Boylan consulting

Engineering & Environmental

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

NON TECHNICAL SUMMARY

FOR

Hibernia Steel (Manufacturing) Limited

FOR

Proposed Galvanising Facility at Mell, Drogheda, Co. Louth

May 2023

Summary of Document Revisions			
Rev No.	**Date Revised**	**Section Revised**	**Revision Description**

TABLE OF CONTENTS

LIST OF TABLES

1 INTRODUCTION

An Environmental Impact Assessment Report (EIAR) has been prepared for a proposed hot dip galvanising facility at lands at Mell, Drogheda, County Louth.

The EIAR accompanies an application for planning permission and an application for an Industrial Emissions Licence.

1.1 Objectives of EIA

The central purpose of Environmental Impact Assessment is to carry out assessment of likely and significant effects on the environment of a project in parallel with project design and to document the process in an EIAR which is submitted to the consenting authority in order to inform a decision on whether the project should be permitted to proceed.

The EIAR details the results of the EIA process which was carried out on parallel with project design. The EIA process will be completed by the consenting authorities (Louth County Council / An Bord Pleanála in the case of the application for planning permission and the Environmental Protection Agency in the case of the application for an Industrial Emissions Licence). The consenting authorities will be required to assess the effects of the development on the environmental factors set out within the EIA legislation, which are:

- Population and human health;
- Biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive;
- Land, soil, water, air and climate;
- Material assets, cultural heritage and the landscape; and
- The interaction between the forgoing factors.

The EIAR details the assessment process for these factors in respect of the proposed development.

Assessment is also provided as to any significant effects on the environment derived from the vulnerability of the proposed development to risks of major accidents and / or disasters that are relevant to the development, as required by EIA legislation.

The EIAR sets out mitigation measures aiming to avoid / reduce where appropriate any significant adverse effects identified as likely to occur as result of the proposed development.

The EIAR sets out a description of alternatives to the development proposals which were studied and an indication of the main reasons for selecting the chosen option.

It is intended that the EIAR will assist the consenting authorities, statutory consultees and the public in assessing the development proposals.

1.2 Requirement for an EIA

It has been identified that an EIA is required as the proposed development would exceed the relevant threshold(s) under Class 4 (b) (ii) and / or Class 4 (e) of Part 2 of Schedule 5 to the Planning and Development Regulations 2001 as amended - 'Installations for the processing of ferrous metals - application of protective fused metal coats, where the production area would be greater than 100 square metres' and 'Installations for surface treatment of mentals and plastic materials using an electrolytic or chemical process, where the production are would be greater than 100 square metres', respectively.

1.3 Format of EIAR

The EIAR consists of:

- Non-technical summary (this volume)
- Main body
- Appendices

Volume 1 - Non-technical summary (this volume)

The non-technical summary is a summary of the content of the EIAR, written in non-technical language.

Volume 2 - Main body

Chapter 1 sets out the introduction to the EIAR including information in respect of EIA legislation and guidance, details of the objectives of EIA, details of the format of the EIAR, details of the project team, details of EIA screening and EIAR scoping, the justification for the project, information in respect of assessment of cumulative effects and information in respect of difficulties encountered and uncertainties involved.

Chapter 2 sets out a detailed description of the project and proposed development site.

Chapter 3 sets out alternatives to the development proposals studied and reasons for the option selected.

Chapters 4-12 set out assessments in respect of environmental topics as follows:

- Population and Human Health
- Biodiversity

- Cultural Heritage
- Land, Soils and Geology
- Water
- Traffic and Transportation
- Noise
- Air Quality and Climate
- Landscape and Visual Impact
- Material Assets
- Interaction of the Foregoing

Volume 3 – Appendices

Relevant supporting information is provided within the Appendices.

1.4 Justification for project

The proposed development is anticipated to lead to the creation of approximately 110 jobs. In this regard the proposed development will support national and regional strategic planning outcomes for a strong economy, supported by enterprise, innovation and skills. Indigenous employment generating investment is supported by the Louth County Development Plan 2021-2027 ('the Development Plan') and Louth Local Economic and Community Plan 2016-2022.

It is considered that the proposed development accords with strategic spatial strategies for growth at national, regional and local levels. In this regard it is highlighted that:

- At national level, it is considered that the proposed development supports the development of the Drogheda Regional Centre in accordance with National Planning Framework (NPF) policy objectives 2b and 7.
- At regional level, it is considered that the proposed development accords with Eastern and Midland Region Regional Spatial and Economic Strategy (RSES) Regional Policy Objective 4.14 for the Drogheda Regional Growth Centre in respect of promoting self-sustaining economic and employment-based development opportunities to match and catch-up on rapid phases of housing delivery in recent years to provide for employment growth and reverse commuting patterns, and Regional Policy Objective 4.18 for the Drogheda Regional Growth Centre in respect of developing new industry on suitable sites to enhance Drogheda's role as a strategic employment centre on the Dublin-Belfast Economic Corridor and provide for employment opportunities.

- At local level, the proposed development is considered as located within the Northern Environs of Drogheda as referenced in the Development Plan. The Development Plan states that the development of the employment and residential lands in the Northern Environs are a fundamental element of the immediate and long-term growth strategy for the town (Development Plan Section 2.13.2). The Development Plan states that the land bank will act as a counter balance to the level of growth that has taken place in the Southern Environs of the town (Development Plan Section 2.13.6). The Northern Environs is considered to contain two areas of undeveloped lands zoned for employment uses, located within the west and east of the Northern Environs area, respectively. In view of this, it is considered that it follows that employment development on the undeveloped lands zoned for employment uses within the west of the Northern Environs – including the application site – is a fundamental element of the immediate growth strategy for Drogheda, particularly as it is considered that the Development Plan indicates (Development Plan Section 5.12.4) there is at present no funding available for completion of the Port Access Northern Cross Route as far as the undeveloped lands zoned for employment uses in the east of the Northern Environs, or the water services infrastructure to provide for the release of these lands.
- The application site is provided by IDA Ireland and comprises part of lands at this location to be developed as an IDA Ireland business park (see Project Description section of this Non-Technical Summary).
- Pre-planning consultation was undertaken with Louth County Council in respect of zoning policy and Louth County Council advised that the principle of the proposal at this location is acceptable.
- It is also highlighted that the proposed development site context includes (see also Project Description section of this Non-Technical Summary) uncompleted access roads and other infrastructure installed on foot of planning permission Reg. Ref.: 071435 / An Bord Pleanála Ref.: PL15.228184 which were intended to serve lands in this area including the application site, representing significant prior investment in this area, and it is considered that the proposed development represents an opportunity to utilise some of this infrastructure, and it is considered that these are positive considerations in respect of the location of the proposed development.

The proposed development has been brought forward in accordance with an EIA process aiming to ensure a high level of protection of the environment and public health.

2 PROJECT DESCRIPTION

The proposed project development of Hibernia Steel (Manufacturing) Limited consists of construction and operation of a hot-dip galvanising facility with zinc kettle at Mell, Drogheda, Co. Louth.
It is planned to process up to 36,000TPA of steel at the plant. Processing will be conducted in-doors. There will be some storage of steel, both processed and non-processed, out-doors.

In summary the proposal includes:

- Construction of a main building with an approximate gross floor area of 5719m^2. The building contains
  - (i) 'black material' (unprocessed material) jigging area (in-take area)
  - (ii) Pre-treatment area
  - (iii) Galvanising (treatment) area
  - (iv) Galvanised material unjigging area (out-take area)
  - (v) Services area
  - (vi) Staff welfare facilities (2 storey over basement)

- Construction of 2 stacks to extract flue gases from the main and stand-by furnaces respectively. These will be located on the roof at a height of 20 m above finished floor level (63m aOD).
- Construction of stack to extract white fumes from the zinc kettle. Exhaust air will be filtered through bag filters.Filtered air from the bag filters will then be exhausted to air at 20 m above finished floor level.
- Construction of stack to extract exhaust air from the pre-treatment area. Acid vapours produced in the pre-treatment area are passed through a scrubber prior to discharge into air. This stack will be located at 20 m above finished floor level.
- Construction of ESB sub-station within the main building.
- Installation of two. LPG storage tanks.
- Installation of double weighbridge.
- Construction of office building with an approximate gross floor area of 298m^2.
- Provision of trailer and truck parking spaces.
- Provision of visitor and staff parking areas with 110 parking places 2 of which are wheelchair accessible and 7 of which are EV charging locations.
- Provision of 20 No. staff and visitor bicycle parking.
- Provision of concrete yard and additional hardcore yard.

