



LOUTH COUNTY COUNCIL

APPROPRIATE ASSESSMENT SCREENING REPORT

FOR

PROPOSED PLAYGROUND,

ST. DOMINIC'S PARK, DROGHEDA, CO. LOUTH

VOLUME I. REPORT

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1 INTRODUCTION

1.1 Project Background

It is understood that Louth County Council wish to upgrade an existing playground (1,471m²) located on the southern boundary of St. Dominic’s Park, Rathmullan Road, Drogheda, County Louth (see Plate 1 below and site location maps, Figures 1 to 6). Louth County Council have identified the need to extend the current facilities due to the demand for use from the growing population in Drogheda and the increase in use of The Boyne Greenway. The proposed expansion of the playground and carparking will help address these issues and promote outdoor recreation activities (see existing St. Dominic’s Park layout in Figure 8 and Proposed Site Layout in Figure 9).



Plate 1. UAV Aerial photograph of site taken at 120m elevation to the south of the Rathmullan Road residential area to the south of the site facing in a northerly direction.

St. Dominic’s Park is a public park located on the southern banks of the Boyne River which flows through Drogheda, County Louth in an approximate west to east direction. St. Dominic’s Park is bordered by Rathmullan Road (L1002) which joins George’s Street (also known as the R132 Regional Road) to the east of the site. George’s Street (R132) passes over the Bridge of Peace which forms the eastern boundary of the site. A pedestrian cycleway called the Rampart Walkway-Cycleway which forms part of the Boyne Greenway runs along the northern boundary of the park. This allows walkers and cyclists to walk from Drogheda town along the banks of the Boyne as far as the Battle of the Boyne Visitor Centre (see site location maps, Figures 1 to 6).

It is understood that this playground development is being applied for under Part 8 of the *Planning and Development Regulations 2001*, and that an Appropriate Assessment screening assessment is required. Mulroy Environmental Ltd. were appointed by Louth County Council to carry out screening for appropriate assessment for the afore-mentioned playground development.

A previous Part 8 Application was submitted by Louth County Council in 2023 for upgrade works carried out within the site boundary for the existing playground. The playground upgrade involved the removal and replacement of the existing playground apparatus on the eastern end of the playground. An Appropriate Assessment Screening Report was prepared by Mulroy Environmental Ltd. for this application.

1.2 Proposed Playground Upgrade Description

The following is a breakdown of the proposed works (see Figure 9 for Proposed Site Layout and Plate 2 below and Plate 3 following showing the existing site):

- Extension of the current play facilities by c.50% in area and provision of new play equipment throughout the new extended play space;
- New fencing to playground;
- Extension of the parking area to provide an additional 19 car spaces;
- Provision for disabled parking;
- Provision for Ev charging;
- Inclusion of Sustainable Drainage Solutions (SuDS) for all parking spaces;
- Provision of 3 no. new public toilets which will be connected to the main municipal foul sewer on the Rathmullan road to the south of the site;
- Realignment of the current public path to the north of the playground to allow for the extension of the play and parking area;
- Provision of new bicycle stands;
- Re-seeding of embankments following earthworks; and
- Resurfacing of the driveway into the car parking area.



Plate 2. UAV Aerial photograph of site taken at 40m elevation to the south of the Rathmullan Road residential area to the south of the site facing in a north-westerly direction



Plate 3. Ground photograph taken the access road to the east of the existing playground facing in a westerly direction towards the gate entrance.

1.3 Site Description

The eastern side of the park consists of rectangular-shaped landscaped area with mature trees surrounding it on 4 sides. A rose garden, known as the ‘Princess Grace Rose Garden’ is located in the centre of this area (see Plates 3 and 4 below).



Plate 3. Aerial photograph taken in November 2025 at 60m elevation over the western boundary of the existing playground facing in an easterly direction towards the rectangular shaped woodland and Princes Grace Rose Garden



Plate 4. Aerial photograph taken in July 2023 at 60m elevation over the Boyne River facing in a south-easterly direction towards the rectangular shaped woodland with the Princes Grace Rose Garden at its centre

The parkland on the western side of the park is mostly open grassland with some isolated semi-mature wood copses and individual trees (see Plate 5 below).



Plate 5. Aerial photograph taken in November 2025 at 60m elevation at the north-western corner of St. Dominic’s Park facing in a south-easterly direction towards the open grassland area

To the south of Rathmullan Road, which forms the southern boundary of St. Dominic’s Park, are detached residences (see Plate 6 below). A residential estate known as Rampart Green Estate consisting of semi-detached houses and apartments is located to the west of St. Dominic’s Park (see Plate 6 below).



Plate 6. Aerial photograph taken in July 2023 at 60m elevation at the eastern boundary of St. Dominic’s Park facing in a westerly direction showing residential area to the west of the site and detached residences along Rathmullan Road to the south of the park

Approximately 85m of the north of the St. Dominic’s Park on the northern banks of the Boyne River is a derelict multi-storey linen mill. To the west of this mill, is an area known as Horse Lane where a slipway is located. The Irish Coast Guard’s Drogheda base is based in a premises adjacent to Horse Lane (see Plate 7 below and Figure 7).



Plate 7. Aerial photograph taken in November 2025 at 60m elevation at the eastern boundary of St. Dominic’s Park facing in a north-westerly direction showing derelict flax mill, Horse Lane and slipway on the northern banks of the Boyne River

To the east of the derelict flax mill, to the south of Mill Lane and Trinity Street, is an 11-storey apartment building, Friary Place (see Plate 8 below).



Plate 8. Aerial photograph taken in November 2025 at 60m elevation to the west of the Bridge of Peace facing in a northerly direction showing an 11-storey apartment building, Friary Place at Mill Lane

As stated previously, George’s Street (R132) passes over the Bridge of Peace which forms the eastern boundary of the park. Further to the east is located another bridge, St. Dominic’s Bridge which is a pedestrian bridge (see Plate 9 below).



Plate 9. Aerial photograph taken at 120m elevation over the northern bank of the Boyne River facing in an easterly direction showing George’s Bridge and St. Dominic’s Bridge further downstream

As stated previously, the Boyne Greenway runs east to west along the northern boundary of the park. This allows walkers and cyclists to walk from Drogheda town along the banks of the Boyne as far as the Mary McAleese Boyne Valley Suspension Bridge and then Battle of the Boyne Visitor’s Centre (see Plate 10 below).



Plate 10. Aerial photograph taken at 120m elevation at the northern bank of the Boyne near Friary Hall Apartment Tower facing in a westerly direction showing Boyne Greenway and Mary McAleese Boyne Valley Bridge

1.4 Planning Background

A review of the Louth County Development Plan Zoning Map for Drogheda indicates that the site has a ‘H1 Open Space’ Land Use Category (see Plate 11 below).

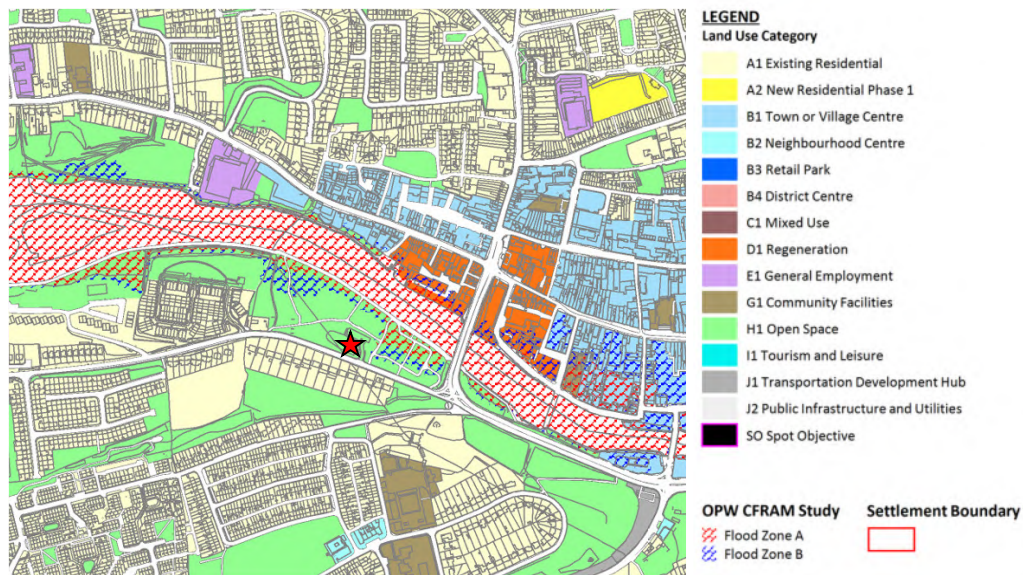


Plate 11. Drogheda Zoning Map (note red star indicates the location of the existing playground site)

1.5 Appropriate Assessment Screening Report

The site is approximately 77m to the south of the River Boyne and River Blackwater Special Area of Conservation (SAC) (No. 002299), 3.7km to the Boyne Coast and Estuary SAC (001957) and 7.66km to the west of the Northwest Irish Sea Candidate Protected Area (cSPA) (No. 004236) (see Figures 1 & 2, Table 1 & Plate 12 below).

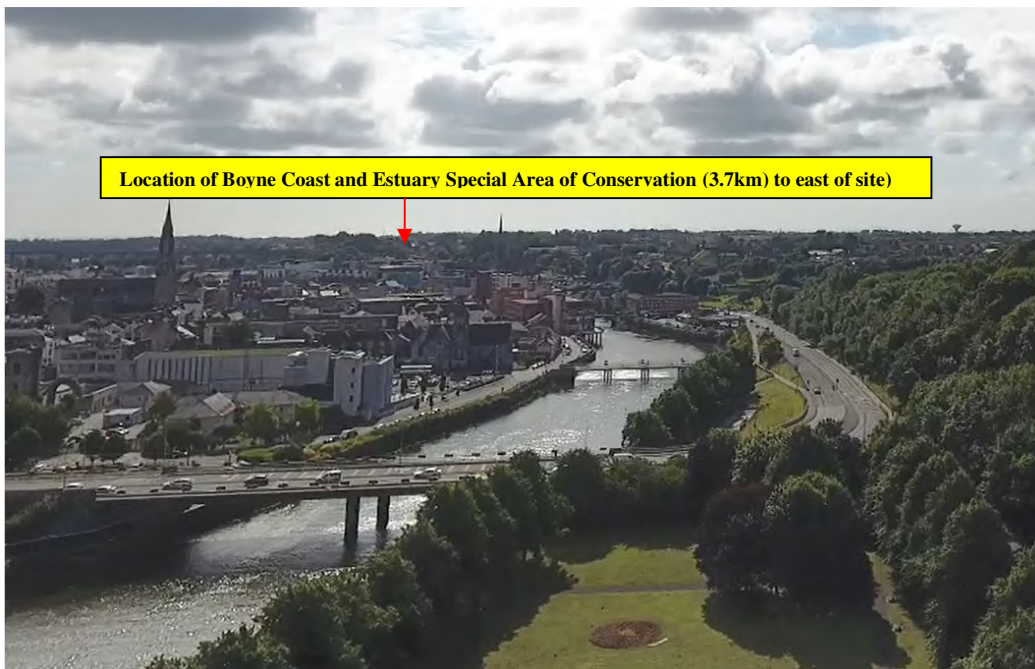


Plate 12. Aerial photograph taken at 60m elevation over the site facing in an easterly direction towards Boyne Coast and Estuary Special Area of Conservation (SAC) and Northwest Irish Sea Candidate Protected Area (SPA)

A screening report for Appropriate Assessment was processed in order to determine if the aforementioned elements of this planning application (as laid out in Section 1.2), or in combination with other plans or projects, would be likely to have a significant effect on the designated Natura 2000 site(s) or any other European site, in view of the site’s Conservation Objectives. This screening report for Appropriate Assessment was processed in order to determine the likelihood of any significant adverse effects on the integrity of the aforementioned European sites.

The site’s stormwater and foulwater drainage system along with the hydrology and hydrogeology of the site were assessed with the purpose of identifying any potential pathways to nearest Natura 2000 site(s).

The following is an Appropriate Assessment Screening report to address the afore mentioned.

2 METHODOLOGY

2.1 Desk Study

A comprehensive GIS mapping and data review was carried out to identify all statutory protected areas and other non-statutory areas within 15km of the site. This involved a review of inland freshwater water ecosystems. All ecological, biological/Q-Index and hydrological/chemical monitoring data available from the websites of NPWS, National Biodiversity Data Centre, Bat Conservation Ireland, Louth C.C., EPA, GSI, OPW and WFD were reviewed. Information on protected species of fauna and flora listed for protection under Annex II of the EU Habitats Directive (92/43/EEC), Annex I of the Birds Directive (79/409/EEC) and the Wildlife (Amendment) Act (2000) will be sought from NPWS, the National Biodiversity Data Centre and published sources were reviewed. The National Parks and Wildlife Service (NPWS) of the Department of Arts, Heritage, Regional Rural and Gaeltacht Affairs database of designated conservation areas and NPWS records of rare and protected plant species were checked with regard to the location of the lands at Cavan Hill.

The online database hosted by the Irish National Biodiversity Data Centre (NBDC) (www.biodiversityireland.ie) was also utilised to assess the importance of the study area for mammals and bats. Other sources accessed to gather information on bats in the study area included The Bat Conservation Trust’s report ‘*Distribution Atlas of Bats in Britain and Ireland 1980-1999*’ (Richardson, 2000). The ‘*Irish Red Data Book 2: Vertebrates - Threatened Mammals, Birds, Amphibians and Fish in Ireland*’ (Whilde, 1993) and the updated *Irish Red List No.3: Terrestrial Mammals* (Marnell *et al.* 2009) were also reviewed.

Recent, high resolution, colour aerial photographs were used to identify habitats of conservation value. Relevant mapping was prepared for this A through a combination of Autocad Map 2017 and ArcGIS Pro. Ornithological data submitted as part of previous EcIAs, NISs and AA screening reports for developments within the vicinity of site were reviewed.

