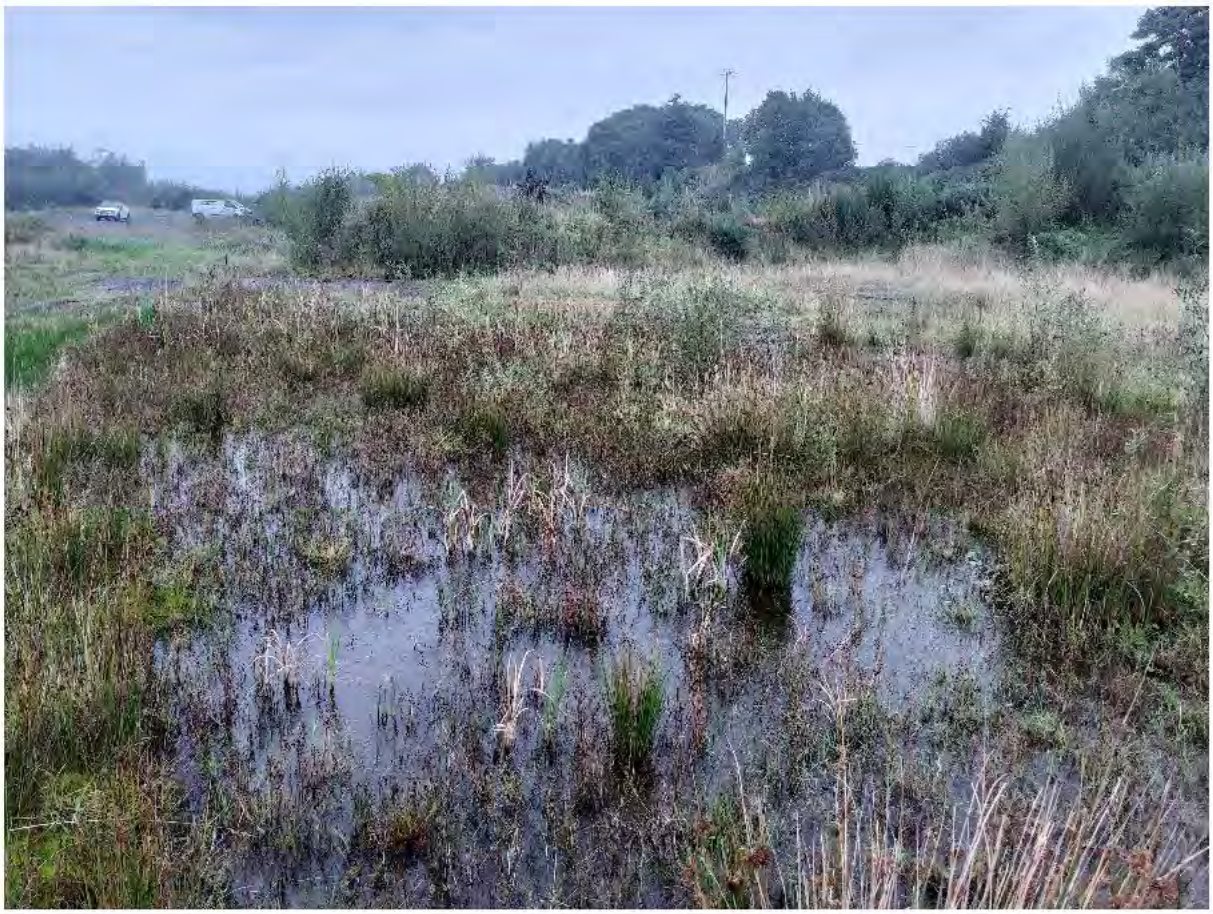
Mobuoy Road City Waste

ECOLOGICAL APPRAISAL

Revision P01



Department of Agriculture, Environment and Rural Affairs (DAERA)

October 2021

Prepared on Behalf of Tetra Tech Consulting (NI) Ltd

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Document control

Document:	Ecological Appraisal
Project:	Mobuoy Road City Waste
Client:	DAERA
Job Number:	[redacted]
File Origin:	Y:\Projects\[redacted] Mobuoy City Waste Ecology\60 Project Output\61 Work in Progress

Revision:	**P01**	**Status:**	**S3**
Date:	11/10/21		
Prepared by: [redacted] **Assistant Ecologist**		**Checked by** [redacted] **Project Ecologist**	**Approved By:** [redacted] **Associate Director**
Description of revision:			

Revision:		**Status:**	
Date:			
Prepared by:		**Checked by:**	**Approved By:**
Description of revision:			

Revision:		**Status:**	
Date:			
Prepared by:		**Checked by:**	**Approved By:**
Description of revision:			

TETRA TECH

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EXECUTIVE SUMMARY

Contents	Summary
Site Location and description	The 'site', indicated by the red line boundary in Figure 1, is located at 60 Mobuoy Road, Londonderry, Co. Londonderry BT47 6UF, on the east bank of the River Faughan. The site is centred at Irish National Grid Reference C 47863 17655 and is dominated by wet woodland and marshy grassland, with large lakes and an extensive network of smaller ponds and waterbodies, along with disused industrial buildings.
Proposals	The proposals involve remediation of the site to improve land and water quality and prevent leachate entering the River Faughan. The site remediation will require ground investigation works comprising bore holing and trial-pitting. On completion of these, further remediation work will be programmed.
Existing Site Information	A preliminary ecological appraisal was conducted for this site previously (WYG, 2015) but the results are now out-of-date.
Scope of this Survey(s)	The scope of the survey was to complete an Ecological Appraisal, including: a desk study; extended Phase 1 habitat survey, and; an assessment of potential constraints and opportunities relating to ecological receptors on and directly adjacent to the site.
Results	**Designated Sites** Four Natura 2000 sites lie within 15 km of the site, five ASSIs within 10 km, and one NNR and one AONB within 2 km. **Habitats** A number of habitats were identified on site including woodland, scrub, grassland, marginal vegetation and derelict buildings. Two of these habitat types, wet woodland and oligotrophic and dystrophic lakes, are UK Biodiversity Action Plan and NI Priority Habitats. The site supports a number of wet habitats, including wet ditches, running water and a large number of waterbodies. Some of these waterbodies are extensive and are known to support fish. None of the habitats are of conservation concern but they have the potential to support a number of protected species. Invasive plants, including Japanese knotweed, Indian balsam and giant hogweed are common throughout the site, particularly adjacent to the western edge where the site abuts the River Faughan. **Protected & Notable Species** The site provides habitat suitability for a number of protected and notable species. The proximity of the River Faughan and the extensive woodland on-site is likely to provide moderate habitat suitability for foraging and commuting bats, with potential roosting opportunities in two buildings and six trees on-site. Otters are known to be present in the adjacent River Faughan and a holt was identified along the river in 2015. The river also supports Annex II Atlantic salmon and sea lamprey and is likely to support a range of aquatic invertebrates, with suitable habitat for common and widespread terrestrial invertebrates on the site itself. [redacted] The marshy grassland, debris and woodland may provide suitable hibernation and refugia for smooth newt and common lizard, and the extensive network of waterbodies on-site also offers an abundance of potential breeding habitat

	for smooth newt. Buildings, trees and scrub on-site are likely to provide nesting opportunities for breeding birds.
Recommendations	**Designated Sites** A Stage 1 HRA is required to assess likely significant effects of the proposed works on the River Faughan and Tributaries SAC and Lough Foyle SPA/Ramsar. Prior to construction commencing a CEMP should be drafted by the main works contractor which will outline all environmental protection including identifying the perceived risks to the aquatic environment, identifying potential pollution pathways, and detailing mitigation to negate these risks. The CEMP should also address possible impacts from noise, vibration, air pollution, dust and human disturbance and make recommendations for mitigation. Specific reference to protection measures for the River Faughan and Tributaries ASSI and Lough Foyle ASSI should also be included in the CEMP. **Habitats** High contamination levels exist on site and the disturbance of habitats during any works are likely to cause further habitat degradation, particularly for habitats of high ecological value such as the wet woodland and adjacent river. Habitats on-site should be left intact during any works; however, if tree-felling, vegetation clearance or borehole drilling is to take place, appropriate buffer zones and tree root protection zones should be established. Hedgerows, scrub and trees would also be subject to nesting bird checks if works are to take place during the nesting bird season. **Protected & Notable Species** The site has the potential to support a number of protected and notable species and further surveys are required for bats, smooth newts, otters [redacted]. Evidence of the last two species has been confirmed by current and earlier surveys. The presence of the large waterbodies requires wintering bird surveys to establish species presence. All surveys will need to follow guidelines and be undertaken at the correct time of year. During site development best practice methods will be advised to safeguard species. This may include the sympathetic removal of piles of debris that may be used by hibernating reptiles and amphibians, hedgehogs or nesting birds, as well as maintaining access to commuting routes for [redacted] otters, and ensuring safe storage of chemicals. Birds may also use some of the derelict buildings for nesting. Any CEMP drafted by the main works contractor should make reference to the protected and notable species that may occupy the site. The site supports significant stands of invasive plant species. A specialised contractor should be engaged with at the earliest opportunity to devise a suitable strategy to remediate the site.

GLOSSARY

ACIEEM	Associate of Chartered Institute of Ecology & Environmental Management
ASSI	Area of Special Scientific Interest
BCT	Bat Conservation Trust
BoCC	Bird(s) of Conservation Concern
BRS	Bat Roost Suitability
BSI	British Standard Institute
CEDaR	Centre of Environmental Data and Recording
CEnv	Chartered Environmentalist (Society for the Environment)
CIEEM	Chartered Institute of Ecology & Environmental Management
COSHH	Control of Substances Hazardous to Health
DAERA	Department of Agriculture, Environment and Rural Affairs
DEFRA	Department for the Environment, Food and Rural Affairs
DoI	Department of Infrastructure
DRD	Department of Regional Development
ECoW	Ecological Clerk of Works
EPS	European Protected Species
GPP	Guidance for Pollution Prevention
Habitats Regulations	The Conservation (Natural Habitats, etc.) Regulations 1995 (as amended)
HRA	Habitats Regulations Assessment
JNCC	Joint Nature Conservancy Committee
LBAP	Local Biodiversity Action Plan
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
MCZ	Marine Conservation Zone
Natura 2000 site	A European site designated for its nature conservation value
NI	Northern Ireland
NIBG	Northern Ireland Bat Group
NIEA	Northern Ireland Environment Agency
NIPS	Northern Ireland Priority Species
NMNI	National Museums Northern Ireland
NNR	National Nature Reserve
PfG	Planning for Government
PPS	Planning Policy Statement
PPS2	Planning Policy Statement 2 Natural Heritage
PRF	Potential Roost Feature
RDS	Regional Development Strategy
SAC	Special Area of Conservation
SLNCI	Site of Local Nature Conservation Importance
SPA	Special Protection Area
SPPS	Strategic Planning Policy Statement
TPO	Tree Preservation Order
W(NI)O	The Wildlife (Northern Ireland) Order 1985 (as amended)
WANE Act	The Wildlife and Natural Environment Act (Northern Ireland) 2011

1.0 INTRODUCTION

1.1 BACKGROUND

Tetra Tech was commissioned by the Department of Agriculture, Environment and Rural Affairs (DAERA) in September 2021 to undertake an Ecological Appraisal of the site known as 'Mobuoy Road City Waste'. This report has been prepared by Assistant Ecologist [redacted], MSc and the conditions pertinent to it are provided in Appendix A.

1.2 SITE LOCATION AND DESCRIPTION

The site is located at 60 Mobuoy Road, Londonderry, Co. Londonderry BT47 6UF and is centred at Irish National Grid Reference C 47863 17655 (Figure 1). The site historically consisted of a sand and gravel quarry (dominating the area in the west of the site) with a landfill waste sorting plant (City Industrial Waste Ltd) in the east of the site. These two areas are separated by Mobuoy Road.

The site has been disused for several years following the dumping of significant quantities of illegal landfill within both the sand and gravel quarry and within the landfill waste sorting plant. The site now consists predominantly of wet woodland (UK BAP Priority Habitat), interspersed with marshy grassland strips, scrub and other smaller patches of various habitat types interspersed throughout. Three large freshwater lakes exist on-site, along with an extensive network of smaller ponds and waterbodies, fringed with marginal vegetation. The River Faughan and Tributaries SAC/ASSI runs directly adjacent to the west boundary, with extensive stands of invasive Japanese knotweed *Reynoutria japonica* present along the river continuing throughout the site. Other invasives identified along the river included Indian balsam *Impatiens glandulifera* and giant hogweed *Heracleum mantegazzianum*.

1.3 DEVELOPMENT PROPOSALS

The proposals involve remediation of the site to improve land and water quality and prevent leachate entering the River Faughan. The site remediation will involve ground investigation works comprising borehole and trial put excavation. Further remediation will be programmed at a later date once these investigative works are complete.

1.4 PURPOSE OF THE REPORT

The purpose of this is report is to complete:

- A desk study to obtain existing information on statutory and non-statutory sites of nature conservation interest and relevant records of protected/notable species within the site and its zone of influence;
- An extended Phase 1 habitat survey involving a walkover of the site to record habitat types and dominant vegetation, including any invasive species, and a reconnaissance survey for evidence of protected fauna or habitats capable of supporting such species; and
- An assessment of the potential ecological receptors present on site, identify any constraints they pose to future development and also any recommendations for any

further surveys, avoidance, mitigation or enhancement measures that are needed (as appropriate).

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.

2.0 METHODS

2.1 DESK STUDY

2.1.1 Previous Reports

Previous ecological reports were available for this site, including:

- NIEA – CDP Citywaste, Co. Londonderry: Extended Phase 1 Habitat Report and Protected Species Report (WYG, 2015)

2.1.2 Local Ecological Records Centre

Information was requested from National Museums Northern Ireland Centre for Environmental Data and Recording (NMNI CEDaR) for information on any protected or notable species records within 2 km of the site within the last 10 years.