- Installation of stormwater management system.
- Installation of 2 No. rainwater harvesting tanks.
- Construction of soil berm.
- Landscaping works
- Firewater retention infrastructure
- Provision of vehicular and pedestrian entrance to the facility, site security fencing and entrance walls and gates.

The site is located 2.5Km to the northwest of Drogheda town centre. It is in an area zoned 'General Employment' in the Louth County Development Plan 2021-2027 and is within a larger land holding owned by the IDA. Some roads and minor infrastructural works have been previously carried out (but not completed) within the wider IDA landholding (prior to its acquisition by the IDA), with a view to developing a business park. The proposed site comprises part of lands to be developed as an IDA business park.

The proposed works are not located within a potential flood risk area and there are no indicators to suggest that any part of the application site may be at risk of flooding.

Surrounding lands are currently used predominantly for agricultural purposes.

The site of the proposed development is 3.419Ha. The site is unused and comprises primarily overgrown land with small trees, grasses and brambles. There are existing hedgerows along the eastern, southern and part of the western boundary. The site is completely open along the northern boundary. There are footpaths along the access road linking Chapel Lane to the R132. There are overhead power cables traversing the site.

In terms of topography, the site is elevated at the northern end compared to the southern end. There is a level difference of almost 10m across the site from north to south.

The construction stage of the project will include the excavation of soil, importation of backfill material to form the foundations, laying of concrete, construction of the production facilities, the office building and the Parking spaces along the northern portion of the site. There will be 110 visitor & staff car parking spaces. This includes 7 EV charging points and 2 wheelchair accessible parking spaces. Bicycle parking will also be provided. There will be also truck and trailer parking spaces along the northwestern side of the main building.

The entrance to the proposed development is from the access road linking Chapel Lane to the R132 along the north western boundary. This access road is currently closed and in a part-built state. The access road and its junction with the R132 road will be completed as part of IDA Ireland's plans for the wider lands at this location, and these works do not comprise part of the subject application proposals. Construction and operational traffic from the proposed development will use the access road linking Chapel Lane to the R132 to access the R132, and the proposed development will be accessed from the R132 only i.e. no traffic from the facility will use Chapel Lane.

A double weighbridge will be provided to weigh in-coming and out-going loads of steel.

A 3m high soil berm (from finished ground level on the Hibernia side) and a further 1 m high impermeable fence is provided along the eastern boundary to reduce any potential visual or noise impacts on adjacent residences.

It is proposed to landscape the entire site.

Electrical power, lighting and space heating will be provided via the exciting electricity network.
Liquid petroleum gas (LPG) will be used to fuel the furnace for heating the zinc kettle, pre-treatment tanks and drier. LPG will be stored on site in two tanks. 720,000m^3 gas per annum will be consumed by the facility.
Domestic wastewater generated at the facility will be connected to the Irish Water sewer system. Potable water will be supplied from the public mains. The subject application proposals include for water and foul water services within the application site as far as the application site boundary. Onward connection between the wider IDA lands and the Irish Water network will be completed as part of IDA Ireland's plans for the wider lands at this location, and these works do not comprise part of the subject application proposals.
Firefighting water will be obtained from hydrants from the potable water supply, discussed above.

In respect of IDA Ireland's plans for the wider IDA lands at this location mentioned above, IDA Ireland has advised it will be carrying out an entire infrastructure enhancement project, which is endorsed by the IDA Board and capital expenditure plans in 2023. IDA Ireland has advised it has published its tender to complete the works (closing date 31st May 2023), and forecasts completion of the works in early Q1 2024.

Unplanned Events

Section 3.3.6 of the Environmental Protection Agency Guidelines on the Information to be Contained in Environmental Impact Assessment Reports indicates that EIARs should address unplanned effects as relevant (examples include accidents, spills, floods and fires). EIA legislation further requires that the EIAR takes account of the vulnerability of the project to risk of major accidents and / or disasters relevant to the project concerned. The legislation gives examples of 'flooding, sea level rise, or earthquakes'.

An Emergency Response Procedure for the site will be prepared prior to start-up of the operational phase. Adequate spill kits will be provided on site to clean -up spills from traffic accidents or leaks from mobile equipment.

The storage of chemicals on-site are below the lower tier thresholds outlined in Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances Regulations 2015 (S.I. No. 209 of 2015 or COMAH Regulations) as transposed from EU Directive 2012/18/EC known as Seveso III Directive

The site is considered low risk in terms of flooding, sea level rise and earthquakes.
All buildings will be designed and constructed as required by the Building Control (Amendment) Regulations, 2014 and appropriate fire certificates will be obtained from Louth County Council. In the unlikely event of a fire the storm water attenuation tank and lower yard will be used to retain fire water. The valves in the attenuation tank will be shut-off to prevent migration of contaminated fire water to surface water. Hydrants will be available within the site and within the wider lands owned by the IDA.

Unplanned events are considered in the individual environmental assessment chapters.

3 ALTERNATIVES

EIAR Chapter 3 sets out a description of alternatives to the development proposals which were studied and an indication of the main reasons for selecting the chosen option.

3.1 Alternative locations

Lands Adjoining East of Hibernia Steel Premises, Grangegeeth, Co. Meath (Approximate centre point X: 695073 Y:778854)

Consideration was given by the Applicant to locating the development on lands adjoining the east of the Hibernia Steel Premises in Grangegeeth, Co. Meath. No agreement to acquire the lands could be reached with the land owner (the land owner was not interested in selling the lands).

In respect of planning and environmental considerations it was also noted that any proposed development on these lands at Grangegeeth would rely on 'local' classification rural roads for vehicular access, would not benefit from any specific zoning policy facilitating industrial development, and would not benefit from any known nearby connections to the Irish Water foul drainage network.

Lands Adjoining West of Hibernia Steel Premises, Grangegeeth, Co. Meath (Approximate centre point X: 694878 Y:778690).

Consideration was given by the Applicant to locating the development on lands adjoining the west of the Hibernia Steel Premises in Grangegeeth, Co. Meath. No agreement to acquire the lands could be reached with the land owner.

In respect of planning and environmental considerations it was also noted that any proposed development on these lands at Grangegeeth would rely on 'local' classification rural roads for vehicular access, would not benefit from any specific zoning policy facilitating industrial development, and would not benefit from any known nearby connections to the Irish Water foul drainage network.

Lands at Drogheda Business and Technology Park, Co. Meath (Approximate centre point X: 706965 Y:774204)

The Applicant made contact with IDA Ireland seeking possible siting options. Two options were provided by IDA Ireland, lands at Drogheda Business and Technology Park, Co. Meath, and the application site. Consideration was given by the Applicant to locating the development on the lands at Drogheda Business and Technology Park. The E1 Strategic Employment Zones (High Technology Uses) zoning policy at this location was considered less supportive of the proposed development than the E1 General Employment zoning policy at the application site.

3.2 Alternative processes

Galvanising is the process of applying a protective zinc coating to steel or iron, to prevent rusting. The proposed (and most common) method is hot-dip galvanising, in which the parts are submerged in a bath of hot molten zinc. This can be done on a batch or continuous basis. Hibernia Steel propose to use a batch system. This is the most common galvanising method. The design of the proposed galvanising process and all associated specialised plant, machinery and works will be provided by a specialist supplier and is similar to other modern examples of such facilities.

3.3 Alternative layouts

An alternative broad layout was considered at an early stage in the design process. This broad layout included the in-take / out-take area of the main building located to the north, and the processing and services area located to the south. The proposed development by contrast includes the in-take / out-take area to the south and the processing and services area to the north.

This broad layout option was discounted in favour of the selected option. In respect of environmental considerations, the reasons for discounting this option included as follows:

- Siting the in-take / out-take area to the south as proposed increases distances from the two residential properties on the western site boundary and was identified as likely reducing noise effects on these receptors.
- [did BC consider proposed layout resulting in less impacts associated with required soil movement / earthworks – if so state here and explain why]

3.4 Alternative designs

The overall size / scale of the project reflects key project parameters and technical and operational factors. The differing heights of the two main sections of the main building are for operational reasons and to accommodate required equipment.

