

Hunterston Construction Yard Preliminary Ecological Appraisal



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EXECUTIVE SUMMARY

EnviroCentre Limited was commissioned by Peel Ports to conduct a Preliminary Ecological Appraisal of the disused Hunterston dry docks, at a site known as Hunterston Construction Yard, located on an artificial peninsula within the Firth of Clyde and adjacent to the Southannan Sands SSSI.

Eight UKHab primary habitats were identified in September 2023 including locally important sea buckthorn scrub, site important neutral grassland, beach and various and linear features (fencing and walls).

Buddleja (a non-native species with invasive tendencies) was identified on site during the survey and patches of Invasive Non-Native Species (INNS) rhododendron were identified adjacent to the access road.

Bat records were returned from the desk study and **moderate** suitability habitats for commuting and foraging bats were recorded on site. Where moderate suitability habitat cannot be retained, further surveys including static and/or transect surveys may be required.

No evidence of protected species was identified during the survey, however otter, badger, hedgehog, pine marten, birds, amphibians, reptiles, marine mammals, fish and invertebrates were returned from the desk study and suitable habitat exists for otter, brown hare, badger, hedgehog, birds, amphibians, marine mammals, fish and invertebrates on site and within the adjacent environment. A desk study and risk assessment for fish and marine mammals will be needed to inform impact assessment and mitigation. Further survey in relation to benthic habitats and fauna are also needed to inform impact assessment and mitigation in relation to the SSSI. Pre-works and/ or annual updates are recommended to maintain baseline are required for these species. Protected species data is considered valid for 12 months.

Potential impacts include but are not limited to:

- Spread of INNS.
- Loss of habitats of national, local and site importance such as grassland, scrub and open mosaic habitat.
- Pollution of the Burn Gill watercourse and seawater as a result of the proposed works.
- Disturbance, injury or death to wildlife species, particularly nesting birds, reptiles and hedgehogs during any works.

The following mitigation recommendations are:

- An INNS management plan to remove and/ or avoid the spread of INNS on site.
- Potential removal of grassland and scrub must be compensated for by new landscape planting of native species and the enhancement of any retaining habitats.
- A toolbox talk should be available for all site staff regarding ecological considerations.
- Sensitive vegetation clearance to limit impacts on protected species.
- Permanent and temporary lighting should follow a sensitive lighting strategy in order to prevent disturbances to crepuscular species.
-

Enhancement measures have also been suggested to contribute positively to biodiversity, including:

- A Biodiversity Enhancement Plan (BEP).
- Provision of log piles on site to enhance small mammal, invertebrate, reptile and amphibian sheltering and basking opportunities.
- A range of bird nesting and bat roosting boxes to provide permanent nesting and roosting opportunities.

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1 INTRODUCTION

1.1 Terms of Reference

EnviroCentre Limited was commissioned by Peel Ports to conduct a Preliminary Ecological Appraisal (PEA) of the former dry docks area located at the site known as Hunterston Construction Yard.

The 'site' is defined as the area demarcated by the red line boundary and the 'survey area' constitutes the area of the 'site' plus appropriate buffers, as shown in the Survey Area Plan in Appendix A.

The results and recommendations in this document relate to the site boundary as provided by the client at the time of the survey.

1.2 Scope of Report

The aim of the study is to provide a baseline ecological evaluation of the site to inform any future development plans. The objectives were as follows:

- Conduct a desk study to gather previously recorded biological data relating to the site.
- Categorise and map the broad habitats present on the site.
- Search for field evidence of a range of protected or notable species which may frequent the survey area.
- Identify suitable habitat for protected or notable species in the survey area.
- Evaluate the habitats and species applicable to site against geographic levels of importance.
- Appraise the potential impacts to habitats and species should no avoidance, mitigation or compensation be applied within the proposed project.
- Make recommendations for any further survey to inform the proposed project and/or species licensing requirements.
- Suggest broad measures to avoid, minimise and compensate for the predicted negative ecological effects associated with the proposed project.
- Suggest opportunities offered by the proposed development to deliver biodiversity gain.

1.3 Site Description

The site is located on an artificial peninsula consisting of approximately 48ha in area, which extends into the Firth of Clyde and is centred at coordinates (NGR) NS 18716 53019. The site is adjacent to the Offshore Wind Turbine Test Facility operated by SSE, but is otherwise vacant at present, although maintenance is ongoing.

The site comprises reclaimed land that has historically been used for industry and currently contains an access road, several gravel tracks, a disused operational grounds area with service infrastructure and a disused dry dock area, currently covered in concrete and occasionally filled with sea water. The site is currently overgrown with patches of dense vegetation. The site boundaries comprise sea walls surrounding the site, with the southern boundary also comprising an accessed road that stretches from the site entrance to the A78. The first portion of the access road is bordered by broadleaved woodland; however, this changes to sandflats as the road approaches the site. The access road also crosses over the Burn Gill watercourse in the south east of the site.

The wider area comprises a coastline with cliffs and beaches to the west and grassland fields, with hedgerows and scattered patches of woodlands to the south, east and north.

1.4 Project Description

Clydeport Operations Ltd. are currently considering the options for developing Hunterston PARC including the HCY to support the long-term sustainable development of various industrial users and specifically future use will be targeted towards providing a facility that supports the offshore wind industry for activities potentially including gravity-based structure construction, jacket construction, turbine assembly, and associated activities including the storage of components. On 29th June 2022, the North Ayrshire Council Planning Committee resolved to grant planning permission for XLCC's HVDC subsea cable manufacturing operations at Hunterston PARC (ref .22/00133/PPPM).

As part of this optioneering the Company has identified that the modification of the HCY through demolition and infilling of the existing dry dock and provision of a new quay on the western side of the site would provide a facility suited primarily for the renewables sector and specifically the offshore wind industry. Please note: the development description may evolve as the engineering design progresses.

The specific details of the project will evolve during design development, but the main elements that are relevant to the act and require consideration are already well defined.

1.5 Legislation, Policy, and Guidance

Legislation, planning policies, conservation initiatives relevant to this study include:

- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended);
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended);
- The Wildlife and Countryside Act 1981 (as amended) (WCA);
- The Nature Conservation (Scotland) Act 2004;
- The Wildlife and Natural Environment (Scotland) Act 2011 (WANE);
- The Protection of Badgers Act 1992;
- National Planning Framework 4;
- National Marine Plan 2015;
- Marine Scotland Act 2010
- Scottish Biodiversity Strategy to 2045;
- The British Standard for Biodiversity;
- The North Ayrshire Local Development Plan; and
- The North Ayrshire Local Biodiversity Action Plan.

A summary of protected species legislation is provided in Appendix B.

1.6 Report Usage

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre Limited.

If this report is to be submitted for regulatory approval more than 12 months following the report date, it is recommended that it is referred to EnviroCentre Limited for review to ensure that any relevant changes in data, best practice, guidance or legislation in the intervening period are integrated into an updated version of the report.

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2 METHOD

2.1 Desk Study

In order to anticipate the potential ecological sensitivities at the site, a desk study was conducted in November 2023. The following sources were checked:

- Southwest Scotland Environmental Information Centre (SWSEIC)¹ for data from 2013-2023 up to 2km of the site, including:
 - Notable Protected Species Records (including fish and marine mammals)
 - Invasive Non-Native Species (INNS)
 - Non-statutory Designated Sites
- Records of ancient woodland and Scottish native woodland available through Scotland's Environment Web², within or adjacent to the site.
- National marine plan interactive for Priority Marine Features within 2km from the site³
- NatureScot sitelink⁴ for data on Statutory Designated Sites (up to 5km from the site).
- The Scottish Biodiversity List⁵ for Priority Habitats and Species.
- The North Ayrshire Local Biodiversity Action Plan (LBAP)⁶ for Local Priority Habitats and Species.
- Aerial imagery from Google Earth⁷.
- Buglife, B-Lines⁸ and Important Invertebrate Area (IIA)⁹ to locate 'insect pathways', present and national/international places for the conservation of invertebrates and habitats upon which they rely upon, associated with the site.

2.2 Field Survey

Field work was undertaken by EnviroCentre Ecologists Luigi Cristofaro who is a Qualifying member of the Chartered Institute for Ecologists and Environmental Managers (QCIEEM) on 27th October 2023. Weather conditions during the survey were dry with an average temperature of 10°C, 75% cloud coverage and 3 Beaufort winds.

The PEA survey was designed using the guidelines endorsed by NatureScot and CIEEM ^{Error! Bookmark not defined.}¹⁰ and The surveys focussed on plants and habitats on the site and those faunal species that are most likely to be found in the habitats which make up the landscape in and around the site.