The data search covered:

- Statutory designated sites for nature conservation, namely Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites, Areas of Special Scientific Interest (ASSIs), National Nature Reserves (NNRs) and Local Nature Reserves (LNRs);
- Non-statutory designated sites for nature conservation, namely Sites of Local Nature Conservation Importance (SLNCIs) and Marine Conservation Zones (MCZs);
- Legally protected species, such as otter *Lutra lutra*, bats [redacted];
- Notable habitats and species, such as those listed as Priority Habitats or Priority Species as defined by the Northern Ireland Environment Agency (NIEA); and,
- Priority habitats or species within the Local Development Plan 2032 (LDP) (Derry and Strabane District Council, 2019).

The data search did not cover:

- Tree Preservation Orders (TPOs); or
- Conservation Areas designated for their special architectural and historic interest
- Potential or candidate SACs and SPAs.

Note that relevant extracts from the desk study are provided in Appendix B, as appropriate.

2.1.3 Local Species Recorders

Northern Ireland Bat Group (NIBG) was also contacted for any relevant records that they held. Records within 2 km of the site and recorded within the past 30 years are considered relevant, due to the long lifespan of bats and their roosting site fidelity.

2.1.4 Online Resources

A search for relevant information was also made using the NIEA Natural Environment Map Viewer. This is NIEA's interactive, web-based database for statutory and non-statutory designated sites for nature conservation in Northern Ireland. The desk search for statutory designated sites was extended to 15 km using this tool.

2.2 FIELD SURVEYS

The following methodologies have been used to identify the ecological receptors present on or near the site, which are relevant to the proposed development.

2.2.1 Habitats

An extended Phase 1 habitat survey was undertaken on the site on 17th and 18th September 2021 by Project Ecologist [redacted]. The weather conditions on 17th September were dry with 100% cloud cover, average windspeed of 10 mph and average temperature of 15°C. Weather conditions on 18th September were dry with 10% could cover, average windspeed of 14 mph and average temperature of 11°C.

The vegetation and broad habitat types within the site were noted during the survey in accordance with the categories specified within the Handbook for *Phase 1 Habitat Survey: A technique for environmental audit* (Joint Nature Conservation Committee (JNCC), 2010). Dominant plant species were recorded for each habitat present using nomenclature according to Stace (2019). The site was also appraised for its suitability to support notable flora, with regard to the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017).

2.2.2 Protected & Notable Species

The site was inspected for evidence of, and its potential to support, protected or notable species, especially those listed under the Schedule 2 of the Habitats Regulations, Schedule 5, 6 and 9 of the W(NI)O 1985 which is further enhanced by the WANE Act 2011, and priority species included in the Local Development Plan (LDP) 2032 (Derry City and Strabane District Council, 2019).

Bats

Roosting Bats

Any suitable buildings, structures and trees on site were assessed from the ground for their suitability to support breeding, resting and hibernating bats using survey methods based on the *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016) – hereafter referred to as the 'BCT Guidelines'. The following system has therefore been used to categorise the bat roost suitability of any features found (Table 1).

Table 1: Categories of Bat Roost Suitability (BCT Guidelines)

Suitability	Typical Roosting Features
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	Structures and trees with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	Structures and trees with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).

Suitability	Typical Roosting Features
High	Structures and trees with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis & potentially for longer periods of time due to their size, shelter, protection, conditions & surrounding habitat.

Foraging/Commuting Bats

The BCT Guidelines use the criteria in Table 2 to categorise the potential value of habitats and features for use by foraging and commuting bats and these have been used to characterise the value of this site.

Table 2: Categories of Habitat Suitability (BCT Guidelines)

Suitability	Typical Foraging & Commuting Features
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Otter

The site was surveyed for its suitability to support otter. The assessment was based on guidance outlined in Chanin (2003a; 2003b) and NIEA Specific Requirements (2017a).

[redacted]

Smooth Newt

The site was appraised for its suitability to support smooth newts. The assessment was based on Guidance outlined in in NIEA Specific Requirements (2017c) and JNCC's published *Herpetofauna Workers' Manual* (Gent & Gibson, 2003).

Common Lizard

The site was appraised for its suitability to support common lizard *Zootoca vivipara*. The assessment was based on guidance outlined in the Joint Nature Conservation Committee's published *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and NIEA Specific Requirements (2017d).

Other Species

The site was also appraised for its suitability to support other protected or notable fauna including mammals, amphibians, birds and invertebrates with regard to the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017) and *BS42020:2013 Biodiversity – Code of Practice for Planning and Development* (BSI, 2013). Evidence of any current or historical presence of such species was recorded.

2.2.3 Invasive Species

The site was searched for evidence of invasive plant species, including but not limited to, Japanese knotweed *Reynoutria japonica*, Indian balsam *Impatiens glandulifera* and giant hogweed *Heracleum mantegazzianum*.

2.3 LIMITATIONS

To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, this survey focuses on assessing the potential of the site to support species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to those given protection under NI, UK or European wildlife legislation. This report cannot therefore be considered a comprehensive assessment of the ecological interest of the site. However, it does provide an assessment of the ecological interest present on the day the site was visited and highlights areas where further survey work may be recommended.

During the site visit, several areas could not be accessed due to heavily overgrown scrub and woodland. There is a risk that the presence of some protected species will have been missed. However, Phase 2 surveys have been commissioned and much of these areas may be revisited at a later date.

The details of this report will remain valid for a period of **18 months** from the date of the survey (i.e. March 2023) after which the validity of this assessment should be reviewed to determine whether further updates are necessary. Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or development proposals which this report was based on.

3.0 BASELINE CONDITIONS

3.1 DESIGNATED SITES

The following designated sites of ecological importance have been identified within 15 km for Natura 2000 sites (Table 3), and 10 km for ASSIs (Table 4) and NNRs/AONBs (Table 5), shown on Figures 2a and 2b respectively. There were no non-statutory sites within 2 km.

Table 3: Natura 2000 Sites within 15 km

Designation	Site Name	Distance/ Direction	
SAC (Special Area of Conservation)	River Faughan and Tributaries	0.00 km west	Designated for supporting a significant presence of otter and is considered to be one of the best areas in the UK for Atlantic salmon *Salmo salar*, both European protected species. The site is also considered to be one of the best areas in the UK for old sessile oak woods with *Ilex* sp. and *Blechnum* sp. (western acidic oak woodland).
SPA (Special Protection Area)	Lough Foyle	1.72 km north-east	Designated for supporting internationally important numbers of whooper swan *Cygnus cygnus*, light-bellied brent goose *Branta bernicla hrota* and bar-tailed godwit *Limosa lapponica* in winter. The site is also designated for supporting over 20,000 migratory waterfowl, including Annex I species Slavonian grebe *Podiceps auritus*.
Ramsar	Lough Foyle	1.72 km north-east	**Criterion 1a:** Designated for being a good representative example of a wetland complex including intertidal sand and mudflats with extensive seagrass beds, saltmarsh, estuaries and associated brackish ditches. **Criterion 1c:** Good representative example of a wetland which plays a substantial hydrological, biological and ecological system role in the natural functioning of a major river basin which is located in a trans-border position. **Criterion 2a:** Supports an assemblage of rare, vulnerable or endangered species of flora and fauna. **Criterion 3a:** Supports over 20,000 waterfowl. **Criterion 3b:** Regularly supports substantial numbers of waterfowl considered indicative of wetland values, productivity and diversity. **Criterion 3c:** Regularly supports internationally important numbers of whooper swan, light-bellied brent goose and bar-tailed godwit.

SAC	River Foyle and Tributaries	10.23 km south-west	Designated for supporting a significant presence of otter and for being one of the best areas in the UK for Atlantic salmon and rivers that support characteristic communities of water-crowfoot *Ranunculus* species.

Table 4: ASSIs within 10 km

Designation	Site Name	Distance/ Direction	Summary of Features
ASSI (Area of Special Scientific Interest)	River Faughan and Tributaries	0.00 km west	Designated for the physical features of the river and its associated riverine flora and fauna.
ASSI	Lough Foyle	1.72 km north-east	Designated for its coastal flora, fauna and physiographical features.
ASSI	Ervey Wood	7.03 km south-east	Designated for its woodland flora and characteristic associated fauna.
ASSI	Ness Wood	7.35 km south-east	Designated for its woodland flora and characteristic associated fauna.
ASSI	Bonds Glen	9.99 km south	Designated for its woodland flora and fauna and other associated habitats.

Table 5: NNRs/AONBs within 10 km

Designation	Site Name	Distance/ Direction	
NNR (National Nature Reserve)	Ness and Ervey Wood	Approx. 7 km south-east	Designated for its semi-natural woodland and rich bryophyte and epiphytic lichen community. It is the only known location in NI for the moss *Fissidens celticus*. This NNR comprises both Ness Wood and Ervey Wood ASSIs.
AONB (Area of Outstanding Natural Beauty)	Sperrin	8.58 km south-east	Designated for its vast expanses of moorland, narrow glens, deep valleys, lakes, sandy eskers and other glacial features.

3.2 HABITATS RECORDED ON-SITE

The following habitats have been identified within the site and are shown on Figure 3 and detailed Target Notes are included in Appendix C. Habitats have been classified and coded below according to JNCC's Handbook for Phase 1 Habitat Survey (JNCC, 2010). The DAFOR scale below has been used to describe the relative abundance of species, where possible.

- D – Dominant
- A – Abundant
- F – Frequent
- O – Occasional
- R – Rare

3.2.1 Broadleaved Woodland (A1.1.1)

A strip of broadleaved woodland dominated by alder *Alnus glutinosa* was located along the south-east facing bank of the River Faughan. Further north on the site side of the river, dominant species also included ash *Fraxinus excelsior* and willow *Salix* sp., with abundant sycamore *Acer pseudoplatanus*. Woodland dominated by willow and alder was also present to the west of Mobuoy Road in the north-east of the site.

3.2.2 Wet Woodland (A1.1.1)

Wet woodland (UK BAP Priority Habitat) dominated most of the site, with marshy grassland strips interspersing the woodland blocks. Dominant species included grey willow *Salix cinerea*, goat willow *Salix caprea* and alder. Standing deadwood with dense common ivy *Hedera helix* growth was also present within a section of wet woodland to the north-west of the buildings on-site.

3.2.3 Planted Ornamental Trees (A1.1.2)

An area of planted ornamental trees dominated by hornbeam *Carpinus betulus* with abundant Lawson's cypress *Cupressus lawsoniana*, western red-cedar *Thuja plicata*, cherry plum *Prunus cerasifera* and monkey-puzzle *Araucaria araucana* was located to the west of buildings B3, B4 and B6.

3.2.4 Dense/Continuous Scrub (A2.1)

Dominant species on either side of Mobuoy Road to the north of the site included bramble and willow *Salix* species, with abundant rosebay willowherb *Chamaenerion angustifolium* within the understorey. Dense scrub dominated by bramble *Rubus fruticosus* agg. with abundant willow was also noted along east bank of the River Faughan in the south-west of the site.

3.2.5 Scattered Scrub (A2.2)

Scattered scrub dominated by goat willow and gorse *Ulex europeaus* was interspersed throughout the hardstanding in the centre of the site, along with young birch *Betula* sp. and willow saplings. Willow scrub was also present amongst the buildings to the east of Mobuoy Road. Due to the scattered nature of the scrub, this habitat was interspersed with pockets of semi-improved grassland.

Patches of scattered scrub were also present throughout the marshy grassland with varying degrees of transition from one habitat to the other. Towards the centre and north-east of the site, scrub was dominated by broom *Cytisus scoparius*, gorse and willow, with abundant Yorkshire-fog *Holcus lanatus*. Goat willow and grey willow scrub with was scattered throughout the semi-improved grassland banks along the access road (north of the buildings on-site).

3.2.6 Marshy Grassland (B5)

Marshy grassland strips fringed most of the wet woodland throughout the site. Vegetation to the north-east of the site was dominated by soft rush *Juncus effusus*, whilst sections in the centre of the site and along the River Faughan were dominated by reed canary-grass *Phalaris arundinacea* and Yorkshire-fog, with abundant creeping buttercup *Ranunculus repens*.

Another section of marshy grassland towards the centre of the site, interspersed with scattered scrub, was dominated by cock's-foot *Dactylis glomerata*, false oat-grass *Arrhenatherum elatius*, marsh bird's-foot trefoil *Lotus pedunculatus* and red clover *Trifolium pratense*, along with a patch of yellow-rattle *Rhinanthus minor*. To the north-east of the site, abundant species included Yorkshire-fog, reedmace *Typha* sp. and soft rush.

3.2.7 Poor Semi-Improved Grassland (B6)

Pockets of semi-improved grassland were scattered throughout the scrub and hardstanding in the centre of the site, with abundant red clover, ribwort plantain *Plantago lanceolata*, springy turf-moss *Rhytidiadelphus squarrosus*, smooth cat's-ear *Hypocheris glabra*, marsh bird's-foot trefoil, field horsetail *Equisetum arvense* and meadow vetchling *Lathyrus pratensis*.

Semi-improved grassland banks were also present along the access road north of the buildings on-site and to the west of Mobuoy Road. Dominant species included Yorkshire-fog, false oat-grass, cock's-foot and hedge bindweed *Calystegia sepium*, with abundant creeping thistle *Cirsium arvense*.

3.2.8 Tall Ruderal (C3.1.2)

An area of tall ruderal dominated by rosebay willowherb *Chamaenerion angustifolium*, raspberry *Rubus idaeus*, bramble and butterfly-bush *Buddleja davidii* was located adjacent to the broadleaved woodland strip on the west aspect of Mobuoy Road.