3.5 ‘Do-nothing’ Alternative

In a ‘do-nothing’ alternative, the proposed project would not proceed. In this event, the effects of the project on the environmental factors considered in this EIAR would not arise, including positive effects arising e.g. in relation to the anticipated generation of employment and economic activity.

4 POPULATION & HUMAN HEALTH

The Population and Human Health chapter includes an assessment of the likely significant land-use and socio-economic effects of development. Information in respect of the existing receiving environment was obtained from the Central Statistics Office, Economic and Social Research Institute, National Planning Framework, Eastern and Midland Region Regional Spatial and Economic Strategy, Louth County Development Plan 2021-2027 ('the Development Plan') and the Louth County Council planning applications website. In accordance with guidance at Section 3.3.6 of the Environmental Protection Agency Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, the assessment of impacts on population and human health in the chapter refers to the assessments of those environmental factors under which human health effects might occur, as addressed elsewhere in the EIAR. These factors are identified as water quality, traffic (road safety), noise and air quality, respectively, and the reader is directed to the relevant EIAR chapters 8 Water, 9 Traffic & Transportation, 10 Noise and 11 Air Quality and Climate, respectively, for relevant background information where appropriate. Assessment is also provided as to any significant effects on population and human health derived from the vulnerability of the proposed development to risks of major accidents and / or disasters, as required by EIA legislation.

The application site comprises lands located west of the R132 road north-west of Drogheda, County Louth. The site comprises unused land. Surrounding land uses comprise predominantly agricultural / unused lands. There are two residential properties adjacent to the western boundary. The site context includes uncompleted access roads and other infrastructure installed on foot of planning permission Reg. Ref.: 071435 / An Bord Pleanála Ref.: PL15.228184 which were intended to serve lands in this area including the application site. The site is provided by IDA Ireland and comprises part of lands at this location to be developed as an IDA Ireland business park.

The site is located within the electoral division of St. Peter's, within the administrative area of Louth County Council.

The growth and development of Drogheda is supported by planning policies at national, regional and local levels. Eastern and Midland Region Regional Spatial and Economic Strategy policy for Drogheda includes support for economic and employment-based development opportunities to match and catch-up on rapid phases of housing delivery in recent years. The proposed development is considered as located within the Northern Environs of Drogheda as referenced in the Development Plan. The Development Plan states that the development of the employment and residential lands in the

Northern Environs are a fundamental element of the immediate and long-term growth strategy for the town. The Development Plan states that the land bank will act as a counter balance to the level of growth that has taken place in the Southern Environs of the town. The Northern Environs is considered to contain two areas of undeveloped lands zoned for employment uses, located within the west and east of the Northern Environs area, respectively. In view of this, it is considered that it follows that employment development on the undeveloped lands zoned for employment uses within the west of the Northern Environs – including the application site – is a fundamental element of the immediate growth strategy for Drogheda, particularly as it is considered that the Development Plan indicates (Development Plan Section 5.12.4) there is at present no funding available for completion of the Port Access Northern Cross Route (a road project) as far as the undeveloped lands zoned for employment uses in the east of the Northern Environs, or the water services infrastructure to provide for the release of these lands. Under the Development Plan the site is zoned 'E1 General Employment' with objective 'To provide for general enterprise and employment generating activities'. Pre-planning consultation was undertaken with Louth County Council in respect of zoning policy and Louth County Council advised that the principle of the proposal at this location is acceptable.

The proposed development is likely to have positive effects on employment and economic activity during both the construction and operational phases of development.

It is considered that the operational phase employment creation associated with the proposed development will likely support population growth in the area.

It considered that the proposed development will deliver benefits in respect of broad settlement and land use patterns including supporting the development of the Drogheda Regional Centre in accordance with National Planning Framework policy objectives 2b and 7, enhancing Drogheda's role as a strategic employment centre on the Dublin-Belfast Economic Corridor, contributing economic / employment development towards matching and catching-up on rapid phases of housing delivery in Drogheda in recent years, assisting in counter balancing the level of growth that has taken place in the Southern Environs of the town, and making use of previous investment in infrastructure.

Relevant mitigation and / or monitoring measures in respect of water quality, traffic (road safety), noise and air quality, respectively, relating to the cons and / or operational phases of development as relevant, are set out within the relevant EIAR chapters 8, 9, 10 and 11, respectively.

On the basis of relevant assessment within the relevant EIAR chapters 8, 9, 10 and 11, respectively, no likely significant effects on population and human health are anticipated to arise as a result of any effects on water quality, traffic (road safety), noise and air quality, respectively, during construction or operation.

In respect of unplanned events including major accidents and / or disasters, the proposed development will not comprise a Tier 1 or Tier 2 COMAH site. No features or land uses in the vicinity of the site have been identified as likely resulting in risks of an accident and / or disaster. The site is considered low risk in terms of flooding, sea level rise and earthquakes. An Emergency Response Procedure for the site will be prepared prior to start-up of the operational phase. All buildings will be designed and constructed as required by the Building Control Regulations, and appropriate fire certificates will be obtained from Louth County Council. In the unlikely event of a fire the storm water attenuation tank and lower yard will be used to retain fire water. The valves in the attenuation tank will be shut-off to prevent migration of contaminated fire water to surface water. Hydrants will be available within the development. No likely significant effects on population and human health are anticipated to arise as a result of unplanned events including major accidents and / or disasters.

5 BIODIVERSITY

This report has assessed potential impacts on ecological features that may occur as a result of the proposed development.

The aims of this section of the report are to:

1 Conduct a review to establish current baseline conditions relevant to biodiversity within the site boundary, and the local surrounding environs;

2 Assess the potential impacts to biodiversity, which can be reasonably expected to occur as a result of the proposed development;

3 Assess the likely impact if any upon protected wildlife sites, namely Natural Heritage Areas; Special Areas of Conservation; and Special Protection Areas for Birds;

4 Recommend suitable mitigation measures to address identified adverse impacts.

The field survey and desk-based assessment of the proposed site for the Galvanising Facility at Mell, Drogheda, Co. Louth was undertaken in January 2023.

It is important to stress that this site previously was in agricultural use and then became part of a previously proposed Business Park. At this time, when the site was being prepared for the business park (ca. 2008-2010), most of the site and the lands to the north were cleared and readied for development, which inevitably due to the intervening time period has since become overgrown with scrub, small trees, grasses and brambles. Therefore the site has undergone habitat changes over a relatively short time period of ca. 13-15 years. The site habitats are all typical of disturbed ground that is recolonising due to years of neglect and lack of use and all habitat types merge into each other as natural succession has taken place on site.

The current site habitats consist of the following elements:

Drainage Ditches

In the north-western corner of the site is an artificial man-made channel. As this drain is a man-made feature and is not in flow, it has little if any conservation value and is likely to dry up completely in dry weather.

Buildings & Artificial Surfaces

Forming the northern boundary to the proposed site is a concrete footpath and tarmacadam road. This area is currently not driven on as the access is blocked off at the R132 by large boulders and

barriers. In parts of the footpath and edge of the road, common weed or ruderals are present occasionally including Moss species and Grasses including Bents and Fescues growing on the concrete and tarmac pavement in un-trafficked areas. Artificial surfaces such as roads and footpaths have little biodiversity value and are present to act as hard surfaces for vehicles and pedestrians respectively. This habitat category is used for any areas where bare or disturbed ground, derelict sites or artificial surfaces of tarmac, concrete or hard core have been invaded by herbaceous plants.

Recolonising Bare Ground

The site was all cleared in preparation for the development of the previously proposed Business Park in ca. 2008 – 2010 and as such most of the site was stripped and bare. In the north-east corner of the site there is a hardstanding concrete and tarmac area. Over time this part of the site and a strip of land bordering the footpaths has been partially recolonised by ruderals. Vegetation cover should be greater than 50% for inclusion in this category.

Dry Meadows and Grassy Verges

Within the northern higher section of the site (where the land rises from the northern road to the intersecting power lines across the site, and along the site hedgerows and treelines the habitat becomes more grass dominated and tussocky. The main area of this habitat type is where the land rises in elevation and is uneven and is dryer underfoot.

Scrub

The dry grassland areas of the site extends in a southerly direction from the northern road boundary and then gradually become more overgrown and dominated by impenetrable thicket.

