all weather conditions.

Any resuspension of substrate or sediment arising from the CFA piling works will be localised and carried out within a specified time frame, May - September, ameliorated by the mitigation measures set out within the CEMP.

Habitat loss

The proposed site development includes the clearance of some trees, wooded areas and grassland for both the proposed development plans and site access which will results in the loss of certain areas of habitat. Habitat reduction will be kept to a minimum, primarily to areas just beyond the SAC boundary in order to cater for public pathways and site entrances. Compensatory planting has been suggested in regard to any habitat that is lost through the development process.

It has been suggested that a 10m buffer be kept between the banks of the river in order to maintain suitable otter habitat, with the exception of the bridge location. The proposed pathways have been re-routed due to the presence of a main badger sett on the Strabane side. Consultation with NIEA resulted in these pathways being removed in order to preserve the badger sett and the surrounding habitat.

However, habitats for which these areas have been designed as SAC's are either not located locally or upstream from the proposed development location. Therefore, these selection features will not be affected by the development works. Other than the disruption beyond the SAC boundaries there will be no habitat reduction for the qualifying species and no effect on the overall conservation objectives of qualifying habitats.

Noise and Visual Disturbance

Ground investigation works involves minor and ephemeral works which will contribute to localised noise, in the form of drilling, and visual disturbance in the form of investigation works and increased human activity. The significance of these impacts is evaluated in the context of the designation's selection features. The works are not likely to impact on local otters, during the site visit no holts or concreate evidence of otter's presence were noted, additionally, otters are predominantly crepuscular and nocturnal, and therefore will be active during periods were works have ceased.

Noise and visual disturbance are unlikely to impact Atlantic salmon due to ground works impacts being localised. Works are to be undertaken in late spring/ early summer as outlined by the Lough's Agency and therefore will avoid salmon travelling upstream from November to February.

Noise and visual disturbance are likely to impact a local badger population located on the Strabane side of the proposed site. A main sett was located near to proposed bridge landing location and is located in line with one of the proposed public pathways. Mitigation has been drawn up by MCL Consulting ecologists in line with consultations with NIEA resulting in the proposed temporary exclusions of subsidiary and annex setts within 25m of the proposed bridge landing site as well as a complete rerouting of the proposed public path layout in order to retain the badger setts and habitat reducing the impact. As badgers are also primarily crepuscular and nocturnal impacts will be reduced again as they are most active when works have stopped. Suggested piling method is CFA piling which differs from standard percussion piling with a reduced vibration and noise level.

Spread of non-native invasive species

The spread of invasive species can result in the reduction of SAC's qualifying habitats and habitats essential for qualifying species. Invasive species on site include Japanese knotweed *Reynoutria japonica*, Himalayan balsam *Impatiens glandulifera*, and Giant hogweed *Heracleum mantegazzianum*. Development works have the potential to disturb these invasive species and cause local spread and spread further downstream. An invasive species management plan is being drafted up by MCL Consulting and will be included within the CEMP. ECoW will advise which areas are safe to work, the safest way to approach them and provide dedicated toolbox talk advise to workers on how to avoid unintentional disturbance.

4.0 MITIGATION

The proposed development at stage one screening test of likely significance has demonstrated that the proposed new Riverine Community Park has potential for adverse effects on the aforementioned designations, however, these can be eliminated through a detailed CEMP and good practise, therefore significant adverse impacts on the Natura 2000 sites: River Finn SAC and River Foyle Tributaries SAC, Lough Foyle SPA, The Maidens and Donegal Bay are considered negligible.

Standard Mitigation Measures

These mitigation measures apply to all fauna species on both sides of the SAC and should be implemented as part of the CEMP and best practice measures for the development.

During the construction phase noise may cause disturbance, therefore the adoption of best practice as defined by the Control of Pollution Act 1974 should be implemented.

All noise caused by machines should be minimised and should operate during daytime hours only as agreed with the council.

With regards to dust it should be ensured that an adequate supply of water is available on site for effective dust suppression.

Similarly, no light should be directed onto woodland features during the construction or operational phase.

During the construction phase management and protection measures should be implemented prior to works commencing on site, these include:

- No excavations are to be left uncovered or without a means of egress (a sloped plank for example) overnight, as otters may fall in or enter in search of food and become trapped.
- No buildings or storage units are to be left open overnight, as wildlife may enter and become trapped.

- No poisonous or potentially harmful substances or materials are to be left unsecured overnight.
- No vehicles or machinery are to be used installing any fencing or exclusion gates.

Otter

See Appendix: 8-6 for full otter report

It is recommended that a minimum of 5 metres should be retained as a buffer between the proposed development and the surrounding water courses to reduce any potential impact. It is also recommended that a surface water management plan be drafted and implemented to avoid potential impacts on the water courses and water quality. Consideration should also be given to otters concerning their use of the site's interior for foraging and fencing designs should facilitate free movement of otters to allow unrestricted passage throughout the site.

It is also recommended that either a small culvert or small ledge structure be worked into the bridge landing areas to allow otters free land access across the areas where the bridge makes contact with the banks of the River Foyle.