3.2.9 Marginal Vegetation (F2.1)

Marginal vegetation noted on-site around the three freshwater lakes on-site was generally dominated by reedmace and pondweed *Potamogeton* species, with abundant pondweed and curly waterweed *Lagarosiphon major* occupying the deeper water.

Vegetation around the smaller pools of standing water located throughout the site was dominated by lesser reedmace *Typha angustifolia* and sharp-flowered rush *Juncus acutiflorus* in most of the waterbodies. Other notable vegetation included abundant water-plantain *Alisma plantago-aquatica*, toad rush *Juncus bufonius*, lesser spearwort *Ranunculus flammula*, true bulrush *Scirpus Lacustris* and some marginal vegetation consisting of goat willow saplings.

3.2.10 Standing Water (G1)

A large freshwater lake was located within the northernmost area of the site. To the south-east of this lake lay two smaller freshwater lakes with smaller connected waterbodies. An additional shallow waterbody was located to the south of the buildings on-site. Over 30 smaller freshwater pools and waterbodies were also located throughout the site, the largest of which was connected to a series of smaller pools.

3.2.11 Wet Ditch (G1)

Multiple drainage ditches were noted across the site, which all typically drained westwards into the River Faughan.

3.2.12 Running Water (G2)

The River Faughan forms the site boundary in the west of the site, flowing in a south-to-north direction. It was approximately 15 m wide and ranged in depth with a gravel substrate.

3.2.13 Quarry (I2.1)

The quarry has since filled with water to form lakes and ponds, although excavated stone and exposed sand and gravel areas are located within the central area of the site.

3.2.14 Spoil (I12.2)

The site contained multiple spoil heaps of stone, some of which had sparse vegetation growth. New Zealand flax *Phorium tenax* was also growing around one of the spoil heaps on-site.

3.2.15 Ephemeral/Short Perennial (J1.3)

This habitat on-site was identified on areas of exposed gravel within the central area of the site. The extent of this vegetation may have diminished since the survey in 2015 as other habitats have encroached the area. Vegetation was dominated by red clover, with abundant butterfly-bush, marsh bird's-foot trefoil, bush vetch *Vicia sepium*, colt's-foot *Tussilago farfara*, silverweed *Potentilla anserina* and soft rush.

3.2.16 Species-Poor Hedgerow (J2.1.2)

A hedgerow dominated by cherry laurel *Prunus laurocerasus* bounded part of the site south of the buildings in the north-east of the site.

3.2.17 Species-Rich Hedgerow with Trees (J2.3.1)

A species-rich hedgerow with trees spanned the entire length of the north-east site boundary. Hedgerows with trees also bounded the east aspect of Mobuoy Road. Dominant species of these hedgerows included willow and aspen *Populus tremula*. In the middle section further north, species were dominated by cherry *Prunus* sp. and sycamore. The northernmost section was dominated by sycamore and alder with abundant butterfly-bush and occasional ash and goat willow. The understorey in this section included alder seedlings, broom and gorse.

3.2.18 Wall (J2.5)

In hardstanding to the south of the site, lay a concrete wall with some stone spoil remaining.

3.2.19 Buildings (J3.6)

Six individual buildings (B1-B6) and a group of agricultural sheds (B7) were noted within the original City Industrial Waste plant footprint in the north-eastern part of the site. Details of these buildings are provided in Table 6 below.

Table 6: Buildings and Structures On-Site

Building Ref.	Description
B1	Disused structure. Cement wall construction with corrugated steel roofing.
B2	Portacabin. Corrugated steel construction with flat roof.
B3	Two-storey building (unfinished). Breezeblock construction with windows missing. Slate roof.
B4	Two-storey house/barn with lean-to, comprise of corrugated steel and roof missing on main building.
B5	Weighbridge. Cemented render with missing roof and broken windows.
B6	One-storey and 1.5-storey derelict building of breezeblock construction with missing roof.
B7	Group of agricultural sheds. Concrete block and corrugated steel construction with roof sections missing.

3.2.20 Hardstanding (J5)

Areas of hardstanding consisting of concrete, compacted stone and asphalt with sparse vegetation growth were noted within the original City Waste Industrial Plant footprint in the north-east of the site.

3.3 PROTECTED & NOTABLE SPECIES

3.3.1 Bats

The desk study returned 14 bat records from NIBG within 2 km of the site within the last 30 years, detailed in Table 7 below. The most recent records were of an unidentified bat species in 2017, as well as two unidentified pipistrelles *Pipistrellus* sp. and three soprano pipistrelles *Pipistrellus pygmaeus* in 2016.

Table 7: NIBG Bat Records

Common name	Scientific name	Date	Abundance
Unidentified bat	Chiroptera	02/08/2017	Unknown
Unidentified pipistrelle	*Pipistrellus* sp.	16/06/2016	Unknown
Unidentified pipistrelle	*Pipistrellus* sp.	2016	Unknown
Soprano pipistrelle	*Pipistrellus pygmaeus*	2016	3
Common pipistrelle	*Pipistrellus pipistrellus*	01/10/2011	Unknown
Leisler's bat	*Nyctalus leisleri*	01/10/2011	
Common pipistrelle	*Pipistrellus pipistrellus*	01/10/2011	Unknown
Soprano pipistrelle	*Pipistrellus pygmaeus*	01/10/2011	Unknown
Daubenton's bat	*Myotis daubentonii*	01/10/2011	Unknown
Leisler's bat	*Nyctalus leisleri*	01/10/2011	Unknown
Common pipistrelle	*Pipistrellus pipistrellus*	01/06/2010	49
Soprano pipistrelle	*Pipistrellus pygmaeus*	01/06/2009	Unknown
Leisler's bat	*Nyctalus leisleri*	01/06/2009	Unknown
Unidentified bat	Chiroptera	23/07/2001	Unknown

Buildings/Trees/Structures

There were six buildings and a group of agricultural sheds (B1-B7) on-site that were assessed for their suitability to support bats, detailed in Table 8. Most of the buildings were derelict with features such as broken or missing windows and missing sections of roof, leaving few potential roost features (PRFs) for bats.

B1-B2 and B5-B7 were assessed as having **negligible bat roost suitability (BRS)** as they did not contain any entry points or roost features considered suitable for bats; all cracks were superficial. B3 and B4 were assessed as having **low BRS** as they either had roof slates or potentially had internal features considered suitable for roosting bats.

One ash tree, three sycamore trees and two standing deadwood trees were assessed as having **moderate BRS**, detailed in Table 9.

Hibernation Potential

None of the buildings on-site were considered to provide suitable conditions for hibernating bats, due to the lack of loft space or other features which would provide a thermostatically stable temperature for roosting bats. Some of the trees may provide hibernation opportunities for crevice-dwelling bat species.

Table 8: Bat Roost Suitability of Buildings On-Site

Building Ref.	Description	Bat Roost Suitability
B1	Open and accessible; however, no obvious PRFs noted. Expanding foam had been used to seal gaps between the roofing and concrete wall.	**Negligible**
B2	No PRFs noted.	**Negligible**

Building Ref.	Description	Bat Roost Suitability
B3	Roof slates and rafters may provide limited roosting opportunities.	**Low**
B4	House/barn with potential for internal roosting opportunities; however, this could not be fully assessed externally.	**Low**
B5	No PRFs noted.	**Negligible**
B6	Some gaps noted in the walls and between breezeblocks; however, these were superficial and unlikely to be suitable for roosting bats.	**Negligible**
B7	No PRFs noted.	**Negligible**

Table 9: Bat Roost Suitability of Trees On-Site

TN Ref.	Description	Bat Roost Suitability
TN1	Mature ash with dense common ivy growth that may conceal PRFs.	**Moderate**
TN2	Mature sycamore with broken limbs and dense common ivy growth that may conceal PRFs.	**Moderate**
TN3	Mature sycamore with broken limbs and dense common ivy growth that may conceal PRFs.	**Moderate**
TN4	Sycamore with common ivy growth that may conceal PRFs.	**Moderate**
TN5	Standing deadwood with dense common ivy growth that may conceal rot holes and other PRFs.	**Moderate**
TN6	Standing deadwood with dense common ivy growth that may conceal rot holes and other PRFs.	**Moderate**

Commuting and Foraging Habitat

The site consisted of predominantly wet woodland, which is likely to provide foraging and commuting opportunities for bats, as well as habitat connectivity to other patches of woodland to the south. The River Faughan to the west is also likely to provide foraging opportunities along with strips of broadleaved trees and riparian vegetation providing linear connecting features for commuting. The site was therefore assessed as having **moderate habitat suitability** for commuting and foraging bats.

3.3.2 Otter

The desk study returned two records of otter within 2 km of the site within the last 10 years, the most recent in 2014.

The field survey did not identify any evidence of otter on-site or within the 50 m survey buffer. No signs of otter were identified during the site visit, such as spraints, holts, couches or footprints. The survey in 2015, however, identified an otter holt with four entrances within the River Faughan riverbank in the northern area of the site, along with spraint, footprints and multiple slides noted along the river (WYG, 2015). The wet woodland on-site may also provide suitable habitat for holt creation.

[redacted]

[redacted]

[redacted]

3.3.4 Red Squirrel

The desk study returned two records of Eurasian red squirrel *Sciurus vulgaris* within 2 km of the site within the last 10 years, the most recent in 2019.

No evidence of red squirrel was noted during the field survey; however, the extensive wet woodland on-site may provide sub-optimal habitat for the creation of dreys as mature trees were limited.

3.3.5 European Hedgehog

The desk study did not return any records of European hedgehog within 2 km of the site within the last 10 years.

The field survey did not identify any evidence of hedgehog on-site or within the 50 m survey buffer. The understorey of the broadleaved woodland to the north of the site may provide suitable habitat for nesting and refugia, with further opportunities for hibernation within the piles of debris around the site. However, the majority of the site consisted of wet woodland with marshy grassland strips, habitats which are unlikely to provide suitable leaf material and the physical support required for nest-building. There were also few areas on-site suitable for foraging and commuting, although the pockets of semi-improved grassland may provide some habitat connectivity within the site.

3.3.6 Smooth Newt

The desk study returned one record of smooth newt within 2 km of the site within the last 10 years, in 2016.

Although no evidence of smooth newt was noted during the field survey, due to the density of waterbodies on-site as well as the availability of suitable refugia habitat such as piles of debris (TN19), marshy grassland and marginal vegetation around the waterbodies, the site was considered likely to support the species.

3.3.7 Common Lizard

The desk study did not return any records of common lizard within 2 km of the site within the last 10 years.

No evidence of common lizard was found during the field survey, although several habitats suitable for refugia, hibernation and basking existed on-site, including the wet woodland, marshy grassland, artificial refuges (TN19) and spoil heaps.

3.3.8 Birds

CEDaR returned nine bird species records within 2 km of the site within the last 10 years, detailed with their conservation status and legislative protection in Appendix B. Notable species included buzzard *Buteo buteo* (Sch1.1), dipper *Cinclus cinclus* (BoCC Amber List), grasshopper warbler *Locustella naevia* (BoCC Red List, UK BAP, NIPS) and yellowhammer *Emberiza citrinella* (BoCC Red List, UK BAP, NIPS).

Evidence of nesting swallows *Hirundo rustica* (Green BoCC, LC) was noted in building B1, as well as evidence of other nesting bird species in B3.

Table 10 below details species recorded during the site visits and their conservation status.

Table 10: Bird Species Recorded within Survey Area and Adjacent to the Site

Common Name	Scientific Name	Conservation Status
Blackbird	*Turdus merula*	LC
Blue tit	*Cyanistes caeruleus*	LC
Cormorant	*Phalacrocorax carbo*	LC
Goldfinch	*Carduelis carduelis*	LC
Great tit	*Parus major*	LC
Grey heron	*Ardea cinerea*	Sch1.1, LC
Grey wagtail	*Motacilla cinerea*	LC
Jay	*Garrulus glandarius*	LC
Long-tailed tit	*Aegithalos caudatus*	LC
Mallard	*Anas platyrhynchos*	LC
Mute swan	*Cygnus olor*	LC
Raven	*Corvus corax*	LC
Robin	*Erithacus rubecula*	LC
Snipe	*Gallinago gallinago*	LC
Wren	*Troglodytes troglodytes*	LC

3.3.9 Invertebrates

The desk study returned two species records of invertebrates within 2 km of the site within the last 10 years; the UK BAP and NI Priority moth species double dart *Graphiphora augur*, which is associated with bushy areas and gardens, and garden tiger *Arctia caja*, which is associated with open habitats and tall sward and scrub.

Invertebrates noted on-site included a queen white-tailed bumblebee *Bombus lucorum*, common banded hoverfly *Syrphus ribesii*, 7-spot ladybird *Coccinella septempunctata*, wolf spider *Pardosa amentata* and leopard slug *Limax maximus*.

Moth and butterfly species included common plume *Emmelina monodactyla*, silver-Y *Autographa gamma*, large yellow underwing *Noctua pronuba*, small tortoiseshell *Aglais urticae*, speckled wood *Pararge aegeria* and peacock *Aglais io*.

All of the species observed on-site were common and widespread species and not considered to be of conservation concern. The site is likely to support various other common and widespread species.

3.3.10 Fish

Although no records of Atlantic salmon *Salmo salar* and sea lamprey *Petromyzon marinus* (both Annex II species) were returned from the data search, these species have previously been identified in the River Faughan by the Loughs Agency (WYG, 2015).

3.3.11 Other Species

The desk study returned one record of primrose *Primula vulgaris* (Sch8.2) and purple ramping-fumitory *Fumaria purpurea* (UK BAP, NIPS) within the last 10 years, both from 2019. These plants were not identified on-site during the field survey, although habitats on-site such as waste ground (purple ramping-fumitory) and woodland (primrose) may support these species.