In the context of this site is an indication of lack of use of a site and neglect in terms of land management. It is never the intention for a site to be allowed to revert to scrub in the same way a derelict house and gardens will revert to scrub without management and intervention with grazing or cutting. The site was not scrub before and the aerial photograph from ca. 2008-2010 shows that the site was entirely clear of vegetation save for the boundary hedgerows and treelines.

This habitat has no particular conservation value in a regional context, but locally it can provide cover for small mammals such as mice, rabbits and foraging foxes and feeding opportunities for small birds. However, having walked the site, there is no evidence of widespread use of the scrub in terms of nesting or feeding except maybe by visiting foxes for whom the site forms part of a larger range.

As the Scrub habitat is mainly in the central area of the site, this area will be cleared and will become the main area for the buildings on site and will change to another non-priority habitat type - BL3 – Buildings & Artificial Surfaces.

Immature Woodland

The southern, western and eastern portions of the site are typified by immature tree saplings and young trees. This habitat type is a mix of scrub becoming Immature Woodland. Immature woodland includes areas that are dominated by young or sapling trees that have not yet reached the threshold heights of 5 metres plus. The ground flora is not well developed and consists of a well deposited leaf layer with occasional Grasses and Mosses. There is a distinct lack of impenetrable thicket which is more associated with the accompanying Scrub habitat.

Based on the field evidence gathered and the natural succession occurring on the site, this immature woodland has low to medium biodiversity value in a local context but does not provide extensive foraging areas for animals or birds, and little if any birdlife was evident except for occasional Rook activity with evidence of white bird faeces on the ground. Where the Immature Woodland is close to the perimeter boundaries, it merges into the hedgerows and treelines which will remain as part of the development. Therefore, any mature trees which are within the boundary treelines and not on site will remain post development.

Hedgerows and Treeline

The southern, western and eastern boundaries are typical overgrown rural hedgerows and treelines which form liner habitats Hedgerows and Treeline.

The western boundary is principally overgrown hedgerow with the occasional large Ash tree. The dwelling house to the south is separated from the development site by a non-native hedgerow comprising of a tall Leylandii hedge interspersed with trailing Bramble.

Overall, the site habitat survey has demonstrated that the habitats on-site have low to medium biodiversity value and are non-priority habitats for conservation and are not listed in the Habitats Directive.

Avifauna

During the site survey, several bird species which are common and found throughout Ireland were observed. These birds are typical of Irish farmlands and are found in both hedgerows and open fields typical of this habitat type.

Mammals

During the site visit in January 2023 there was evidence of Rabbits in the general area of the site probably due to extensive scrub within the site. It is likely that the site is frequented by Foxes, and Stoat. Badgers may visit the site as part of a larger territory but none were observed on site nor was there any evidence of them. Both Field mice and Brown rat are probably also present. There are no suitable habitats within the proposed site to act as a habitat for bats as the willow dominated immature woodland is young and transitional. However bats may forage and feed along the perimeter hedgerows and treelines as part of a larger territory and it is intended to leave these intact.

Insects

Different species of Butterfly may fly over the site as part of their wider territory. In January 2023 due to the time of the year of the site survey, no butterflies were observed, but it is likely that several common species of butterfly visit the site including Cabbage white and Tortoiseshell.

Amphibians

There was no evidence of amphibians on-site and even though there is a man-made drainage ditch to the north-west corner of the site, this will be removed during site construction works. There are no other ponded areas on site which could provide suitable breeding habitat for the Common Frog or for Newts. As the site has no connecting streams, the site does not serve as part of the habitat for amphibians.

In summary, none of the habitats or species of flora and fauna found within the proposed site at Mell are listed being protected species and none are worthy of specific conservation.

Site Hydrology and Surface Water Connectivity

The proposed site for the galvanising facility is located within the River Boyne Catchment area which flows in a west to east direction ca. 1. 5 km south of the site. However, from the EPA Hydrology maps for the area, there appear to be no main streams or rivers in close proximity to the site – therefore any connectivity is on a localised level.

The site slopes predominantly from north to south, with the exception of the northernmost 50 m which slopes to the north. An open field drain is located adjacent to the southern site boundary. Rainfall-runoff generated on the south-sloping portion of the site enters this field drain, which directs water eastwards along the southern boundary before turning south, along the eastern side of the local road.

Natura 2000 sites

Based on the location of the proposed site and that the proposed development site **is not** located within a Natura 2000 site (i.e. SAC or SPA) but is located over 1.5km from the closest Natura 2000 site - the River Boyne & River Blackwater SAC.

The habitat types found within the site at Mell and in the immediate vicinity are non-priority habitats and none of the habitats or species found within the proposed site boundary are worthy of specific conservation. The on-site habitats have no particular ecological conservation value and does not form the basis of designation of the River Boyne & River Blackwater SAC, the River Boyne & River Blackwater SPA, the Boyne Estuary SPA and the Boyne Coast and Estuary SAC and therefore does not form a part of theses Natura 2000 sites in terms of feeding grounds; species regeneration or nesting (i.e. otter or kingfisher).

Impacts of the development

Construction stage

None of the qualifying interests of the River Boyne and River Blackwater SAC or SPA, either habitats or species, occur within or directly adjacent to the proposed site. This has been determined during the habitat survey of the site and an assessment of the qualifying interests of the Natura 2000 sites.

In the absence of appropriate mitigation measures, potential negative changes in water quality could have an indirect impact upon aquatic invertebrates and fish populations. This in turn could indirectly impact upon fish such as the River Lamprey and Salmon species and could by association impact upon Otters, Kingfishers and Birdlife.

Operational stage

The potential for air emissions giving rise to negative impacts upon the Natura 2000 sites screened is considered low to negligible given the large separation distance of over 1.5 km and that the species listed in the qualifying interests for the Natura 2000 sites are not known to be particularly sensitive to air emissions. There are no nitrogen sensitive bogs within close proximity to the proposed site.

During the operational phase, the indirect impacts affecting the qualifying interests of the four Natura 2000 sites screened in are limited to potential water quality effects extending downstream within the River Boyne.

Unplanned events

There are no likely direct impacts upon biodiversity from the operational stage of the development. From a thorough inspection of the site, the proposed works are not located within a potential flood risk area and the risk of coastal flooding on this site is not a possibility. There is no risk of any other type of pluvial or fluvial flooding and therefore there is no risk of surface water run-off, soiled water discharges, hydrocarbon/fuels or indiscriminate discharges from the site.

However, the proposed development could pose a risk to surface waters in the event of an emergency such as a fire or explosion. This could then potentially impact upon the biodiversity of aquatic habitats and associated flora and fauna by contaminated drainage waters.

Mitigation measures

The following are some of the proposed mitigation and precautionary measures to mitigate against any Impacts upon any potential impacts upon biodiversity and local water quality during the construction and operational stages:

- All tree felling and scrub clearance shall be avoided during the bird nesting period of 1st of March to the 31st of August.
- A “silt fence” is to be installed along the southern site boundary and also along the northwestern drainage ditch to mimic the potential surface water drainage from the site.
- Excavations at the site shall be clearly defined and restricted to the stated areas.
- Topsoil stripping will be restricted to the minimum area required for efficient earthworks operation
- Any stockpiles shall be covered and located over 15 m from drainage channels.
- ny stormwater leaving the construction area shall pass through a temporary settlement pond before entering the local surface water network.
- Any stormwater leaving the construction area shall pass through a temporary settlement pond before entering the local surface water network.
- All potentially contaminating substances to be stored in designated areas away from excavation areas, isolated from gullies, open channels or exposed overburden.
- Rainfall-runoff generated on the new car parking area, truck parking area and internal access road shall be disposed of to ground via a new infiltration area and permeable paving.
- All potentially contaminating substances to be stored in designated areas away from excavation areas, isolated from gullies, open channels or exposed overburden.
- Regular inspections to ensure integrity of hardstanding is not compromised. If any cracks or defections are observed then comprised area to be reinstated immediately.

Monitoring Measures

Bi-annual monitoring of discharges to surface water is recommended.

Parameters shall be agreed with the local authority. Designated sampling points shall be agreed with the local authority.

All personnel working on the site shall be trained in the implementation of fire and emergency procedures.

During the construction and operational phases hydrocarbon and silt interceptors will be serviced and maintained on a regular basis by an independent licensed contractor. Regular inspections of the site infrastructure (hardstanding, drainage infrastructure, etc.) shall also be undertaken by a designated person.