Assessment of the site for a range of wildlife was undertaken. Those species listed in Table 2-1, below, are those that have potential to utilise the site and surrounding habitat. Detailed methods regarding habitat and species surveys are provided in the relevant sections below.

¹ SWSEIC. Available at: <https://swseic.org.uk/> (Accessed, November 2023).

² Available at: <https://www.environment.gov.scot/maps/scotlands-environment-map/> (Accessed November 2023)

³ Marine Scotland. Available at: <https://marinescotland.atkinsgeospatial.com/nmpi/> (Accessed, December 2023).

⁴ NatureScot. Sitelink (2023) Available at: <https://sitelink.nature.scot/map> (Accessed November 2023)

⁵ NatureScot (2023) Available at: <https://www.nature.scot/scottish-biodiversity-list> (Accessed November 2023)

⁶ North Ayrshire Local Biodiversity Action Plan (2019-2031). Available at: <https://www.north-ayrshire.gov.uk/Documents/CorporateServices/Finance/approved-lbap.pdf> Accessed, November 2023).

⁷ Google Earth (2023) Available at: <https://www.google.com/earth/> (Accessed November 2023).

⁸ Buglife (2023), B-Lines, Available at: <https://www.buglife.org.uk/our-work/b-lines/> (Accessed, November 2023).

⁹ Buglife (2023), Important Invertebrate Area (IIA), Available at: <https://www.buglife.org.uk/our-work/important-invertebrate-areas/> (Accessed, November 2023).

¹⁰ Bradley, P. et al. (2013) General advice on surveys and methods. CIEEM. Retrieved from <https://cieem.net/wp-content/uploads/2019/02/CSS-OVERVIEW-April-2013.pdf> (Accessed November 2023).

Table 2-1: Survey Areas

Habitat/Species/Species Group	Survey Area
Habitats	Site
Ground Water Dependent Terrestrial Ecosystems	Site plus consideration of 250m buffer
Invasive Non-Native Species	Site plus 50m buffer
Badger (<i>Meles meles</i>)	Site plus 100m buffer
Bats (<i>Chiroptera</i> sp.)	Site plus 50m buffer
Otter (<i>Lutra lutra</i>)	Site plus 250m buffer up/downstream of watercourses
Water Vole (<i>Arvicola amphibious</i>)	Site plus 250m buffer up/downstream of watercourses
Hedgehog (<i>Erinaceus europaeus</i>)	Site plus 50m buffer
Brown Hare (<i>Lepus europaeus</i>)	Site plus 50m buffer
Reptiles	Site plus 50m buffer
Amphibians (general)	Site plus 50m buffer
Birds	Site plus 50m buffer
Invertebrates	Site

2.2.1 UK Habitat Classification Survey

A UK Habitat Classification (UKHab) Survey was carried out in accordance with the user manual¹¹. UKHab is a hierarchical system for rapidly recording and classifying habitat via satellite imagery and field survey. The system comprises 5 levels of Primary Habitats which include ecosystems, broad habitats, priority habitats and Annex I habitats, along with non-hierarchical secondary codes which provide information on the environment, management, and origin of Primary Habitats. The secondary codes are also used to map habitat mosaics and identify notable species features. The information collected is used to identify ecologically sensitive features and recommend mitigation and enhancement measures in connection with a proposed development.

The surveyor utilised the UKHab Professional edition with a Minimum Mapping Unit (MMU) of 25m² and aimed to categorise habitats up to level 5. Where the level 5 habitat could not be determined or is not reflective of the habitat type due to a lack of indicative species, habitats were categorised to level 4 or the broader level 3 habitat.

The information is used to identify ecologically sensitive features/habitats, inform relevant species surveys and, aid in the recommendation of mitigation and enhancement measures in connection with a proposed development.

Where applicable, alterations to UKHab symbology on maps may occur where relevant for clarity.

2.2.2 Groundwater Dependent Terrestrial Ecosystems

The Functional Wetland Typology¹² was used to aid identification of wetland habitats that derive their water from groundwater and surface water. This information is useful in identifying if and where further surveys are required to identify the presence and potential sensitivity of Groundwater Dependent Terrestrial Ecosystems (GWDTEs).

To help assess ground water dependency, observations of local topography, underlying geology, and features such as springs, diffuse ground water emergence and floristic indicators of base enrichment were made.

¹¹ UKHAB Ltd (2023). UK Habitat Classification Version 2.0 (Available at <https://www.ukhab.org>)

¹² SNIFFER (2009) WFD95: A Functional Wetland Typology for Scotland - Field Survey Manual. Version 1. ISBN: 978-1-906934-22-4

2.2.3 Invasive Non-Native Species

The survey included a check for the presence of any invasive non-native species (INNS) including but not limited to the following:

- Japanese knotweed (*Reynoutria japonica*).
- Rhododendron (*Rhododendron ponticum*).
- Giant hogweed (*Heracleum mantegazzianum*).
- Himalayan balsam (*Impatiens glandulifera*).

2.2.4 Badger

A badger survey was undertaken in suitable and accessible habitat, with reference to the methodology described by Scottish Badgers¹³ and NatureScot^{14,15}, which aimed to identify the following field evidence:

- Setts (any structure or place, which displays signs indicating current use by badger/located within an active badger territory, as defined by NatureScot guidance¹⁶).
- Day beds (above ground area where badgers sleep, characterised by flattened vegetation or bundles of grass).
- Dung pits (single faeces deposit placed in a small excavation).
- Latrines (collection of faecal deposits often used by badger clans to mark home range boundaries).
- Foraging signs such as diggings or snuffle holes (badgers use their snout to turn over vegetation or soft soil to forage for bulbs and invertebrates).
- Paths (network of paths generally linking setts to foraging habitat).
- Breach points (gaps in fences or crossing points over roads).
- Scratching posts (marks on tree trunks/fallen trees where badgers have left claw marks).
- Guard hair.
- Footprints.

Badger foraging habitat was classified on a primary and secondary basis as per best practice guidance¹⁷. An assessment of the distribution of primary and secondary habitat (defined below) within the survey area was undertaken:

- Primary foraging habitat: short grazed or mown grassland, improved or unimproved, golf course habitat and broadleaved woodland (> 80% broadleaves); and
- Secondary foraging habitat: arable, rough grassland (not grazed by domestic stock or mown), scrub and mixed woodland.

¹³ Scottish Badgers: Surveying for Badgers – Good Practice Guidelines. Version 1: 2018. Available from: https://www.scottishbadgers.org.uk/userfiles/file/planning_guidelines/Surveying-for-Badgers-Good-Practice-Guidelines_V1.pdf (Accessed November 2023)

¹⁴ NatureScot: Licensing Guidance. Available from: https://www.nature.scot/sites/default/files/2018-10/Guidance%20-%20Licensing%20-%20Badgers%20-%20What%20is%20a%20Badger%20sett_.pdf (Accessed November 2023)

¹⁵ NatureScot: Protected Species Advice for Developers – Badger. Available from: <https://www.nature.scot/species-planning-advice-badger> (Accessed November 2023)

¹⁶ NatureScot definition of current use: “There is no case law to clarify what signs of current use means. For the purpose of this guidance, and in the absence of such case law, we consider that the presence of field signs such as bedding, fresh spoil heaps, signs of recent digging, hair, latrines, or footprints in or around the potential sett or evidence of badgers entering or exiting the structure or place in question would indicate current use of the structure / place by a badger.”

¹⁷ The Highland Council. Best Practice Guidance – Model badger Protection Plan (BPP)– Badger foraging habitats (2006). Available from: https://www.highland.gov.uk/downloads/file/2635/badger_best_practice_guidance_badger_protection_plans_september_2006 (Accessed November 2023)

2.2.5 Bats

An assessment was undertaken in accordance with the criteria set out by the Bat Conservation Trust (BCT)¹⁸. The suitability of roosting habitats in structures and commuting and foraging habitats was classified according to the criteria in Table 2-2 below.

Table 2-2: Suitability Classification of Roosting Habitat in Structures and Commuting and Foraging Habitats for Bats

Suitability	Roosting Features	Foraging and Commuting Habitats
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/ stable hibernation site.	<p>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.</p> <p>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.</p> <p>The site is close to and connected to known roosts.</p>
Moderate	A structure with one or more potential roost sites that could be used by bats due their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	<p>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.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p>
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. 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	<p>Habitat that could be used by small numbers of commuting bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.</p> <p>Suitable but isolated habitat that could be used by small numbers of foraging</p>

¹⁸ Collins, J.(ed.) (2023) *Bat Surveys for professional Ecologists: Good Practice Guidelines (4th Editoin)*. The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6

Suitability	Roosting Features	Foraging and Commuting Habitats
Negligible	bats (i.e. unlikely to be suitable for maternity and not a classic cool/ stable hibernation site but could be used by individual hibernating bats). No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	bats such as a lone tree (not in a parkland situation) or a patch of scrub. No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
None	No habitat features on site likely to be used by any roosting bats as any time of the year (i.e. a complete absence of crevices/ suitable shelter at all ground/ underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/ protection for flight-lines, or generate/ shelter insect populations available to foraging bats).