3.3.12 Invasive Non-Native Flora

There were no records of invasive non-native flora returned from the data search within the last 10 years. Stands of Japanese knotweed were identified on site in the previous ecological survey (WYG, 2015). Extensive growth of Japanese knotweed was identified throughout the entire site during the field survey (at least 20 stands, TN20-40), most notably along the River Faughan where two extensive stands of growth were noted (TN39/TN40). Stands of Indian balsam (TN34 and TN41-46) and giant hogweed (TN35) were also identified alongside the River Faughan and adjacent to the largest lake in the north of the site during the field survey.

Invasive New Zealand flax was also growing around some of the spoil heaps on-site, although this is not listed as a Schedule 9 invasive species.

4.0 RELEVANT PLANNING POLICY & LEGISLATION

4.1 NATIONAL PLANNING POLICY FRAMEWORK

The Regional Development Strategy (RDS) was the responsibility of the former Department of Regional Development (DRD) but is now incorporated within the Department of Infrastructure (DoI). The RDS offers a strategic and long-term perspective on the future development of Northern Ireland (NI) up to 2035. Its purpose is to deliver the spatial aspects of the Programme for Government (PfG) and is therefore a framework for planning across NI. The Strategic Planning (Northern Ireland) Order 1999 requires all Departments to 'have regard to the RDS' in exercising any function in relation to development.

Planning Policy Statements (PPS) set out the DoE's policy on particular aspects of land-use planning. Produced by the DoE they set out the main planning considerations that the DoE takes into account in assessing proposals for various forms of development and are relevant to the preparation of development plans. DAERA now undertakes this responsibility.

Planning Policy Statement 2 furthers the NI Executive's commitment in its PfG to preserve and improve the built and natural environment and halt the loss of biodiversity. PPS2 also sets out policy requirements in advance of the forthcoming single Strategic Planning Policy Statement (SPPS). It requires planning authorities to apply the precautionary principle when considering the impacts a proposed development may have on national or international significant landscapes or natural heritage resources.

4.2 BIODIVERSITY 2020: A STRATEGY FOR NORTHERN IRELAND

Biodiversity 2020 (DEFRA, 2011) replaces the previous UK Biodiversity Action Plan and sets national targets to be achieved. The intent of Biodiversity 2020, however, is much broader than the protection and enhancement of less common species and is meant to embrace the wider countryside as a whole.

4.3 LOCAL BIODIVERSITY ACTION PLAN

Local Biodiversity Action Plans (LBAPs) identify habitat and species conservation priorities at a local level (typically Council) and are usually drawn up by a consortium of local Government organisations and conservation charities. Although they are no-longer managed at a national level many are still reviewed and updated at a local level. The relevant plan for the site is the Green Infrastructure Plan 2019-2032 (Derry and Strabane District Council, 2019), with Biodiversity as a Key Strategic Theme, which represents the District's LBAP. There will be several key biodiversity action plans to include the development of a new Habitat and Species Action Plan, a Pollinator Plan and Invasive Alien Species Plan for Council-owned sites.

4.4 LOCAL PLAN

The Derry and Strabane District Council Local Development Plan (LDP) 2019-2032 is the appropriate plan for this site (Derry and Strabane District Council, 2019), the relevant policies of which are listed below (with extracts available in Appendix D):

General Development Principles and Policies

- GDP 2: Climate Change
- GDP 6: Importance of Ecosystem Services
- GDP 7: Development Principles – Preserving and Enhancing the Natural Environment

Policies: Natural Environment

- Policy NE 1: Nature Conservation Sites
- Policy NE 2: Protected Species and their Habitats
- Policy NE 3: Biodiversity or Features of Natural Heritage Importance
- Policy NE 4: Development adjacent to Main Rivers and Open Waterbodies

4.5 LEGISLATION

In addition to the policies outlined above, the development proposals will need to consider the following legal provisions:

- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora/The Habitats Directive
    - Impacts to Annex II species
        - Otters
        - Atlantic salmon
        - Sea lamprey

- The Conservation of Habitats and Species Regulations 2010
    - Impacts to European protected species (EPS)
        - Otters
        - Bats
        - Atlantic salmon

- The Wildlife (Northern Ireland) Order 1985 and The Wildlife (Amendment) (Northern Ireland) Order 1995
    - Impacts to local wildlife
        - [redacted]

- The Invasive Alien Species (Enforcement and Permitting) Order (Northern Ireland) 2019
    - Spreading invasive species
        - Japanese knotweed
        - Indian balsam
        - Giant hogweed

5.0 DISCUSSION

5.1 DESIGNATED SITES

Four Natura 2000 sites were identified within 15 km of the development and five ASSIs, one NNR and one AONB within 10 km. There were no other statutory or non-statutory sites within 2 km of the development.

Natura 2000 Sites

There are pathways of effect on Natura 2000 sites within 15 km of the development, shown in Table 11 below:

Table 11: Likely Significant Effects for Natura 2000 Sites within 2 km

Site	Likely Significant Effects
River Faughan and Tributaries SAC	The River Faughan runs directly adjacent to the western boundary of the site and due to the proximity and the site's historic usage as a landfill site, there are pathways of effect from the site to this SAC. Leachate and surface run-off from the site may have adversely affected water quality in terms of pollution, in turn reducing habitat quality for Atlantic salmon and otters, both qualifying features of River Faughan and Tributaries SAC. Lough Foyle SPA and Ramsar are both 1.72 km from the site and directly linked to the River Faughan and Tributaries SAC. Due to the hydrological and functional links to the site, Lough Foyle SPA and Ramsar may also be adversely affected in terms of pollution and degradation of habitats, reducing habitat quality for fish and qualifying bird species. **A Stage 1 HRA is required to assess the Likely Significant Effects upon the qualifying features of these sites.**
Lough Foyle SPA	
Lough Foyle Ramsar	
River Foyle and Tributaries SAC	Although the both the River Foyle and River Faughan flow northwards into Lough Foyle, they are not directly connected to each other and there are therefore no hydrological links from the site to River Foyle and Tributaries SAC. This designation is also located upstream over 10 km from the site, therefore removing all potential pathways. **No further action is required.**

Areas of Special Scientific Interest

The likely significant effects on ASSIs within 10 km of the development are shown in Table 12 below:

Table 12: Likely Significant Effects for ASSIs within 10 km

Site	Pathways of Effect
River Faughan and Tributaries ASSI	The proximity of the development to these ASSIs and their hydrological links to the site via the River Faughan, as well as the site's historic usage as a landfill site, means that there may be a negative impact on local habitats and wildlife, particularly in terms of pollution. **A Construction Environmental Management Plan (CEMP) is required.**
Lough Foyle ASSI	
Ervey Wood ASSI	Due to the separation distance and lack of hydrological or ecological functional links to the site, it is unlikely that the proposed development will have a significant effect on these ASSIs. **No further action is required.**
Ness Wood ASSI	
Bonds Glen ASSI	

Measures to be incorporated within the CEMP should include: identifying the perceived risks to the aquatic environment; identifying potential pollution pathways, and; recommending mitigation measures to negate the risk to the aquatic environment. The CEMP should also address possible impacts from noise, vibration, air pollution, dust and human disturbance and provide mitigation for each. This may include, but is not limited to, the following:

- Contractors must adhere to relevant DAERA pollution prevention guidance https://www.daera-ni.gov.uk/topics/pollution/pollution-prevention-and-control.
- A suitable buffer of at least 10 m (or as agreed with NIEA) must be maintained between the location of refuelling, storage of oil/fuel, storage of machinery/material/spoil etc. and all watercourses and designated sites.
- There shall be no direct discharge of untreated surface water run-off during the construction and operational phases into any watercourses or designated sites.
- Prior to discharge to into any watercourses, any surface water generated during the construction and operation phases of the development must first pass through appropriate treatment, such as sediment traps and silt curtains.
- Refuel mobile plant in a designated area, on an impermeable base away from drains or watercourses.
- Plant, wheel and boot washing:
    - Should be carried out in a designated area of hardstanding at least 10 m from any surface waters.
    - Run-off should be collected in a sump, with settled solids removed regularly and water recycled and reused where possible. Any excess water should be discharged to foul sewer with prior permission from the local sewerage provider or tankered off site for authorised disposal.
- Prevent stockpiles and exposed ground from generating pollution in the form of water run-off or dust.
- Any concrete and cement mixing should be:
    - Sited on an impermeable designated area; and

- Be at least 10 m away from a watercourse or surface water drain to reduce the risk of run-off entering a watercourse.
- Waste should be stored safely and securely on site, e.g. prevent windblown materials such as plastics leaving the site; covered skips and bins will assist this.

Other Statutory Designated Sites

Table 13: Likely Significant Effects for NNRs/AONBs within 10 km

Site	Pathways of Effect
Ness and Ervy Wood NNR	Due to the separation distances and lack of hydrological or ecological functional links to the site, it is unlikely that the proposed development will have a significant effect on Ness and Ervy Wood NNR and Sperrin AONB. **No further action is required.**
Sperrin AONB	

5.2 HABITATS

The following habitats on-site (and directly adjacent to the site boundary) were considered to have negligible ecological value and are therefore not discussed further in this section:

- Marshy grassland
- Poor semi-improved grassland
- Tall ruderal
- Marginal vegetation
- Quarry
- Spoil
- Species poor hedgerow
- Ephemeral/short perennial
- Wall
- Buildings
- Hardstanding

The notable habitats within and directly adjacent to the site are discussed in more detail below.

5.2.1 Wet Woodland

Wet woodland is listed as a UK BAP and NI Priority Habitat. Although the wet woodland on-site did not previously qualify as a priority habitat due to being less than 0.5 ha in size (WYG, 2015), it has since increased throughout the site and is now the dominant habitat type, meeting the NI Priority Habitat criteria for wet woodland, laid out by NIEA (2018).

It is recommended that this habitat is left intact to further age and mature; however, if sections require removal to facilitate site investigation works, this should be discussed and agreed in consultation with NIEA.

5.2.2 Broadleaved Woodland, Planted Ornamental Trees, Dense/Continuous Scrub and Scattered Scrub

These habitats are not extensive throughout the site and are therefore considered to have **low ecological value**; they are comprised of common and widespread species with the exception of the planted ornamental species which comprise non-native species. Small-scale removal is not likely to result in long term impacts as these habitats are likely to recover relatively quickly. Any removal should be compensated through re-planting of native species. Appropriate tree buffer zones and root protection zones should be established in accordance with British Standards Guidance BS5837 (BSI, 2012). The removal of any trees will need to account for the presence of protected species, in particular bats and nesting birds, so further surveys will likely be required.

5.2.3 Standing Water and Running Water

The freshwater lakes, whether eutrophic or oligotrophic/dystrophic, were noted to support various aquatic and semi-aquatic flora species. The extensive mosaic of ponds and wet ditches on-site, as well as the River Faughan which runs adjacent to the western boundary, are considered to have **high intrinsic value** as all these habitats are listed as Northern Ireland Priority Habitats (DAERA, 2015).

The site, in its current state as a landfill site, has the potential to affect these habitats in terms of pollution from surface run-off and the uncontrolled release of suspended solids such as silt and sediment, which may cause degradation of the adjacent aquatic environment. Any impact to these waterbodies will need to be considered in advance of any site investigation or development requirements.

5.2.4 Species-Rich Hedgerow with Trees

The species-rich hedgerow with trees was extensive along the north-east site boundary and considered to have **high ecological value** as it qualifies as a UK BAP Priority Habitat.

This habitat should be retained where possible. If any hedgerows are to be removed to facilitate the site investigation works, these should be compensated through re-planting of native species. Appropriate tree buffer zones and root protection zones should be established in accordance with British Standards Guidance BS5837 (BSI, 2012).

5.3 PROTECTED & NOTABLE SPECIES

The species listed below are not considered to present a constraint to the development and have not been considered further:

- Red squirrel
- European hedgehog
- Other species (primrose and purple-ramping fumitory)

Species assessed as being of 'Unknown', 'Local' or greater ecological importance and recommendations for reducing impacts on these species are detailed below.

5.3.1 Bats

Of the seven buildings on-site, five (B1, B2, B5, B6, B7) were assessed as having **negligible BRS**. B3 and B4 were assessed as having **low BRS**, which would potentially have an impact on roosting bats if these buildings are to be impacted as a result of the development. None of the buildings on-site were considered to be suitable for hibernating bats.

Six trees on-site (including two standing deadwood trees) were assessed as having **moderate BRS**.

The wet woodland, along with linear features such as the broadleaved woodland strips, hedgerows and the River Faughan, are likely to provide moderate-quality habitat for roosting, foraging and commuting bats, as well as providing connectivity to other habitats.

Potential Impacts

If the site investigation works or any proposals involve vegetation clearance and demolition or renovation of buildings is required, then this may have an impact on the local population if roosts are damaged or green corridors of habitat connectivity removed.

Roosting/Hibernating Bats

Recommendations

One nocturnal survey of buildings B3 and B4 (either dusk or dawn) should be carried out between May and August (inclusive) and in accordance with BCT guidelines (Collins, 2016).

Two separate survey visits of trees and standing deadwood (TN1-6) between May and September (inclusive) are also recommended, consisting of one dusk emergence and one dawn re-entry survey, with at least one survey to take place between May and August.

Foraging/Commuting Bats

Recommendations

Activity surveys using two static detectors per transect are recommended, with data to be collected on five consecutive nights per month (between April and October), as recommended by BCT guidelines (Collins, 2016).

5.3.2 Otter

The adjacent River Faughan and Tributaries SAC and ASSI are designated for otters, providing suitable holt creation areas, resting, foraging and commuting habitats for otter. Site development has the potential to impact on the local otter population in terms of disturbance, as well as indirect impacts such as pollution which may affect habitats used by the species.