Residual impacts

The enabling phase will involve clearance of the scrub and immature woodland on-site. During the operational phase there will be no direct interaction with biodiversity apart from maintenance of hedgerows and treelines and landscaping works.

Assuming implementation of the mitigation measures described above the residual impacts on the biodiversity during the construction and operational phases are assessed as being negligible. In relation to Natura 2000 sites.

6 CULTURAL HERITAGE

The archaeological, architectural and cultural heritage component of an Environmental Impact Assessment Report of a proposal to construct and operate a new hot-dip galvanising facility at Mell, County Louth consisting of a paper and fieldwork study was carried out in October - December 2022. The work was undertaken by Dr. Charles Mount who is a member of the Institute of Archaeologists and has more than thirty years of cultural heritage assessment experience.

6.1 Methodology

This study which complies with the requirements of Directive EIA 2014/52/EU is an assessment of the known or potential cultural heritage resource within a specified area and includes the information that may reasonably be required for reaching a reasoned conclusion on the significant effects of the project on the environment, taking into account current knowledge and methods of assessment. It consists of a collation of existing written and graphic information in order to identify the likely context, character, significance and sensitivity of the known or potential cultural heritage, archaeological and structural resource using an appropriate methodology. The study involved detailed investigation of the archaeological and historical background of the development site, and the surrounding area extending 1km from the development boundary. This area was examined using information from the Record of Monuments and Places of County Louth, the Louth County Development Plan, lists of excavations and cartographic and documentary sources. A field inspection was carried out to identify and assess any known archaeological sites and previously unrecorded features and portable finds within the site area. An impact assessment and mitigation strategy have been prepared.

6.2 Receiving Environment

There are no known items of archaeology, cultural heritage or buildings of heritage interest in the application site or the vicinity.

6.3 Impacts

No direct or indirect impacts on any known items of archaeology, cultural heritage or buildings of heritage interest in the application site or the vicinity during the construction or operational or stages of the proposed development or as a result of an unplanned event have been identified by the assessment. In the worst case scenario soil stripping during the construction phase may have a significant, irreversible negative/adverse impact on unknown subsurface archaeological material without preservation by record taking place.

6.4 Mitigation

Due to the possibility of the survival of previously unknown subsurface archaeological deposits or finds within the application site topsoil-stripping should be monitored by a qualified archaeologist. Any archaeological material identified during archaeological monitoring should be preserved in situ or by record under licence from the National Monuments Service.

7 LAND, SOILS & GEOLOGY

This assessment considered the potential future impacts to the local land, soils and geological environment that may result from proposed development works at Mell, Drogheda, Co. Louth.

The evaluation consisted of inspections of the site and adjacent lands by examination of aerial photography and Ordnance Survey maps, followed by site walkover survey in December 2022. Relevant geological data from the Geological Survey of Ireland (1:100,000 Sheet 13: Geology of Meath) was reviewed together with additional data collated from sources at Louth County Council, Environmental Protection Agency (EPA), Ordnance Survey of Ireland (OSI), Teagasc and Met Éireann.

The site is positioned on a hilly landscape on the northern side of the Boyne Valley. Elevations generally fall from north to south, towards the River Boyne as it flows through Drogheda. The surrounding area is mainly used for agricultural production though the site itself is described as being unmaintained and overgrown.

Soils on the site are mapped as deep and poorly-drained below which is a layer of heavy, low permeability boulder clay. Recent borehole logs showed subsoils to be a clayey gravel in the northern part of the site and a sandy clay in the southern part of the site, which becomes increasingly gravelly with depth. The site is underlain by mudstone/greywacke bedrock. Bedrock head is at a depth greater than 7 m below surface. The site is not within a geological heritage area.

Primary activities during construction phase will involve stripping of soils and subsoils to provide a suitable surface for buildings and yard areas, and minor excavation of subsoils to facilitate foundations and drainage infrastructure. It is expected that there will be no removal of the natural resources soil, subsoil and bedrock from the site during these works. Clean stone will be imported for the formation of levels for buildings and yard construction.

In terms of the impacts of the development, the procedure for determination of potential impacts on the receiving land, soil and geological environment is to identify potential receptors within the site boundary and surrounding environment and use the information gathered during the desk study and field work to assess the degree to which these receptors will be impacted upon. Effects are described in terms of quality, significance, extant and context, probability, duration and frequency, and type in accordance with current EIAR guidelines, with particular reference to Table 3.4 of the EPA Guidelines (EPA, 2022).

In accordance with the NRA Guidelines (2009) (as included in 'Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements' (IGI, 2013)) soils and

subsoils at the site are deemed to be an attribute of Low importance. There is no interaction with bedrock associated with proposed activities.

In accordance with the NRA Guidelines (2009) (as included in 'Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements' (IGI, 2013)) the magnitude of impact on soils and subsoils at the site is deemed to be small (adverse) to negligible.

The significance of the impacts to geological receptors is deemed to be Imperceptible.

Consideration has been given to environmental impacts associated with unplanned events such as accidents, emergencies and extreme weather events. Unplanned events such as spillages or leakages of hydrocarbons or chemicals, or uncontrolled release of firefighting water have the potential to contaminate exposed soils and subsoils during the construction phase. Excessively high winds have the potential to create dust during excessively dry periods. In terms of probability the effects are unlikely though the duration of any event has potential to be long-term. An effect associated with an unplanned event during the construction phase will generally be adverse and will likely be limited to imperceptible to moderate significance, given the lack of chemicals in use or stored on site during construction. The extent of the effect on soils will generally be confined to the site due to the presence of low-moderate permeability subsoils. An effect associated with an unplanned event during the operational phase will generally be adverse and will likely be limited to imperceptible to slight significance, as a result of the overburden being covered in buildings and external hardstanding.

During the operational phase infiltration of stormwater to soakaways and permeable paving will provide connectivity between surface activities and the underlying soil and geological resources. Activity on permeable paving will be limited to staff and visitor parking. Activity on gravel areas will be limited to storage of untreated and treated steel. All stormwater generated on concrete yards will pass through an appropriately sized interceptor.

Assuming implementation of the mitigation measures the residual impacts on the soil and geological environment during the construction and operational phases are assessed to be permanent and negligible.

A number of measures will be implemented to prevent any potential significant impact to the receiving land, soil and geological environment. These measures include handling of soil/subsoil under suitable conditions to prevent loss of suspended solids, correct storage and management of hydrocarbons, and washing out of concrete trucks in designated areas off-site. Stripped soils and subsoils will be reused in the perimeter berm and landscaping.

8 WATER

Envirologic Ltd. carried out an assessment of impacts to the surrounding hydrological and hydrogeological environment that have potential to occur due to the proposed development works. The procedure for determination of potential impacts on the receiving water environment was to identify potential receptors within the site boundary and surrounding environs and use the information gathered during the desk study and site investigation works to assess the degree to which these receptors will be impacted upon.

The evaluation consisted of inspections of the site and adjacent lands by examination of aerial photography and Ordnance Survey plans, followed by site walkover surveys in December 2022 and January 2023. Hydrological desk study information was validated through surveying of local channels and watercourses. Hydrogeological desk study information was validated through monitoring well installation, groundwater level monitoring and groundwater quality analysis. These results facilitated an assessment of baseline groundwater and surface water quality.

Relevant hydrogeological data from the Geological Survey of Ireland (GSI) was reviewed together with additional data collated from data sources at Environmental Protection Agency (EPA), Ordnance Survey of Ireland (OSI) and Met Éireann.

The assessment has been compiled primarily taking cognisance of:

- *Guidelines for the preparation of soils, geology and hydrogeology chapters of environmental impact statement. Institute of Geologists of Ireland (2013);*
- *Revised guidelines on the information to be contained in Environmental Impact Statements. Environmental Protection Agency (2015);*
- *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. Department by the Department of Housing, Planning and Local Government (2018);*
- *Guidelines on the information to be contained in Environmental Impact Assessment Reports. Environmental Protection Agency (2022).*

The majority of rainfall-runoff currently generated on site flows southwards and enters an open drain on the southern boundary. This drain converges with other field drains in the area and likely joins the Mell Stream. The Mell Stream outfalls to the River Boyne which is designated as a site of European importance as part of the River Boyne and River Blackwater SAC (002299) and subsequently the Boyne

Estuary SPA (004080) and Boyne Coast and Estuary SAC and pNHA (001957). Hence there is a likely direct hydrological connection between the site and designated areas.