2.2 Unmanned Aerial Vehicle (Drone) Photogrammetry Survey & Video Survey

Mulroy Environmental Ltd. carried out a 4K photogrammetric drone survey, panoramic photography survey and a 4K video survey of the site and the surrounding area on the 25th November 2025 (i.e., winter period). It should be noted that UAV orthomosaics, 4K video and ground photographs which were derived from a survey completed by Mulroy Environmental Ltd. on the 4th July 2023 were also used in the compilation of this report. It should be noted that no material change has occurred from the survey in July 2023 with the exception of new apparatus installed within the footprint of the playground. The canopy of the trees within the site and the woodland on the eastern side of the site was at its maximum footprint during July 2023.

Mulroy Environmental are licensed SOP holders with the Irish Aviation Authority/EASA and have drone specific insurance in addition to our normal Public and Employers Liability Insurance. The site is not in an IAA restricted flight zone and did not require SOP permission from the IAA. The purposes of the drone surveys were to familiarise Mulroy Environmental with the topography and vegetation of the site

**TABLE 1. NATURE CONSERVATION SITES WITHIN 15 KM OF ST. DOMINIC’S PARK PLAYGROUND, RATHMULLAN ROAD, DROGHEDA, CO. LOUTH
(INFORMATION OBTAINED FROM WWW.NPWS.IE IN FEBRUARY 2026)**

SITE NAME, SITE CODE, DISTANCE AND DIRECTION FROM SITE	SITE OR ORGANISM NAME AND/OR CODE GIVEN ACCORDING TO INTERPRETATION MANUAL OF EUROPEAN UNION HABITATS	THE POTENTIAL SOURCE-PATHWAY-RECEPTOR LINKS BETWEEN ST. DOMINIC’S PLAYGROUND SITE AND THE ECOLOGICALLY DESIGNATED SITE
Special Areas of Conservation (SAC)		
<p>River Boyne and River Blackwater SAC [002299] 8m (N)</p>	<ul style="list-style-type: none"> ▪ [1099] River Lamprey (<i>Lampetra fluviatilis</i>) ▪ [1106] Salmon (<i>Salmo salar</i>) ▪ [1355] Otter (<i>Lutra lutra</i>) ▪ [7230] Alkaline fens ▪ [91E0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)* <p>* denotes a priority habitat under the Habitats Directive.</p> <p>Source: NPWS. (2021). <i>Conservation Objectives: River Boyne and River Blackwater SAC [002299]</i>. Version 1.0. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.</p>	<p>The northern edge of the proposed construction works area is c. 55m to the south of the SAC boundary. Contaminated stormwater generated during the construction phase will be limited in volume and the permeable nature of the overburden will dissipate to ground. The existing stormwater drains will be blocked to prevent accidental discharges during the construction phase. Given the distance to the SAC, there is no viable linkage.</p> <p>During the Operational Phase of the development, given the proposed SuDS compliant design for the site, there are no proposals to generate a point discharge from the site. The ground covering will facilitate the percolation of rainfall through the material into the underlying subsoil. An overflow discharge to the municipal stormwater drain will only occur during extreme rainfall events. The materials used for the ground covering in the parking area will not generate leachate. As such, any stormwater generated on site will be free of contamination and will discharge to ground. As such, there is effectively no source of contamination which can migrate off site. Based on GSI records, there is significant depth of overburden on site, and as such there is significant attenuation capacity within the overburden.</p> <p>The municipal stormwater drain to the south of the site discharges in a westerly direction to the surface water body to the west of the site which discharges into the River Boyne. However, an overflow discharge from the site to the municipal stormwater drain will only occur during extreme rainfall events. As such, the Source-Pathway-Receptor linkage for possible contamination to exit the site and enter the Boyne River catchment and ultimately flow into the River Boyne and River Blackwater SAC would be regarded as ‘weak’ and should be disregarded.</p>

**TABLE 1. NATURE CONSERVATION SITES WITHIN 15 KM OF ST. DOMINIC’S PARK PLAYGROUND, RATHMULLAN ROAD, DROGHEDA, CO. LOUTH
(INFORMATION OBTAINED FROM WWW.NPWS.IE IN FEBRUARY 2026)**

SITE NAME, SITE CODE, DISTANCE AND DIRECTION FROM SITE	SITE OR ORGANISM NAME AND/OR CODE GIVEN ACCORDING TO INTERPRETATION MANUAL OF EUROPEAN UNION HABITATS	THE POTENTIAL SOURCE-PATHWAY-RECEPTOR LINKS BETWEEN ST. DOMINIC’S PLAYGROUND SITE AND THE ECOLOGICALLY DESIGNATED SITE
<p align="center">Boyne Coast and Estuary SAC [001957] 3.63km (ENE)</p>	<ul style="list-style-type: none"> ▪ [1130] Estuaries ▪ [1140] Mudflats and sandflats not covered by seawater at low tide ▪ [1310] Salicornia and other annuals colonizing mud and sand ▪ [1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) ▪ [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) ▪ [2110] Embryonic shifting dunes ▪ [2120] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes') ▪ [2130] Fixed coastal dunes with herbaceous vegetation ('grey dunes')* <p>* denotes a priority habitat under the Habitats Directive.</p> <p>Source: NPWS. (2021). <i>Conservation Objectives: River Boyne and River Blackwater SAC [002299]</i>. Version 1.0. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.</p>	<p>Due to distance and the absence of any hydrological or other potential impact pathways between the proposed development and the European site, there are no potential ecological impacts.</p>
<p align="center">Clogherhead SAC [001459] 11.76km (NE)</p>	<ul style="list-style-type: none"> ▪ [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts ▪ [4030] European dry heaths <p>Source: NPWS. (2017). <i>Conservation Objectives: Clogherhead SAC [001459]</i>. Version 1.0. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.</p>	<p>Due to distance and the absence of any hydrological or other potential impact pathways between the proposed development and the European site, there are no potential ecological impacts.</p>

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SITE NAME, SITE CODE, DISTANCE AND DIRECTION FROM SITE	SITE OR ORGANISM NAME AND/OR CODE GIVEN ACCORDING TO INTERPRETATION MANUAL OF EUROPEAN UNION HABITATS	THE POTENTIAL SOURCE-PATHWAY-RECEPTOR LINKS BETWEEN COLLON PLAYGROUND SITE AND THE ECOLOGICALLY DESIGNATED SITE
Special Protection Areas (SPA)		
<p>River Boyne and River Blackwater SPA [004232] 2.34km (E)</p>	<ul style="list-style-type: none"> ▪ Kingfisher (<i>Alcedo atthis</i>)** <p>** denotes breeding birds at River Boyne and River Blackwater.</p> <p>Source: NPWS. (2022). <i>Conservation Objectives for River Boyne and River Blackwater SPA [004232]</i>. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.</p>	<p>The northern edge of the proposed construction works area is c. 55m to the south of the SAC boundary. Contaminated stormwater generated during the construction phase will be limited in volume and the permeable nature of the overburden will dissipate to ground. The existing stormwater drains will be blocked to prevent accidental discharges during the construction phase. Given the distance to the SAC, there is no viable linkage.</p> <p>During the Operational Phase of the development, given the proposed SuDS compliant design for the site, there are no proposals to generate a point discharge from the site. The ground covering will facilitate the percolation of rainfall through the material into the underlying subsoil. An overflow discharge to the municipal stormwater drain will only occur during extreme rainfall events. The materials used for the ground covering in the parking area will not generate leachate. As such, any stormwater generated on site will be free of contamination and will discharge to ground. As such, there is effectively no source of contamination which can migrate off site. Based on GSI records, there is significant depth of overburden on site, and as such there is significant attenuation capacity within the overburden.</p> <p>The municipal stormwater drain to the south of the site discharges in a westerly direction to the surface water body to the west of the site which discharges into the River Boyne. However, an overflow discharge from the site to the municipal stormwater drain will only occur during extreme rainfall events. As such, the Source-Pathway-Receptor linkage for possible contamination to exit the site and enter the Boyne River catchment and ultimately flow into the River Boyne and River Blackwater SPA would be regarded as ‘weak’ and should be disregarded.</p>
<p>Boyne Estuary SPA [004080] 2.43km (ENE)</p>	<ul style="list-style-type: none"> ▪ Shelduck (<i>Tadorna tadorna</i>)* ▪ Oystercatcher (<i>Haematopus ostralegus</i>)* ▪ Golden Plover (<i>Pluvialis apricaria</i>)* ▪ Grey Plover (<i>Pluvialis squatarola</i>)* ▪ Lapwing (<i>Vanellus vanellus</i>)* ▪ Knot (<i>Calidris canutus</i>)* ▪ Sanderling (<i>Calidris alba</i>)* ▪ Black-tailed Godwit (<i>Limosa limosa</i>)* ▪ Redshank (<i>Tringa totanus</i>)* ▪ Turnstone (<i>Arenaria interpres</i>)* ▪ Little Tern (<i>Sterna albifrons</i>)** ▪ Wetland and Waterbirds [A999] <p>* denotes wintering birds at Boyne Estuary. ** denotes breeding birds at Boyne Estuary.</p> <p>Source: NPWS. (2013). <i>Conservation Objectives: Boyne Estuary SPA [004080]</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Due to distance and the absence of any hydrological or other potential impact pathways between the proposed development and the European site, there are no potential ecological impacts.</p>

TABLE 1. NATURE CONSERVATION SITES WITHIN 15 KM OF ST. DOMINIC’S PARK PLAYGROUND, RATHMULLAN ROAD, DROGHEDA, CO. LOUTH, (INFORMATION OBTAINED FROM WWW.NPWS.IE IN FEBRUARY 2026)

SITE NAME, SITE CODE, DISTANCE AND DIRECTION FROM SITE	SITE OR ORGANISM NAME AND/OR CODE GIVEN ACCORDING TO INTERPRETATION MANUAL OF EUROPEAN UNION HABITATS	THE POTENTIAL SOURCE-PATHWAY-RECEPTOR LINKS BETWEEN ST. DOMINIC’S PLAYGROUND SITE AND THE ECOLOGICALLY DESIGNATED SITE
Special Protection Areas (SPA)		
<p>Northwest Irish Sea cSPA [004236] 7.66km (E)</p>	<p>The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species:</p> <ul style="list-style-type: none"> • Common Scoter; • Red-throated Diver; • Great Northern Diver; • Fulmar; • Manx Shearwater; • Shag, Cormorant; • Little Gull, Kittiwake; • Black-headed Gull; • Common Gull; • Lesser Black-backed Gull; • Herring Gull; • Great Black-backed Gull; • Little Tern; • Roseate Tern; • Common Tern; • Arctic Tern; • Puffin; • Razorbill; and • Guillemot. <p>Source: NPWS. (2013). <i>Site Synopsis: Northwest Irish Sea cSPA [004236]</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Due to distance and the absence of any hydrological or other potential impact pathways between the proposed development and the European site, there are no potential ecological impacts.</p>
<p>River Nanny Estuary & Shore SPA [004458] 7.67km (ESE)</p>	<ul style="list-style-type: none"> ▪ Oystercatcher <i>Haematopus ostralegus</i> wintering ▪ Ringed Plover <i>Charadrius hiaticula</i> wintering ▪ Golden Plover <i>Pluvialis apricaria</i> wintering ▪ Knot <i>Calidris canutus</i> wintering ▪ Sanderling <i>Calidris alba</i> wintering ▪ Herring Gull <i>Larus argentatus</i> wintering ▪ Wetlands <p>Source: NPWS. (2022). <i>Conservation Objectives: River Nanny Estuary & Shore SPA [004458]</i>. Version 1.0. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.</p>	<p>Due to distance and the absence of any hydrological or other potential impact pathways between the proposed development and the European site, there are no potential ecological impacts.</p>

and to help in the production of drawings for report. An orthomosaic was generated for both of the surveys which were used in the production of detailed drawings for the site and in the accurate mapping of habitats within the site. In addition, a 3D model of the site was produced which assisted in the mapping of habitats within the site.

2.3 ArcGIS Pro & Autocad Mapping

GIS maps of different scales were produced using the ESRI ArcGIS Pro computer programme. These maps were used to identify the proximity of the site to Special Areas of Conservation (SACs) and Special Protected Areas (SPAs), and to surrounding surface waters. SAC and SPA data was imported from NPWS and added as a layer (NPWS, 2023). Orthomosaics developed through drone photogrammetric surveys were imported into ArcGIS Pro and BricsCAD. The site boundary was identified and outlined within this map. A 15km buffer was created around a centre point within the site boundary.

2.4 Habitat Survey

2.4.1 Plant Habitat Survey

A site-based habitat assessment was carried out on the 25th November 2025. This habitat survey was completed using the previous habitat survey carried out in July 2023 as a foundation. It is important to note that in the intervening 2 years, no new habitats were created on site with the only exception being the die back of perennials in those areas planted within Princess Grace garden to the east and within the western side of the park. As expected, the trees within the park have grown. All trees identified in the previous survey in 2023 were found to be present.

The habitat survey was carried out following the Heritage Council’s *Best Practice Guidance (Smith et al., 2011)*. Habitats were classified to Level 3 of the Heritage Council’s classification (*Fossitt, 2000*), and also according to the *Habitats Directive types (European Commission, 2013)* where appropriate. In addition to habitat mapping, notes on plant species composition, structure and management were collected. Plant species were assigned a DAFOR abundance rating within each habitat. The DAFOR scale is presented in the following table, Table 2 which was modified from *Smith et al. (2011) Habitat Mapping Guidelines*.

Table 2. DAFOR Abundance Rating

RATING	DESCRIPTION
Dominant (D)	A Dominant species generally covers more than two-thirds of the habitat.
Abundant (A)	Abundant species typically cover between one-third and two-thirds of the habitat. A rule of thumb for evaluating Abundant species is ‘everywhere you look you see lots’.
Frequent (F)	Commonly encountered species seen when walking through the habitat. ‘Everywhere you look you see some’.
Occasional (O)	Occasional species generally have relatively low frequency and low cover. However, they do not have to be searched for to be found.
Rare (R)	Rare species are those that are only found once or a very few times during the survey, depending on the size of the habitat. Species cover is also very low where Rare species are found.
Locally Abundant (LA)	Used where overall occurrence of species is either occasional or rare, but species is abundant over a small area.