The suitability of roosting habitats in trees was classified according to the criteria in Table 2-3 below.

Table 2-3: Suitability of Roosting Habitat in Trees

Suitability ¹⁹	Roosting Features
PRF	A tree with at least one PRF present
FAR	Further assessment required to establish if PRFs are present in the tree
NONE	Either no PRFs in the tree or highly unlikely to be any

PRFs in trees and structures are listed below:

- Hollows and cavities from woodpecker, rot, and knot holes.
- Hazard beams and other vertical or horizontal cracks and splits in stems or branches.
- Partially detached plated bark.
- Cankers, included bark and compression forks with potential cavities.
- Partially detached ivy with stem diameters in excess of 50mm.
- Bat or bird boxes.

2.2.6 Otter

The otter survey followed best practice guidelines²⁰, and aimed to identify suitable otter habitat and field signs, including:

- Spraints (otter faeces/droppings used as territorial signposts. Often located in prominent positions and can be placed on deliberate piles of soil or sand). Three categories are used for describing otter spraint: Dried fragmented (Df); Dried intact (Di); and Not fully dry (Nd);
- Footprints;
- Feeding remains (can often be a useful indication of otter presence);

¹⁹ Potential Roost Feature (PRF), Further Assessment Required (FAR)

²⁰ Chanin, P. (2003). *Monitoring the Otter Lutra Lutra. Conserving Natura 2000 Rivers, Monitoring Series (No. 10)*. Peterborough: EN, CCW, EA, SEPA, SNH & SNIFFER.

- Paths/slides (otter can often leave a distinctive path from and into the watercourse);
- Holts (underground shelter) are generally found:
 - Within trees roots at the edge of the bank of a river;
 - Within hollowed out trees;
 - In naturally formed holes in the river banks that can be easily extended;
 - Or preferably in ready-made holes created by other large mammals such as badger setts, rabbit burrows or outlet pipes; and
- Couches/lay-ups (couches or lay-ups are places for lying up above ground are usually located near a watercourse, between rocks or boulders, under dense vegetation).

2.2.7 Water Vole

The water vole habitat assessment was undertaken in conjunction with the otter survey and covered the same area. Emphasis is normally placed on locating latrine sites, as they are the most useful sign for recording purposes, as they indicate whether there is definite presence of water voles at a site. However, as the survey was undertaken near the end of the optimal survey season for water vole (April-October) the survey predominantly consisted of assessing the habitat suitability of the site²¹ whilst undertaking a survey for field evidence following standard survey guidelines²².

Factors that influence the suitability of habitat for water voles include:

- Positive: The presence of riparian vegetation along the banks and in the water.
- Positive: A steep bank on a watercourse reducing the risk of burrow inundation.
- Positive: Slow flowing, relatively deep (over 1m) watercourses.
- Negative: The presence of rocky or otherwise impenetrable substrates.
- Negative: Over-shading by trees.
- Negative: Fast flowing or shallow water, and flashy watercourses.
- Negative: The presence of American mink.

Field evidence includes:

- Faeces: 8-12 mm long, 4-5 mm wide; cylindrical and blunt ended pellets; colour variable with food type. Most droppings left in latrines near the nest, at range boundaries and at water entry points;
- Latrine sites: concentrations of faeces, often with fresh droppings on top of old ones;
- Runways: often 5-9 cm broad and multi-branched; usually within 2m of water's edge and often forming tunnels through vegetation; leading to water's edge or burrows;
- Burrows: 4-8 cm diameter, wider than high; eroded entrances then contract down to typical size; entrances located at water's edge; however some entrances can be up to 3m from the water; no spoil heaps;
- Nests: size and shape of a rugby ball, often in base of rushes, sedges or reeds;
- Feeding stations: located along runways, or at platforms along water's edge; usually a pile of cut/chewed vegetation in sections approximately 10cm long; vegetation ends show marks of two large incisors. Piles of chopped grass, sedge or rush stems, rush pith and leaves;
- Lawns: short, grazed vegetation around land entrances, often used during nursing periods;
- Footprints: difficult to tell from rat; adult hind foot 26-34 mm (heel to claw); stride 120mm (smaller than rat); occur at water's edge and lead into vegetation; and

²¹ Strachan, Rob & Moorhouse, Tom. (2006). *Water Vole Conservation Handbook, Second Edition*.

²² Dean, M., Strachan R. Gow, D. & Andrews, R. (2016). *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series)*. Eds: Fiona Mathews and Paul Chanin. The Mammal Society, London.

- Sound: characteristic 'plop' when a vole enters the water.

2.2.8 West European Hedgehog

The suitability of the habitats for hedgehog was assessed according to guidance²³. Suitable habitats include:

- Grazed pastureland separated into small fields by hedgerows.
- Deciduous woodland copses (oak, beech).
- Overgrown verges or margins.
- Suburban gardens, woodpiles or parklands.

2.2.9 Brown Hare

Guidance²⁴ was used to identify direct evidence of brown hare and to assess the suitability of the habitat for brown hare as follows:

- Direct sightings.
- Suitable habitat: lowland, mixed arable, hayfields and pastureland with hedgerows and field margins.
- Forms (resting places): typically, beside a tuft of grass or rushes or a shallow scrape in soil, on a gentle slope with a good view ahead.
- Droppings: hard round or slightly flattened pellets, about 1cm across, usually straw to mid brown coloured, scattered in small quantities or singular.

2.2.10 Birds

Habitats within the survey area were assessed for their suitability to support breeding and overwintering birds. Observations of birds were also noted during the survey.

2.2.11 Reptiles

An assessment of the suitability of the habitats for reptiles was undertaken in accordance with the criteria set out by Amphibian and Reptile Conservation²⁵. This takes into account habitat type, basking and foraging opportunities, and linkages to other areas of potential reptile habitat. The quality of the reptile habitat was assessed using the following criteria:

- High – Suitable vegetation cover offering foraging opportunities, basking sites, and a variety of refugia. Good linkages with other areas of reptile habitat. For example, semi-improved grassland with areas of dense continuous scrub.
- Moderate – Some suitable vegetation cover offering foraging opportunities, basking sites and refugia. Limited linkages to other areas of suitable reptile habitat. For example, dense continuous scrub surrounded by short, improved grassland.

²³ Cresswell, W.J., Birks, J.D.S., Dean, M., Pacheco, M., Trehwella, W.J., Wells, D. and Wray, S. (2012). *UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation*. The Mammal Society, Southampton

²⁴ Cresswell, W.J., Birks, J.D.S., Dean, M., Pacheco, M., Trehwella, W.J., Wells, D. and Wray, S. (2012). *UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation*. The Mammal Society, Southampton

²⁵ Edgar, P., Foster, J. and Baker, J. (2010). *Reptile Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth

- Low – Unsuitable vegetation cover with no linkages to other areas of suitable reptile habitat. For example, dense mature conifer plantation, closely mown amenity grassland.

In addition, features that offer suitable hibernation refugia (e.g., dry stone walls, vegetated stone piles containing cavities etc.) were recorded.

2.2.12 Amphibians

Guidance^{26,27} was used to identify direct evidence of amphibians and to assess the suitability of the habitats for common toad as follows:

- Direct sightings (including spawn, tadpoles, young and adult amphibians).
- Suitable aquatic habitat: medium (10 – 100m²) or large (> 100m²) ponds, on or within 50m of the site.
- Suitable terrestrial habitat: lightly grazed pasture, scrub, open woodland, gardens, and moors.
- Connectivity to additional suitable aquatic and terrestrial habitat.
- Foraging resources, for example, invertebrates.
- Hibernation sites – usually below ground systems that are protected against weather and predators.

2.2.13 Marine Mammals

In addition to the desk-based assessment, an assessment of habitat for suitability to host marine mammals was undertaken.

2.2.14 Fish

In addition to the desk-based assessment, an assessment of habitat for suitability to host fish species (specifically salmonids, eels and lamprey) was undertaken.

2.2.15 Invertebrates

In addition to the desk-based assessment, a general habitat suitability survey was made of the site its suitability to host invertebrate species.