It is also recommended that exclusion fencing be installed around the perimeter of the halting area in order to prevent the otters from accessing the site during works in order to avoid accidental injury as evidence by the trail cameras during the otter survey indicated that the otters will venture further into the main body of the site near the halting area at night to forage.

Badger

See Appendix: 8-5 for full badger report

In response to the badger's main sett location and the original proposed pathway, a consultation was held with Dr Jon Lees from NIEA to discuss potential alternatives and mitigation protocols regarding the badger main sett location and proposed pathways. Ultimately it was decided that a design change would be the best course of action. Therefore, the original proposed pathway has been altered with the path that was originally going through the main badger sett has been removed along with the pathway going north along the flood embankment, (see Appendix IV). This design change means that proposed

pathway construction is all beyond the main sett's 25m exclusion zone. Proposed method of bridge construction on the Strabane banks requires the use of continuous flight auger (CFA) piling, which utilises a 'corkscrew' method to create the required hole. This method has been deemed much less impactful that standard percussive piling methods such as driven piling due to the current setback distance. See Appendix X for diagram illustrating a vibration contour graph for a 70t CFA piling rig, based upon this diagram the proposed method of CFA piling is not expected to have lasing of significant impacts upon the badger which at currently approximately 40m away from the proposed piling site. the closer annex and subsidiary setts have been proposed for temporary exclusion due to their current status of inactivity along with the close proximity to the proposed piling locations.

It is also recommended that exclusion fencing be installed around the perimeter of the halting area in order to prevent the otters from accessing the site during works in order to avoid accidental injury as evidence by the trail cameras during the badger survey and the close proximity of the main badger sett indicated that the badgers will venture further into the main body of the site near the halting area to forage.

Boreholes (cable percussion with rotary core follow-on)

Cable percussion allows the installation of casing inside the borehole to prevent loose soils collapsing into the hole, allowing the borehole to be advanced to considerable depths while maintaining good progress. In this case the boreholes will extend from ground level to approximately 3m within rock level. Various tools are used drill the hole through the centre of the casing. The casing is then advance around the perimeter of the drilled hole.

The arisings are set to one side for sampling, logging and at locations were monitoring wells are to install the arising will be disposed of to a skip provided by a licenced waste carrier.
At certain locations, the drilling with the cable percussion drilling will be advance to rock head. The casing will be left in-situ and the cable rig removed off site. A rotary drilling rig will then be placed over the installed casing the drilling of rock commenced.

Any resuspension of substrate or sediment arising from the drilling works will be very localised and short-term, ameliorated by the mitigation measures set out within the CEMP.

Other than the very localised disruption there will be no habitat reduction for the qualifying species and no effect on the overall conservation objectives of qualifying habitats.

Noise and visual disturbance are unlikely to impact Atlantic salmon due to ground works impacts being localised. Works are to be undertaken in late spring/ early summer and therefore will avoid salmon travelling upstream from November to February. Otters are predominantly crepuscular and nocturnal, and therefore will be active during periods were works have ceased. Additionally, no holts were identified near vicinity of boreholes.

Causeway Geotech have set out mitigation measures within their CEMP. This in accompany with the presence of an ECoW there should be no spread of invasive species.

Atlantic Salmon and Riverine Habitat

See Appendix: 8-12 for full aquatics report

Consultation with Lough's agency resulted in a design change for the single span bridge structure. Originally this structure was proposed to include a single central pier halfway across the River Foyle. However, due to the potential impacts, mitigation requirements and concerns raised by the Lough's agency this was ultimately removed from the bridge design and a single span structure has been proposed instead.

In order to achieve this a temporary platform will need to be constructed on the Lifford bank of the River Foyle within the SAC. This will be a localised stationary platform of temporary construction. It is proposed that in order to help minimise potential risk to the SAC environment on the riverbank that a geotextile tarp material be laid down on the riverbank before the platform is construction from rubble. This will help to preserve the underlying riverbank/bed habitat reducing silt and sediment production and distribution from installation and removal of the temporary platform as well as avoiding any loss of riverbank structure. The construction of a coffer damn has been recommended as a measure to prevent the transportation of silt and debris down stream into the main water system. It is understood that a piling technique known as 'pressed-in' piling will be used to install sheet piles in close proximity to the riverbed on the Lifford side. This technique is considered to be a low vibration piling method, similar to the CFA method where continuous vibrations at a low level could be expected from the prime movers. Continuous

monitoring should be used where both techniques are being carried out, to monitor vibration levels at the source and at the vibration sensitive receptor locations. The 'pressed-in' piling techniques has also been suggested for the creation of a temporary concrete platform to assist in crane and bridge construction on the riverbank. Similarly, to the bridge it is advised and recommended that this procedure takes place between the months of May and September in order to avoid the salmon run and not impact on the migrating salmon as they make their way to their spawning grounds. While this method is considered to be a low impact approach timing the works outside of the salmon run season vastly reduces the potential impact to negligible levels.

Construction of the single span bridge structure will take place between the months of May and September in order to avoid the salmon run and not impact the migrating salmon as they make their way to their hereditary spawning grounds. As this will be a single span structure it is not envisioned to impact the run by displacing fish as they migrate upstream allowing them free unrestricted access upriver.