Plant nomenclature follows Stace (2010). Plant species identification was assisted by the PictureThis plant identification application with 98% accuracy (PictureThis, 2023). The identification and classification of these plants was also assisted by databases provided by the NBDC, the EPA, Teagasc, Biodiversity Ireland and the NPWS.

2.4.2 Mammal Survey

A mammal survey was carried out on the 25th November 2025 using the techniques as prescribed in *Ecological Survey Techniques for Protected Flora and Fauna (NRA, 2008)*. This entailed searching for and identification of signs, tracks, and droppings of various mammals (including bats, otter, badger, pine marten, Irish stoat, Irish hare, red squirrel, hedgehog, and pygmy shrew along with non-native species such as American mink, grey squirrel, and rabbit) within the site and surrounding park area.

2.4.3 Bird Survey

A walkover bird survey was carried out on the hedgerows and trees located throughout St. Dominic’s Park on the 25th November 2025. This recording began at 8:30am and has a duration of 30 minutes. This survey was carried out using Cornell Lab Merlin Bird ID software application installed on a Samsung Galaxy Tab Active 3 tablet.

3 SCREENING

Screening involves the following:

1. Description of the surrounding area, plan showing the elements of retention and proposed structures, the local site or plan area characteristics and its existing/proposed effluent discharge(s);
2. Identification of relevant Natura 2000 sites, and compilation of information on their qualifying interests and conservation objectives;
3. Assessment of likely effects (direct, indirect and cumulative) through the completion of a desk study or field survey; and
4. Screening statement including conclusions

3.1 Site History

A review of 6-inch historical Ordnance Survey mapping which dates from the 1800s indicates that the site was located on the southern boundary of what was most likely an agricultural field at that time (see Plate 13 below). Rathmullan Road is visible to the south of the site but the Bridge of Peace does not exist at this moment in time. There is a noted absence of buildings in the area with the exception of a cottage to the west of the site. An historical demesne, Balls Grove is located to the south of the site. The start of the development of industrial buildings, most likely linen production related, can be seen on the northern bank of the Boyne near Mill Lane and to the south of Trinity Street.



Plate 13. Extract of last Edition of 6-inch historical OS Mapping showing site on southern boundary of agricultural field (note red star indicates the approximate location of the site)

A review of 25-inch historical Ordnance Survey mapping from the early 1900s indicates that the site remained effectively unaltered (see Plate 14 below). A small stream is indicated on the western boundary flowing from south to north and discharging into the Boyne at a sluice. This stream is present on the western boundary of St. Dominic’s Park. Another stream or land drain can be seen to flow in an east to west direction close to the northern boundary of the site. This land drain most likely also discharged into the Boyne at the afore-mentioned sluice. An inspection of the mapping indicates the presence of a large flax mill, Westgate Mill on the northern banks of the River Boyne opposite the site. This mill which is now derelict is shown on previous plates, Plate 7 to 9. As can be seen from Plate 14 below, the Bridge of Peace does not exist at this juncture.

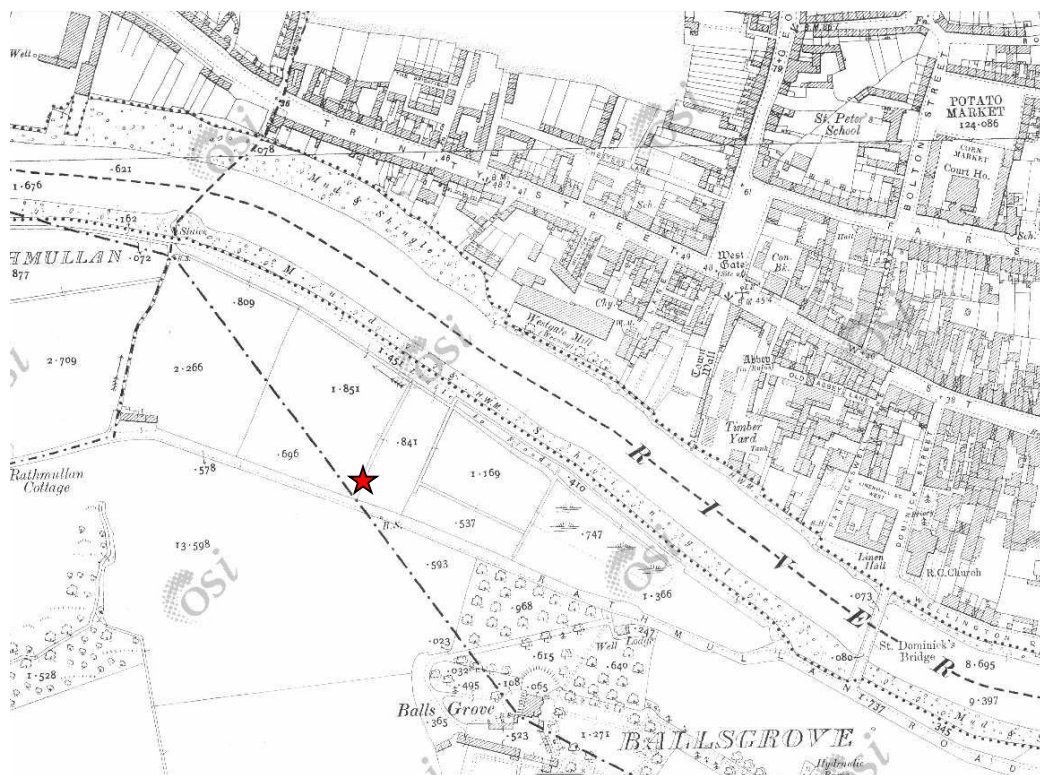


Plate 14. Extract of last Edition of 25-inch historical OS Mapping (note red star indicates the approximate location of the site)

3.2 Closest Designated Protected Sites

As stated previously, the site is approximately 77m to the south of the River Boyne and River Blackwater Special Area of Conservation (SAC) (No. 002299), 3.7km to the west of the Boyne Coast and Estuary SAC (001957) and 7.66km to the west of the Northwest Irish Sea Candidate Protected Area (cSPA) (No. 004236) (see Figures 1 to 5, Table 1 & previous Plate 12).

3.3 Topography

The topography of the ground within the playground site is relatively level with an approximate elevation of 5.79mAOD (see Plate 15 below). The topography of the park generally slopes gently from south to north towards the river. The following plate, Plate 15 shows an extract of a 3D topographical model with a cross-section through the roadside hedgerow on the southern boundary, the playground, the open park area, greenway path and the River Boyne riverbed to the north. As can be seen from the section to the left of Plate 15, the elevation of the site is at 6mAOD varying little from the southern boundary to the middle of the park. Towards the northern boundary the site then slopes noticeably towards the river from approximately 5mAOD twenty metres to the south of the river’s edge to approximately 3.2mAOD at the greenway path. The elevation then drops to approximately 0mAOD (i.e., sea level) at the base of the Boyne River.

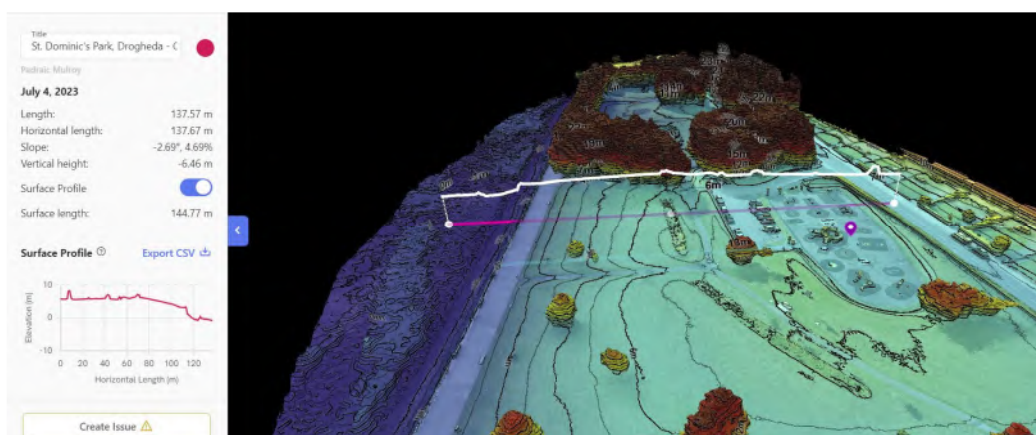


Plate 15. Extract of Dronedeploy 3D Elevation Model

3.4 Existing Municipal Stormwater Drainage

The public water supply network, stormwater drainage and foul water drainage for the south Drogheda area in the vicinity of the site are illustrated in three Uisce Eireann drawings which are included in Appendix 3.

It should be noted that there is no existing stormwater discharge from the current playground site with the existing permeable surface allowing rainwater falling on the site to dissipate through the overburden. However, a 150mm diameter stormwater drain collects rainwater via a number of gullies located within the carpark and on the park access road and flows from north to south (see Figure 8). This discharges to a municipal stormwater sewer located on the northern side of the Rathmullan Road. This stormwater sewer discharges to a culverted stream located to the west of the site (see Section 3.5. Hydrology and Figure 5).

3.5 Proposed Stormwater Drainage

3.5.1 Site Investigation, BRE 365 Testing & Stormwater Drainage Design

As stated in Section 1.2 of this report, there are no requirements to discharge stormwater from the proposed playground to the existing municipal stormwater network. In order to assess the site’s suitability for assimilating surface water falling within the hardstanding onsite as per SuDS criteria, BRE365 testing was carried out within the car park area (see Plate 16 below).



Plate 16. Ground photographs of trialpitting and BRE365 testing carried out to the north of the playground carpark to determine the suitability for a SuDS system

The infiltration characteristics of the underlying sub-soil at the site was determined by excavating a test hole (i.e., 2.3m x 0.8m x 1.7m deep) in a grassed area to the south of the existing carpark and carrying out an infiltration test in accordance with BRE 365. The test hole was located within the strip of grass to the north of the existing playground and south of the existing car park (see Figure 8).

The subsoil was found to comprise of:

- 0m – 0.30m Topsoil;
- 0.3m – 1.3m Gravelly clay with cobbles;
- 1.3m – 1.7m Silty Clay.

No rock nor ground water was encountered in the test hole. The initial rate of water level drop was good with a drop of 0.17m within 40 minutes. The rate then significantly reduced with a further reduction of only 0.13m recorded over the next 120 minutes. The initial drop of water occurred within the gravelly clay layer of the subsoil with the reduction in infiltration rate happening once the water level dropped into the lower silty clay layer. In essence, the test results show reasonable infiltration within the upper

layers of the subsoil (< 1.3m) and more modest infiltration within the lower layer of the subsoil (>1.3m). Calculations, carried out in accordance with BRE365, estimate the infiltration rate in each layer to be as follows:

Sub-Soil Layer	Infiltration rate (m/s)
Upper Layer (< 1.3m)	2.49 x 10 ⁻⁵
Lower Layer (>1.3m)	6.80 x 10 ⁻⁶

The low infiltration available within the sub-soil below 1.3m rules out the use of standard deep infiltration devices such as soakpits or soakage trenches to deal with surface water run-off generated from the development.

It is therefore recommended that the surface water drainage proposal for the upgraded park facility avails of the favourable infiltration properties within the upper layer of the underlying sub-soil to the maximum possible extent through the construction of car park spaces and non-trafficked areas (footpaths, walkways, play area) using permeable surfaces as follows:

- *Car park spaces* – Permeable block paving Type 1;
- *New/Realigned Walkways* – Permeable block paving Type 2 and/or porous asphaltic concrete; and
- *Extended Play Area* - porous asphaltic concrete.

The selection of permeable paving is not deemed suitable for the access road and car park circulation aisles given it’s the inferior structural strength. These surfaces should be constructed using standard asphaltic concrete material in accordance with DN-PAV-03021 (TII).

The crown of the access road shall be along its centreline with a 3% crossfall to each side (see following Plate 17). This crossfall shall continue into the car park spaces along each side. The cross fall shall allow runoff from the impermeable road carriageway to flow into the adjoining permeable car park space (see Figure 9).

It should be noted that it is an established design threshold that 1m² of permeable surface can accommodate run-off from 2m² of adjoining impermeable surface. The ‘**0.6:1**’ ratio of impermeable surface area to permeable surface area proposed in this case is significantly below the ‘**2:1**’ ratio threshold.