2.3 Constraints

2.3.1 Desk Study

Desk studies are limited by the reliability of third-party information and the geographical availability of biological and/or ecological records and data. This emphasises the need to collate up-to-date, site-specific data based on field surveys by experienced surveyors. The absence of a species from biological records cannot be taken to represent actual absence. Species distribution patterns should be interpreted with caution as they may reflect survey/reporting effort rather than actual distribution.

²⁶ McInerney, C. & Minting, P. (2016) *The Amphibians and Reptiles of Scotland*.

²⁷ Beebee TJC, Griffiths RA (2000) *Amphibians and reptiles*. HarperCollins, vol 270. New Naturalist, London

2.3.2 Field Survey

The field survey was undertaken outwith the optimal season for habitats (May-September) but general broad categories of habitats could be categorised outside this time. However, some flowering plant species may have been missed.

2.4 Evaluation of Ecological Features

European, national, and local governments and specialist organisations have together identified a large number of sites, habitats and species that provide the key focus for biodiversity conservation in the UK and Ireland, supported by policy and legislation. These provide an objective starting point for identifying the important ecological features that need to be considered. A geographical level of importance, as described in Appendix C, has been assigned to the designated sites, habitats and species identified on the site and in the survey area. A geographical level of importance of ornithological features, as described in Appendix D, has also been included to highlight the assessment criteria for bird species and their geographical importance. Where a feature is important at more than one level in the table, its overriding importance is that of the highest level. Usually only the highest level of legal protection is listed.

3 BASELINE ECOLOGICAL CONDITONS

3.1 Designated Sites

3.1.1 Statutory Designated Sites

The location of the Statutory Designated Sites in relation to the site is displayed in the Designated Sites Plan in Appendix E.

No statutory designated sites are present within the site; however, the site is located adjacent to the Southannan Sands Site of Special Scientific Interest (SSSI). A further three statutory designated sites were identified within 5km of the site boundary during the desk study, as detailed in Table 3-1 below.

Table 3-1 Statutory Designated Sites

Site Name	Designation	Distance and Orientation	Level of Importance	Designated Features
Southannan Sands	SSSI	Adjacent/attached to the site	National (UK)	Sandflats
Portencross Woods	SSSI	1.6km south	National (UK)	Upland mixed ash woodland
Kames Bay	SSSI	2.2km northwest	National (UK)	Sandflats
Ballochmartin Bay	SSSI	2.9km north	National (UK)	Sandflats

The sandflats feature present at both Southannan sands SSSi, as well as Ballochmartin Bat SSSi and Kames Bay SSSI are considered to be ecologically connected to the site and alteration and/or impacts on site (e.g. pollution of nearby seawater) could alter coastal processes on the sandflats. Southannan Sands SSSI is also considered to be physically connected to the site. Although Portencross Woods are located close to the construction yard, their connection to the site is fragmented by the Hunterston Power Station to the north, limiting ecological connectivity.

3.1.2 Non-Statutory Designated Sites

No non-statutory designated sites are present within the site. A total of five non-statutory designated sites are located within a 2km radius of the site, as displayed in Table 3-2 below.

Table 3-2 Non-statutory Designated Sites

Site Name	Designation ²⁸	Distance and Orientation	Level of Importance	Designated Features/Description
Glen Burn	PWS	0.7km east	County	A west facing slope with upland habitats, important areas of valley woodland and reservoirs of ornithological, entomological and botanical interest.
Campbellton Hill and Water-meadow	LWS	1km south	County	Acid, rocky hill with grassland, bracken and two mature broad-leaf woodlands overlooking low-lying pasture which are flooded in winter.

²⁸ Non-statutory Designations: **LWS**: Local Wildlife Site; **PWS**: Potential Wildlife Site; **IBA**: Important Bird Area.

Site Name	Designation ²⁸	Distance and Orientation	Level of Importance	Designated Features/Description
Goldenberry Hill	LWS	1km south	County	A coastal site comprising a complex of semi-natural woodland, plantation woodland, bracken, grassland, heath, marsh and scrub.
Farland Point	LWS	1.4km northwest	County	This is a small but complex coastal site with a good variety of semi-natural habitats consisting of coastal grassland, marshy grassland, heath, bog, scrub and strandline vegetation.
Renfrewshire Heights	IBA	1.5km northeast	County	An upland area, important for breeding <Redacted>

Both Glen Burn PWS, Campebellton Hill and Water-meadow LWS and Goldenberry Hill LWS are considered to be ecologically connected to the site through a local network of hedgerows, fields and scattered patches of woodland. Renfrewshire Heights and Farland Point are not considered to be ecologically connected to the site due to the presence of larger road networks and urban structures.

3.2 Ancient and Native Woodland

No ancient woodland on the Ancient Woodland Inventory (AWI) is present within the site or adjacent. The nearest area on the AWI is an ancient woodland (of plantation origins) located 300m south of the access road. No native woodlands are found on site or the surrounding areas. The closest native woodland (of semi-natural origin) is located approximately 1km south of the site.

Ancient woodland is of **County** importance.

3.3 Habitats

The site Habitats Plan can be found in Appendix F and Photographs in Appendix G.

Eight UKHab primary habitats including boundary features are present within the site boundary as summarised in Table 3-2. Where there are distinct differences within the primary habitat code classification due to management and/or species composition and habitat type, these have been identified using secondary codes.

Table 3-3: On Site Habitats

Habitat Type	Habitat	Primary Codes	Secondary Codes (*Defining codes in bold)
Grassland	Other Neutral Grassland	g3c	10 – Scattered scrub 14 – Scattered rushes 32 – Scattered trees 510 – Bare ground
Heathland and Scrub	Other Sea Buckthorn Scrub	h3c6	32 – Scattered trees 510 – Bare ground 524 – Invasive Non-native Species
Marine Inlets and Transitional Waters	Beach	t2h	

Habitat Type	Habitat	Primary Codes	Secondary Codes (*Defining codes in bold)
Urban	Developed Land. Sealed Surface	u1b	81 – Ruderal or ephemeral 82 – Vacant or derelict land
	Other Developed Land	u1b6	701 – Sea wall
	Artificial Unvegetated Unsealed Surface	u1c	81 – Ruderal or ephemeral
	Built Linear Feature	u1e	612 – Fence 800 – Road 839 – Track
	Sparsely vegetated Urban Land	u1f	80 – Open mosaic habitats on previously developed land 524 – Invasive Non-native Species

3.3.1 Other Neutral Grassland – g3c

Two clear patches of neutral grassland (Photo 1) are present within the site, including a larger area located near the southwestern boundary and a smaller patch more centrally located. Both areas comprise dominant creeping bent (*Agrostis stolonifera*), occasional Yorkshire fog (*Holcus lanatus*), creeping buttercup (*Ranunculus repens*), creeping thistle (*Cirsium arvense*), purple moor-grass (*Molinia caerulea*) and rarely observed soft rushes (*Juncus effusus*) and perennial ryegrass (*Lolium perenne*).

Occasional scattered sea buckthorn (*Hippophae rhamnoides*) scrub and scattered rare young grey willow (*Salix cinerea*) trees are found within the grassland. Both patches of neutral grassland are considered to be seasonally wet due to an abundance of common feather moss (*Kindbergia praelonga*) in the larger patch and bullrush (*Typha latifolia*), located in the smaller central patch, as well as patches of bare ground that are likely a result of the grassland having colonised a previously bare patch of land with poor drainage.

Neutral grassland offers opportunity for a range of wildlife species. However, it is common and widespread in the locale, therefore, it is considered to be of **site** importance.

3.3.2 Other Sea Buckthorn Scrub – h3c6

Sea buckthorn scrub (Photo 2) comprises the majority of the vegetated habitats on site. It is found along a portion of the access road and is scattered throughout most of the site. There is a mixture of mature plants approximately 3-4m in height and younger plants approximately 1m in height. As well as dominant sea buckthorn, occasional gorse (*Ulex europaeus*) and bramble (*Rubus fruticosus*) are also present in the scrub to the south and east. Buddleja (*Buddleja davidii*) is also found scattered abundantly in the scrub near the centre of the site.

The ground beneath the scrub is predominantly bare, however, some limited ground flora is present and comprises occasional creeping bent, Yorkshire fog, creeping buttercup and rarely observed stinging nettle (*Urtica dioica*).

Patches of dense scrub offer sheltering and foraging opportunity for several wildlife species in the locale. However, it is common and widespread in the locale and, therefore, it is considered to be of **site** importance.

3.3.3 Beach – t2h

A sandy beach (Photo 3) is located along the southern site boundary, near the site access point, past the access road and bordering the southwestern patch of neutral grassland. The beach is entirely composed of sandy sediment with no vegetation present. Some rare perennial ryegrasses are found at the beach margins near the adjacent neutral grassland habitat.