The site is not at risk of flooding and development works will not increase flood risk elsewhere.

Bedrock underlying the site has been classified as a poor aquifer by way of low bedrock permeabilities and short groundwater flow paths. Groundwater vulnerability is low which implies that groundwater is well protected from contamination at surface. Groundwater flow direction is from north to south-southwest, towards the Boyne. Envirologic sampled groundwater at two on-site boreholes; results showed that all parameters satisfied the Drinking Water Regulations (2010).

Source protection areas serving public water supply (PWS) boreholes at Ballymakenny and Drybridge come to within a short distance of the site. Desktop resources state that the Drybridge Stream sinks and re-emerges close to the Drybridge borehole, which is 1.3 km from the site. As a precautionary measure the Geological Survey of Ireland (GSI) extended the source protection area for Drybridge PWS to include the Mell Stream and its tributaries.

Based on the above it is clear that surface water receptors in the area are more sensitive and more likely to be at risk of impact from proposed site activities than groundwater. However the sinking stream at Drybridge means there is potentially an indirect connection to the bedrock aquifer via the Mell Stream.

A number of temporary mitigation measures will be implemented to protect surface water quality during the construction phase. These will include installation of a temporary silt pond, silt fences and ensuring working contours are such that no water can leave the site in an uncontrolled manner. Hydrocarbon storage and refuelling shall take place in designated areas, with appropriate bunding, while concrete trucks shall be washed out off-site.

Subsoil infiltration properties were shown to vary across the site. The more favourable infiltration rates in the northern half of the site mean that rainfall-runoff generated in this area will be disposed of to ground via permeable paving and an infiltration area. Permeability in the southern half of the site is less favourable hence rainfall-runoff generated in this area will be disposed of to the existing open drain on the southern boundary. An attenuation tank and hydrobrake will ensure stormwater entering surface waters does so at rates below the pre-development greenfield runoff rate. This protects against downstream flooding.

Roof-runoff will be captured in rainwater harvesting tanks. All runoff generated on ground-level hardstanding areas will pass through hydrocarbon interceptors. Shut-off valves will be employed to prevent water leaving the site in the event of a fire or spillage event.

Drinking water for staff will be sourced from the public mains while non-potable water shall be supplied from the rainwater harvesting tanks and the public mains. Domestic wastewater generated at the facility will be disposed of to the Irish Water sewer system.

All chemicals required for the galvanising process will be stored within the main building in suitable containers and bunds. Waste chemicals shall be stored in the services area and disposed off-site by an authorised contractor.

Natural recharge rates to the bedrock aquifer are low at the site and while installation of hardstanding will reduce this further it is unlikely to have a perceptible impact in terms of regional groundwater flow rates.

Raw steel awaiting galvanising and galvanised steel shall be stored on hardcore (gravel) areas surrounding the concrete yards. Stormwater generated on concrete in the southern part of the site shall pass through a hydrocarbon interceptor with silt trap and an attenuation device before entering receiving surface waters. Hence there is no potential for contaminated runoff to leave the site and enter the Mell Stream or River Boyne. These measures will ensure no impact to designated European sites or the Drybridge drinking water supply.

Consideration has been given to environmental impacts associated with unplanned events such as accidents, floods, spillages, and fire.

Intense rainfall events with a return period greater than the design criteria (1 in 100 years) during the construction or operational phase may give rise to increased runoff and hence increased sediment mobilisation. Effects of intense rainfall events can be adverse, slight, and can affect the Mell Stream tributary. Mitigation measures during the construction and operational phases are designed to control loss of sediment. The concrete attenuation tank will promote settlement of solids. The full retention hydrocarbon interceptors to be installed each have a silt trap chamber. Hence any increase in sediment-laden runoff will be contained within the site.

Fire is considered to be an unplanned event. Effects can be adverse, slight-profound, and short-term, affecting the Mell Stream tributary. The hydrocarbon interceptors have shut-off valves to trap potentially contaminated fire-fighting water on-site. Potentially contaminated firewater can then be removed off-site for treatment if necessary. These measures reduce the probability of the effects occurring to unlikely.

Significant spillage is considered to be an unplanned event. All potentially harmful chemicals are contained within the processing shed. There is no route for potentially harmful chemicals to migrate outside the building. The effect of significant spillage is considered to be adverse, slight-profound,

potentially affecting the Mell Steam tributary short-term but unlikely providing adequate mitigation measures are implemented.

There are no foreseen indirect impacts resulting from unplanned events.

Each of the above potential impacts and the mitigation measures proposed are addressed in detail in the relevant sections of this EIAR. These impacts are considered to be negative but with suitable mitigation measures in place, their impact can be reduced.

9 TRAFFIC & TRANSPORTATION

A Traffic assessment has been undertaken to determine, and assess, the traffic related impacts associated with the proposed Galvanising Facility at Mell, Drogheda, Co. Louth. The facility will be accessed from the access road linking Chapel Lane to the R132 along the north western boundary of the site. This road is currently closed and in a part-built state and the road and its junction with the R132 road will be completed as part of IDA Ireland's plans for the wider lands at this location (see Project Description section of this Non-Technical Summary).

Traffic modelling and analysis (Link Capacity Analysis and Junction Capacity Analysis) was undertaken to understand if the R132 Regional Road, or nearby junctions, would be impacted (e.g. experience congestion) by the additional traffic generated from the construction and operation of the development. Following analysis, the following was determined.

Link Capacity Analysis, which investigates the potential for congestion on the road, was undertaken on the R132 Regional Road. It was determined that the R132 would continue to perform satisfactorily for each of the construction years, 2023 to 2024. In the modelling year 2029, the traffic flow threshold on the R132 is exceeded, in the 'with' and 'without' the development scenarios. However, the increased traffic generated by the facility, given the conservative approach adopted, accounts for between 1.95% and 2.28% of the traffic on the R132 between 2022 and 2039. As a result, the future traffic generated by the operation of the site results in increases that are negligible, and therefore, will have an imperceptible impact on the R132 Regional Road.

Junction Capacity Analysis, which assesses the potential for congestion at junctions, was undertaken at the site access onto the R132 Regional.

- The results of the junction capacity analysis indicates that the traffic generated by the development construction will have an imperceptible impact on the operation of the junction for each of the construction years: 2023 (Construction Year 1) and 2024 (Construction Year 2).
- Additionally, the results of the junction capacity analysis indicate the traffic generated by the development operations will have an imperceptible impact on the operation of the junction for each of the assessment years of operation, 2024 (the Opening Year), 2029 (Opening Year +5) and 2039 (Opening Year +15).

Sightlines have been assessed at the development access against Section 5.6.3 of TII Publications document DN-GEO-03060, which requires 215m of unobstructed visibility (where the design speed is

100kph) at a point 3.0m back from the edge of the carriageway. The available visibility to the left (south) and to the right (north) exceeds the 215m required for a design speed of 100kph.

Traffic analysis confirms that the proposed development will have an imperceptible impact on the local road network due to the low volumes of traffic being generated by the development.

In the event that the proposed development did not proceed, the effects of the development on traffic and transportation considered in this assessment would not arise.

10 NOISE

The noise chapter of the EIAr has been undertaken by Mr. Oliver Fitzsimons MSc, BSc Environmental Science. Mr Fitzsimons has over 20 years of experience preparing noise impact assessments.

This chapter has been compiled in accordance with Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022).

The environmental noise impact assessment follows the following methodology:

1) Establish the existing noise environment (Baseline noise survey in accordance with ISO 1996-1. Acoustics — Description, measurement and assessment of environmental noise - Part 1: Basic quantities and assessment procedures)
2) Determine applicable noise limits
3) Description of the noise aspects of the proposal
4) Predict potential noise impacts associated with the proposal
5) Suggest mitigating measures
6) Establish residual noise impacts

It has been established that the site of the proposed development is in a high noise environment. It has been demonstrated that this is primarily due to road traffic on the busy road network in the vicinity of the site.