Silt traps/curtains have also been suggested in order to capture any dust or sediment displacement or spill which may occur and keep it within a localised area to avoid it being carried further downstream. Lighting should also not be directed onto the river habitat as this may attract or disorient the fish. Lighting should be switch off at night in order to avoid fish congregating in well-lit areas increasing their chances of being preyed upon and decreasing their chances of making it to their spawning grounds.

In addition to bridge abutments, where permanent CFA Piles will be used piled foundations may also need to be emplaced on land within the river margin beyond the flood embankment in proximity to the Bridge Abutment sites. Depending on the outcomes of the proposed Ground Investigation Works, this may be necessary to create a working platform for the assembly and lifting of the bridge, which will arrive to the site in sections requiring assembly on site. This platform will support the main crane used to lift the bridge into position, smaller crane(s) used to assist with the assembly of both the main crane and bridge and to store the assembled bridge before it is lifted into place. This platform structure and will be deconstructed once the bridge has been completed. If CFA piles, which are permanent and cannot be withdrawn, have been used as foundations for this

structure, then these piles shall be cut down to 1m below ground level as part of the site restoration / landscaping works following completion of bridge construction.

A temporary crane pad, extending into the river channel, is required to be constructed to support the large crane used for the bridge lift. This pad must bear the weight of the crane whilst it is lifting the bridge, and will be of sufficient dimension to facilitate safe lifting of the bridge structure. The crane pad structure may involve sheet piling through the riverbed to install a temporary peripheral coffer dam and / or piling through the riverbed under the crane footprint to provide a temporary foundation for the crane. The crane platform and any associated sheet piles will be withdrawn and deconstructed once the bridge is completed.

A section of the existing flood embankment running alongside the riverbank may need to be temporarily realigned to provide a suitable working room for the bridge abutment piling and construction works. In order to retain flood protection during the construction phase it is necessary to construct a temporary sheet pile wall in place of the removed section of flood defence. This sheet pile will be withdrawn and deconstructed once the new permanent section of flood defence is in place.

It is also recommended that a 100m buffer zone be implemented for watercourses applying to the construction compound, refuelling and oil/fuel storage and a 10m buffer for water courses applying to the stockpiling of materials and wastes as well as concrete mixing and washing areas Should be instated between the proposed development and the surrounding water courses to reduce any potential impact. It is also recommended that a surface water management plan be drafted and implemented to avoid potential impacts on the water courses and water quality.

Plant nappies and spill kits must be available and in working condition on site at all times with toolbox talks provided to ensure site staff are aware of potential risks and how to correctly use these response tools.

The same mitigation measure is recommended for the construction and installation of the jetty proposed on the Lifford banks of the River Foyle at the site's southern boundary.

However, the construction of this carpark will include drainage for surface runoff. This runoff will lead into an oil-water interceptor to separate the surface rainwater runoff from potential oil/fuel leaks from parked vehicles before discharging to a sub-surface via a soakaway deliberately reducing discharge flow rates in a more controlled approach. Removal of harmful substances due to the presence of the interceptor will reduce potential risks from discharging into the SAC ensuring only rainwater runoff is discharged.

The stormwater management accommodation works is to provide site runoff from grassland areas on the site via a piped drainage network draining at several points into the Roughan Stream leading to the River Deele and River Foyle SAC. This proposed system operates under the influence of standard green field drainage rates and does not utilise a constant high flow discharge or pump system as it is designed to counter surface flooding due to rainfall. Potential discharge rates will depend on rainfall rates with a reduced discharge rate into the SAC. This system and discharge are not considered to impact upon the SAC due to the low discharge flow rates perceived for this type of drainage installation.
The Three Rivers Complex: drainage management currently has no outlined mitigation as its design and finer working operations will be finalised in the detailed design stage. However, it is believed that there are opportunities to provide betterment to the existing Three Rivers storm discharge arrangement and to provide mitigation in the detailed design to ensure no residual impacts on the receiving environment and River Foyle SAC. This will include provision of petrol interceptors and other appropriate mitigation measures.

Loss of Habitat

There is no predicted loss of habitat within the River Foyle SAC. The proposed development is primarily based beyond the boundaries of the SAC where some habitat loss is predicted to allow for improved public visitor access. However, this has been mitigated against with the rerouting of the proposed public pathways to preserve the main badger sett located on the Strabane side of the site and the surrounding habitat. Other pathways and road entrances will experience minimal habitat loss through the clearance of select trees and pre-designated pathways.

A long-eared owl is known to nest on the Lifford side within the proposed development site within a coniferous treeline located in the site's western area. Proposed route plans

currently propose a carpark and entrance road passing through 2 sections of the treeline. Long-eared owls are considered a species which has a moderate ability to co-exist with human populations, due to the nest's close location not Lifford town, it is proposed a minimum 150m buffer when construction works are being carried out and between 22-90m from the disturbance source once works have completed is left between the nest within the treeline and the long-eared owl nest.