The incorporation of permeable paving will meet SuDS objectives with respect to quantity, quality and amenity as follows:

- *Quantity*: Provides an underground storage area until full infiltrating of run-off into the sub-soil is completed
- *Quality*: Improves the quality of the water in two ways:

- The stones within the sub-base act as a filter medium which remove heavy particles such as silt and heavy metals.
- Over time microbial organisms begin to cultivate in the pavement which break down hydrocarbon leaks such as exhaust fumes and sump oil drips
- **Amenity:** visually differentiates parking areas from road surface. combines hard landscaping with a SuDS drainage solution

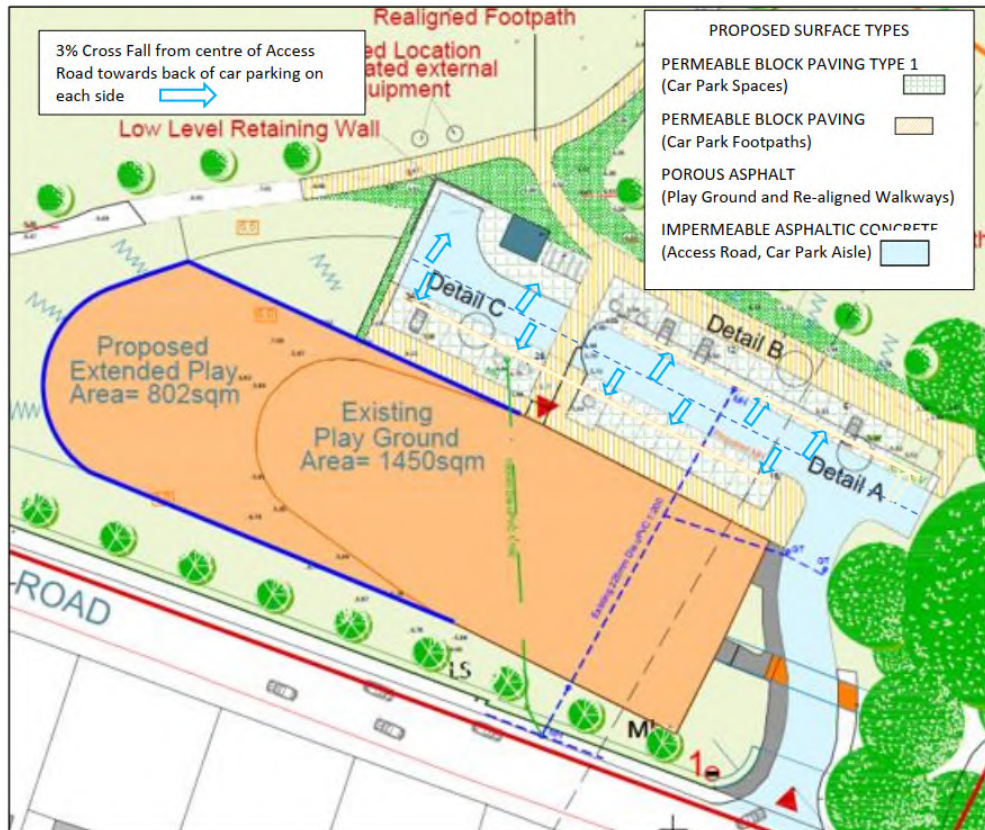


Plate 17. Stormwater/Surface Water Management showing Proposed Surface Types



Plate 18. Proposed Surface Water Management showing asphalt sloped to adjacent permeable paving block (indicative only)

It has been determined that a 225mm sub-base depth is required from a structural perspective. It is necessary to determine whether the depth of storage available within the 225mm deep layer of coarse granular aggregate is sufficient from a hydraulic design Perspective

Each car park space shall provide a 15m² surface area of porous paving. The design allows for run-off the adjoining impermeable road carriageway (10.0m²) to discharge into each car park space (see Figure 9). In essence 15m² of porous paving shall deal with run off from a total area of 25m²

It has been determined from the BRE 365 test that the sub-soil has an infiltration rate of 2.48 x 10⁻⁵m/s. It is proposed to apply a Factor of Safety of 2.50 to this value and to base the design calculation of an infiltration rate of 1.0 x 10⁻⁵m/s. On this basis, run-off shall infiltrate through the base of each car park space at a rate of 0.54m³/hr (1.0 x 10⁻⁵ m/s x 3600 x 15m²)

Run-off shall be stored within the 30% voids provided within the coarse aggregate in cases where the quantum of run-off exceeds the discharge rate of 0.54m³/hr through the base of each car park space. Calculations determining the storage required under a range of rainfall events based on a 1 in 100 year rainfall return period and a further 20% allowance for climate change.

3.5.2 Provision For Emergency Conditions / Extreme Rainfall Events

It is noted that the current drainage of the car park area is via a standard surface water drainage network whereby run-off is collected in a series of road gullies and piped into a surface water drainage pipe that runs along the Rathmullen Road.

While the proposed surface water regime has a robust design its efficient operation is dependent on the performance of the permeable paving. This performance may be adversely impacted over time by the build-up of grit and silt on the road surface.

It is therefore considered prudent that the existing surface water drainage infrastructure is retained and extended into the new car park area to act as an emergency overflow route for run-off in the event of the performance of the permeable paving being reduced and/or to cater for extreme rainfall events. Road gullies should be located in optimum locations to capture run-off in the event that the permeable paving system is overwhelmed by extreme rainfall or its condition has deteriorated.

A schematic sketch of the proposed emergency back-up arrangement is shown in the following plate, Plate 19. It is recommended that the existing surface water drainage piped network is retained and extended, as shown in Plate 19 to offer an emergency overflow route for run-off in the event of the performance of the permeable paving being reduced and/or to cater for extreme events during which permeable paving system is overwhelmed by extreme rainfall or the infiltration capacity of the surface has deteriorated due to build up of grit/silt.

Overall, the design proposal represents a robust design solution that ensures that all generated surface water run-off shall be dealt with within the site in a manner that respects SuDs principles with respect to

quantity, quality and amenity, but which also avails of existing infrastructure to offer an emergency overflow route for run-off in the event of a critical failure of the infiltration performance of the permeable surfaces (see full Surface Water Drainage Design Proposal in Appendix X).

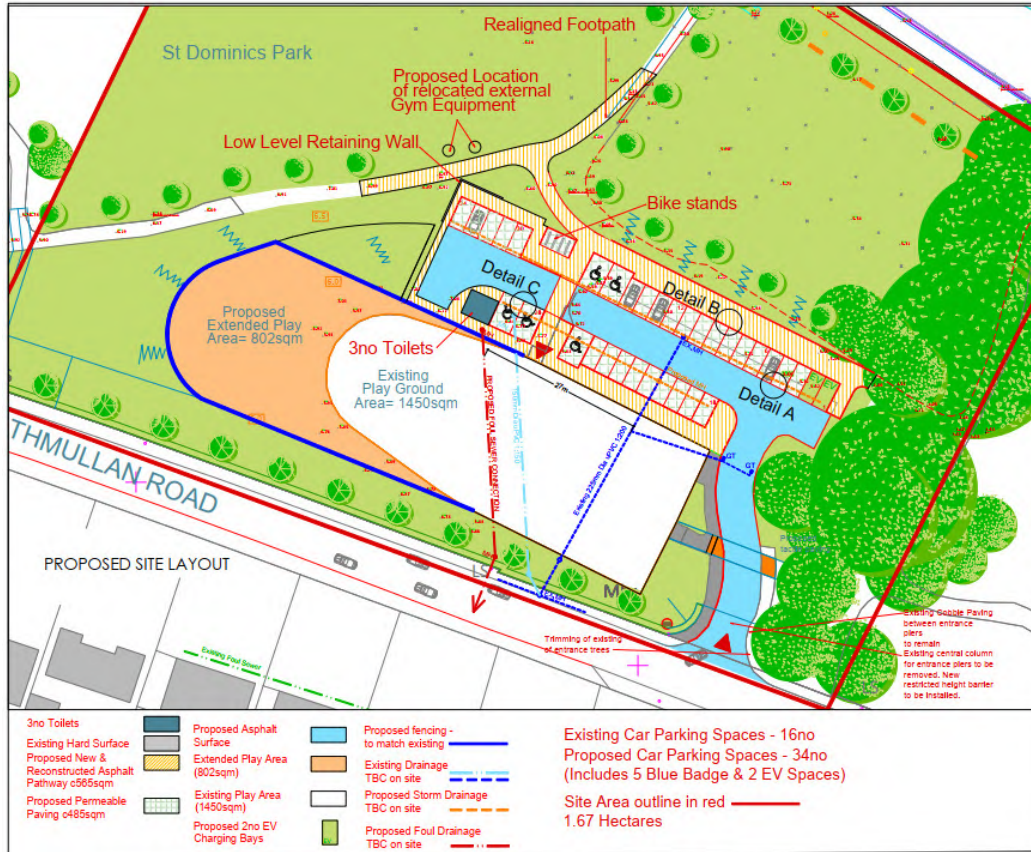


Plate 19. Proposed Alterations of Existing SW Drainage Network to provide an emergency overflow route (Schematic only) and Proposed Foulwater Drainage network to discharge to Combined Municipal Foulwater sewer on Rathmullan Road.

3.6 Existing and Proposed Foulwater Drainage

There is no existing foulwater drainage on site. It is proposed to install 3 toilets in the north-western end of the carpark. These toilets will discharge via a newly installed foulwater pipe which will run through the existing playground and will be routed to the existing combined foulwater municipal sewerage pipe located on the Rathmullan Road (see Plate 19 above, Figure 9 and Appendix 3).

3.7 Site Hydrology

3.7.1 Regional Hydrology

The northern edge of the proposed planning boundary is located on the southern edge of the Boyne Greenway footpath (see Figure 4 and 5). It should be noted that the actual proposed civil works are approximately 55m to the south of the planning boundary (see Figure 9). The Boyne River is located approximately 8m to the north of the northern boundary of the site (see Figures 4, 5 and 9). As such, the Boyne River is, in effect, approximately 63m to the north of the proposed civil works.

The site is located within the Boyne Water Framework Directive (WFD) River Basin District (RBD). In Ireland, each RBD is sub-divided into a number of Water Management Units (WMU) (see Appendix 1). The site is in the WFD Subcatchment Boyne_SC_130. Beneath this Subcatchment the site is located within WFD River Sub Basin Stagrennan_010 (see Appendix 1 for hydrological desk study information).

3.7.2 Local Hydrology

Following a comprehensive desk study of historical and current hydrological mapping, and of on-site and surrounding area inspections, it was concluded that there are surface water bodies and/or land drains in the vicinity of the playground site (see Appendix 1). As stated, the Boyne River is located approximately 8m to the north of the northern boundary of the site with the proposed civil works approximately 63m to the south of the River Boyne.

A small stream, which is culverted on its northern end, rises in an upgradient location to the southwest of the site and runs along the western border of St. Dominic’s Park in a south to north direction. This stream discharges into the River Boyne via a sluice. This stream is culverted to the south of the Rathmullan Road and remains culverted for approximately 200m before it reaches the Boyne. It is approximately 150m to the west of the playground site.

The playground site is surrounded on its southern boundary, western boundary and the western half of the northern boundary by a grassed landscape berm that is approximately 7mAOD at its highest. The elevation within the playground is approximately 5.65mAOD.

No evidence of surface water ponding was observed onsite during an inspection by Mulroy Environmental. As such, rainfall falling on the site percolates through the ground cover into the overburden.

3.8 Site Geology

3.8.1 Introduction

This section addresses the soil and geology aspects of the environment and assesses the impacts of the proposed development on the existing soil, subsoil and bedrock environments. This section was prepared following a site audit and desk study work. Relevant documents that were accessed comprised geological maps and publications by the National Soil Survey of Ireland and the Geological Survey of Ireland (GSI).

3.8.2 Soil

3.8.2.1 Soil (Top Horizon)

The formation of topsoil is known as the ‘pedogenic’ process. Reference to the General Soil Map of Ireland, published by An Foras Talúntais (1980) indicates that the predominant or principal soil type in the vicinity of the site is Soil Association No. 35, *Grey Brown Podzol* (80%) with secondary soils as *Gleys* and *Brown Earth* (10%).

A National Soil Mapping Project carried out jointly by the EPA and Teagasc have identified a number of soil types within the footprint of the site. Soil type *AlluvMIN* – *Alluvial (mineral)*, *AminDW* - *Deep well drained mineral (Mainly acidic)*, *AminPD* - *Mineral poorly drained (Mainly acidic)*, *BminSW* - *Shallow well drained mineral (Mainly basic)* and *Made* – *Made Ground, acidic* (see Plate 20 below). St. Dominic’s footprint is within a linear strip of *AlluvMIN* – *Alluvial (mineral)* which runs along the southern bank of the Boyne River.

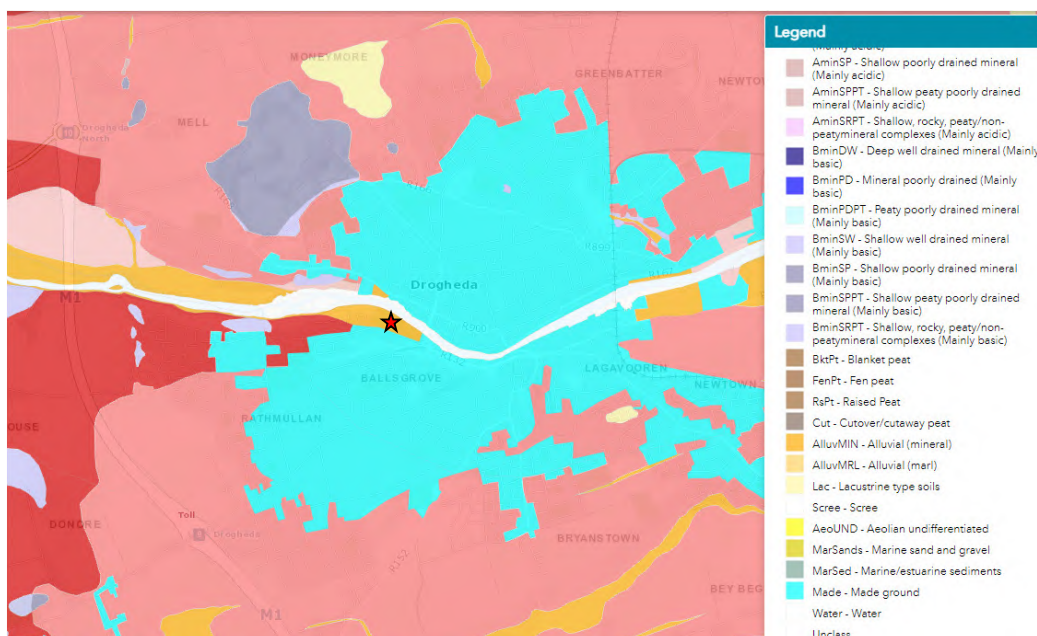


Plate 20. Extract of GSI Mapping showing soil types identified within the vicinity of the site

The land to the north, south and east of the site are, as expected, classed as *URBAN* which is made ground. Based on Mulroy Environmental’s local knowledge of the area, the general classification for the area is considered appropriate for the site (see Appendix 1).

3.8.2.2 Subsoil (Quaternary) Geology

The origin of the subsoil material in this region is associated with the movement and deposition from glaciers during the last Ice Age. The ice sheets ground down the underlying bedrock, breaking the rock and grinding it to small sizes ranging from clays to boulders. The powerful erosive force of these ice sheets are considered to have moulded/sculpted the landscape in the area, with glacial features evident in the area. Glacial deposits in the area consist of tills, which were deposited at the base of moving glaciers, and to a lesser extent fluvio-glacial sand and gravels, which were deposited by glacial meltwaters.