Beaches offer commuting, resting and foraging opportunities for birds, otters and other species in the locale, therefore, they are considered to be of **local** importance.

3.3.4 Developed Land. Sealed Surface – u1b

Developed land comprising sealed surfaces is found throughout the site. The greatest area of this habitat is primarily located at the centre of the site where the dry dock used to be operated (Photo 4). Although occasionally filled with seawater (see Photo 5 from March 2023), the disused dry dock grounds are almost entirely composed of concrete. Other areas of developed land with sealed surfaces are present to the south of the dry dock where parking spaces and temporary structures are also located. These areas have a small amount of associated vegetation (<10% coverage) comprising ruderal species such as creeping buttercups and creeping thistle.

Developed land and urban features provide limited opportunities for wildlife. However, concrete surfaces and urban structure can provide suitable basking and commuting resources for reptiles; therefore, sealed surfaces on developed land are considered to be of **site** importance.

3.3.5 Other developed Land – u1b6

This habitat refers to the coastal sea walls surrounding the site. The boundaries of the artificial peninsula comprise sea walls made of concrete and rocks adjacent to the water's edge (Photo 6).

Sea walls can provide resting opportunities for birds and otters as well as providing suitable habitat for some species of molluscs. Therefore, sea walls are considered to be of **site** importance.

3.3.6 Artificial Unvegetated Unsealed Surface – u1c

Artificial unsealed surfaces with vegetation cover below 10% are found scattered throughout the site. These primarily comprise open areas of gravel and bare ground, cleared for vehicle access and parking (Photo 7). The largest artificial unsealed surfaces are found to the southwest of the disused dry docks and on the hammerhead quay to the north. These areas are mostly unvegetated but rare ruderal species such as creeping thistle and creeping buttercup can be found.

Artificial unvegetated surfaces often comprise cleared areas of gravel that offer limited resources for wildlife. However, some opportunities can still exist for basking and commuting reptiles; therefore, artificial unvegetated surfaces are considered to be of **site** importance.

3.3.7 Built Linear Features – u1e

The site contains four different types of built linear features, including walls, fences, roads and tracks:

- A singular fence with a gate is present at the end of the access road and extends westwards for approximately 200m along the seawall.

- A series of concrete walls and multiple parallel linear structures (Photo 8) are found in the operational area to the south of the disused dry docks.
- One single paved road is found on site and comprises the entirety of the access road as well as the initial section of the road on site (Photo 9).
- A minimum of five separate tracks are found throughout the site (Photo 10), connecting various areas and circling around the dry docks. These tracks are entirely composed of gravel and bare ground with only minimal ruderal vegetation (e.g. creeping thistle) being present at their margins.

Linear features such as walls and fences provide limited opportunities for wildlife. However, concrete and stone walls can provide suitable basking and commuting resources for reptiles; therefore, built linear features are considered to be of **site** importance.

3.3.8 Sparsely Vegetated Urban Land – u1f

Sparsely vegetated urban land is located within the majority of the operational grounds and comprises a mosaic of derelict and disused urban features (Photo 11), including car park, roads and structures, which have become sparsely vegetated by ruderal vegetation such as creeping bent and creeping buttercups, with occasional patches of creeping bent, purple moor-grass, sea buckthorn scrub and stonecrop (*Sedum spp.*). Various bryophytes are also found scattered throughout.

Sparsely vegetated urban land often comprises an open mosaic of patches of early successional vegetation and scrub which offer better opportunities for a range of species compared to unvegetated urban habitats. Open Mosaic on Previously Developed Land is an SBL habitat and, therefore, is considered to be of **National** importance.

3.4 Groundwater Dependent Terrestrial Ecosystems

No Groundwater Dependent Terrestrial Ecosystems (GWDTEs) are found on site or within a 250m buffer.

3.5 Invasive Non-Native Species

The INNS locations identified during the survey are illustrated in the Ecological Constraints Map in Appendix H

Records of INNS within a 2km area of the site were returned from the desk study via SWSEIC²⁹, including:

- Four records of giant hogweed, the closest of which was located approximately 700m south of the site.
- Three records of rhododendron (*Rhododendron ponticum*), the closest of which was located approximately 350m east of the site.
- Three records of Japanese knotweed located approximately 1km south of the site.

Buddleja, was found scattered throughout the site (Photo 12); with two larger areas located centrally on the site, within the young sea buckthorn scrub. Although considered a great plant for invertebrates, Buddleja is also a non-native species with invasive tendencies.

²⁹ Data Source: Biological Records Centre (2015-2023).

Six stands of rhododendron (Photo 10) were identified in the broadleaved woodlands adjacent to the access road on site.

INNS and no-native species with invasive tendencies are of **negative** importance.

3.6 Fauna

3.6.1 Disclaimer

Faunal species are transient and can move between favoured habitats regularly throughout and between years. This survey provides a snapshot of field signs present in the survey area in October 2023.

Ecological Constraints Plan can be found in Appendix H.

3.6.2 Bats

A total of 108 records of common pipistrelle (*Pipistrellus pipistrellus*), located approximately 1.8km northwest of the site, were returned from SWSEIC³⁰.

3.6.3 Buildings and Structures

No permanent buildings are present on site. Built up structures on site comprise temporary modular facilities for the staff on site, cargo containers and a derelict open roof structure comprising a series of parallel concrete walls approximately 12m in height (Photo 13). None of the structures on site displayed any PRFs or other indications of suitability for roosting bats. Therefore, the structures on site were assessed to be **None**, in reference to Table 2-2: "*No habitat features on site likely to be used by any roosting bats as any time of the year (i.e. a complete absence of crevices/ suitable shelter at all ground/ underground levels).*"

3.6.4 Trees

A number of young to early-mature willows are scattered throughout the site and a single early mature sycamore is located centrally in sea buckthorn scrub. No PRFs were identified on any of the trees and the majority of the vegetation on site was deemed to be too young and small in size to be suitable for any roosting bats and no suitable features were present on any trees or within woodland within 50m of the site. Therefore, the trees within the site and survey area were assessed as being **NONE**, in reference to Table 2-3: "*Either no PRFs in the tree or highly unlikely to be any.*"

3.6.4.1 Habitat

The habitats present within the site offer commuting and foraging opportunities for bats and provide connectivity into the wider landscape, predominantly north via the woodland and riparian habitats associated with the watercourses on site. The presence of widespread areas of scrub and patches of neutral grassland, offer rich foraging resources for bats, but the coastal location with little shelter may be prone to windy conditions which are less desirable for effective foraging. The scrub also connects to the woodlands to the south of the site where the Burn Gill watercourse (Photo 14) is located, and to the wider landscape via patches of scrub along the access road. These habitats also provide resources

³⁰ Data Source: Biological Records Centre (2015-2023).

to support a variety of invertebrate species which subsequently provide a resource for a range of bat species, if present, in the locale. Within the wider areas, suitable foraging and commuting habitats exist for bats along patches of woodland and hedgerows scattered throughout grassland fields found in the local landscape.

These habitats and limited artificial lighting present, offer **moderate** suitability for commuting and foraging bats: *“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.”*

Bats are European Protected Species (EPS) and are of **International** importance.

3.6.5 Badger

Two records of badger, located approximately 1km east of the site, were returned from SWSEIC³¹. Envirocentre have previous knowledge of a main sett and annex sett in the vicinity of the site, to the east.

No field evidence of badger was found during the survey.

Suitable (but sub-optimal) habitats for sett creation exist within the patches of scrub on site but are limited due to the number of artificial land present. Better opportunities for sett creation are found in the locale within the broadleaved woodland adjacent to the access road south of the site, where previous badger activity has been reported by the site staff.

Primary foraging habitats for badger exist on site within the patches of grassland and within patches of scrub. Secondary foraging habitats are found in the locale within the broadleaf woodland adjacent to the access road. However, the main access to the site is blocked by a series of fences and gates, which are likely to restrict badger access to the site. Overall, it is possible that a limited number of badger activity may be present on site, however, it is likely that the majority of badger activity is located around the access road.

Badgers are protected under the Protection of Badgers Act 1992 and therefore are of **National (UK)** importance.

3.6.6 Otter

A total of 21 records of Otter, located approximately 1.4km northwest and 1km south of the site, were returned from SWSEIC³².

No field signs of otter were recorded during the site visit.

The coastline, comprising sea walls, beaches and sandflats offers opportunities for foraging, commuting and resting otters. Opportunities for holt creation on site are limited due to the extent of artificial cemented surfaces; however, rabbit burrows found along the western site boundary (Photo 15) could provide opportunities for otter.