It has also been recommended that should removal of the nest or works within 150m of the nest be required it will require appropriate wildlife licensing and will need to be carried outside of the breeding season. It is also recommended should the nest be removed a replacement raptor box be installed within the area as a compensatory measure to ensure the long-eared owl has appropriate replacement nesting. This must be carried out under supervision and installed by a suitably qualified ecologist.

Trees, hedgerows and scrub are of importance to breeding and nesting birds. While no nests have been identified, the removal of hedgerows, trees and scrub during the breeding season will negatively impact upon nesting birds due to the abundant presence and activity of birds during the breeding season. This is in direct violation of Article 4 of the Wildlife (Northern Ireland) Order 1985 (as amended) under which it is an offence.

Any scrub or tree clearance should be kept to a minimum and undertaken outside of the breeding season 1st March – 31st August).

It should be noted that **should** clearance of scrub/hedgerow's **during** the breeding season be required, this **must** be undertaken under the supervision of a qualified ecologist and appropriate surveys undertaken prior to any scrub clearance i.e. pre-working nest inspection/breeding bird survey to ensure no active nests are present. Any vegetation which is removed prior to the bird breeding season should be removed from the site completely, in order to prevent birds along with other species using stored debris as nesting/resting sites.

Invasive Species and Biosecurity

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

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

The general Biosecurity Process for machinery arriving or leaving the site during the construction phase with regard to invasive plant and invertebrate species is as follows:-

Invasive Species (Plants and Bivalves) Construction Phase

- Before any piece of construction 'machinery' including crane or mobile machinery / plant, (excavators, rollers, dumpers, tele-handlers etc.) is delivered to the site, the invasive species Clerk of Works shall be provided documentation providing details of all sites close to or involving works in water that the machinery has been working on or stored on in the last 60 days.
- The invasive species Clerk of Works may consider the need for additional biosecurity measures, such as quarantining or pre-delivery disinfection, for any high risk machinery that has recently involved in in-river works.
- Biosecurity Process for machinery arriving or leaving the site during the construction phase with regard to invasive plant and invasive bivalve species is as follows:-

    - On arrival at or departure from the site, ALL construction machinery should be visually inspected and disinfected in the self-contained biosecurity washing area of the Construction Compounds.

    - The disinfection process shall involve dosing of the exterior of the machinery with a diluted solution of 1% Vircon Aquatic solution or an approved alternative.

    - The machinery should then be power-hosed with water of 60 oC + to remove disinfection solutions and any invasive species debris and any residual treated clams / eggs which may be present, followed by a final off-site visual inspection.

- The treatment and inspection of machinery shall be overseen and approved by a qualified ecological Clerk of Works, including verification records to confirm completion of the disinfection for each piece of machinery, including any replacement / standby units intended to be used on the project. Records shall be retained for inspection by the client's representatives.

- Sludge from the self-contained biosecurity facility shall be routinely (on at least a weekly basis) removed from the washing area and transferred to a water-tight covered skip for storage, awaiting off-site disposal to an appropriately licensed landfill site for deep burial.

Mitigation Measures Invasive Species (Plants only) Construction Phase

- The Invasive Species Clerk of Works and Ecological Clerk or Works shall be jointly responsible for the monitoring of biosecurity onsite. These responsibilities include site management, restrict personal and movement to designated areas, restrict access to site, clean maintain PPE, equipment and plant machinery.
- Plant Machinery are to restrict to in movement around the site, and within given work areas and haul routes to from containment areas.
- Plant machinery will remain on site in restricted area until excavation, and replacement to the containment area have been completed.
- Recommend the use of rubber tyre plant wherever possible rather than tracked plant.
- Plant machinery to be thoroughly cleaned down upon completion of works including tracks, tyres, buckets, trailers etc and material place in the containment area.
- PPE especially boots to be deep clean and any material placed in containment area.
- Cleaning of Plant Machinery and PPE will be overseen and undertaken by onsite Invasive Species supervisor who will instruct if the plant and personal are safe to leave.

A strict invasive species management plan has been drafted which shall be implemented on site through the lifespan of the pre-construction and construction phase along with a management plan for post-construction management of species. Toolbox talks will be provided to ensure all site staff are aware of the management plan and are aware of biosecurity protocols as well as any health and safety concerns.

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

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

No additional live projects/developments are located within close proximity, it is therefore, considered that there is no additive effect for significant cumulative or in combination. impacts on the Natura 2000 network to occur as a result of the development.

4.1 Conclusion

All potential impacts that have been predicted for the proposed Riverine Scheme are localised to within the River Foyle and its Tributaries SAC. The River Finn SAC is not considered to be directly impacted by the proposed development, however, certain features such as otter and Atlantic salmon which move freely between the River Finn and Foyle may experience some disturbance. . Similarly to Lough Swilly SPA which had been originally screened in due to the presence of Whooper swans found during the riverine site surveys utilising the riverine habitat as a commuting corridor and this species being a qualifying feature to Lough Swilly, potential disturbances to Whooper swan are to be negligible with the birds utilising the riverine corrider for cummting travellign well above the site avoiding the construction works and with no terrestrial or hydrological connecting paths to Lough Swilly there will be no direct or indirect impacts from the proposed development due to the setback distance. Therefore, proposed mitigation for these features within the River Foyle and its Tributaries SAC are deemed sufficient to provide extended protection for River Finn SAC features and avoid any long term negative impacts.