The National Soil Mapping Project carried out jointly by the EPA, GSI and Teagasc have identified several subsoil types in the vicinity of the site. These include *Alluvium (A)*, *Lower Paleozoic sandstone and shale tills (TLPSsS)*, *Lower Paleozoic Sandstone and Shale Sands and Gravels (GLPSsS)* and *Karstified Limestone Bedrock at Surface (KaRck)*. A significant area of built ground (*MADE*) is located to the south, north and east of the site within the town of Drogheda. The main subsoil type on the footprint of the site is *Alluvium (A)* (see Plate 21 below).



Plate 21. Extract of GSI Mapping showing subsoil types identified within the vicinity of the site

3.8.2.3 Site Specific Soil & Subsoil Detail

A trialpit was excavated as part of the BRE365 testing in 2025 (see Appendix 3). The test hole was located within the strip of grass to the north of the existing playground and south of the existing car park (see Figure 8).

The subsoil was found to comprise of:

- 0m – 0.30m Topsoil;
- 0.3m – 1.3m Gravelly clay with cobbles; and
- 1.3m – 1.7m Silty Clay.

No rock nor ground water was encountered in the test hole. These results are consistent with the subsoil underlying the site being *Lower Paleozoic sandstone and shale tills (TLPSsS)* given the lower permeability encountered in the lower soil horizon during BRE365 Testing.

3.8.3 Geology

3.8.3.1 Regional Bedrock Geology

Based on the Geological Survey of Ireland (GSI Bedrock 1:100,000 scale digital geological map series) the bedrock formation for the site is described as the Tullyallen Formation which is comprised of Pale micritised grainstone-wackestone (see Appendix 1).

3.8.3.2 On-site Bedrock Geology

A review of GSI online records, indicates that there are a number GSI borehole records to the south of the site with depth to bedrock information. One of these records which has an acceptable location accuracy of 100m shows a depth to bedrock of 20m. However, it should be noted that this borehole is approximately 1km upgradient from the site and as such, it is likely that the depth to bedrock on site could be substantially different.

3.8.4 Hydrogeology

3.8.4.1 General Hydrogeological Classification

The GSI have classified the bedrock aquifer underlying the site as *Rkd - Regionally Important Aquifer - Karstified (diffuse)* (see Appendix 1). Regionally Important Karst Aquifers would generally have ‘high’ or ‘moderate’ well yields.

3.8.4.2 Groundwater Vulnerability

Groundwater vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease with which groundwater may be contaminated by human activities. The vulnerability category is based on the relative ease with which infiltrating water and potential

contaminants may reach groundwater in a vertical or sub-vertical direction. The permeability and thickness of the subsoil, which influences the attenuation capacity, are important elements in determining the vulnerability of groundwater. The Irish GSI has produced guidelines on groundwater vulnerability mapping that aim to represent the intrinsic geological and hydrogeological characteristics that determine how easily groundwater may be contaminated by human activities. Vulnerability depends on the quantity of contaminants that can reach the groundwater, the time taken by water to infiltrate to the water table and the attenuating capacity of the geological deposits through which the water travels. These factors are controlled by the types of subsoils that overlie the groundwater, the way in which the contaminants recharge the geological deposits (whether point or diffuse) and the unsaturated thickness of geological deposits from the point of contaminant discharge. For vulnerability assessments with regard to bedrock aquifers the relevant geological layer is the subsoil between the release point of contaminants and the top of the bedrock. Any unsaturated bedrock layer is not considered as it is assumed that bedrock has little or no attenuation capacity due to its fissure flow characteristics. The entirety of the site has been given an aquifer vulnerability category rating of *Medium (M)* by the GSI (see Table 3, Plate 22 following and Appendix 1).

Table 3. Groundwater Vulnerability Mapping Guidelines

Vulnerability rating	High permeability (sand/gravel)	Moderate permeability (sandy till)	Low permeability (clayey subsoil)
Extreme	0 – 3.0m	0-3.0 m	0 – 3.0m
High	>3.0m	3.0-10.0m	3.0 – 5.0m
Moderate	N/A	>10m	5.0 – 10.0m
Low	N/A	N/A	>10.0m

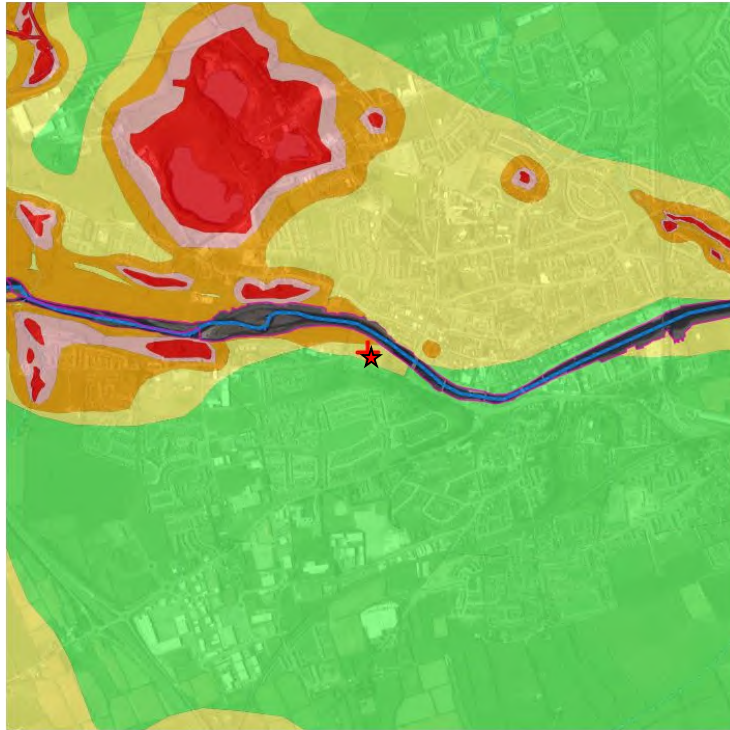


Plate 22. EPA/Teagasc/GSI Aquifer Vulnerability Mapping in proximity of site (note red star is in the centre of the site)

In addition, average annual recharge rates from rainfall in the vicinity of the site indicate that soil permeability is classed as moderate (see Appendix 1).

3.8.4.3 Groundwater Source Protection

The DoE-LG, EPA and GSI guidelines for Groundwater Protection Schemes allow for the combination of aquifer classification and vulnerability rating giving classifications of groundwater protection zones. The purpose of these zones is to place a control on the activities practised within a zone and thus provide protection to any underlying groundwater resources. Using DoE-LG, EPA and GSI criteria and the aquifer classification and vulnerability categories defined for the site, a vulnerability *Rkd/M* (*‘Moderate’*) would be assigned for the site.

3.9 Site Ecology

3.9.1 On-site Ecology

3.9.1.1 Overview

The site proposed for the upgrade works is an existing playground located on the southern side of St Dominic’s Park which is administered by Louth County Council. A carpark which serves visitors to the public park is located immediately north of the playground site. The playground site is rectangular in shape, has two pedestrian access gates and is bordered by a green metal fence on all 4 boundaries. A pedestrian entrance gate on the northern side opens out on to the afore-mentioned carpark. The second playground entrance gate on the eastern boundary opens on to the entrance road to the site. The southern boundary of the wider parkland area is divided from the Rathmullan Road by a hedgerow as described below. A metal fence forms the eastern to northeastern boundary of the park from the R132 road, and also forms the northern boundary between the greenway pedestrian path and the River Boyne. The eastern section of the park is bounded by two treelines along the northern and southern border and by dense clusters of trees along the east and the western borders.

3.9.1.2 Methodology

A site-based habitat assessment was carried out on the site, on the 25th November, 2025 and previously on the 6th July, 2023 on the playground which is approximately 1,471m² in area, and on the surrounding St. Dominic’s park which is approximately 56,129m² (i.e. excluding the playground). The habitat survey was carried out following the Heritage Council’s *Best Practice Guidance (Smith et al., 2011)*. Habitats were classified to Level 3 of the Heritage Council’s classification (*Fossitt, 2000*), and also according to the *Habitats Directive types (European Commission, 2013)* where appropriate.

Prior to field survey, a desk study was undertaken to identify habitats through 2D drone photogrammetric survey imagery (i.e., orthomosaics) and 3D mapping. Habitat types and data sets obtained from National Parks and Wildlife Service (NPWS), the National Biodiversity Data Centre (NBDC), the Environmental Protection Agency (EPA), and other sources were employed to assist in the drafting of a habitat map in preparation of the field survey.

In addition to habitat mapping, notes on plant species composition, structure and management were collected. As stated in Section 2 on Methodology, plant species were assigned a DAFOR abundance rating within each habitat. The DAFOR scale is presented in the previous table, Table 2 which was modified from *Smith et al. (2011) Habitat Mapping Guidelines*. Plant nomenclature follows Stace (2010). Plant species identification was assisted by the PictureThis plant identification application with 98% accuracy (PictureThis, 2023). The identification and classification of these plants was also assisted by databases provided by the NBDC, the EPA, Teagasc, Biodiversity Ireland and the NPWS.

Five GIS maps of different scales were produced using the ArcGIS Pro computer programme. These maps were used to identify the proximity of the site to Special Areas of Conservation (SACs) and Special

Protected Areas (SPAs), and to surrounding surface waters. SAC and SPA data was imported from NPWS and added as a layer (NPWS, 2023). An orthomosaic developed through a drone photogrammetric survey was imported into ArcGIS Pro and added as a map surface layer. The site boundary was identified and outlined within this map. A 15km buffer was created around a centre point within the site boundary.

It is general practice when screening a plan or project for compliance with the Habitats Directive, to identify all Natura 2000 sites (SPAs & SACs) within the functional area of the plan/project itself and within 15km of the boundaries of the area the plan/project applies to. This approach is currently recommended in the Department of the Environmental, Heritage and Local Government’s document Guidance for Planning Authorities and as a precautionary measure, to ensure that all potentially affected Natura 2000 sites are included in the screening process.

3.9.1.3 Habitat Descriptions

Nine habitat types were found in the vicinity of the area proposed for the playground (see Figure 9). These habitats included: *Estuary (MW4)*, *Buildings and Artificial Surfaces (BL3)*, *Dry Meadows and Grassy Verges (GS2)*, *Scattered Trees and Parkland (WD5)*, *Treelines (WL2)*, *Hedgerow (WL1)*, *Flower Beds (BC4)*, *Broadleaved Woodland (WD1)*, *Mixed Broadleaved/Conifer Woodland (WD2)* and *Depositing/Lowland Rivers (FW2)*. Within the site boundary, one habitat type was identified i.e., *Buildings and Artificial Surfaces (BL3)*. The footprint for the proposed playground site is approximately 1,471m² which is the same as the existing playground.

Estuary (MW4)

The River Boyne to the north of the site is tidally effect and as such, its habitat would be classed as *Estuary (MW4)* (see Figure 7). Estuaries are semi-enclosed bodies of water which have a free connection with the open sea. They differ from other coastal inlets in that sea water is measurably diluted by inputs of freshwater and this, combined with tidal movement, means that salinity is permanently variable. The mixing of two very different water masses gives rise to complex sedimentological and biological processes and patterns.

Buildings and Artificial Surfaces (BL3)

This category includes all buildings and structures which are composed of artificial structures such as cement, bricks, and tarmac. The existing playground, the carpark, the access lane, the park access gate and the pedestrian paths are included under this habitat description, as they are built with artificial materials, and include less than 50% plant cover (see Figure 7).

Dry Meadows and Grassy Verges (GS2)

Dry meadows and grassy verges are rarely fertilized, mowed or grazed upon by livestock. This type of grassland is usually visible on grassy roadside verges, on the margins of tilled fields, on railway

embankments, in churchyards and cemeteries, and in some neglected fields or gardens. Three patches of this habitat are located to the west-northwest area of the parkland (see Figure 7). They are irregularly shaped and appear to have originated as Amenity Grassland (GA2) which has been allowed to grow wild. A wide range of grass and broadleaved herb species were recorded along these areas, and each patch contained identical species compositions. A high percentage of tall, coarse dry grassland species such as orchard grass (*Dactylis glomerata*), bush grass (*Calamagrostis epigejos*) and false oatgrass (*Arrhenatherum elatius*) were recorded. Common broadleaved herbs encountered included such as common dandelion (*Taraxacum officinale*), white clover (*Trifolium repens*) and red clover (*Trifolium pratense*). Eleven small, scattered trees and saplings were planted within one of these GS2 patches, which included species such as silver birch (*Betula pendula*), hornbeam (*Carpinus betulus*), European crab apple (*Malus sylvestris*), hazel (*Corylus avellana*), downy birch (*Betula pubescens*) and English oak (*Quercus robur*), etc. The list of recorded species can be seen in Table 4.

The northern red oak (*Quercus rubra*) and bitter dock (*Rumex obtusifolius*) have been noted as invasive species in Ireland. The invasive potential of bitter dock has not yet been assessed; however, northern red oak trees pose a medium invasive impact risk. These species are not listed on the *Third Schedule of the Birds and Natural Habitats Regulations (S.I. No. 477/2011)* or as Invasive Alien Species of Union Concern by the European Commission. These species were not recorded in close proximity to the site location and will not be affected by works.

Scattered Trees and Parkland (WD5)

This habitat category includes areas with less than 30% cover of trees, which are either standing alone or in clusters, and are a prominent structural or visual feature of the area. This habitat typically occurs within stretches of cultivated grassland, particularly amenity grassland (GA2). In landscaped areas, such as parklands, the tree species incorporated are usually non-native trees which have been planted for aesthetic purposes. This is the dominant habitat on the northern half of the proposed development site (see Figure 7 and following Plate 23). The tree species in the area include broadleaved species of different ages, such as English oak (*Quercus robur*), common hawthorn (*Crataegus monogyna*), Norway maple (*Acer platanoides*), Northern red oak (*Quercus rubra*), ash (*Fraxinus excelsior*), etc. Both native and non-native trees were recorded, although the majority of the trees planted were non-native lime trees (*Tilia* spp.). The only invasive species recorded was the northern red oak (*Q. rubra*), which was recorded once throughout the habitat. As mentioned previously, this species is not listed on the *Third Schedule of the Birds and Natural Habitats Regulations (S.I. No. 477/2011)* or as an Invasive Alien Species of Union Concern by the European Commission. This species was not recorded near the site location and will not be affected by works. The tree species recorded in this habitat can be seen in Table 5. Some trees were recorded with ivy (*Hedera helix*) infestations along the trunk and branches.