Noise sensitive receptors have been identified as follows:

Id	Address
NSR1	CHAPEL LANE (L6323), KILLINEER, DROGHEDA. CO. LOUTH, A92 F6Y0
NSR2	CHAPEL LANE (L6323), KILLINEER, DROGHEDA. CO. LOUTH, A92 Y5F7
NSR3	CHAPEL LANE (L6323). KILLINEER, DROGHEDA. CO. LOUTH, A92 X9F2
NSR4	THE WILLOWS. ROSEHALL. KILLINEER, DROGHEDA, CO. LOUTH, A92 EFH9
NSR5	ROSEHALLKILLINEER DROGHEDA, CO. LOUTH. A92 K6FK
NSR6	THE ORCHARD. ROSEHALL, KILLINEER, DROGHEDA, CO. LOUTH. A92 R2DD
NSR7	THE COACH HOUSE. ROSEHALL, KILLINEER, DROGHEDA. CO. LOUTH. A92 W448
NSR8	ROSEHALL. KILLINEER, DROGHEDA, CO. LOUTH. A92 K84W
NSR9	ROSEHALL. KILLINEER, DROGHEDA, CO. LOUTH. A92 WC47

NSR10	ROSEHALL, KILLINEER, DROGHEDA, CO. LOUTH. A92 C6Y3
NSR11	ROSEHALL COTTAGE, ROSEHALL, KILLINEER, DROGHEDA, CO. LOUTH. A92 WTR8
NSR12	ROSEHALL, KILLINEER, DROGHEDA, CO. LOUTH. A92 CXD8
NSR13	ROSEHALL, KILLINEER, DROGHEDA, CO. LOUTH. A92 D68Y
NSR14	KILLINEER, DROGHEDA, CO. LOUTH. A92 TYP4
NSR15	WATERUNDER, DROGHEDA, CO. LOUTH. A92 DD35

The potential impact on each noise sensitive receptor has been established using established methodology.

It has been established that, due to a number of design mitigation factors including building specification and noise attenuation measures, noise at sensitive receptors will be within recognised acceptable noise limits.

The Noise chapter of the EIAR details potential noise impacts during the construction phase, the operation phase and impacts associated with traffic.
With regards to unplanned events (Accidental / Major disasters) such as accidents, fire or a spillage, the risk would be considered low. The noise impacts would be short term and would be considered Negligible.
It can be concluded that when the facility is constructed and operated in accordance with the plans and particulars presented, environmental noise impacts should be moderate in nature.

11 AIR QUALITY AND CLIMATE

The Air Quality and Climate assessment evaluates the impact which the Proposed Development may have on Air Quality and Climate as defined in the Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2022).

The chapter describes the potential impacts to ambient air quality from the proposed Galvanising Plant to be located in Mell, Drogheda, Co. Louth. Particular attention is given to the potential exposure of receptors to airborne pollutants resulting from the development and operation of the subject site. Sensitive receptors, including local business units and residential dwellings within circa 0.50 kilometre (km) of the subject site have been included within the assessment. In addition, a number of ecological sensitive habitats designated under the EU Habitats and Birds Directive were included within the assessment.

Air quality significance criteria are assessed on the basis of compliance with the appropriate standards, guideline and or limit values. The applicable standards in Ireland include the Air Quality Standards Regulations 2011, which incorporates European Commission Directive 2008/50/EC which has set limit values for the pollutants such as Oxides of nitrogen, Particulate matter (PM10), Carbon monoxide, Benzene and Sulphur dioxide relevant to the assessment. Council Directive 2008/50/EC combines the previous Air Quality Framework Directive (96/62/EC) and its subsequent daughter directives (including 1999/30/EC and 2000/69/EC) and also includes ambient limit values relative to $PM_{2.5.}$

The assessment describes the potential impacts to air quality resulting from the construction and operational stages of the proposed plant.

The impacts during construction stage have been assessed on a local scale to determine impacts on human health and ecological receptors. The aspects considered include:

- Construction dust from the building of structures on the site,
- Construction dust and its potential to impact on sensitive receptors and to cause an environmental nuisance,
- Construction traffic emissions and their potential for impacts on sensitive receptors.
- Indirect emissions to air associated with construction.

All sensitive habitats are located at a distance greater than 50m from the emission source as a result the impact on habitats will be imperceptible.

A Construction Environmental Management Plan (CEMP) incorporating dust mitigation measures will further reduce any impacts significantly and this will be implemented as part of the proposed development.

Impacts associated with construction traffic will be negligible when compared with the impact criteria contained in Table 116 of the EIAR main body.

There are no indirect emissions to air associated with construction.

Air quality impacts may arise from process based emissions and traffic movements associated with the operational phase of the proposed plant. Traffic based air quality emissions will result from traffic making deliveries and collections to and from the proposed plant and employee traffic movements.

Based on the detailed assessment made in this chapter there will be no significant increase in the air quality impact of named pollutants as a result of increased baseline traffic numbers when the development occurs with only a slight increase occurring in pollutant concentration predicted 5m from the road centreline.

A worst case of assessment was utilised throughout the air quality impact study in order to assess any risk associated with the proposed operation of the plant.

Worst case volume flow and pollutant concentration limits were analysed within the impact assessment. It was assumed that the operational facility will operate 24 hrs per day, 7 days per week, 365 days per year. In addition, all data analysis was performed utilising the worst case meteorological year. Given these facts, it is considered that the worst case scenario is analysed as part of the assessment.

The detail assessment in this chapter presents the maximum predicted air pollutant ground level concentration values in the vicinity of the proposed plant when the proposed stacks are in operation. The predicted ground level concentration at each of the specified receptors is presented to include both residential and habitats receptors. The worst case predicted value at any of the sensitive receptors and habitats is compared against the prescribed environmental assessment level as presented in this assessment.

As can be observed from the figures presented in this chapter, the maximum predicted GLC of Oxides of nitrogen, Particulate matter as PM_{10} and $PM_{2.5}$, Total Volatile organic compounds as Benzene, Hydrogen chloride, and Ammonia, with baseline values and predicted traffic related emissions is well within the air quality limit values.

Regarding the climate, electrical and gas usage would be expected to be the dominant sources of greenhouse gas emissions as a result of the operation of the proposed development. Gas and Electrical used to operate the plant will give rise to CO_2 and N_2O emissions as a result of the proposed development.

With reference to relevant evaluation criteria stated within this document, which has set objectives to be achieved, GHG emissions as a result of this proposal will be Imperceptible.

With regards to unplanned events (Accidental / Major disasters) such as a fire, the risk would be considered low. The impacts to Air Quality would be considered Negligible.

This assessment demonstrates that emission levels as a result of the operation of the proposed plant will not result in air quality impact above the stated Irish and European assessment criteria limits and guidelines. This is demonstrated through the air assessment and air modelling study, which establishes that no International or Irish air quality standards or guidelines are forecast to be exceeded.

The assessment concludes that the impact of construction and operation of the Proposed Development is likely to be **imperceptible** with respect to human health.

Application of an Environmental Management System will incorporate best practice measures in order to minimise dust and air pollutants at the subject site.

A full traffic management plan and dust management plan will be incorporated into an Environmental Management System in order to minimise such emissions as a result of the construction and operational phase of the development. This will be generated specifically for the proposed development when detailed design is completed.

During the construction and operational phase, emissions to air will be regulated in accordance with specific conditions set out within any forthcoming planning permission. Hibernia Steel (Manufacturing) Limited will be required to regularly monitor emissions in accordance with their EPA IED licence to ensure compliance with the prescribed air quality limit values for such pollutants.

12 LANDSCAPE & VISUAL IMPACT

This assessment has been prepared to establish potential landscape and visual effects arising from a proposed hot dip galvanising facility at Mell, Drogheda, Co.Louth.

The assessment of potential landscape and visual impacts for this development are based on the most up to date guidelines provided by The Landscape Institute, 'Guidelines for Landscape and Visual Impact Assessment', (3rd Edition) 2013; 'The Countryside Agency and Scottish Natural Heritage – Landscape Character Assessment Guidance for England and Scotland' 2002; and 'An Approach to Landscape Character Assessment' Natural England Oct 2014.

This assessment has been prepared in accordance with Environmental Protection Agency (EPA) "Guidelines on the Information to be contained in Environmental Impact Assessments" May 2022.

The site is located within a Landscape Character Area (LCA) 'Boyne & Mattock Valley' as categorised by Louth County Council.

The site is on the Northern periphery of Drogheda is not within an area of landscape designation.

The landscape within the study area is consider to be of **Medium-Low** sensitivity which has been define with the LVIA assessment criteria as:-

"Landscape characteristics or features which are reasonably tolerant of change without detriment to their present character.

No landscape designation present or of medium to low local value, or an example of a common or un-stimulating landscape or set of features and conditions."