Recommendations

It is recommended that a dedicated otter survey is undertaken along the River Faughan by suitably experienced ecologists, based on guidance outlined in Chanin (2003a; 2003b) and NIEA Specific Requirements (2017a). The survey should extend 250 m upstream and downstream of the site, and 50 m inland. This survey will inform the need for mitigation and licensing.

Best practice working methods are recommended during the works to reduce the likelihood of disturbance, injury and/or mortality of otters (as well as [redacted] other mammals) occurring:

- Backfilling or providing sloped edges/a ramp (i.e. timber plank) in excavations before dusk to avoid mammals becoming trapped in them;
- Excavations to be checked every morning for trapped animals;
- Any temporarily exposed open pipe system should be capped in such a way as to prevent animals gaining access;
- Safe storage of oils/chemicals and ensuring good working practices in line with GPPs (see below) and COSHH guidance (HSENI, 2008) to avoid spillages, along with how to clean them up, to avoid animals coming into contact with such hazardous materials;
- Storage of chemicals away from accessible areas; and
- Avoid construction lights illuminating commuting routes (i.e. the River Faughan).

The production of a CEMP should also identify the perceived risks to the aquatic environment for otters. It should also address possible impacts from noise, vibration, dust and human disturbance for otters and make recommendations for mitigation.

All works should be undertaken in accordance with the NIEA's Pollution Prevention Guidelines (PPG) and Guidance for Pollution Prevention Series, in particular:

- GPP5 Working and Maintenance In or Near Water;
- PPG 6 Working at Construction and Demolition Sites;
- PPG 7 Safe Storage - The Safe Operation of Refuelling Facilities;
- GPP 21 Pollution Incident Response Planning, and;
- PPG 22 Incident Response - Dealing with Spills (NetRegs website, various dates).

A Stage 1 HRA is also required to assess the impact of the site to River Faughan and Tributaries SAC, as otters are a qualifying feature.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

5.3.4 Smooth Newt

The extensive network of ponds and other waterbodies on-site, along with terrestrial habitat such as marginal vegetation, marshy grassland, scrub and woodland, is likely to provide optimal breeding, refugia and hibernation opportunities for smooth newts. Site works and the present condition of the site may cause the loss of suitable terrestrial habitat, artificial refugia and degradation of waterbodies through landfill contamination.

Recommendations

Smooth newt surveys of suitable waterbodies on-site should be carried out under licence by appropriately qualified ecologists between mid-March and mid-June (inclusive) to identify the presence of any breeding adults, larvae or eggs. The results of these surveys will be used to inform a species management plan.

5.3.5 Common Lizard

Habitats on-site may provide optimal refugia and hibernacula for common lizards. Site investigation works and the present condition of the site may cause the degradation and loss of suitable terrestrial habitat through landfill contamination.

Recommendations

Precautionary working methods should be employed during works to minimise the risk of harming common lizards. This may include the avoidance or phased vegetation clearance close to piles of debris or restricting clearance to months when reptiles are less active (September and October). If debris requires removal then this should be done on completion of a hand search by an appropriately experienced ecologist.

Surveys carried out for smooth newts should also take account of the potential presence of common lizard that may occupy the same refugia.

5.3.6 Birds

The extensive wet woodland on-site, along with broadleaved woodland, scrub and ornamental trees are likely to provide suitable nesting opportunities for breeding birds. Evidence of nesting birds was also noted in buildings B1 and B3. Additionally, the site may provide functionally-linked land for qualifying bird species of Lough Foyle SPA and Ramsar, such as whooper swan and brent goose, due to the presence of the large standing bodies of freshwater.

Recommendations

If building demolition, tree-felling or vegetation clearance is to be undertaken, this should be conducted outside of the nesting bird season (March to September, inclusive) where possible. If this is not possible, it is recommended that an ECoW conducts a check for nesting birds across the site 48 hours in advance of any clearance or demolition works commencing. If a nesting bird is identified, the ECoW will advise on suitable working methods and an appropriate buffer zone.

Wintering bird surveys of the River Faughan and three freshwater lakes are also recommended between October and March (inclusive) to determine the presence of SPA qualifying species and inform the Stage 1 HRA. If such species are identified, then further consultation with the NIEA may be needed.

5.3.7 Invertebrates

The site is likely to provide suitable habitat for common and widespread terrestrial invertebrate species, although the site's present usage will cause degradation of available habitats over time.

The adjacent River Faughan is also likely to support various species of aquatic invertebrates, which may be impacted by pollution from landfill contamination and site investigation works.

Recommendations

Measures to be incorporated within the CEMP should include identifying the perceived risks to the aquatic environment, identifying potential pollution pathways, and the mitigation measures to be employed to negate the risk to any aquatic environment. The CEMP should also address possible impacts from dust and human disturbance and make recommendations regarding mitigation for these possibilities.

It is recommended that a CEMP is created and followed to limit pollution across all habitats on-site and reduce risks to invertebrates. Recommendations for vegetation clearance outside of the breeding bird season are also likely to minimise impacts to pollinating insects, as this period is outside the flowering season for most plants.

5.3.8 Fish

The site's current use as a landfill site is likely to cause pollution in the River Faughan and potentially Lough Foyle through leachate and release of hydrocarbons into the river. Atlantic salmon, sea lamprey (both Annex II species) and other fish species have the potential to either be directly impacted (or indirectly through loss of food sources) by contamination from the site, causing a reduction in local population sizes.

Recommendations

It is recommended that a CEMP is created and followed which identifies the perceived risks to the aquatic environment both on-site and in the River Faughan, identifying potential pollution pathways, and the mitigation measures to be employed to reduce the risk to fish.

A Stage 1 HRA is also required as Atlantic salmon is a qualifying feature of River Faughan and Tributaries SAC.

5.3.9 Invasive Non-Native Flora

There are extensive stands of Japanese knotweed on-site, along with Indian balsam and giant hogweed along the banks of the River Faughan, which have the potential to spread further around the site, as well as impacting River Faughan and Tributaries SAC/ASSI and Lough Foyle SPA/Ramsar.

Recommendations

An invasive species specialist should be appointed at the earliest opportunity to recommend containment, control and management measures to prevent spread to other areas, with the eventual aim of eradication of these species on-site.

6.0 SUMMARY

6.1 DESIGNATED SITES

There are pathways of effect on Natura 2000 sites as a result of this development and therefore a Habitats Regulations Assessment (HRA) is required, which will be presented in a separate report.

There are potential pathways of effect from the development to the River Faughan and Tributaries ASSI and Lough Foyle ASSI. It is recommended that a CEMP is produced and followed to protect these sites from pollution and human disturbance and reduce the risk to their qualifying features.

6.2 HABITATS

The level of contamination that the site presents as well as the disturbance of habitats on-site during any site works are likely to cause habitat degradation, particularly for habitats of high ecological value such as the wet woodland and lakes (UK BAP and NI Priority Habitats).

It is recommended that the habitats on-site are left intact; however, if tree-felling, vegetation clearance or borehole drilling as part of the site investigation works is to take place, appropriate buffer zones and tree root protection zones should be established in accordance with British Standards Guidance BS 5837 (BSI, 2012).

Hedgerows, scrub and trees would also be subject to nesting bird checks if works are to take place during the nesting bird season.

6.3 PROTECTED & NOTABLE SPECIES

Nocturnal bat roost and activity surveys are required for the site, to be undertaken from May to September (inclusive) and April to October (inclusive), respectively. A dedicated otter survey along the River Faughan and [redacted] of the site are recommended. A Stage 1 HRA is required to assess the impact of the site to River Faughan and Tributaries SAC as otter and Atlantic salmon are qualifying features. Best practice working methods, along with the production of a CEMP, are also recommended to protect these species, as well as invertebrates, fish and other species.

Smooth newt surveys of suitable waterbodies on-site should be undertaken between mid-March and mid-June (inclusive). Precautionary working methods and a pre-commencement check of the site immediately prior to any vegetation clearance or ground-level works being undertaken are recommended for both smooth newts and common lizards.

Site clearance should be conducted outside of the nesting bird season. A nesting bird check is required prior to works commencing if works are to take place during this period. Wintering bird surveys of the River Faughan and freshwater lakes are also recommended.

An invasive species specialist should be appointed at the earliest opportunity to recommend containment, control and management measures for invasive flora.

7.0 REFERENCES

- BSI (2013) BS42020:2013 *Biodiversity – Code of Practice for Planning and Development*. BSI Standards Limited.
- Chanin, P. (2003a) *Monitoring the Otter Lutra lutra*. Conserving Natura 2000 Rivers Monitoring Series No. 10, English Nature, Peterborough.
- Chanin, P. (2003b) *Ecology of the European Otter*. Conserving Natura 2000 Rivers Ecology Series No. 10. English Nature, Peterborough.
- CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal*, 2nd Edition, CIEEM: Winchester.
- Colhoun, K. and Cummins, S. (2013) Birds of Conservation Concern in Ireland (2014-2019) *Irish Birds*, 9:523-544.
- Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed)*. Bat Conservation Trust, London.
- *Conservation of Habitats and Species Regulations 2017 (as amended) (SI 2017/1012)*. Available: https://www.legislation.gov.uk/uksi/2017/1012/regulation/17/made. Accessed September 2021.
- *Council Directive 2009/147/EC of 30 November 2009 on the Conservation of Wild Birds* (the 'Birds Directive'). Available: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0147. Accessed September 2021.
- *Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild fauna and Flora* (the 'Habitats Directive'). Available: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043. Accessed September 2021.
- DAERA (2020) *EU Invasive Alien Species*. Available: EU Invasive alien species | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk) Accessed September 2021.
- DAERA (2015) *Northern Ireland Priority habitats*. Available: https://www.daera-ni.gov.uk/publications/northern-ireland-list-priority-habitats Accessed September 2021.
- Derry and Strabane District Council (2019) *Local Development Plan (LDP) 2032*. Available: https://www.derrystrabane.com/getmedia/f0dfee6f-7ba0-4422-8a29-6163562286e2/DC-SDC_Local-Development-Plan-final-online_1.pdf. Accessed September 2021.
- Eaton, M., Aebischer, N., Brown, A., Hearn, R. Lock, L. Musgrove, A., Noble, D. Stroud, D. and Gregory, R. (2015) Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. *British Birds*, 108: 708-746.
- Gent, T. and Gibson, S. (2003) *Herpetofauna Workers' Manual*. JNCC, Peterborough.
- [redacted]
- Invasive Species Ireland (2020) *Russian vine Fallopia baldschuanica*. Available: https://invasivespeciesireland.com/species-accounts/established/terrestrial/russian-vine. Accessed September 2021.
- HSENI (2008) COSHH (NI): *A brief guide to the Regulations*. Available: https://www.hseni.gov.uk/sites/hseni.gov.uk/files/publications/%5Bcurrent-domain%3Amachine-name%5D/COSHH%20NI%20-%20A%20brief%20guide%20to%20the%20Regulations_1.pdf. Accessed September 2021.
- Joint Nature Conservation Committee (2010) *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. JNCC, Peterborough.
- NetRegs (various dates) *Guidance for Pollution Prevention (GPPs)*. Available: https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/guidance-for-pollution-prevention-gpps-full-list/. Accessed September 2021.

- NIEA (2017a) *Otter Surveys NIEA Specific Requirements*. Available: https://www.daera-ni.gov.uk/sites/default/files/publications/daera/otter-survey-specifications.pdf. Accessed September 2021.
- NIEA (2017b) *Badger Surveys NIEA Specific Requirements*. Available: https://www.daera-ni.gov.uk/sites/default/files/publications/daera/badger-survey-specifications.pdf. Accessed August 2021.
- NIEA (2017c) *Smooth Newt Surveys NIEA Specific Requirements*. Available: https://www.daera-ni.gov.uk/sites/default/files/publications/daera/newt-survey-specifications.pdf. Accessed September 2021.
- NIEA (2017d) *Common or Viviparous Lizard Surveys NIEA Specific Requirements*. Available: https://www.daera-ni.gov.uk/sites/default/files/publications/daera/common-lizard-survey-specifications.pdf. Accessed September 2021.
- NIEA (2018) *NI Habitat Guide – Wet Woodland*. Available: https://www.daera-ni.gov.uk/sites/default/files/publications/daera/NI%20Habitat%20Guide%20-%20Wet%20woodland.PDF. Accessed September 2021.
- Stace, C. (2019) *New Flora of the British Isles* (4th Ed.). C&M Floristics, Middlewood Green, Suffolk.
- *Wildlife (Amendment) (Northern Ireland) Order 1995*. Available: https://www.legislation.gov.uk/nisi/1995/761/contents/made. Accessed September 2021.
- *Wildlife (Northern Ireland) Order 1985*. Available: https://www.legislation.gov.uk/nisi/1985/171/article/15. Accessed September 2021.
- *Wildlife and Natural Environment Act (Northern Ireland) 2011* (the 'WANE Act'). Available: https://www.legislation.gov.uk/nia/2011/15/section/3. Accessed September 2021.
- WYG (2015) *NIEA – CDP Citywaste, Co. Londonderry: Extended Phase 1 Habitat Report and Protected Species Report*. Belfast, WYG.