The grass species along these areas included mown swards of kikuyu grass (*Cenchrus clandestinus*) and Bermuda grass (*Cynodon dactylon*). Broadleaved herbs such as dandelion (*Taraxacum officinale*), white

Table 4. Plant Species identified in GS2 - Dry Meadows and Grassy Verges at Proposed Site for Playground, St. Dominic's Playground, Drogheda, County Louth

Common Name	Taxon Name	Native/Alien/Invasive	Irish Status	Invasive Impact Score	DAFOR
False oat grass	<i>Arrhenatherum elatius</i>	Native	Not protected	N/A	D
White clover	<i>Trifolium repens</i>	Native	Not protected	N/A	F
Common dandelion	<i>Taraxacum officinale</i>	Native	Not protected	N/A	F
Orchard grass	<i>Dactylis glomerata</i>	Native	Not protected	N/A	D
Bitter dock	<i>Rumex obtusifolius</i>	Invasive	Not assessed	Not assessed	F
Red clover	<i>Trifolium pratense</i>	Native	Not protected	N/A	F
Bush grass	<i>Calamagrostis epigejos</i>	Alien	Protected	Not assessed	D
Large-leaved lime	<i>Tilia platyphyllos</i>	Alien	Established	Not assessed	R
Northern red oak	<i>Quercus rubra</i>	Invasive	Occasional	Medium 14	R
Silver birch	<i>Betula pendula</i>	Native	Not protected	N/A	O
Weeping willow	<i>Salix babyonica</i>	Alien	Occasional	Not assessed	R
English oak	<i>Quercus robur</i>	Native	Not protected	N/A	R
Downy birch	<i>Betula pubescens</i>	Native	Not protected	N/A	R
Common hazel	<i>Corylus avellana</i>	Native	Not protected	N/A	R
European crab apple	<i>Malus sylvestris</i>	Native	Not protected	N/A	R
Common hornbeam	<i>Carpinus betulus</i>	Alien	Established	Not assessed	R

Table 5. Plant Species identified in WD5 - Scattered Trees and Parkland at Proposed Site for Playground, St. Dominic's Playground, Drogheda, County Louth

Common Name	Taxon Name	Native/Alien/Invasive	Irish Status	Invasive Impact Score	Number of trees
English oak	<i>Quercus robur</i>	Native	Not protected	N/A	22
Hawthorn	<i>Crataegus monogyna</i>	Native	Not protected	N/A	1
Large-leaved lime	<i>Tilia platyphyllos</i>	Alien	Established	Not assessed	9
Norway maple	<i>Acer platanoides</i>	Alien	Established	Low 10	4
Northern red oak	<i>Quercus rubra</i>	Invasive	Occasional	Medium 14	1
Common hornbeam	<i>Carpinus betulus</i>	Alien	Established	Not assessed	1
Common ash	<i>Fraxinus excelsior</i>	Native	Not protected	N/A	2
Small-leaved lime	<i>Tilia cordata</i>	Alien	Established	Not assessed	29
Japanese cherry	<i>Prunus serrulata</i>	Alien	Not assessed	Not assessed	2
Silver Birch	<i>Betula pendula</i>	Native	Not assessed	Not assessed	1
Sweet cherry	<i>Prunus avium</i>	Native	Not protected	N/A	6

clover (*Trifolium repens*), and the invasive bitter dock (*Rumex obtusifolus*) were also noted. Four flowerbeds were also planted within this area and are within the BC4 habitat category as described below.



Plate 23. Aerial photograph at 60m elevation over the playground facing in a northwesterly direction towards the Scattered Trees and Parkland (WD5) habitat within the park

Treelines (WL2)

Treelines include narrow strips or lines of trees, less than 4 meters wide, which are usually planted as property or field boundary outlines. Typically, each tree is proportionally spaced apart. Tree species are often made up of non-native species such as beech (*Fagus sylvatica*), horse chestnut (*Aesculus hippocastanum*), lime trees (*Tilia spp.*) or conifers, etc. Two tree lines were recorded in the surrounding area along the park boundary. One treeline is located to the east-northeast of the site, along a proportion of the northern boundary between the park and a pedestrian pathway which is followed by the Boyne River (see Figure 9). The second treeline is located along a proportion of the southern park boundary to the southeast of the site location (see Figure 7). The same tree species, the large-leaved lime (*Tilia platyphyllos*), was planted throughout both treelines. This is a non-native species which is commonly planted in parkland, wooded areas, amenity areas and roadsides. This species has not been flagged as invasive in Ireland.

Hedgerows (WL1)

Hedgerows are linear lengths of shrubs, which may include occasional trees, and usually form boundaries around fields or properties. They are typically less than 5m high and 4m wide, although dimension and species composition can vary. Most hedgerows are planted on earth embankments which may have originated from the excavation of drainage ditches. Hedgerows commonly support a high proportion of

spinose plants such as hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), gorse (*Ulex europaeus*), holly (*Ilex aquifolium*), dog-rose (*Rosa canina*) or bramble (*Rubus fruticosus* agg.), in addition to many other native and non-native trees and shrubs including, for example, ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), beech (*Fagus sylvatica*), elder (*Sambucus nigra*), elms (*Ulmus* spp.) and willows (*Salix* spp.). Some of these may occur as scattered tall trees. A hedgerow forms the boundary between the park and the adjacent Rathmullan road along the south of the park (see Figure 7 and previous plate, Plate 23). This hedgerow is well managed and consists of the same species, the common hawthorn (*Crataegus monogyna*), throughout the entire habitat. This is a native perennial species, which is beneficial to both pollinators and birds. Climbing plants such as ivy (*Hedera helix*), cleavers (*Galium aparine*) and bush vetch (*Vicia sepium*) are also located within this habitat at St. Dominic’s Park. Other native species such as the European dewberry (*Rubus caesius*) and sweet cherry (*Prunus avium*) were also recorded.

Flower Beds and Borders (BC4)

This habitat category includes ornamental flower beds and borders where the cover of dwarf shrubs and herbaceous plants dominate. These areas are typically planted for aesthetic landscaping purposes and are regularly managed and maintained. As such, non-native plants are usually incorporated. These features occur in gardens and parks, on roadsides and roundabouts, and in the grounds of various buildings and institutions. Scattered trees and small shrubs are included once the percentage cover does not exceed 25%. During the July 2023 habitat survey, four flowerbeds were noted within the surrounding area in St. Dominic’s Park. However, 2 linear wild flower beds on the western side of the park and 1 circular ‘rose-bed’ type flower bed in the eastern side of the park have been removed in the intervening 2 years (see Figure 7 and following plate, Plate 24). The remaining flowerbed is located in the east-southeastern section which is known as the “*The Princess Grace Rose Garden*”. This flower bed contains 3 No. species of rose (*Rosa* spp.) plants. The non-native French rose (*Rosa gallica*), evergreen rose (*Rosa sempervirens*) and tea rose (*Rosa hybrida*) are planted here. These species have not been flagged as invasive in Ireland.

The full list of species in this habitat can be found in Table 6.

Broadleaved Woodland (WD1)

This habitat category includes areas of non-native planted woodland or highly modified woodland, which include majority cover (90-100%) broad leaved trees, and no more than 0-25% coniferous land cover (see following Plate 20). Woodlands within this category cannot be specified as semi-natural, however the species composition can include both non-native and native trees. The woodland on the eastern border of the park to the southeast of the site can be classified as a broadleaved woodland, as it is a planted non-natural area with majority broadleaf cover (see Figure 7). This would be specified as a non-mixed woodland as it does not include coniferous species. Both native species, such as sweet cherry (*Prunus avium*), and alien species, such as the large-leaved lime tree (*Tilia platyphyllos*) were recorded in this

Table 6. Plant Species identified in BC4 - Flower Beds and Borders at Proposed Playground Site, St. Dominic's Playground, Drogheda, County Louth

Common Name	Taxon Name	Native/Alien/Invasive	Irish Status	Invasive Impact Score	DAFOR
French rose	<i>Rosa gallica</i>	Alien	Not assessed	Not assessed	A
Evergreen rose	<i>Rosa sempervirens</i>	Alien	Not assessed	Not assessed	A
Tea rose	<i>Rosa hybrida</i>	Alien	Not assessed	Not assessed	A

area. Each tree species in his habitat and their species count has been listed in Table 7. The dominant species in this habitat was the Norway maple (*Acer platanoides*), with 12 No. trees counted. This is a non-native species that has been assessed with a low invasive impact score. A sycamore tree (*Acer pseudoplatanus*) was noted to the southeast corner of this habitat. The invasiveness of sycamore species has not yet been assessed; however, they are predicted to have a medium invasive impact in Ireland. Moreover, this species is not listed on the *Third Schedule of the Birds and Natural Habitats Regulations (S.I. No. 477/2011)* or as an Invasive Alien Species of Union Concern by the European Commission. This sycamore tree is located approximately 163m away from the proposed site and therefore will not be impacted or accidentally spread during construction works.

Mixed Broadleaved/Conifer Woodland (WD2)

This habitat category includes general wooded areas with stands of both coniferous and deciduous tree species (see following Plate 24). These species may be native or non-native to Ireland, and both types should have a minimum percentage cover of 25%, and a maximum cover of 75%. To be included within this category, trees must be mature and over 5m tall. Two mixed woodland areas are located in the centre of St. Dominic’s Park, approximately 16m to the East and approximately 32m to the northeast of the site location (see Figure 7). A total of 34 No. trees were recorded across both areas, and these species have been listed in Table 8. Coniferous species located in this habitat include Mexican cypress (*Cupressus lusitanica*), Mediterranean cypress (*Cupressus sempervirens*) and Monterey cypress (*Cupressus macrocarpa*). Broadleaved examples include species such as large-leaved lime (*Tilia platyphyllos*), silver maple (*Acer saccharinum*); and the only native species recorded within this habitat, silver birch (*Betula pendula*). Every other species in this habitat is non-native. The invasive sycamore tree (*Acer pseudoplatanus*) was recorded 11 No. times within this habitat. As mentioned previously, this species is not listed on the *Third Schedule of the Birds and Natural Habitats Regulations (S.I. No. 477/2011)* or as an Invasive Alien Species of Union Concern by the European Commission. These trees will not be impacted by site works; however, exclusion zones may be required as the closest sycamore tree is located approximately 13m from the site location. Regarding invasive plant species control, the ‘*Guidelines on The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads*’ (NRA, 2010) should be followed.



Plate 24. Aerial photograph taken in July 2023 at 60m elevation at the northeastern corner of the park facing in a westerly direction towards the 2 No. patches of mixed woodland WD2 in the centre of the frame, the 2 No. flowerbeds BC4 in the centre of the east-southeastern grassed section, the 2 No. treelines WL1 along the northern and southern boundaries of the park, and the Boyne River MW4 to the right side of the frame to the north of the site

Table 7. Plant Species identified in WDI - Broadleaved Woodland at Proposed Playground Site, St. Dominic's Playground, Drogheda, County Louth

Common Name	Taxon Name	Native/Alien/Invasive	Irish Status	Invasive Impact Score	Number of Trees
Small-leaved lime	<i>Tilia cordata</i>	Alien	Established	Not assessed	2
Sweet cherry	<i>Prunus avium</i>	Native	Not protected	N/A	5
European crab apple	<i>Malus sylvestris</i>	Native	Not protected	N/A	1
Norway maple	<i>Acer platanoides</i>	Alien	Established	Low 10	12
Sycamore	<i>Acer pseudoplatanus</i>	Invasive	Established	Medium 15	1
Large-leaved lime	<i>Tilia platyphyllos</i>	Alien	Established	Not assessed	1
Downy birch	<i>Betula pubescens</i>	Native	Not protected	N/A	1

Table 8. Plant Species identified in WDI - Broadleaved Woodland at Proposed Playground Site, St. Dominic's Playground, Drogheda, County Louth

Common Name	Taxon Name	Native/Alien/Invasive	Irish Status	Invasive Impact Score	Number of Trees
Silver birch	<i>Betula pendula</i>	Native	Not protected	N/A	1
Sycamore	<i>Acer pseudoplatanus</i>	Invasive	Established	Medium 15	11
Mexican cypress	<i>Cupressus lusitanica</i>	Alien	Occasional	Not assessed	1
Mediterranean cypress	<i>Cupressus sempervirens</i>	Alien	Occasional	Not assessed	3
Large-leaved lime	<i>Tilia platyphyllos</i>	Alien	Established	Not assessed	5
Silver maple	<i>Acer saccharinum</i>	Alien	Occasional	Not assessed	1
Monterey cypress	<i>Cupressus macrocarpa</i>	Alien	Occasional	Not assessed	6
Norway maple	<i>Acer platanoides</i>	Alien	Established	Low 10	5
European beech	<i>Fagus sylvatica</i>	Alien	Widespread	Not assessed	1

3.9.2 Mammal Survey

Several bat boxes have been positioned on the tree trunks of Monterey cypress trees inside both areas of the Mixed Broadleaved/Conifer Woodland (WD2) habitat within the surrounding park area (see location of bat boxes on Figure 7 and following Plate 25).

The NBDC database was also examined as part of the desk study. No mammals were recorded within the proposed works area during the *Mammals of Ireland 2010-2015*, or *Mammals of Ireland 2016-2025* surveys. However, 12 records of Daubenton’s bat (*Myotis daubentonii*), 1 No. soprano pipistrelle (*Pipistrellus pygmaeus*), 1 No. lesser noctule (*Nyctalus leisleri*), and 1 No. Pipistrelle (*Pipistrellus pipistrellus sensu lato*) were documented during the All-Ireland Daubentons Bat Waterways Survey at the Boyne bridge. This bridge is located approximately 175m to the northeast of the site’s location. All Irish bat species are protected under the Wildlife Act (1976) and Wildlife Amendment Acts (2000 and 2010). Also, the EC Directive on The Conservation of Natural habitats and of Wild Fauna and Flora (Habitats Directive 1992), seeks to protect rare species, including bats, and their habitats and requires that appropriate monitoring of populations be undertaken. All Irish bats are listed in Annex IV of the Habitats Directive and the lesser horseshoe bat *Rhinolophus hipposideros* is further listed under Annex II. Across Europe, they are further protected under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982), which, in relation to bats, exists to conserve all species and their habitats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, enacted 1983) was instigated to protect migrant species across all European boundaries. The Irish government has ratified both these conventions. Also, under existing legislation, the destruction, alteration or evacuation of a known bat roost is a notifiable action, and a derogation licence has to be obtained from the *National Parks and Wildlife Service* before works can commence.