Lough Foyle SPA is hydrologically link downstream to the River Foyle SAC and as such is considered to have the greatest risk of impact from the proposed development scheme. However, due to its distance from the immediate proposed development site and dilution factors of the riverine system it is considered that proposed mitigation and best practice management plans implemented on site will be sufficient to negate these impacts from the Lough Foyle SPA site.

The Maidens SAC and Donegal Bay SPA are not hydrologically linked with the proposed development site nor do that share a site overlay. Both of these sites are a substantial distance, (108km and 46km respectively), away from the proposed development site that they are not considered to have any impact from the Riverine Scheme development. However, the species features of grey and harbour seal for these sites may travel up the Foyle as they travel to forage for food. While this may be a rare incident it is concluded that proposed mitigation for SAC features of otter and Atlantic salmon; along with mitigation for the protection of the riverine habitat should be sufficient to negate potential impacts to these species. Therefore, the CEMP for the construction stage should aim to minimise the outputs of pollutants i.e. dust, sediment etc, to ensure that no serious pollution incidents occur and to minimise disturbance to wildlife as well as protecting and enhancing Biodiversity.

With the implementation of the proposed mitigation measures, it is the ecologist's reasonable conclusion that there is no likelihood of significant, long-term impacts to the primary Natura2000 site of the River Foyle and its Tributaries SAC, the other remaining 5 sites have also been deemed as not likely to have significant, long lasting impacts due to their geographic location, setback distance and proposed mitigation measures. Any potential impacts that may arise will be localised and segregate from the wider site and short term with minimal impact to the Natura 2000 site.

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Consultant Ecologist	**Environmental Planning Consultant**

5.0 REFERENCES

Official EC guidance: '*Assessment of plans and projects significantly affecting Natura 2000 sites, Methodological guidance on the provisions of Article 6 (3) and (4) of the Habitats Directive 92/43/EEC'* Accessed on 05/03/19, available from http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf

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FIGURES

Figure 3. Riverine Habitat within River Foyle SAC

Figure 4. Wood habitat on Strabane side

Figure 5. Overview of grassland habitat on Lifford side within hare coursing ground

APPENDICIES

Appendix I: Proposed Site Layout Strabane

River Foyle

Park Road

Barnhill Road

Match Line to drawing ref:
1383-TPHC-ZO-XX-DR-LA-xxxx_revP00

Match Line to drawing Insert (see right)

Match Line to drawing Insert (see left)

Access to Headwall / Flow Control
Existing access to Headwall flow control to be retained.
Perimeter fence will be repaired as needed.

Strabane North Greenway
Will be progressed separately to Riverine Community Park but coordinated ensuring that connections are mutually considered and agreed.

Adjacent Site
No proposals within site, to remain as existing.

Pond
Existing planting retained to as much as possible. Native aquatic & marginal planting proposed to improve ecology.

Bridge Landing
At the bridge landing point. A seating area is proposed to ensure that there is an opportunity to appreciate the spectacular vantage point looking along the River Foyle, also overlooking the parkland on both sides.

Riverside Access
Existing riverside access will be retained

SUDs

Proposed Boardwalk
The existing landscape in Strabane has naturalised, having benefited from many years of neglect. In this respect it holds many important ecologically sensitive assets. To ensure that these can provide visitor experience anticipated the boardwalk enables elevated access ensuring that wildlife retains safe passage with minimal disturbance to ecology.

Invasive Weeds
There are a number of areas throughout the site which have stands of Invasive weeds. These will be managed in location where possible. Refer to Invasive Weed Management Plan for more detail.

Wildlife Passage Gates
Gates to be located at three points within proposed fenceline and hedging. These will provide safe access for specific wildlife to ensure access to their feeding ground to the east. The gates are designed to ensure that livestock cannot use Them (the access points) as a means of escape.

Existing Planting
The Strabane site is typified by a naturalised and overgrown landscape evolved from its former use as a railway yard. The site now represents an ecologically sensitive landscape that brings many benefits which contribute positively to the proposed parkland. Existing planting provides a unique and biodiverse habitat which is acknowledged within the proposals, through identification and protection. Access within these areas is limited and planting will be encouraged to continue to grow. Additional native whip planting will be planted to help reinforce benefit of this natural resource.

Tree Planting
New Tree Planting is proposed throughout the project area where opportunities for proposed planting.

Proposed Car Park
Located within the former halting site the proposed car park will be resurfaced with new drainage and lighting. It will provide 125 spaces and 11 disabled bays and provision for 2 coach parking bays.
Run off from the car parking will be managed by integrated sustainable drainage.

Entrance
It is proposed that the site will be accessed from the Barnhill Road roundabout for vehicles, cyclists and pedestrians.
Existing access to the agricultural lands to the west will be retained.