The Zone of Theoretical Visual Influence (ZTVI) guides the focus for the visual impact assessment and models were prepared as part of the assessment process.

A number of viewpoints were considered as representative of a range of views and viewer types, including residential, transport routes, recreational routes, designated landscapes, and main visitor locations at a variety of distances, aspects, elevations, extents, and sequential routes.

Landscape and Visual Assessments attempt to establish the sensitivity of specific landscape resources and describe the significance of changes to that landscape occurring as a result of a proposed development. Landscape and Visual impacts are intrinsically linked; therefore measures to reduce landscape impacts will often assist with reduction of visual impacts and vice versa.

Detailed predefined criteria are supplied within the main LVIA, determining sensitivity and magnitude of change ratings. These are then considered through a combination of professional judgment (with reference to an assessment matrix) to determine predicted impacts / effects.

Aspects of the development which may potentially impact both the landscape character and on visual resource within the study area were considered.

The study considered this development typology over 2 main phases namely:-

- Construction Phase
- Operational Phase

It factors the influence of advanced screening measures including in this case significant areas of advance woodland planting and earthworks.

A number of measures have been proposed to mitigate against adverse landscape and visual effects being generated by the proposed development.

These include:

- Retention and protection of all existing boundary hedgerows;
- Woodland planting to reinforce existing boundaries.
- All built structure finishes in muted colours

Landscape sensitivity associated with this development is considered **Medium-Low**.
Magnitude of change from the current baseline to proposed development is considered to be **Medium** during both the construction phase and operational phase.
This combined with the sensitivity outlined above would result in short term adverse **Moderate** effect at construction and continuance of **Moderate to Minor effect once established and operational.**
Visual sensitivity varies according to the type of receptor. For this assessment they range from **High** to **Medium** sensitivity. In terms of magnitude of change range from **High** to **Very Low.**
Combined this results in visual impacts which range from **Moderate-Major** through to **Minor/ Negligible**.
It is considered unlikely that an unplanned event, such as flood, fire, explosion etc would directly or indirectly alter the findings within the Landscape and Visual section.

Typically impacts will be greatest during the initial establishment/construction phase. During this relatively short period viewpoints in close proximity to the site with open views would generally experience higher magnitude of change than those located further away. As proposed landscape treatment matures, impact will diminish throughout the study area, with none of the post construction receptors experiencing impacts within the 'significant' range.'

13 MATERIAL ASSETS

The objective of this chapter is to evaluate the impacts, if any, which the proposed development may have on Material Assets.

This chapter has been prepared being cognisant of the EPA Guidelines on the information to be contained in EIARs (May 2022).

The assessment in the Chapter focuses on Built Services – Electricity, Telecommunications, Gas, Water Supply Infrastructure and Sewerage. The impacts associated with roads and traffic are duly dealt with under Traffic and Transportation Chapter 9 of the EIAR. Waste management is described in EIAR Chapter 2.

The extent of the study area is the footprint of the site in question and the immediate upstream and downstream of services connection to the site.

Boylan Consulting undertook various site visits to review the material assets of the subject site. Furthermore, the existing infrastructure and assets on the site and supplying the site have been assessed in line with best practice, workmanship and capacity. From this information a baseline was established of the functionality and adequacy of the existing material assets.

A chartered Civil Engineer reviewed the proposed development operations and drawings to identify impacts on the existing material assets and the functionality of the infrastructure that forms part of the proposed development.

The design intent of the proposed infrastructure is to mitigate against excessive increases in demand on existing material assets, ensuring that any increases in demand are within the capacity of the existing material assets.

In terms of the receiving environment, assumed 38kv overhead powerlines traverse within the Eastern and Western boundaries of the site. Through coordination with the ESB these powerlines will either be diverted or re-laid underground. The site has no existing connections to water, wastewater, telecoms or gas networks. There are water and wastewater pipes and telecoms ducting along the access road linking Chapel Lane to the R132 to the north of the site. The water / wastewater pipes are not connected to the Irish Water network. We are unaware whether the telecoms ducting is currently connected to telecoms networks. As set out in the Project Description section of this Non-Technical Summary, the subject application proposals include for water and foul water services within the application site as far as the application site boundary. Onward connection between the wider IDA lands and the Irish Water network will be completed as part of IDA Ireland's plans for the wider lands

at this location, and these works do not comprise part of the subject application proposals. Gas supply for the proposed development will be via on-site storage tanks.

The potential direct impacts of the construction and operation of the development are considered to be:

- Impacts associated with temporary shutdown of services due to diversion, connections, and augmentation during construction of the proposed development causing an impact on service delivery to other potential premises of the IDA site and the wider community.
- Significant increase in electrical demand, utilising network capacity causing supply issues to other potential premises of the IDA site and the wider community.
- Damage to existing overhead transmission lines or poles causing disruption to regional power supply.

Indirect impacts (or secondary impacts) are those which are not a direct result of the project, often produced away from the project site or because of a complex pathway. It is assessed unlikely that any indirect significant effects are created as a result of the proposed development.

In terms unplanned events It is considered unlikely that an unplanned event, such as flood, fire, explosion etc would directly or indirectly alter the findings within the Material Assets section of this EIAR.

In terms of mitigation measures ESB overhead lines will be protected during construction works as per the ESB code of practice for protection of overhead lines. Silt fencing will be provided to prevent silt run-off during the construction stage. Temporary site security fencing will be provided to ensure security / safety during the development.

As the proposed demand will have an imperceptible impact on existing material assets no mitigation measures are required during the operation stage.

The proposed development will require minimal use of material assets examined in this chapter during construction with an imperceptible impact during operation.

14 INTERACTIONS OF THE FOREGOING

An important aspect of the EIA process is to ensure that interactions between effects on the different environmental factors have been addressed.

In preparing and co-ordinating the EIAR, Boylan Consulting ensured that the team of specialist consultants addressed interactions between effects on the different environmental factors predicted as a result of the proposed development, and interactions between effects on the different environmental factors have been addressed as relevant across the EIAR across chapters 4-13. The purpose of this chapter is to show where principal interactions between effects on the different factors have been addressed within the EIAR. In accordance with guidance at Section 3.7.6 of the Environmental Protection Agency Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, a matrix of interactions is provided, reproduced below.

Table 14-1 Matrix of interactions between factors.

Interaction	Population and Human Health	Biodiversity	Cultural Heritage	Land, Soils and Geology	Water	Traffic and Transportation	Noise	Air Quality and Climate	Landscape and Visual	Material Assets
Population and Human Health										
Biodiversity										
Cultural Heritage										
Land, Soils and Geology										
Water										
Traffic and Transportation										
Noise										
Air Quality and Climate										
Landscape and Visual										
Material Assets										

	Principal Interaction

The principal interactions may be summarised as follows:

- Effects on Biodiversity interact with Landscape and Visual – This interaction is intrinsic to the assessment within EIAR Chapter 12 Landscape & Visual Impact. Please refer to EIAR Chapter 12 for details.
- Effects on Land, Soils and Geology interact with Biodiversity, Water and Landscape and Visual, respectively – These interactions, respectively, are intrinsic to the assessments within EIAR chapters 5 Biodiversity, 8 Water and 12 Landscape & Visual Impact, respectively. Please refer to EIAR chapters 5, 8 and 12, respectively, for details.
- Effects on Water interact with Population and Human Health and Biodiversity, respectively – These interactions, respectively, are intrinsic to the assessments within EIAR chapters 4 Population & Human Health and 5 Biodiversity, respectively. Please refer to EIAR chapters 4 and 5, respectively, for details.
- Effects on Traffic and Transportation interact with Population and Human Health, Noise and Air Quality and Climate, respectively – These interactions, respectively, are intrinsic to the assessments within EIAR chapters 4 Population & Human Health, 10 Noise and 11 Air Quality and Climate, respectively. Please refer to EIAR chapters 4, 10 and 11, respectively, for details.
- Effects on Noise interact with Population and Human Health – This interaction is intrinsic to the assessment within EIAR Chapter 4 Population & Human Health. Please refer to EIAR Chapter 4 for details.
- Effects on Air Quality and Climate interact with Population and Human Health and Biodiversity, respectively – These interactions, respectively, are intrinsic to the assessments within EIAR chapters 4 Population & Human Health and 5 Biodiversity, respectively. Please refer to EIAR chapters 4 and 5, respectively, for details.