The NBDC species records dataset for the 1km grid reference square O0875, which the site is located within, was also analysed. The European otter (*Lutra lutra*), red fox (*Vulpes vulpes*), and the west European hedgehog (*Erinaceus europaeus*) were recorded within this 1km area during the *Mammals of Ireland 2016-2025*, *Atlas of Mammals in Ireland 2010-2015* and the *Hedgehogs of Ireland* surveys, respectively. European otters are designated Annex II and Annex IV species under the Habitats Directive (92/43/EEC). No otter sightings or evidence of spraints or footprints were noted while on site. The west European hedgehog (*E. europaeus*) is protected under the Wildlife Acts 1976 to 2012. The red fox is not currently protected in Ireland. Each species is of Least Concern (LC) in the Irish species’ Red List No. 12 for Terrestrial Mammals (NPWS, 2019).

No negative impacts are predicted for mammals in the adjacent area as the site location is located within an insignificant manmade area. It is not ecologically important. However, the presence of bat boxes within the mixed woodland (WD2), and the possibility of a roost at the Boyne bridge, indicates the presence of bats within the wider adjacent area. The works will not affect these roosts or potential

habitats, however increased noise pollution and human activity may cause slight short-term disturbance to volant and non-volant mammals in the area.



Plate 25. Ground photograph taken to the north of the playground site facing in a northeasterly direction towards showing Monterey cypress trees where 5 No. bat boxes have been installed on the tree trunks (i.e., these are within the WD2 habitat to the northeast of the site)

3.9.3 Bird Survey

During the site assessment on the 25th November 2023, no physical evidence of nests was recorded.

As in the previous bird survey carried out on the 6th July 2023, some bird sightings were noted, particularly large flocks of gulls gathered on the grass. These included species of herring gull (*Larus argentatus*), and common gull (*Larus canus*). Other gull species (*Larus* spp.) may have been present. The common wood pigeon (*Columba palumbus*), rook (*Corvus frugilegus*) and jackdaw (*Corvus monedula*) were also observed in the area. These birds are resident birds which are widespread across Ireland, apart from the common gull; which has both resident breeding numbers in inland lakes, and wintering flocks which visit along the coast. Most species listed above have been given a ‘green’ conservation status in Ireland as per the Birds of Conservation Concern in Ireland 2020-2026 (Colhoun & Cummins, 2013). Both gull species (*Larus* spp.) have been appointed an ‘amber’ status as birds of medium conservation concern. All bird species are protected by Irish National legislation. The common wood pigeon is protected under both Annex II, Section I & Annex III, Section I of the Birds Directive as outlined in the Official Journal of the European Union.

The NBDC database was also examined as part of the desk study. No birds were recorded within the site location during the *Birds of Ireland* survey, which is ongoing and has been carried out since 2011; or the *Irish Wetland Birds Survey* (I-WeBS), carried out between 1994-2001. However, the common swift (*Apus apus*) was observed flying above adjacent areas, including the Boyne bridge and above residences on the opposite side of the Boyne River to the north of the park. This species is a summer visitor to Ireland which returns to Africa for the winter months. The swift holds a ‘red’ conservation status and is therefore of high conservation concern. The NBDC species records dataset for the 1km grid reference square O0875 was also analysed. Other bird species such as Alpine swift (*Apus melba*), goldcrest (*Regulus regulus*), house sparrow (*Passer domesticus*), laughing gull (*Larus atricilla*), rosy starling (*Sturnus roseus*) and ruddy shelduck (*Tadorna ferruginea*) have been recorded here as a part of the *Birds of Ireland*, *Swifts of Ireland* and the *Rare Birds of Ireland* surveys. The ruddy shelduck is an Annex I species of medium conservation concern in Ireland (‘amber’).

No bird habitats were recorded within the site location. As such, the proposed works are not predicted to displace birds or directly impact bird habitats. However, increased noise pollution and human activity may cause slight short-term disturbance to some birds in the area. To minimise disturbance of bird species, any works which include altering the habitat or clearing an area should take place outside of the bird/wildlife nesting and breeding season, which falls from the 1st March to the 31st August (NPWS, 2023).

4 IDENTIFICATION OF NATURA 2000 SITES

It is general practice, when screening a plan or project for compliance with the Habitats Directive, to identify all Natura 2000 sites (SPAs & SACs) within the functional area of the plan/project itself and within 15km of the boundaries of the area the plan/project applies to. This approach is currently recommended in the Department of the Environmental, Heritage and Local Government’s document Guidance for Planning Authorities and as a precautionary measure, to ensure that all potentially affected Natura 2000 sites are included in the screening process.

A list of all the SPAs and SACs within 15km of the site are included in a comprehensive table, Table 1 at the start of the report. The following table, Table 9 represents a summary of Table 1. Please see Figures 1 to 2 for locations of the site and all the SPAs and SACs within 15km of the site.

Table 9. Natura 2000 sites within 15km of the Proposed Playground Site at St Dominic’s Park, Drogheda

SITE CODE	DESIGNATION	SITE NAME
002299	SAC	River Boyne and River Blackwater
004232	SPA	River Boyne and River Blackwater
004080	SPA	Boyne Estuary
001957	SAC	Boyne Coast & Estuary
004236	cSPA	Northwest Irish Sea
004458	SPA	River Nanny Estuary & Shore
001459	SAC	Clogherhead

5 DESCRIPTION OF NATURA 2000 SITES

The conservation objectives, qualifying interests, vulnerability and conservation status of individual sites is provided as follows.

5.1 River Boyne and River Blackwater SAC (002299)

This site comprises the freshwater element of the River Boyne as far as the Boyne Aqueduct, the Blackwater as far as Lough Ramor and the Boyne tributaries including the Deel, Stoneyford and Tremblestown Rivers. These riverine stretches drain a considerable area of Meath and Westmeath, and smaller areas of Cavan and Louth. The underlying geology is Carboniferous Limestone for the most part, with areas of Upper, Lower and Middle well represented. In the vicinity of Kells Silurian Quartzite is present while close to Trim are Carboniferous Shales and Sandstones. There are many large towns adjacent to but not within the site, including Slane, Navan, Kells, Trim, Athboy and Ballivor.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- [7230] Alkaline Fens;
- [91E0] Alluvial Forests*;
- [1099] River Lamprey (*Lampetra fluviatilis*);
- [1106] Atlantic Salmon (*Salmo salar*); and
- [1355] Otter (*Lutra lutra*).

The main areas of alkaline fen in this site are concentrated in the vicinity of Lough Shesk, Freehan Lough and Newtown Lough. The hummocky nature of the local terrain produces frequent springs and seepages which are rich in lime. A series of base-rich marshes have developed in the poorly-drained hollows, generally linked with these three lakes. Open water is usually fringed by Bulrush (*Typha latifolia*), Common Club-rush (*Scirpus lacustris*) or Common Reed (*Phragmites australis*), and this last species also extends shorewards where a dense stand of Great Fen-sedge (*Cladium mariscus*) frequently occurs. This in turn grades into a sedge and grass community (*Carex spp.* and Purple Moor-grass, *Molinia caerulea*), or one dominated by Black Bog-rush (*Schoenus nigricans*). An alternative aquatic/terrestrial transition is a floating layer of vegetation. This is normally based on Bogbean (*Menyanthes trifoliata*) and Marsh Cinquefoil (*Potentilla palustris*). Other species gradually become established on this cover, especially plants tolerant of low nutrient status e.g. bog mosses (*Sphagnum spp.*). Diversity of plant and animal life is high in the fen and the flora includes many rarities. Plants of interest include Narrow-leaved Marsh-orchid (*Dactylorhiza traunsteineri*), Fen Bedstraw (*Galium uliginosum*), Cowbane (*Cicuta virosa*), Frogbit (*Hydrocharis morsus-ranae*) and Least Bur-reed (*Sparganium minimum*). These species tend to be restricted in their distribution in Ireland. Also notable is the abundance of aquatic stoneworts (*Chara spp.*) which are characteristic of calcareous wetlands.

5.2 River Boyne and River Blackwater SPA (004232)

The River Boyne and River Blackwater SPA is a long, linear site that comprises stretches of the River Boyne and several of its tributaries; most of the site is in Co. Meath, but it extends also into Cos Cavan, Louth and Westmeath. It includes the following river sections: the River Boyne from the M1 motorway bridge, west of Drogheda, to the junction with the Royal Canal, west of Longwood, Co Meath; the River Blackwater from its junction with the River Boyne in Navan to the junction with Lough Ramor in Co. Cavan; the Tremblestown River/Athboy River from the junction with the River Boyne at Kilnagross Bridge west of Trim to the bridge in Athboy, Co. Meath; the Stoneyford River from its junction with the River Boyne to Stonestown Bridge in Co. Westmeath; the River Deel from its junction with the River Boyne to Cummer Bridge, Co. Westmeath. The site includes the river channel and marginal vegetation.

Most of the site is underlain by Carboniferous limestone but Silurian quartzite also occurs in the vicinity of Kells and Carboniferous shales and sandstones close to Trim. The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the Kingfisher.

5.3 Boyne Estuary SPA (004080)

This moderately-sized coastal site is situated west of Drogheda on the border of Counties Louth and Meath. The site comprises most of the estuary of the Boyne River, a substantial river which drains a large catchment. Apart from one section which is over 1 km wide, its width is mostly less than 500 m. The river channel, which is navigable and dredged, is defined by training walls, these being breached in places. Intertidal flats occur along the sides of the channelled river. The sediments vary from fine muds in the sheltered areas to sandy muds or sands towards the river mouth. The linear stretches of intertidal flats to the north and south of the river mouth are mainly composed of sand. One or more species of Eelgrass (*Zostera spp.*) occur in the estuary. Parts of the intertidal areas are fringed by salt marshes, most of which are of the Atlantic type, and dominated by Sea-purslane (*Halimione portulacoides*). Other species present include Common Saltmarsh-grass (*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Lax-flowered Sea-lavender (*Limonium humile*) and Glasswort (*Salicornia spp.*). Common Cord-grass (*Spartina anglica*) occurs frequently on the flats and salt marshes. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Shelduck, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Knot, Sanderling, Black-tailed Godwit, Redshank, Turnstone and Little Tern. 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.

5.4 Boyne Coast & Estuary SAC (001957)

Boyne Coast and Estuary SAC is a coastal site which includes most of the tidal sections of the River Boyne, intertidal sand- and mudflats, saltmarshes, marginal grassland, and the stretch of coast from Bettystown to Termonfeckin that includes the Mornington and Baltray sand dune systems. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- [1130] Estuaries;
- [1140] Tidal Mudflats and Sandflats;

- [1210] Annual vegetation of drift lines;
- [1310] Salicornia Mud;
- [1330] Atlantic Salt Meadows;
- [2110] Embryonic Shifting Dunes;
- [2120] Marram Dunes (White Dunes); and
- [2130] Fixed Dunes (Grey Dunes).

5.5 Northwest Irish Sea cSPA (004236)

The North-west Irish Sea cSPA constitutes an important resource for marine birds. The estuaries and bays that open into it along with connecting coastal stretches of intertidal and shallow subtidal habitats, provide safe feeding and roosting habitats for waterbirds throughout the winter and migration periods. These areas, along with more pelagic marine waters further offshore, provide additional supporting habitats (for foraging and other maintenance behaviours) for those seabirds that breed at colonies on the north-west Irish Sea’s islands and coastal headlands. These marine areas are also important for seabirds outside the breeding period.

This SPA extends offshore along the coasts of counties Louth, Meath and Dublin, and is approximately 2,333km² in area. This SPA is ecologically connected to several existing SPAs in this area. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Common Scoter, Red-throated Diver, Great Northern Diver, Fulmar, Manx Shearwater, Shag, Cormorant, Little Gull, Kittiwake, Black-headed Gull, Common Gull, Lesser Black backed Gull, Herring Gull, Great Black-backed Gull, Little Tern, Roseate Tern, Common Tern, Arctic Tern, Puffin, Razorbill and Guillemot.

5.6 River Nanny Estuary and Shore SPA (004458)

The site comprises the estuary of the River Nanny and sections of the shoreline to the north and south of the estuary (c. 3 km in length), in Co. Meath. The estuarine channel, which extends inland for almost 2 km, is narrow and well sheltered. Sediments are muddy in character and edged by saltmarsh and freshwater marsh/wet grassland. The saltmarsh is best developed in the eastern portion of the estuarine channel, with species such as Sea Plantain (*Plantago maritima*), Sea Aster (*Aster tripolium*), Red Fescue (*Festuca rubra*) and Sea Purslane (*Halimione portulacoides*) occurring. Further up the estuary, the marsh habitats support species such as Bulrush (*Typha latifolia*) and Yellow Flag (*Iris pseudacorus*). The shoreline, which is approximately 500 m in width to the low tide mark, comprises beach and intertidal habitats. It is a well-exposed shore, with coarse sand sediments. The well developed beaches, which are backed in places by clay cliffs, provide high tide roosts for the birds. The village of Laytown occurs in the northern side of the River Nanny estuary. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Oystercatcher, Ringed Plover, Golden Plover, Knot, Sanderling and Herring Gull. 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. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species:

- Oystercatcher *Haematopus ostralegus* wintering;
- Ringed Plover *Charadrius hiaticula* wintering;
- Golden Plover *Pluvialis apricaria* wintering;
- Knot *Calidris canutus* wintering;
- Sanderling *Calidris alba* wintering;
- Herring Gull *Larus argentatus* wintering; and
- Wetlands.