Drawing Insert
Scale 1:500 @ A0

LEGEND

SOFTWORKS

- Existing Trees & Planting — To be retained and protected during works in accordance with BS5837
- Existing Trees & Planting — To be removed. Groups identified in the absence of individual trees
- Proposed Native Trees — Refer to planting schedule
- Proposed Native Wetland Trees — Refer to planting schedule
- Proposed Specimen Trees — Refer to planting schedule and details
- Proposed Hedgerow planting — Refer to planting schedule and details
- Proposed Amenity Grassland — Refer to planting schedule
- Proposed Wildflower (WF1) — Refer to planting schedule
- Proposed Woodland Wildflower (WF2) — Refer to planting schedule
- Proposed Riverside Edge Mix — Refer to planting schedule. To be pregrown and supplied as turf
- Proposed SUDS Mix — Refer to planting schedule. To be pregrown and supplied as turf
- Proposed Native shrubs — Refer to planting schedule.
- Proposed Ornamental shrubs — Refer to planting schedule.

SURFACES

- **Proposed Asphalt** — To pedestrian and Cycleway. For detail refer to engineers drawing
- Proposed Asphalt — Vehicular. For detail refer to engineers drawing
- Strabane North Greenway — Progressed separately to this project
- Proposed High Friction Surface — To pedestrian crossing Strabane carpark. For detail refer to engineers drawing
- *Natural Stone Paving — Refer to detail
- Proposed Boardwalk — Refer to detail
- Reinforced Grass — Refer to detail
- Proposed Gravel Path — Refer to detail
- *Proposed Slipway Surface — Refer to detail also engineers drawings for detail.
- *Wetpour Safety Surfacing — Refer to detail
- *Reinforced Grass Safety Surfacing — Refer to detail
- *Play Bark Safety Surface — specifically for play areas
- Stone Clusters — Refer to detail

FEATURES

- Existing Walls — To be retained
- Existing Fencing — To be retained / replaced as required
- 2.4m Security Fencing — Paladin fencing
- Metal Estate Fencing — Refer to detail
- Stock Proof Fencing — Refer to detail
- Existing Fencing to be removed
- Steps and Terracing — Refer to detail
- Proposed Benches — Refer to detail
- Bicycle stand locations — Typical Sheffield stand
- Proposed Litter Bins — 100L Bins with single 300L recycled bin adjacent to Community Pavilion
- Proposed Metal Gates — Refer to detail
- **Vehicular Upstand Kerb** — 125mm upstand. Pre Cast Concrete
- **Vehicular Flush Kerb** — Pre Cast Concrete
- **Pin Kerb** — Pre Cast Concrete

MISCELLANEOUS

- Site Boundary - Application under Roads Act, Section 51(2)
- Adjoining Riverine Community Park Boundary (ROI)
- Riverine Community Park Boundary (NI)
- Proposed Bridge
- Water

N

NOTES

1. All measurements shown are in metres, and all levels are to ordnance datum unless otherwise indicated

2. All Coordinates are to Irish Grid (TM65), unless otherwise noted.

3. All hatches are indicative and do not relate to the actual laying or planting pattern

4. Layout should be read in conjunction with all other drawing information and reports

5. All new kerbs adjacent to existing roads will require a 300mm reinstatement strip within the carriageway running the entire length

6. For proposed drainage refer to engineers layout

7. For lighting, electrical requirements refer to M&E drawings

8. Walking Routes & Connections
All main routes within the park boundary will be accessible to the broadest range of abilities. In accordance to Countryside Access code

9. Riverside Access
Existing riverside access to be retained

10. Planting
The general planting strategy is to use a primarily native planting palette, introducing some specimen trees within the new car park to add formality. Where possible existing areas of native planting will be increased and added to create diversity and improve ecological benefit. This planting will be suggested from the naturalised fauna surveyed.

11. Bridge
Refer to engineers proposals

12. Invasive Weeds
Refer to invasive weed management plan

13. Topographic Survey Information
Planting
There are substantial areas within the Project boundary that remain unsurveyed (due to poor access). In this respect assumptions have had to have been made with regard detail of;

Planting Loss:
The extents of existing vegetation and wetland are shown indicatively. In this regard the amount of trees (shown within a group) identified as removed is unclear.

Guarding
is not identified on the layouts but will be located on pathways adjacent to an immediate level change of 600mm or greater or slopes steeper than 1:2. Guarding will be 1100mm high responding to building regulations and countryside access code. As an example please refer to Boardwalk drawing ref: 2072

The revision cloud highlighted areas of the park which were inaccessible for the

This is a concept design that illustrates the main elements to be delivered within the park. The exact location, layout and smaller details of the park may change during the detailed design phase.