³¹ Data Source: IRecord records (2020-2021).

³² Data Source: IRecord records (2015-2023); Non-avian Taxa (BTO + Partners) (2019).

More opportunities for foraging and commuting otters exist on the Burn Gill within the woodland adjacent to the access road. The watercourse is slow flowing, approximately 3m wide, with a water depth varying between 15-40cm and likely hosts prey species such as brown trout (*Salmo trutta*).

Overall, it is likely that otters may use some of the features on or adjacent to the site for foraging, commuting and resting.

Otters are European Protected Species (EPS) and are of **International** importance.

3.6.7 Water Vole

No records of water vole were returned via the desk study.

No diagnostic field signs of water vole were recorded during the site visit.

The Firth of Clyde would not be considered suitable as this is not a freshwater system. No watercourses are located on site and the majority of the habitats and vegetation on site are unsuitable for foraging or commuting water voles. The Burn Gill to the south displays several sections of slow flowing waters and steep, muddy banks that could offer suitable commuting habitat for water vole, however, suitable foraging resources for water vole along the watercourse are mostly absent as the habitats mostly comprise bare grounds with scattered ferns, bracken and rhododendron strands.

With reference to the methods, the following positive and negative features were identified within the survey area:

- Positive: Connectivity to wider riparian networks.
- Positive: Slow flowing waters.
- Positive: Absence of American mink.
- Positive: Availability of steep banks.
- Positive: Soft sediment on banks for burrowing.
- Positive: No disturbance from adjacent farming practices of cattle grazing.
- Negative: Lack of suitable riparian vegetation for foraging.
- Negative: Shallow (less than 1m deep) waters.

Overall, although the watercourse adjacent to the site displays some positive features; slow flowing waters, steep banks with soft sediments and good connectivity to wider riparian networks, the unavailability of suitable foraging resources along the watercourse and the low water levels present, make the Burn Gill likely unsuitable for water voles.

Water voles are protected under the WCA and are considered to be of **National (UK)** importance.

3.6.8 West European Hedgehog

A total of 12 records of hedgehog located approximately 1.4km west of the site, were returned via SWSEIC³³.

The site displays an extensive area of scrub as well as neutral grassland that could offer commuting, foraging and hibernation opportunities for hedgehogs.

Suitable habitat for hedgehog exists in the locale on farmland fields, along hedgerows and grasslands.

³³ Data Source: IRecord records (2014-2022).

West European hedgehogs are a priority species on the SBL and therefore are of **National (UK)** importance.

3.6.9 Brown Hare

A total of 81 records of brown hare, the closest of which was located 100m south of the site, were returned from a 2km area via SWSEIC³⁴.

No evidence of brown hare was recorded during the field survey.

The scrub and grassland habitats on site provide limited opportunities for foraging and commuting brown hare. The dense scrub are also likely to provide suitable sheltering from predators.

In the locale, suitable habitat for brown hare exists via interconnected fields, woodlands and hedgerows. The broadleaf woodland adjacent to the access road to the south, are also likely to provide suitable resources for brown hare.

Brown hare are listed on the Scottish Biodiversity List and therefore of **National (Scotland)** importance.

3.6.10 Birds

A total of 6364 records of 123 species of birds found within a 2km radius of the site, were returned from SWSEIC³⁵. A list of notable bird species relevant to the site returned are displayed in Table 3-4.

Table 3-4: List of Notable Birds from the Desk Study.

Latin Name	Common Name	Last Recorded	Conservation Status ^{36,37,38,39,40}
<i>Calidris pugnax</i>	Ruff	2017	SBL; BoCC Red
<i>Cephus grylle</i>	Black Guillemot	2017	BoCC Amber
<i>Charadrius hiaticula</i>	Ringed Plover	2017	BoCC Red
<i>Chloris chloris</i>	Greenfinch	2017	SBL; BoCC Red
<i>Chroicocephalus ridibundus</i>	Black-headed Gull	2017	SBL; BoCC Red
<i>Cinclus cinclus</i>	Dipper	2018	BoCC Amber
<Redacted>	<Redacted>	2018	SBL; BoCC Red
<i>Columba oenas</i>	Stock Dove	2018	BoCC Amber
<i>Columba palumbus</i>	Woodpigeon	2018	BoCC Amber
<Redacted>	<Redacted>	2019	SBL; BoCC Red

³⁴ Data Source: IRecord records (2016-2023).

³⁵ Data Source: British Trust for Ornithology (BTO) (2013-2022).

³⁶ NatureScot (2023) Scottish Biodiversity List (SBL) Available at: <https://www.nature.scot/scottish-biodiversity-list> (Accessed September 2023)

³⁷ British Trust for Ornithology, Birds of Conservation Concern. Available at: <https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf> (Accessed, November 2023).

³⁸ **Green list criteria** - naturally occurring species with self-sustaining populations meeting none of the criteria for BOCC Amber or Red list species.

³⁹ **Amber-list criteria** - Threatened in Europe, historical decline – recovery, moderate breeding population decline over 25 years/longer term, moderate non-breeding population decline over 25 years/longer term, moderate breeding range decline over 25 years/longer term, moderate non-breeding range decline over 25 years, breeding/non-breeding rarity, breeding/non-breeding localisation, breeding/non-breeding international importance.

⁴⁰ **Red-list criteria** - Globally threatened, historical decline in the breeding population, severe breeding population decline over 25 years/longer term, severe non-breeding population decline over 25 years/longer term, severe breeding range decline over 25 years/longer term, severe non-breeding range decline over 25 years.

Latin Name	Common Name	Last Recorded	Conservation Status ^{36,37,38,39,40}
<i>Falco peregrinus</i>	Peregrine	2019	SBL; BoCC Amber
<i>Falco tinnunculus</i>	Kestrel	2019	SBL; BoCC Amber
<i>Fratercula arctica</i>	Puffin	2019	BoCC Red
<i>Fulmarus glacialis</i>	Fulmar	2019	BoCC Amber
<i>Gallinago gallinago</i>	Snipe	2019	BoCC Amber
<i>Gavia arctica</i>	Black-throated Diver	2019	SBL; BoCC Amber
<i>Gavia immer</i>	Great Northern Diver	2019	SBL; BoCC Amber
<i>Gulosus aristotelis</i>	Shag	2019	BoCC Red
<i>Larus argentatus</i>	Herring Gull	2019	SBL; BoCC Red
<i>Larus canus</i>	Common Gull	2019	BoCC Amber
<i>Larus marinus</i>	Great Black-backed Gull	2019	BoCC Amber
<i>Limosa lapponica</i>	Bar-tailed Godwit	2019	SBL; BoCC Amber
<i>Limosa limosa</i>	Black-tailed Godwit	2019	SBL; BoCC Red
<i>Linaria cannabina</i>	Linnet	2019	SBL; BoCC Red
<i>Linaria flavirostris</i>	Twite	2019	SBL; BoCC Red
<i>Locustella naevia</i>	Grasshopper Warbler	2019	SBL; BoCC Red
<i>Passer domesticus</i>	House Sparrow	2021	SBL; BoCC Red
<i>Passer montanus</i>	Tree Sparrow	2021	SBL; BoCC Red
<i>Sterna paradisaea</i>	Arctic Tern	2022	SBL; BoCC Amber
<i>Sturnus vulgaris</i>	Starling	2022	SBL; BoCC Red
<i>Tringa erythropus</i>	Spotted Redshank	2022	BoCC Amber

The list of bird species observed on site is displayed in Table 3-4 below.

Table 3-5: List of Birds Recorded on Site

Latin Name	Common Name	Conservation Status
<i>Chroicocephalus ridibundus</i>	Black-headed Gull	SBL; BoCC-Amber
<i>Columba palumbus</i>	Wood Pigeon	BoCC-Amber
<i>Erithacus rubecula</i>	Robin	BoCC-Green
<i>Falco tinnunculus</i>	Kestrel	SBL; BoCC-Amber
<i>Fringilla coelebs</i>	Chaffinch	BoCC-Green
<i>Gallinago gallinago</i>	Snipe	BoCC-Amber
<i>Larus argentatus</i>	Herring Gull	SBL; BoCC-Red
<i>Phalacrocorax carbo</i>	Cormorant	BoCC-Green
<i>Prunella modularis</i>	Dunnock	BoCC-Amber
<i>Sturnus vulgaris</i>	Starling	SBL; BoCC-Red

The habitats within (dense scrub, grassland, beaches, sea walls and urban features) and surrounding the site (woodlands, grasslands, pastures, marine coastline and beaches) provide loafing, resting, foraging and nesting opportunities for a range of bird species.