FIGURES

Figure 1: Site Location Plan
Figure 2a: Natura 2000 Sites within 15 km
Figure 2b: Other Statutory Designated Sites within 10 km
Figure 3: Phase 1 Habitat Plan

Site Location Plan

Mobuoy Road City Waste

DAERA

Legend

Site boundary

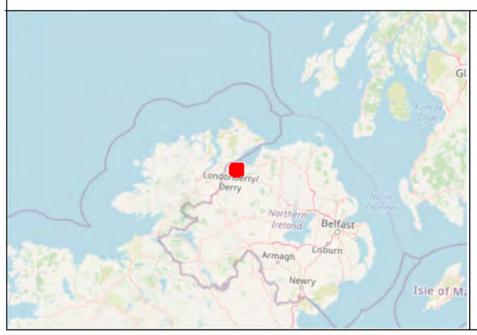
Notes:

Drawn by: [redacted]
Checked by: [redacted]
Office: [redacted]

Figure No. 1
Revision No. A

0 100 200 300 400 500 Meters
Scale 1:15,000 @A3

08 October 2021
NGR: 64188E 580623N



TETRA TECH

[redacted]

Designated Sites Plan (within 15 km)

Mobuoy Road City Waste

DAERA

Legend

- Site boundary
- Site boundary 15 km buffer
- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)
- Ramsar

Notes:

Drawn by: [redacted]
Checked by: [redacted]
Office: [redacted]

Figure No. 2a
Revision No. A

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Scale 1:111,000 @A3

04 October 2021
NGR: 64188E 580626N

TETRA TECH

[redacted]

Designated Sites Plan (within 10 km)

Mobuoy Road City Waste

DAERA

Legend

- Site boundary
- Site boundary 10 km buffer
- National Nature Reserves (NNR)
- Areas of Special Scientific Interest (ASSI)
- Areas of Outstanding Natural Beauty (AONB)

Notes:

Drawn by: [redacted]
Checked by: [redacted]
Office: [redacted]

Figure No. 2b
Revision No. A

0 1,000 2,000 3,000 Meters
Scale 1:80,000 @A3

04 October 2021
NGR: 64188E 580624N

TETRA TECH

[redacted]

Phase 1 Habitat Plan

Mobuoy Road City Waste

DAERA

Legend

- Broadleaved woodland - A1.1.1
- Wet woodland - A1.1.1
- Planted ornamental trees - A1.1.2
- Scrub - dense/continuous - A2.1
- Scattered scrub - A2.2
- Marshy grassland - B5
- SI — Poor grassland - semi-improved - B6
- Tall ruderal - C3.1.2
- Marginal vegetation - F2.1
- Standing water - G1
- Wet ditch - G1
- Running water - G2
- Quarry - I2.1
- Spoil - I2.2
- Ephemeral / short perennial - J1.3
- Species-poor hedgerow - J2.1.2
- Species-rich hedgerow with trees - J2.3.1
- Wall - J2.5
- Hardstanding - J5
- Buildings
- Site boundary
- Target note

Notes:

Drawn by [redacted]
Checked by: [redacted]
Office: [redacted]

Figure No. 3
Revision No. A

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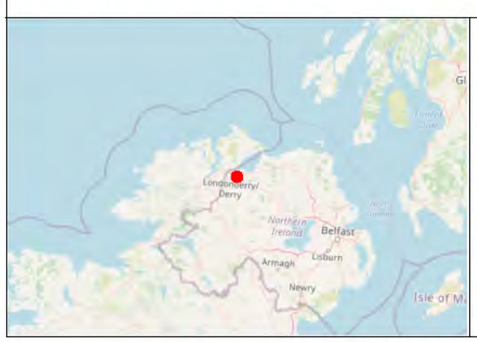
11 October 2021
NGR: 64188E 580623N



TETRA TECH

[redacted]

Appendix A – Report Conditions

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The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The "shelf life" of the Report will be determined by a number of factors including; its original purpose, the Client's instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

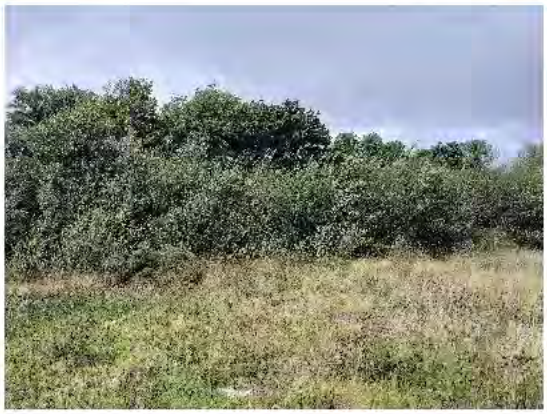
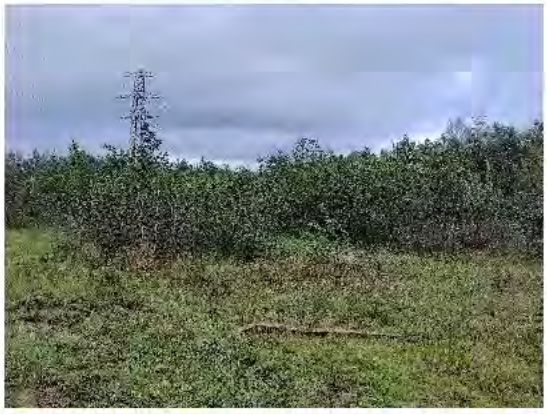
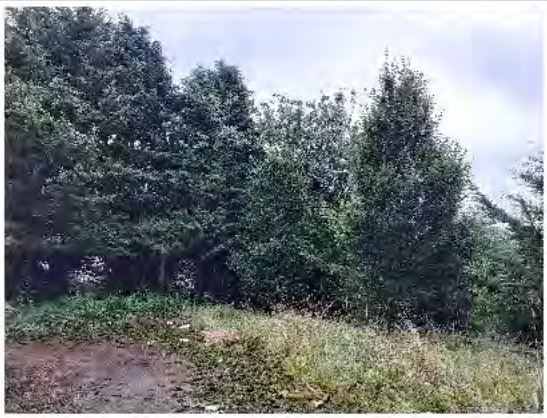
The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

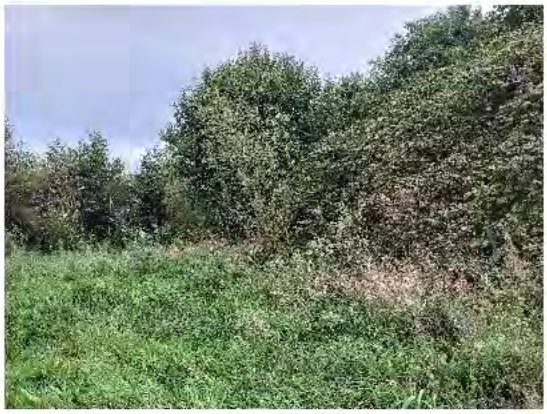
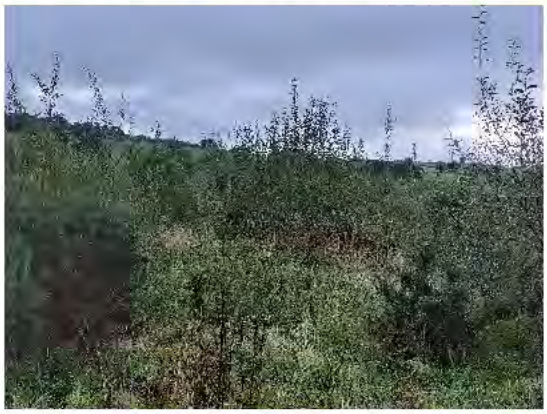
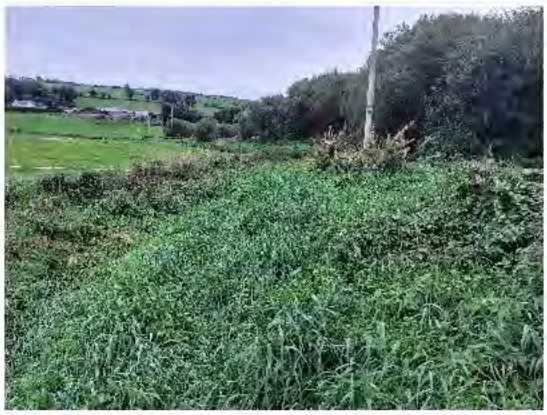
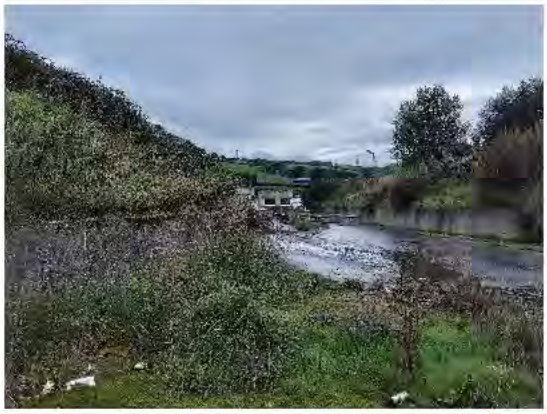
The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accepts no liability for issues with performance arising from such factors.

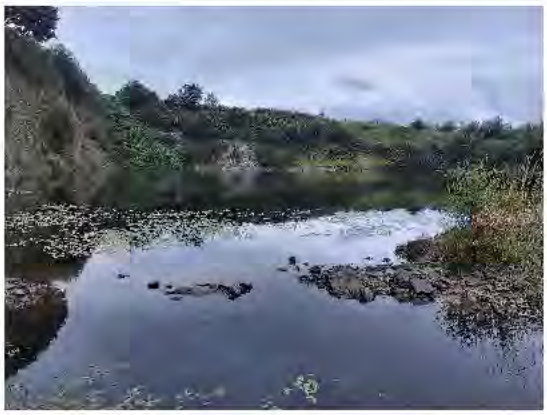
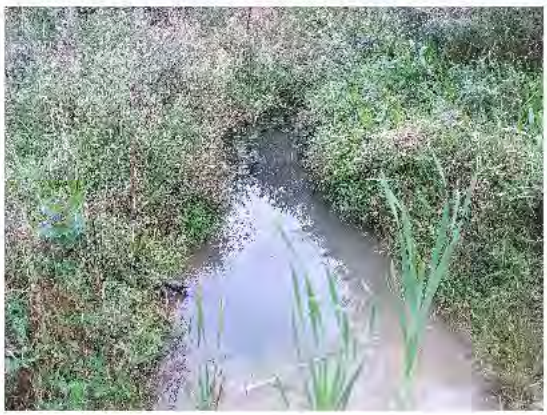
Appendix B – Relevant Desk Study Data

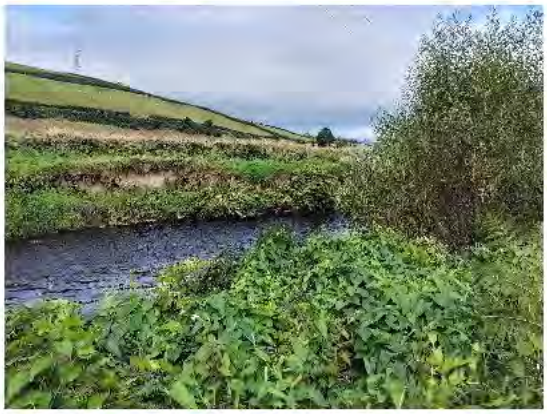
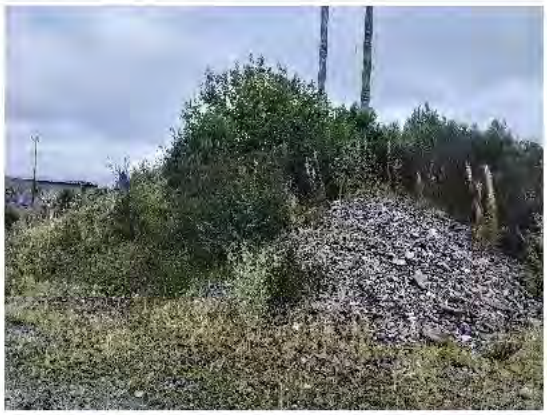
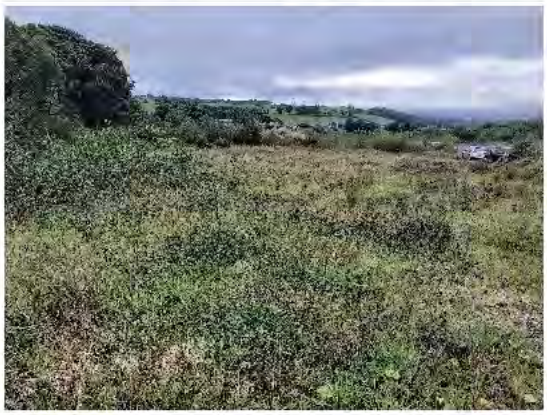
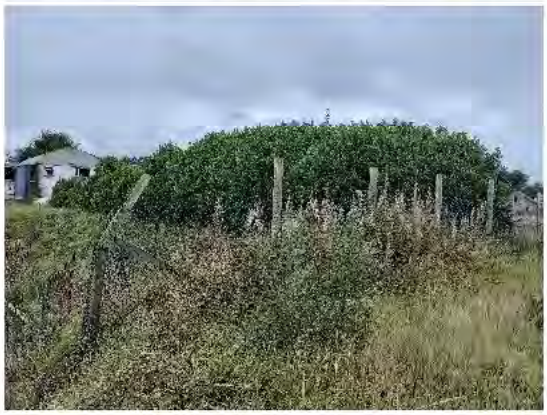
Common Name	Scientific Name	Latest Year	No. of Records	BOCC	BAP Species	NI Priority Species	Wildlife Order NI 1985	Habitats & Species Regs 2017
Smooth Newt	*Lissotriton vulgaris*	2016	1				Sch 5	
Buzzard	*Buteo buteo*	2015	1				Sch 1 Part 1	
Dipper	*Cinclus cinclus*	2014	1	Amber				
Grasshopper Warbler	*Locustella naevia*	2011	1	Red	Yes	Yes		
Jackdaw	*Corvus monedula*	2015	1					
Jay	*Garrulus glandarius*	2014	1					
Swallow	*Hirundo rustica*	2016	1					
Waxwing	*Bombycilla garrulus*	2013	1					
Woodpigeon	*Columba palumbus*	2014	1					
Yellowhammer	*Emberiza citrinella*	2014	1	Red	Yes	Yes		
Double Dart	*Graphiphora augur*	2016	1		Yes	Yes		
Garden Tiger	*Arctia caja*	2014	2		Yes	Yes		
Eurasian Red Squirrel	*Sciurus vulgaris*	2019	2		Yes	Yes	Sch 5	
European Otter	*Lutra lutra*	2014	2		Yes	Yes		Sch 2
Irish Hare	*Lepus timidus subsp. hibernicus*	2014	1		Yes	Yes		
Harebell	*Campanula rotundifolia*	2019	1					
Marsh Ragwort	*Senecio aquaticus*	2019	1					
Primrose	*Primula vulgaris*	2019	1				Sch 8 Part 2	
Purple Ramping-Fumitory	*Fumaria purpurea*	2019	1		Yes	Yes		