Rev	Issue Date	Description	App
P02	26.01.2022	Reissued for Planning (amended car park location)	Dm
P01	13.09.2021	Issued for Planning	HB
P00	19.08.2021	Issued for Planning	HB

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Comhairle Chathair Dhoire agus Cheantar an Urlabhra Báin
Derry Cittie & Strabane Destrick Council

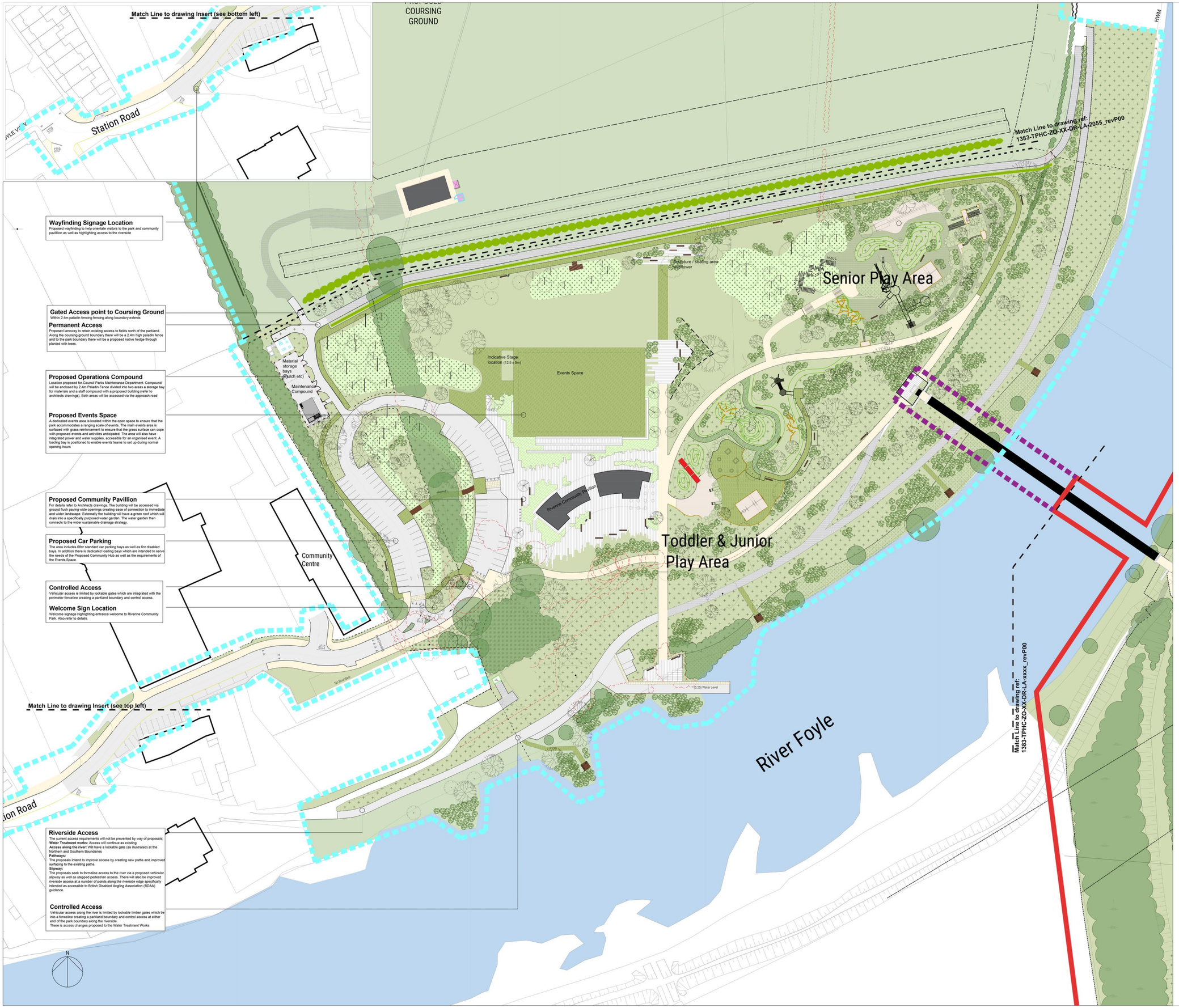
Project Status	STAGE 3 - PLANNING
Project	RIVERINE COMMUNITY PARK
Drawing	STRABANE RIVERINE COMMUNITY PARK LANDSCAPE LAYOUT (NI PLANNING)
Scale	1:500 @ A0

Drawn	HB	Checked	DM	Approved	DM
Date	12.02.2021	Date	12.02.2021	Date	19.08.2021

Project	- Organisation - Zone - Level - Type - Role - Number	Revision
RVCP	- TPHC - Z0 - XX - DR - LA - 2051	P02

Project Number	Status code & Description
1383	ST2 Issued for Information

Appendix II: Proposed Site Layout Lifford



LEGEND

SOFTWORKS

- Existing Trees & Planting — To be retained and protected during works in accordance with BS5837
- Existing Trees & Planting — To be removed. Groups identified in the absence of individual trees
- Proposed Native Trees — Refer to planting schedule
- Proposed Native Wetland Trees — Refer to planting schedule
- Proposed Specimen Trees — Refer to planting schedule and details
- Proposed Hedgerow planting — Refer to planting schedule and details
- Proposed Amenity Grassland — Refer to planting schedule
- Proposed Wildflower (WF1) — Refer to planting schedule
- Proposed Woodland Wildflower (WF2) — Refer to planting schedule
- Proposed Riverside Edge Mix — Refer to planting schedule. To be pregrown and supplied as turf
- Proposed SUDS Mix — Refer to planting schedule. To be pregrown and supplied as turf
- Proposed Native shrubs — Refer to planting schedule.
- Proposed Ornamental shrubs — Refer to planting schedule.
- *Proposed Grass Mounding — Refer to planting schedule (Amenity Grassland)