Four snipes were observed in the patch of seasonally wet neutral grassland south of the site and are likely to utilise the area regularly for foraging and nesting purposes. The seasonally wet grounds,

adjacent to the coastline and the sea provide foraging resources for snipe, and the dense vegetation provides sheltering opportunity.

Birds listed on the Green Birds of Conservation Concern (BoCC) are of **Local** importance; birds on the Amber (BoCC) list are of **Regional** importance; and birds on the Red (BoCC) list are of **National (UK)** importance.

All birds are protected under the Wildlife and Countryside Act 1981 (as amended).

3.6.11 Reptiles

A total of four common lizard (*zootoca vivipara*) and one slow worm (*anguis fragilis*) record located approximately 1.7km northwest of the site were returned from the desk study via SWSEIC⁴¹.

No reptiles were recorded during the site visit.

The patches of scrub alternating with abandoned, derelict urban land, provide dry conditions and suitable habitats for basking, foraging and commuting reptiles. The habitats on site are also likely to be suitable for invertebrates and small mammals, therefore, providing further resources for reptiles.

The habitats on site are well connected to those in the wider area, with further suitable habitats existing for reptiles via numerous fields and patches of scrub.

As a result, the site is considered to present a **high** suitability for reptiles: “*Suitable vegetation cover offering foraging opportunities, basking sites, and a variety of refugia. Good linkages with other areas of reptile habitat. For example, semi-improved grassland with areas of dense continuous scrub.*”

Common reptiles are on the SBL and are of **National (Scotland)** importance.

3.6.12 Amphibians

A total of 12 records of common toad (*Bufo bufo*) were returned from the desk study via SWSEIC⁴²; of these, at least four were located on the access road, mostly alongside the woodland edge and near the Burn Gill. The desk study also returned one record of common frog (*Rana temporaria*) and two records of palmate newt (*Lissotriton helveticus*), located respectively 80m south and 1.7km northwest of the site.

No Amphibians were recorded during the site visit.

No ponds are present on site that would be suitable for breeding amphibians, and the majority of the habitats on site display mostly dry conditions over sandy soils that limit opportunities for amphibians. However small patches of seasonally wet neutral grassland and scrub are found on site that could offer some opportunities for amphibians.

Better opportunities for amphibians exist in the locale, within the Burn Gill and the broadleaf woodland to the south, which can provide foraging, commuting and resting opportunities for amphibians such as frogs, and toads.

All amphibians are partially protected under the Wildlife and Countryside Act 1981 (as amended). Common toads are listed on the SBL and are of **National (UK)** importance.

⁴¹ Data source: Biological Records Centre (2014-2020).

⁴² Data Source: Wildlife record (Marco McGinty); iRecord records (2023); Reptile and Amphibian dataset (2016 – 2023).

3.6.13 Marine Mammals

Marine mammal records were returned from the desk study on SWSEIC⁴³ and included:

- 68 records of common or harbour seal (*Phoca vitulina*) located throughout the Firth of Clyde, with the closest record being found approximately 400m west of the site.
- 11 records of common porpoise (*Phocoena phocoena*) located approximately 1.5km northwest and 1km southwest of the site.
- 10 records of common dolphin (*Delphinus delphis*) located approximately 1.5km northwest of the site.
- 2 records of bottle-nosed dolphin (*Tursiops truncatus*) located approximately 800m southwest of the site.

The sea walls and coastline on site (including beach habitats) and adjacent to the site offer opportunities for resting seals. The Firth of Clyde also offers abundant prey resources (due to the abundance of fish) for cetaceans.

Marine Mammals (except seals) are a European Protected Species under the Habitats Regulations 1994 (as amended).

Marine mammals are considered to be of **International** importance.

3.6.14 Fish

One record of brown trout located approximately 1.6km east of the site within the Glenburn Reservoir and one record of plaice (*Pleuronectes platessa*) located approximately 1.5km west of the site, were returned from the desk study on SWSEIC⁴⁴.

The Firth of Clyde offers one of the deepest coastal waters in the UK and is a hotspot for fishing due to the number and variety of fish species. Although declines in fish populations within the Firth of Clyde have been recorded due to overfishing and pollution, it is likely that numerous fish species including brown trout, salmon (*Salmo salar*) and eel (*Anguilla anguilla*), regularly utilise the waters adjacent to the site.

Fish provide foraging resources for a number of marine mammals, birds and otter and are, therefore, considered to be of **local** importance.

3.6.15 Invertebrates

The site is not considered an IIA; however, it partially lies within a B-Line.

Up to 284 records of invertebrates were returned via SWSEIC⁴⁵. A list of notable invertebrate species relevant to the site are displayed below in Table 3-6.

⁴³ Data Source: IRecord records (2013-2023).

⁴⁴ IRecord records (2020-2022).

⁴⁵ Data Source: Biological Records Centre; British Dragonfly Society; Glasgow Museums Biological Records Centre (2013-2023).

Table 3-6: Notable Invertebrate Species from the Desk Study

Latin Name	Common Name
<i>Acronicta rumicis</i> *	Knot Grass
<i>Amphipoea oculaea</i> *	Ear Moth
<i>Amphipyra tragopoginis</i> *	Mouse Moth
<i>Arctia caja</i> *	Garden Tiger
<i>Atethmia centrargo</i> *	Centre-barred Sallow
<i>Austrominius modestus</i>	Modest Barnacle
<i>Caryocolum alsinella</i>	Narrow Groundling
<i>Ceramica pisi</i>	Broom Moth
<i>Chiasmia clathrata</i> *	Latticed Heath
<i>Cirrhia icteritia</i>	Sallow
<i>Coenonympha pamphilus</i> *	Small Heath
<i>Diarsia rubi</i> *	Small Square-spot
<i>Dolichovespula saxonica</i>	<i>Dolichovespula saxonica</i>
<i>Ecliptopera silaceata</i> *	Small Phoenix
<i>Ennomos fuscantaria</i>	Dusky Thorn
<i>Eugnorisma glareosa</i> *	Autumnal Rustic
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Hepialus humuli</i> *	Ghost Moth
<i>Hipparchia semele</i> *	Grayling
<i>Hydraecia micacea</i> *	Rosy Rustic
<i>Nephrotoma scurra</i>	<i>Nephrotoma scurra</i>
<i>Noctua orbona</i>	Lunar Yellow Underwing
<i>Orthosia gracilis</i> *	Powdered Quaker
<i>Pelurga comitata</i> *	Dark Spinach
<i>Rhopalomesites tardii</i>	<i>Rhopalomesites tardii</i>
<i>Scotopteryx chenopodiata</i> *	Shaded Broad-bar
<i>Spilosoma lubricipeda</i> *	White Ermine
<i>Spilosoma lutea</i>	Buff Ermine
<i>Tyria jacobaeae</i> *	Cinnabar
<i>Xanthorhoe ferrugata</i> *	Dark-barred Twin-spot Carpet
<i>Xestia agathina</i> *	Heath Rustic

* Species on the SBL list.

The scrub and grassland habitats on site provide opportunities to host a range of invertebrate species through all lifecycle stages, as well as areas of hard standing providing basking opportunities for a range of invertebrate species. The open mosaic habitat on previously developed land is also of particular importance for invertebrates, as it tends to sustain suitable resources for numerous species of rare insects including bees, wasps and beetles.

The presence of broadleaf woodlands and the Burn Gill to the south are also likely to provide suitable resources for a range of invertebrate species.

The intertidal sandflats and salt marsh habitats located adjacent to the southern site boundaries and ecologically connected to the site, are also likely to host a range of intertidal invertebrates such as molluscs, crustaceans and worms.

Invertebrates can be good bioindicators of habitat quality and, therefore, considered to be of **Site** importance.

4 POTENTIAL IMPACTS, FURTHER SURVEY, AND LICENSING

4.1 Potential Impacts

The following potential negative impacts may occur as a result of the proposed works if avoidance and mitigation strategies are not factored into design, construction, and operation:

- Potential loss of nationally important open mosaic habitat on previously developed land if the patch of sparsely vegetated urban land located within the former operational grounds is cleared to facilitate the project.
- Potential loss or fragmentation of locally important sea buckthorn scrub and site important neutral grassland if removed to facilitate the project.
- Loss and fragmentation of foraging and commuting habitats for mammals, birds and reptiles.
- Disturbances and ecological impacts to the adjacent SSSI.
- Disturbance of foraging and commuting nocturnal and crepuscular species such as bats, otter, badger and hedgehog if artificial lighting is used during the development period or installed permanently on the completed development.
- Loss of nesting, resting, loafing for hedgehog, brown hare and birds as a result of habitat loss to facilitate development.
- Death/injury to nesting/ hibernating hedgehog and birds if vegetation clearance take place during sensitive periods for these species (April to September inclusive for hedgehogs and March to September inclusive for birds).
- Death/injury to hibernating reptiles if vegetation clearance take place during sensitive periods (October to March inclusive).
- Potential spread of the INNS within and off site.
- Potential pollution to the Burn Gill and the Firth of Clyde waters.