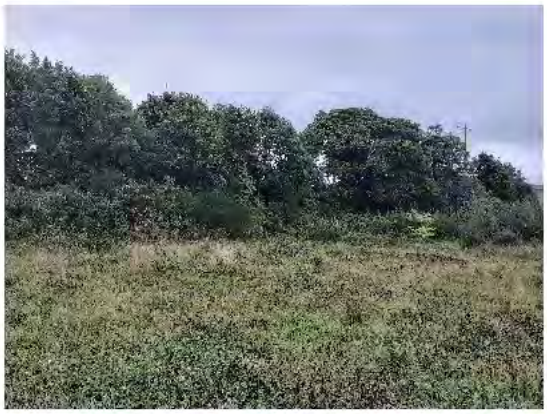
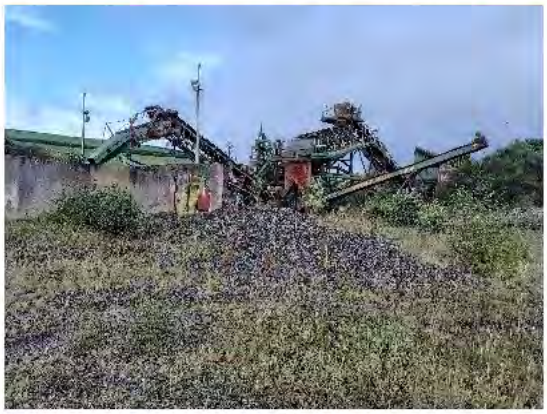
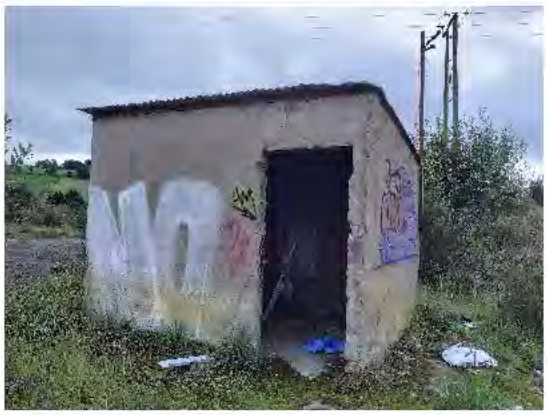
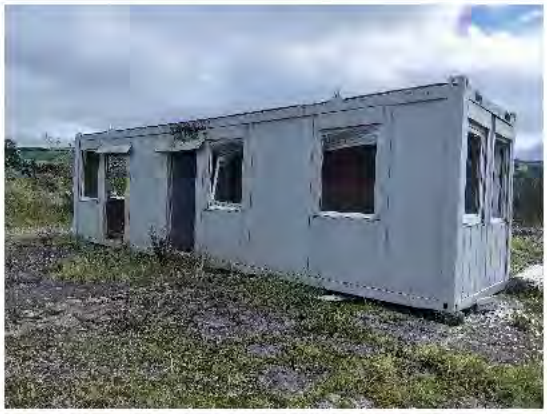
Appendix C – Target Notes

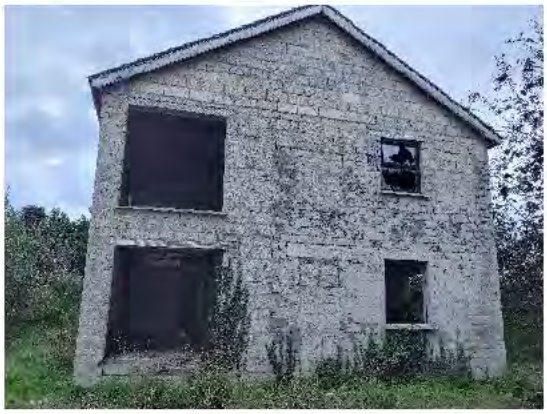
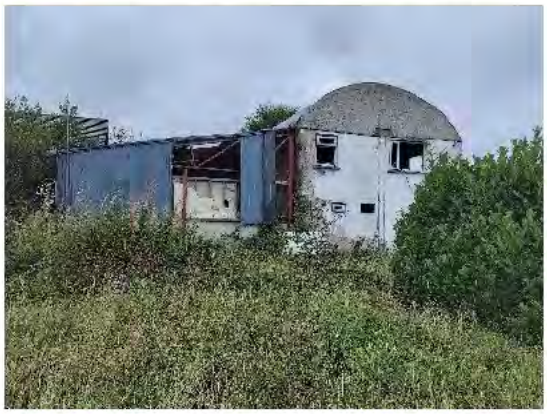
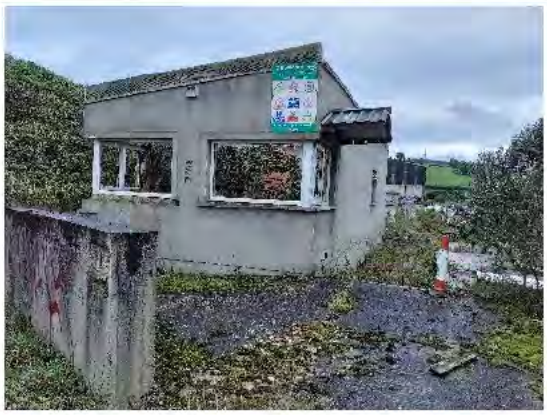
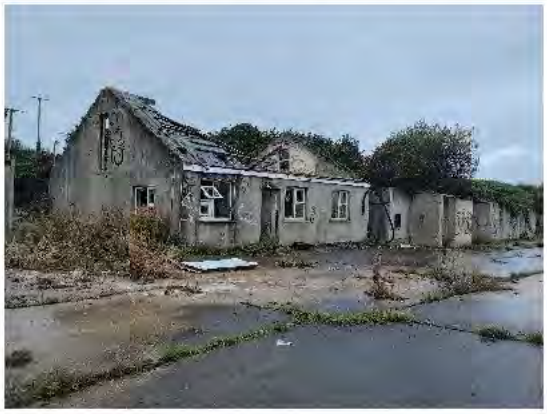
Target Note/ Habitat Type	Description	Photograph
A1.1.1	**Broadleaved Woodland**	
A1.1.1	**Wet Woodland**	
A1.1.2	**Planted Ornamental trees**	

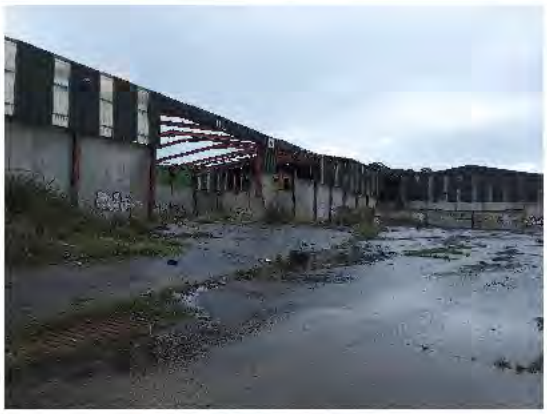
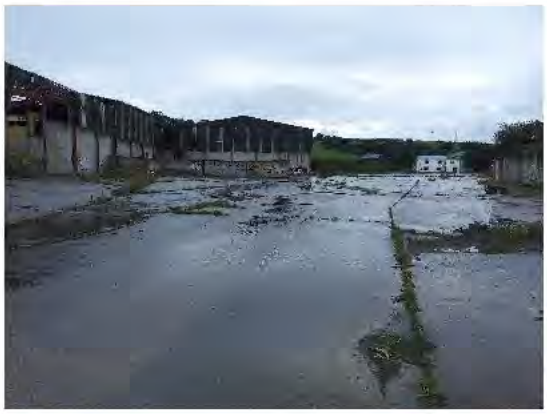
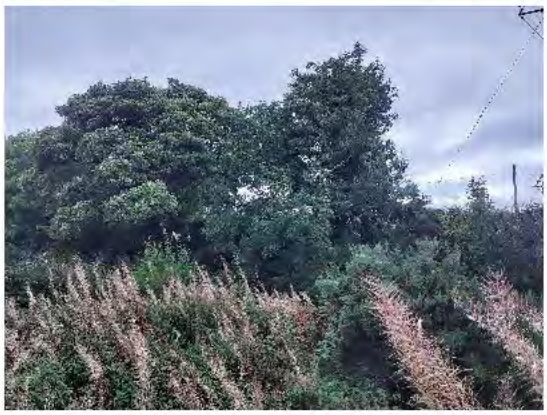
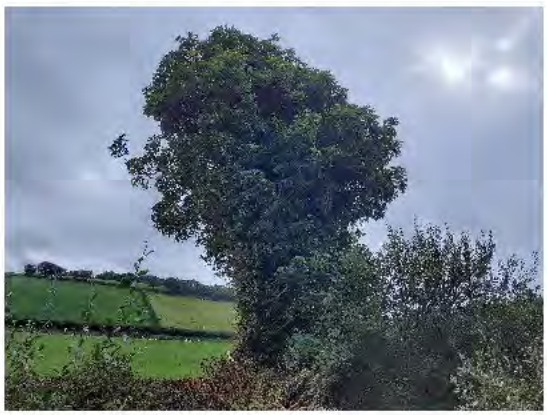
A2.1	**Dense/Continuous Scrub**	
A2.2	**Scattered Scrub**	
B5	**Marshy Grassland**	
B6	**Poor Semi-Improved Grassland**	

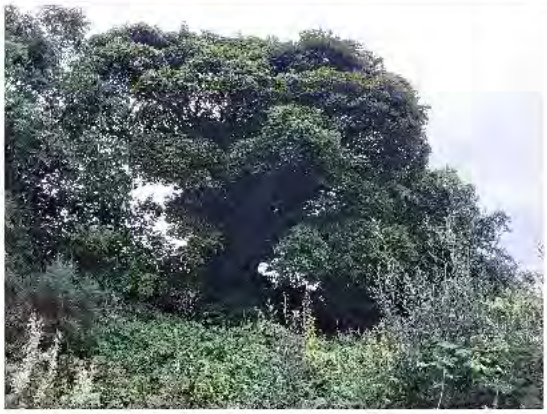
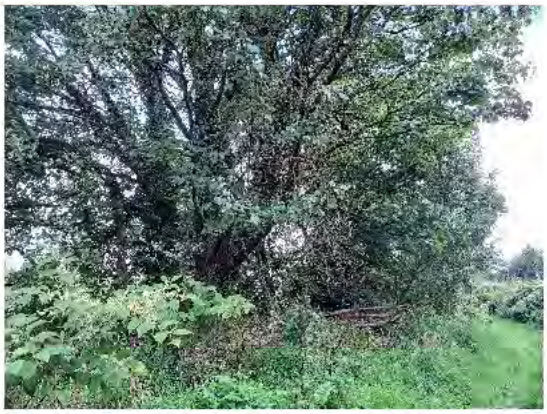
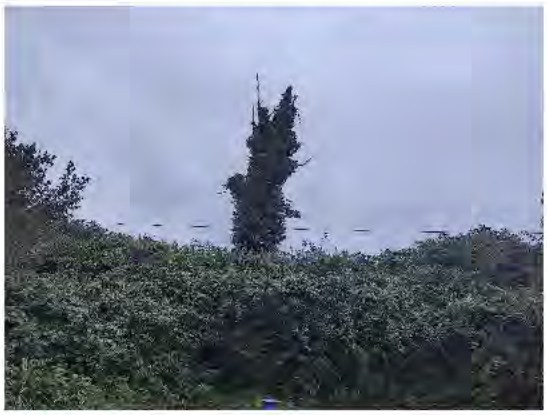
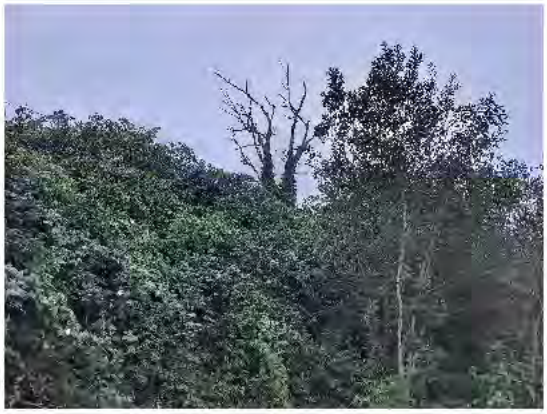
C3.1.2	**Tall Ruderal**	
F2.1	**Marginal Vegetation**	
G1	**Standing Water**	
G1	**Wet Ditch**	