SURFACES

- Proposed Asphalt — To pedestrian and Cycleway. For detail refer to engineers drawing
- Proposed Asphalt — Vehicular. For detail refer to engineers drawing
- Proposed High Friction Surface — To pedestrian crossing Strabane carpark. For detail refer to engineers drawing
- *Natural Stone Paving — Refer to detail
- Proposed Boardwalk — Refer to detail
- Reinforced Grass — Refer to detail
- Proposed Gravel Path — Refer to detail
- *Proposed Slipway Surface — Refer to detail also engineers drawings for detail.
- *Wetpour Safety Surfacing — Refer to detail
- *Reinforced Grass Safety Surfacing — Refer to detail
- *Play Bark Safety Surface — specifically for play areas
- Stone Clusters — Refer to detail

FEATURES

- Existing Walls — To be retained
- Existing Fencing — To be retained / replaced as required
- 2.4m Security Fencing — Paladin fencing
- Metal Estate Fencing — Refer to detail
- Stock Proof Fencing — Refer to detail
- Existing Fencing to be removed
- Steps and Terracing — Refer to detail
- Proposed Benches — Refer to detail
- Bicycle stand locations — Typical Sheffield stand
- Proposed Litter Bins — 100L Bins with single 300L recycled bin adjacent to Community Pavilion
- Proposed Metal Gates — Refer to detail
- Vehicular Upstand Kerb — 125mm upstand. Pre Cast Concrete
- Vehicular Flush Kerb — Pre Cast Concrete
- Pin Kerb — Pre Cast Concrete

MISCELLANEOUS

- Riverine Community Park Boundary (NI)
- Riverine Community Park Boundary (ROI)
- Site Boundary - Application under Roads Act, Section 51(2)
- Proposed Bridge
- Water

LEVELS

NOTES

1. All measurements shown are in metres, and all levels are to ordnance datum unless otherwise indicated

2. All Coordinates are to Irish Grid (TM65), unless otherwise noted.

3. All hatches are indicative and do not relate to the actual laying or planting pattern

4. Layout should be read in conjunction with all other drawing information and reports

5. All new kerbs adjacent to existing roads will require a 300mm reinstatement strip within the carriageway running the entire length

6. For proposed drainage refer to engineers layout

7. For lighting, electrical requirements refer to M&E drawings

8. Walking Routes & Connections
All main routes within the park boundary will be accessible to the broadest range of abilities. In accordance to Countryside Access code

9. Riverside Access
Riverside access to be retained.

10. Planting
The general planting strategy is to use a primarily native planting palette introducing some specimen trees within the new car park to add formality. Where possible existing areas of native planting will be increased and supplemented to create diversity and improve ecological benefit. This planting will be suggested from the naturalised fauna surveyed.

11. Suds
Attenuation basin locations and extents shown indicatively. Basins will be planted with a mix of native wet woodland (indicated with trees) and marginal type planting (indicated with hatch) to highlight their location and integrate them as an attractive feature within the overall site context.

12. Bridge
Refer to engineers proposals

13. Invasive Weeds
Refer to invasive weed management plan

14. Topographic Survey Information
Planting
There are substantial areas of the Project boundary that remain unsurveyed (due to poor access). In this respect assumptions have had to have been made with regard detail of;

Planting Loss:
The extents of existing vegetation and wetland are shown indicatively. In this regard the amount of trees (shown within a group) identified as removed is unclear.

Guarding
is not identified on the layouts but will be located on pathways adjacent to an immediate level change of 600mm or greater or slopes steeper than 1:2. Guarding will be 1100mm high responding to building regulations and countryside access code. As an example please refer to Boardwalk drawing ref: 2072

15. Play Areas
The Play areas have been located next to the existing embankment making the most of connecting paths and using graded terracing to maximise accessibility through the play spaces. Play equipment within both the Junior / Senior play areas will also be considered to ensure broadest age range and ability is catered for. Also refer to the section drawing which illustrates section through the accessible High Tower in the Senior Play Area.

16. Legend
*All items with * are only relevant to Lifford*

The revision cloud highlighted areas of the park which were inaccessible for the

This is a concept design that illustrates the main elements to be delivered within the park. The exact location, layout and smaller details of the park may change during the detailed design phase.

Rev	Issue Date	Description	App
P01	13.09.2021	Issued for Planning	HB
P00	19.08.2021	Issued for Planning	HB

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Derry Cittie & Strribane Destrick Council

Project Status	STAGE 3 - PLANNING
Project	RIVERINE COMMUNITY PARK
Drawing	LIFFORD RIVERINE COMMUNITY PARK LANDSCAPE LAYOUT (NI PLANNING)
Scale	1:500 @ A0

Drawn	HB	Checked	DM	Approved	DM
Date	12.02.2021	Date	12.02.2021	Date	19.08.2021

Project	Organisation	Zone	Level	Type	Role	Number	Revision
1383	TPHC	Z0	XX	DR	LA	2052	P01

Project Number	Status code & Description
1383	ST2 Issued for Information