5.7 Clogherhead SAC (001459)

Clogherhead is a promontory of Silurian quartzite, located approximately 10 km north-east of Drogheda in Co. Louth. The rocks are covered with a thin layer of soil that, in places, supports a coastal heath community. Areas of sea cliff, bedrock shore and dry grassland also occur within the site. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts; and
- [4030] European dry heaths.

6 CONSERVATION OBJECTIVES, QUALIFYING INTERESTS, VULNERABILITY AND CONSERVATION STATUS OF NATURA 2000 SITES

Of the 7 sites located within 15km of the site proposed in St. Dominic’s Park Playground, for the playground there are no potential *Source-Pathway-Receptor* links present. The reasons for this are as follows.

6.1 Sources of Pollution

6.1.1 Noise and Dust Emissions (Demolition/Construction Phase)

It is expected that given the nature of the proposed construction works that there will be minimal dust and noise generated and the duration of the project will be of a short duration i.e., 1-2 months.

6.1.2 Source of Contamination (Construction Phase & Operational Phase)

The northern edge of the proposed construction works area is approximately 55m to the south of the SAC boundary. Contaminated stormwater generated during the construction phase will be limited in volume and the permeable nature of the overburden will allow it to dissipate to ground. The development will require a moderate use of concrete during the Construction Phase. The materials used for the ground covering in the parking area will generate minimal leachate during the construction phase. The existing stormwater drains will be temporarily blocked to prevent accidental discharges during the construction phase. Given the distance to the SAC, there is no viable linkage.

During the Operational Phase of the development, given the proposed SuDS compliant design for the site, there are no proposals to generate a point discharge from the site. The ground covering will facilitate the percolation of rainfall through the material into the underlying subsoil. An overflow discharge to the municipal stormwater drain will only occur during extreme rainfall events. The materials used for the ground covering in the parking area will not generate leachate during the Operational Phase. As such, any stormwater generated on site will be free of contamination and will discharge to ground as per the SuDS design. As such, there is effectively no source of contamination which can migrate off site. Based on the on-site BRE365 testing and site investigation and GSI records, there is significant depth of overburden on site, and as such there is significant attenuation capacity within the overburden.

The municipal stormwater drain to the south of the site discharges in a westerly direction to the surface water body to the west of the site which discharges into the River Boyne. However, an overflow discharge from the site to the municipal stormwater drain will only occur during extreme rainfall events. As such, the Source-Pathway-Receptor linkage for possible contamination to exit the site and enter the Boyne River catchment and ultimately flow into the River Boyne and River Blackwater SPA would be regarded as ‘weak’ and should be disregarded.

6.2 Pathways for Off-site Migration to Natura 2000 Receptors

As stated previously, the municipal stormwater drain to the south of the site discharges in a westerly direction to the surface water body to the west of the site which discharges into the River Boyne. However, an overflow discharge from the site to the municipal stormwater drain will only occur during extreme rainfall events. As such, the Source-Pathway-Receptor linkage for possible contamination to exit the site and enter the Boyne River catchment and ultimately flow into the River Boyne and River Blackwater SAC (002299) would be regarded as ‘weak’ and should be disregarded.

6.3 Potential Natura 2000 Receptors

The nearest Natura 2000 site is the River Boyne and River Blackwater SAC (002299) which is 8m to the north of the site and approximately 55m to the north of the northern edge of the proposed construction works area. However, there are no significant sources of contamination from the site nor are there viable pathways to the afore-mentioned SAC if a hypothetical source was to arise.

7 ON-SITE IMPACTS ON ECOLOGY

7.1 On-site Impacts on Ecology & Mitigation Measures

The proposed Construction Area which is centred around the playground area will require a footprint of 5457m² (see Figure 10). As can be seen, in order to complete the project, ground civil works are required which will entail the removal of 8 semi-mature cherry blossom trees (*Prunus serrulata*) which are located to the west of the playground and 2 ash trees (*Fraxinus excelsior*) (1 semi-mature and 1 immature) and 1 silver birch tree (recently planted) which are located to the north of the playground (see Plate 26 below and Plate 27 following). Cherry blossom trees are non-native to Ireland but while they are often chosen for their aesthetic appeal, their early spring blossoms and, in some cases, fruits provide essential resources for local ecosystems.

These trees are part of the *WD5 - Scattered Trees and Parkland* habitat within St. Dominic’s park. The removal of these trees will have a short-term impact on the ecology and biodiversity of the park. However, it should be noted that as part of the proposed landscape plan for the playground area, it is proposed to introduce a range of indigenous Irish trees which will offset the temporary biodiversity loss caused by the removal of the afore-mentioned trees. In effect, the *WD5 - Scattered Trees and Parkland* habitat within St. Dominic’s park will be restored to its original level of ecological value within 2-5 years.



Plate 26. Aerial photograph at 40m elevation over the playground facing in a southerly direction towards eight Cherry Blossom (*Prunus serrulata*) that require removal as part of the development



Plate 27. Ground photograph to the northwest of the playground facing in a southerly direction towards 2 ash trees (*Fraxinus excelsior*)

7.2 On-site Biodiversity Loss and Impact on Natura 2000 Sites

The River Boyne and River Blackwater SAC is very large, covering approximately 180km² of the Rivers Boyne, Blackwater and associated tributaries. As stated previously, there is no part of the proposed development site within St. Dominics Park that adjoins the river. The SAC was designated to protect two habitats (alkaline fens, alluvial forests) and three species (salmon, river lamprey, otter).

The distribution of alkaline fen within the SAC is reported as follows in the Site Synopsis: “*The main areas of alkaline fen in this site are concentrated in the vicinity of Lough Shesk, Freehan Lough and Newtown Lough*”. These are three small lakes located near Kells, approx. 44 km west of the proposed development site. No alkaline fen is found in the vicinity of the proposed development site (see Figures 1 and 2).

The Conservation Objectives document shows a large area of alluvial forest around the ‘*Boyne River Islands*’ to the south of Tullyallen, just upstream of the Mary McAleese Boyne Valley Bridge/M1 motorway crossing (see Figures 1 and 2). This location is approx. 2.8km west of the Site. Narrow strips of woodland occur elsewhere in the SAC. However, there is no alluvial forest in the vicinity of the proposed development site.

Salmon are widespread in the SAC. They spawn in freshwater habitats, and it is noted in the Site Synopsis that salmon “*use the tributaries and headwaters as spawning grounds*”; these are likely to be at least 10km upstream of the Site. The estuarine waters in the vicinity of the proposed development site are unsuitable for spawning. However, salmon migrate from rivers to oceans (and vice versa) at stages of

their life cycle, so they would occasionally pass by the proposed development site during these migration events.

River lamprey are reported in the Site Synopsis to be “*present in the lower reaches of the Boyne River*”, but no other information is provided. In Irish Wildlife Manual No. 5 (Kurz & Costello 1999), it is reported that they “*build nests (redds) and spawn in large and small rivers, usually at the downstream end of pools where there is a swift current*” and that “*river lamprey prefer a sandy or gravelly sediment*”. The estuarine section of the Boyne is brackish, tidal and consists of fine silt, so it is not suitable for spawning. However, adult river lamprey also migrate from rivers to oceans, so they would occasionally pass by the proposed development site during these migration events.

Otter are reported to be widespread throughout the SAC, both in freshwater and estuarine sections of the Boyne. They have large foraging territories, which include holts (underground burrows) that are used as breeding and resting places. St. Dominic’s Park was searched for holts and other otter field signs by Mulroy Environmental Ltd., but none were found, so there is no possibility that otters breed or rest within the proposed development site. However, they are likely to forage along the estuary in the vicinity of the proposed development site, as part of a much larger territory.

The operations of the upgraded playground site will not have any significant negative impact on flora and fauna within, or adjacent to the boundary of the site as there will not be any increase in indirect impacts (e.g., disturbance and noise from people, parking cars, etc) compared with the current baseline ecological conditions. The proximity of a busy regional road (i.e., the Rathmullan Road) to the site, the activities within the park (e.g. picnics, social gathering, use of the playground, sports, etc) would indicate that the existing baseline noise levels are typical of a busy suburban area and that any increase in noise levels due to the expansion of the playground and adjacent carpark would be negligible.

8 ASSESSMENT OF LIKELY EFFECTS ON THE ECOLOGY OF RIVER BOYNE AND RIVER BLACKWATER SAC (002299)

This assessment is broken down into the Construction Phase, Operational Phase and Summary of likely effects on the ecology of River Boyne and River Blackwater SAC (002299).

8.1 Construction Phase

It is expected that given the nature and scale of the proposed construction works that there will be minimal dust and noise generated and the duration of the project will be of a short duration i.e., 2-3 weeks. The predicted impacts on the SAC from noise and dust emissions during the Construction Phase are negligible. Standard environmental construction techniques for general excavations will be implemented on site. These techniques will focus on minimizing site disruption, controlling erosion and sedimentation, managing waste, and reducing air and noise pollution.

8.2 Operational Phase

During the lifetime of the playground (i.e., during its operation), the use of the playground will not generate any increased negative impacts more than already present at the site, which is currently in close proximity to residential dwellings to the south and west, a heavily trafficked bridge to the east, a busy Regional Road (R132) to the east and a very heavily trafficked local road, the Rathmullan road to the south of the site.

8.3 Summary of likely effects on the ecology of River Boyne and River Blackwater SAC (002299)

A review of the proposed development indicates that during the Construction Phase and Operational Phases there will not be:

- Any impact on an Annex I habitat;
- Any reduction in the area of a Natura 2000 site;
- Direct or indirect damage to the physical quality of the environment in the Natura 2000 site;
- Serious or ongoing disturbance to species or habitats for which Natura 2000 is selected;
- Direct or indirect damage to the size, characteristics or reproductive ability of populations on the Natura 2000 site; and
- Interference with mitigation measures put in place for other plans/projects.

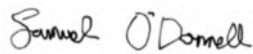
9 SCREENING CONCLUSION AND STATEMENT

The findings and conclusions of the screening process are as follows:

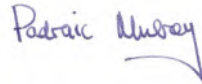
1. *No potential for significant effects/AA is not required.*

Screening established that there is **no potential for significant effects** and the project/plan can proceed as proposed. However, no changes may be made after this as this will invalidate the findings of the screening.

Yours sincerely,



Sam O'Donnell, BSc., MSc.
Staff Ecologist,
Mulroy Environmental Ltd.



Padraic Mulroy
BSc., MSc., MIPSS, MIEI, C.Sci., BREEAM AP
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**MULROY ENVIRONMENTAL LTD.
SERVICE CONSTRAINTS**

1. This report and the AA Screening Assessment carried out in connection with the report (together the "Services") were compiled and carried out for Louth County Council (the "client") in accordance with the terms of an emailed fee proposal agreement Fee Proposal PRP393.15.11.2025 between Mulroy Environmental Ltd. and the "client" dated the 15th November, 2025. Mulroy Environmental Ltd. received permission to proceed by email on the 21st November, 2026. The Services were performed by Mulroy Environmental Ltd. with the skill and care ordinarily exercised by a reasonable Environmental consultant at the time the Services were performed. Further, and in particular, the Services were performed by Mulroy Environmental Ltd. taking into account the limits of the scope of works required by the client, the time scale involved and the resources, including financial and manpower resources, agreed between Mulroy Environmental Ltd. and the client.
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3. Unless otherwise agreed the Services were performed by Mulroy Environmental Ltd. exclusively for the purposes of the client. Mulroy Environmental Ltd. is not aware of any interest of or reliance by any party other than the client in or on the Services. Unless expressly provided in writing, Mulroy Environmental Ltd. does not authorise, consent or condone any party other than the client relying upon the Services. Should this report or any part of this report, or otherwise details of the Services or any part of the Services be made known to any such party, and such party relies thereon that party does so wholly at its own and sole risk and Mulroy Environmental Ltd. disclaims any liability to such parties. Any such party would be well advised to seek independent advice from a competent environmental consultant and/or lawyer.
4. It is Mulroy Environmental Ltd.'s understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of or reliance upon the report in those circumstances by the client without Mulroy Environmental Ltd. be requested to review the report after the date hereof, Mulroy Environmental Ltd. shall be entitled to additional payment at the then existing rates or such other terms as agreed between Mulroy Environmental Ltd. and the client.
5. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of Mulroy Environmental Ltd. In the absence of such written advice of Mulroy Environmental Ltd., reliance on the report in the future shall be at the client's own and sole risk. Should Mulroy Environmental Ltd. be requested to review the report in the future, Mulroy Environmental Ltd. shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between Mulroy Environmental Ltd. and the client.
6. The observations and conclusions described in this report are based solely upon the Services which were provided pursuant to the agreement between the client and Mulroy Environmental Ltd. Mulroy Environmental Ltd. has not performed any observations, investigations, studies or testing not specifically set out or required by the contract between the client and Mulroy Environmental Ltd.. Mulroy

Environmental Ltd. is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, Mulroy Environmental Ltd. did not seek to evaluate the presence on or off the site of asbestos, electromagnetic fields, lead paint, heavy metals, radon gas or other radioactive or hazardous materials.

7. The Services are based upon Mulroy Environmental Ltd.'s observations of existing physical conditions at the Site gained from a walk-over survey of the site together with Mulroy Environmental Ltd.'s interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The Services are also based on information and/or analysis provided by independent testing and information services or laboratories upon which Mulroy Environmental Ltd. was reasonably entitled to rely. The Services clearly are limited by the accuracy of the information, including documentation, reviewed by Mulroy Environmental Ltd. and the observations possible at the time of the walk-over survey. Further Mulroy Environmental Ltd. was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the Services. Mulroy Environmental Ltd. is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to Mulroy Environmental Ltd. and including the doing of any independent investigation of the information provided to Mulroy Environmental Ltd. save as otherwise provided in the terms of the contract between the client and Mulroy Environmental Ltd..

8. The environmental monitoring aspects of the Services is a limited sampling of the site at pre-determined borehole and soil vapour locations based on the operational configuration of the site. The conclusions given in this report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Mulroy Environmental Ltd.] [based on an understanding of the available operational and historical information,] and it should not be inferred that other chemical species are not present.

9. Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan, but is (are) used to present the general relative locations of features