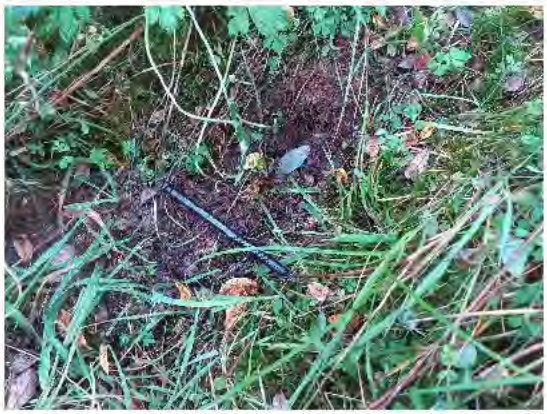
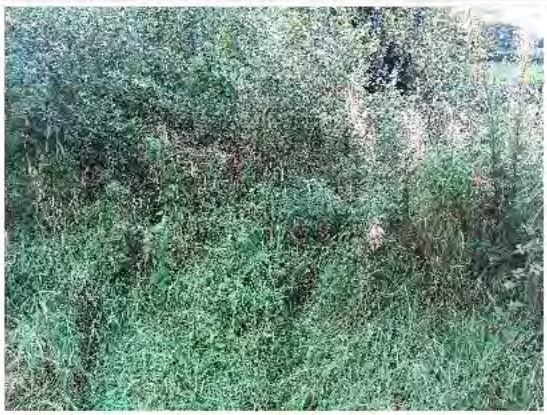
G2	**Running Water**	
I2.1	**Quarry**	No photo available.
I12.2	**Spoil**	
J1.3	**Ephemeral/Short Perennial**	
J2.1.2	**Species-Poor Hedgerow**	

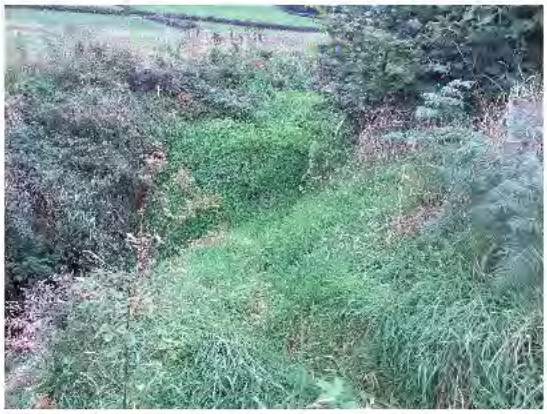
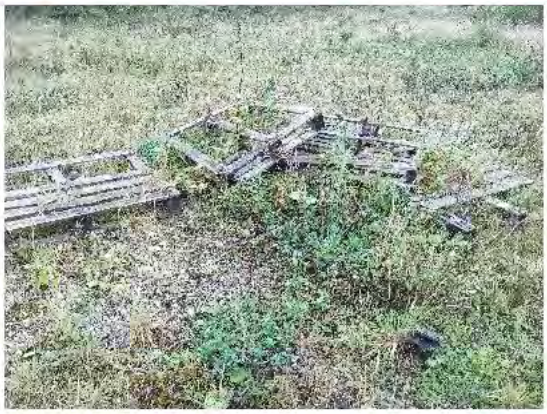
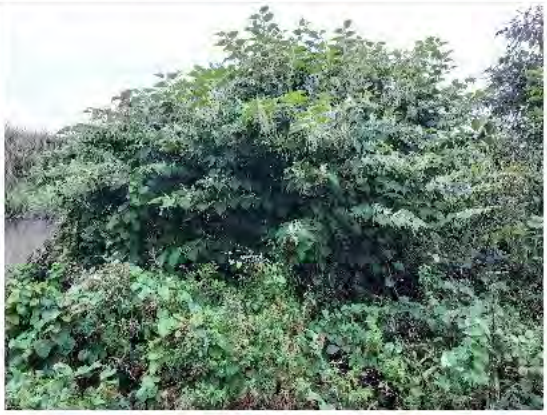
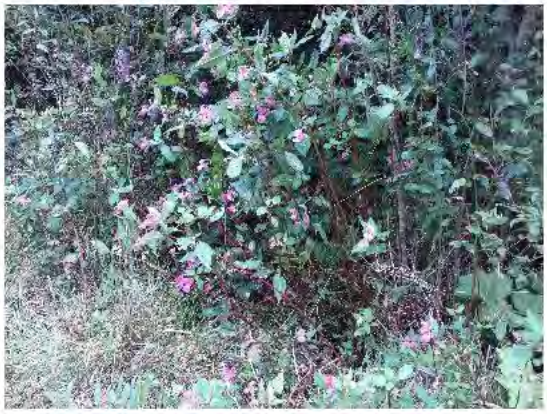
J2.3.1	**Species-Rich Hedgerow with Trees**	
J2.5	**Wall**	
J3.6	**Building B1**	
J3.6	**Building B2**	

J3.6	**Building B3**	
J3.6	**Building B4**	
J3.6	**Building B5**	
J3.6	**Building B6**	

J3.6	**Building B7**	
J5	**Hardstanding**	
[redacted]	**Mature Ash** Moderate BRS.	
[redacted]	**Mature Sycamore** Moderate BRS.	

[redacted]	**Mature Sycamore** Moderate BRS.	
[redacted]	**Sycamore** Moderate BRS.	
[redacted]	**Standing Deadwood** Moderate BRS.	
[redacted]	**Standing Deadwood** Moderate BRS.	

[redacted]	[redacted]	[redacted]
[redacted]	[redacted] Subject to further survey.	No photo available.
[redacted]	[redacted]	[redacted]
[redacted]	**Latrines**	
[redacted]	**Breach Point**	

[redacted]	**Mammal Trails**	
[redacted]	**Potential Refugia for Smooth Newt/Common Lizard** Artificial refugia suitable for smooth newts or common lizards.	
[redacted]	**Japanese Knotweed** Extensive growth throughout the site. Indian balsam and giant hogweed stands also noted amongst Japanese knotweed along River Faughan (TN34/35).	
[redacted]	**Indian Balsam** Stands located predominantly along River Faughan and large lake in the northernmost area of the site.	

Appendix D – Derry and Strabane Local Development Plan (LDP) 2032: Relevant Extracts

GDP 2: Climate Change

To mitigate against the effects of climate change, adapt to its impacts, and to ensure resilience, development proposals should take into account and demonstrate how they are:

i) Promoting sustainable patterns of development including development in sustainable locations;
ii) Promoting the use of energy efficient, micro-generating and decentralised renewable energy systems, including through incorporating sustainable design features and the use of zero carbon technologies;
iii) Promoting the use of zero carbon technologies;
iv) Facilitating sustainable travel by encouraging active travel and travel by public transport in preference to the private car;
v) Supporting the adaption of existing homes to reduce energy use, including listed buildings and those located within conservation areas, providing there is no adverse impact on historic character or appearance; and
vi) Supporting the delivery of facilities needed to divert waste away from landfill and promote the prevention, reuse, recycling and recovery of materials (including heat from waste) with disposal to landfill as the final option;
vii) Considering the energy and cooling/heat requirements of new developments when designating land for new residential, commercial and industrial development and making use of opportunities for energy and power sharing, or for decentralised or low carbon sources of heat and power wherever possible;
viii) Limiting/mitigating the likely greenhouse gas emissions, including through the provision of green infrastructure, and minimising resource and energy requirements through the siting, design and layout of all new development;
ix) Avoiding development in areas with increased risk from flooding, landslip and coastal erosion and highly exposed sites at significant risks from impacts of storms; and
x) Working with natural environmental processes through promoting green infrastructure and the use of Sustainable Drainage Systems.

GDP 6: Importance of Ecosystem Services

Derry and Strabane District Council aims to reduce the effects of climate change, promote sustainable eco-friendly developments with sustainable transport methods, promote green and blue infrastructure, protect animal habitats from the effects of an increasing human presence, protect and promote ecosystems. Therefore, development proposals should:

i) Take into account any demonstrable adverse effects on established ecosystems;
ii) Give due consideration for the promotion and inclusion of green infrastructure; and
iii) Where possible and practicable, include measures to prevent and adapt to environmental change.

Development proposals are required to be sensitive to all protected species and sites and should be designed to protect them, their habitats and prevent deterioration and destruction of their breeding sites or resting places.

GDP 7: Development Principles – Preserving and Enhancing the Natural Environment

Development should accord with the principles of the protection and enhancement of the natural environment, including landscape, biodiversity and geodiversity and especially those areas designated as being of international, national and local importance. To further protect the natural environment within the District as a whole:

i) The relationship between development and the natural environment will be managed to minimise the risk of environmental damage, habitat loss and fragmentation;
ii) Loss of the best and most versatile agricultural land will be avoided;
iii) Encouragement will be given to the creation of opportunities for species to migrate and create niches elsewhere in order to reduce any negative impacts of development and to allow species to migrate as a result of climate change;
iv) The creation and restoration of traditional habitats will be encouraged and where identified in policies in the LDP, existing wildlife and habitats such as hedges, ponds, woodlands, ancient and long-established woodlands, wetlands and species rich grasslands will be protected and enhanced;
v) Where possible, developments will be expected to include suitable measures to contribute positively to overall biodiversity net gain in the District or to mitigate harm caused by development through measures including additional and compensatory tree planting.

Policy NE 1: Nature Conservation Sites

European/International Sites
Planning permission will only be granted for a development proposal that, either individually or in combination with existing and/or proposed plans or projects, is not likely to have a significant effect on:

- A European Site (Special Protection Area – SPA, Special Areas of Conservation – SAC, candidate Special Areas of Conservation – cSAC) or;
- A listed or proposed Ramsar Site.

Where a development proposal is likely to have a significant effect (either alone or in combination) or reasonable scientific doubt remains, the Council shall make an appropriate assessment of the implications for the site in view of the site's conservation objectives. Appropriate mitigation measures in the form of planning conditions may be imposed. In light of the conclusions of the assessment, the Council shall agree to the development only having ascertained that it will not adversely affect the integrity of the site. In exceptional circumstances, a development proposal which could adversely affect the integrity of a European a listed or proposed Ramsar Site may only be permitted where:

- There are no alternative solutions; and
- The proposed development is required for imperative reasons of overriding public interest; and
- Compensatory measures are agreed and fully secured.

As part of the consideration of exceptional circumstances, where a European or Ramsar site hosts a priority habitat or priority species listed in Annex I or II of the Habitats Directive, a development proposal will only be permitted when:

- It is necessary for reasons of human health or public safety or there is a beneficial consequence of primary importance to the environment; or
- Agreed in advance with the European Commission.

National/Regional Sites
Planning permission will only be granted for a development proposal that is not likely to have an adverse effect on the integrity, including the value of the site to the habitat network, or special interest of an Area of Special Scientific Interest (ASSI); Nature Reserve (NR); National Nature Reserve (NNR) or Marine Nature Reserve (MNR). A development proposal which could adversely affect a site of national importance may only be permitted where the benefits of the proposed development clearly outweigh the value of the site. In such cases, appropriate mitigation and/or compensatory measures will be required.

Local Designations/Sites
Planning permission will only be granted for a development proposal that is not likely to have a significant adverse impact on a Local Nature Reserve (LNR) or Wildlife Refuge (WR). A development proposal which could have a significant adverse impact on such sites of local importance will only be permitted where the benefits of a proposed development outweighs the value of the site. In such cases,
appropriate mitigation and/or compensatory measures will be required. In such cases, appropriate mitigation and/or compensatory measures will be required.

Policy NE 2: Protected Species and their Habitats

European Protected Species
Planning permission will be granted for a development proposal that is not likely to harm a European protected species. In exceptional circumstances, a development proposal that is likely to harm these species may only be permitted where:

- There are no alternative solutions; and
- It is required for imperative reasons of overriding public interest; and
- There is no detriment to the maintenance of the population of the species at a favourable conservation status; and
- Compensatory measures are agreed and fully secured.

National Protected Species
Planning permission will only be granted for a development proposal that is not likely to harm any other statutorily protected species and which can be adequately mitigated or compensated against. Development proposals are required to be sensitive to all protected species, and sited and designed to protect them, their habitats and prevent deterioration and destruction of their breeding sites or resting places. Seasonal factors will also be taken into account. Mitigation measures may be required to enhance the habitat of those protected species known to be present on the site of a development proposal and to facilitate their safe passage through it.

Policy NE 3: Biodiversity or Features of Natural Heritage Importance

Planning permission will not be granted for a development proposal that is likely to result in unacceptable adverse impacts on, or damage to:

- Priority habitats;
- Priority species.

Key priority habitats and species within our District include our peatlands, bats, otters, red squirrels and salmon. A full list of NI Priority Species and Habitats can be found in the Natural Environment Evidence Base.

Planning permission will not be permitted for proposals which are likely to result in an unacceptable adverse impact on, or damage to other natural heritage assets and landscape features such as:

- Active peatland;
- Landscape features/ecological corridors of major importance to flora and fauna including hedgerow boundaries and hedgerow trees;
- Rare or threatened native species;
- Wetlands (including river corridors);
- Features of earth science conservation importance;
- Other natural heritage features worthy of protection.

A development proposal which is likely to result in an unacceptable adverse impact on, or damage to, habitats, species or features listed above may only be permitted where the benefits of the proposed development outweigh the value of the habitat, species or feature. In such cases, appropriate mitigation and/or compensatory measures will be required. Planning permission will only be granted in wholly exceptional circumstances for proposals likely to result in damage or direct loss of ancient or long-established woodland.

Policy NE 4: Development Adjacent to Main Rivers and Open Waterbodies

Planning permission will only be granted for a development proposal adjacent to main rivers and open water bodies where it can be demonstrated that the proposal meets all the following provisions:

- Will have no permanent adverse impacts on their landscape character and setting;
- There is no unacceptable adverse impact on nature conservation;
- Will not involve a loss of significant views to and from the rivers and waterbodies;
- The proposal will not compromise or impact on the natural flooding regime of the river or open waterbody;
- Will not prejudice existing or the potential for future public access; and
- Is in conformity with other LDP policies.

Tidal Reaches of the Foyle and Faughan

For those tidal stretches of the River Foyle and Faughan and their tributaries, development proposals must also accord with the UK Marine Policy Statement (MPS) and any adopted Marine Plan. Where development is permitted, and outside of settlements, a biodiversity strip of at least 10 metres from the edge of the river must be provided and accompanied with an appropriate landscaping management proposal.