Potential positive impacts associated with the development could include:

- Providing that the landscape design is inclusive of retaining habitats and creating new habitats, the biodiversity on site has the potential to increase.
- Increased provision of roosting resources for bats and birds through purpose-built and installed bat and bird boxes.

4.2 Further Surveys

4.2.1 Bats

The site was assessed as offering **moderate** commuting and foraging habitats within the site, therefore if removal, fragmentation or alteration of a large amount of the high quality habitats on site (scrub, grassland) to facilitate the project is required, in line with BCT guidance, automated/static activity surveys to assess the impacts are recommended during bat activity season (April to October). There is scope to reduce the survey effort, if sufficient data is gathered during the initial surveys, to assess local bat population and potential impacts or where features of lower than **high** potential are to be impacted only.

4.2.2 Marine mammals, fish and benthic habitats and fauna.

A desk study and risk assessment for fish and marine mammals will be needed to inform impact assessment and mitigation. Further survey in relation to benthic habitats and fauna are also needed to inform impact assessment and mitigation in relation to the SSSI.

5 RECOMMENDATIONS FOR MITIGATION AND OPPORTUNITIES FOR BIODIVERSITY GAIN

5.1 Mitigations

The following mitigation is recommended to avoid and/or minimise any potential impacts:

- Landscaping on site should compensate for any losses of neutral grassland and scrub habitats. As well as loss of nationally important open mosaic habitats over previous developed land.
- The Scottish Environmental Protection Agency (SEPA) pollution prevention guidelines⁴⁶ should be followed in order to prevent pollution of the Burn Gill and Firth of Clyde waters adjacent to the site.
- Machinery/vehicles should not be left idling, and no materials should be stored near trees or watercourses.
- An INNS management plan could be devised for the site to remove/stop the spread of INNS.
- A toolbox talk to be provided to all personnel providing information of protected species and appropriate mitigation to be implemented prior to commencement.
- Where scrub is to be removed during the hedgehog hibernation period (October-April) and the breeding season (April-September), a fingertip search shall be conducted prior to any works commencing.
- Vegetation clearances should not be completed during the breeding bird season (March to September inclusive), where possible. Where works cannot be scheduled outside this time a nesting bird survey should be undertaken within 48hrs prior to works commencing. Should any nesting birds be identified, an appropriate buffer zone should be maintained and works suspended until all dependent young have left the nest.
- Care must be taken during clearance/groundworks to ensure wildlife is not harmed. In the event any protected species are found when the ecologist is not in attendance, works must stop, the animal must not be handled, and the project ecologist contacted immediately.
- Any works that cause high noise or vibration levels should be limited to daylight hours to reduce disturbance to nocturnal or crepuscular species in the locale such as badger, bats, otter and hedgehog.
- Any excavations created during works should not be left open for animals (specifically badgers, hedgehog, or amphibians) to fall into. Appropriate covers should be fitted at the end of every working day, at the very least, a shallow sloping edge or some form of ramp should be placed in the excavations to allow any animals to climb out.
- Suitable basking (walls, rocks and artificial surfaces) and commuting features (built linear features, patches of scrub) for reptiles, should be maintained and/or enhanced and connectivity between the features should be maintained and/or improved in order to provide suitable habitat for reptiles.
- Site clearance of scrub, rock piles or log piles should not take place during the reptile hibernation period (October-March) a reptile search shall be conducted prior to any works commencing.
- Seeking to retain suitable habitat for important invertebrate species present on site, particularly rare species connected to open mosaic habitats such as beetles, es and wasps. Where habitat retention is not possible, compensation measures should be implemented.

⁴⁶ SEPA (n.d.) *Guidance Documents* [online]. Available from: <https://www.sepa.org.uk/regulations/water/guidance/>

- Care must be taken not do created disturbances along the access road to suitable commuting habitat for otter within the adjacent Burn Gill.
- Any permanent lighting should be designed to be ‘wildlife friendly’ following a sensitive lighting strategy following recommendations within the ‘Bats and Artificial Lighting at Night’ UK guidance⁴⁷. Where lighting is required, mitigation options include:
 - Permanent lighting of the completed development should not illuminate bat commuting, foraging, and roosting habitats, including hedgerows and the woodland at the southern boundary.
 - Only luminaires with an upward light ratio of 0% will be used, and low-level bollard lighting will be used where feasible to retain darkness above the luminaire.
 - All luminaires will lack UV elements and will be warm-white coloured (ideally <2700 Kelvin) to reduce blue-light components.
 - LED luminaires will be used due to sharp cut-off, lower intensity, good colour retention, and dimming capabilities.
 - Where security lighting is installed, it must be motion-activated to allow periods of darkness surrounding the development.
 - Lights will not be directed at the site boundary habitats (i.e., woodlands to the north and south and patches of scrub), or at installed bird and bat boxes.
 - Lights can be fitted with hoods, baffles, or louvres to reduce back-spill.

5.2 Opportunities for Biodiversity Gain

In order to comply with local and national planning policy and planning policy guidance, ecological enhancements could be delivered as a commitment to the planning application. Enhancements to consider that may be relevant to the project and that will benefit local wildlife and the environment:

- A Biodiversity Enhancement Plan (BEP) may be produced detailing long-term management and monitoring requirements on retained and newly created habitats as well as any actions for species.
- Seek to maintain and enhance existing green infrastructure and encourage long term habitat connectivity to the wider landscape. Sourcing vegetation (seeds and plants) of local provenance is key to achieving the best biodiversity outcome when enhancing sites. Native planting must include trees, scrub, and grassland.
- Seek to enhance the connectivity for a range of species to the nearby Southannan Sands SSSI and other sites of ecological importance.
- Seek to retain/improve areas of dense vegetation and grassland along the coast to provide for sea otter couches/lay-ups (couches or lay-ups are places for lying up above ground are usually located near a watercourse, between rocks or boulders, under dense vegetation).
- Corridors for foraging and commuting should be maintained and enhanced through the planting of woodland and scrub along site boundaries, where possible.
- For any areas which are to be surfaced for parking, water permeable materials that allow for water to absorb into the ground and reduce the risk of localised flooding during the winter months should be used.
- Provision of log piles on site to enhance small mammal, invertebrate, reptile and amphibian sheltering and basking opportunities. These should be created using wood from any on-site tree works wherever possible.

⁴⁷ Bat Conservation Trust (2023). Bats and Artificial Lighting at Night [Online] Available at: <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/> (Accessed November 2023).

- Provision of artificial hedgehog nests⁴⁸ to be installed at site boundaries, where existing woodland habitat borders the site, to provide hibernation, resting and breeding opportunities.
- Woodcrete and reed insect blocks or 'bug hotels'⁴⁹ should be installed on retained trees to provide shelter for insects which may be present.
- A range of bird nesting boxes to provide permanent nesting opportunities are recommended. All bird boxes must be installed at a minimum height of 2m. Suitable boxes include:
 - Eco Starling Nest Boxes⁵⁰ or similar to be installed on trees.
 - Schwegler Wren Roundhouses⁵¹ or similar are to be installed within scrub/woodland vegetation.
 - 1MR Schwegler Avianex boxes⁵² to be installed on retained trees with a DBH greater than 150mm.
 - 1B Schwegler Nest Box⁵³ to be installed on retaining trees.
- A range of bat boxes to provide permanent roosting opportunities are recommended. Boxes should be installed on retained trees at least 3m high. Suitable boxes include:
 - 1FD Schwegler⁵⁴ bat boxes
 - Large Multi Chamber WoodStone Bat Box⁵⁵

⁴⁸ NHBS Limited. Available to purchase at: <https://www.nhbs.com/hedgehog-nest-box>

⁴⁹ NHBS Limited. Available to purchase at: <https://www.nhbs.com/schwegler-clay-and-reed-insect-nest>

⁵⁰ NHBS Limited. Available to purchase at: www.nhbs.com/Eco-Starling-Nest-Box

⁵¹ NHBS Limited. Available to purchase at: <https://www.nhbs.com/1ZA-Schwegler-Wren-Roundhouse>

⁵² NHBS Limited. Available to purchase at: <https://www.nhbs.com/1mr-schwegler-avianex>

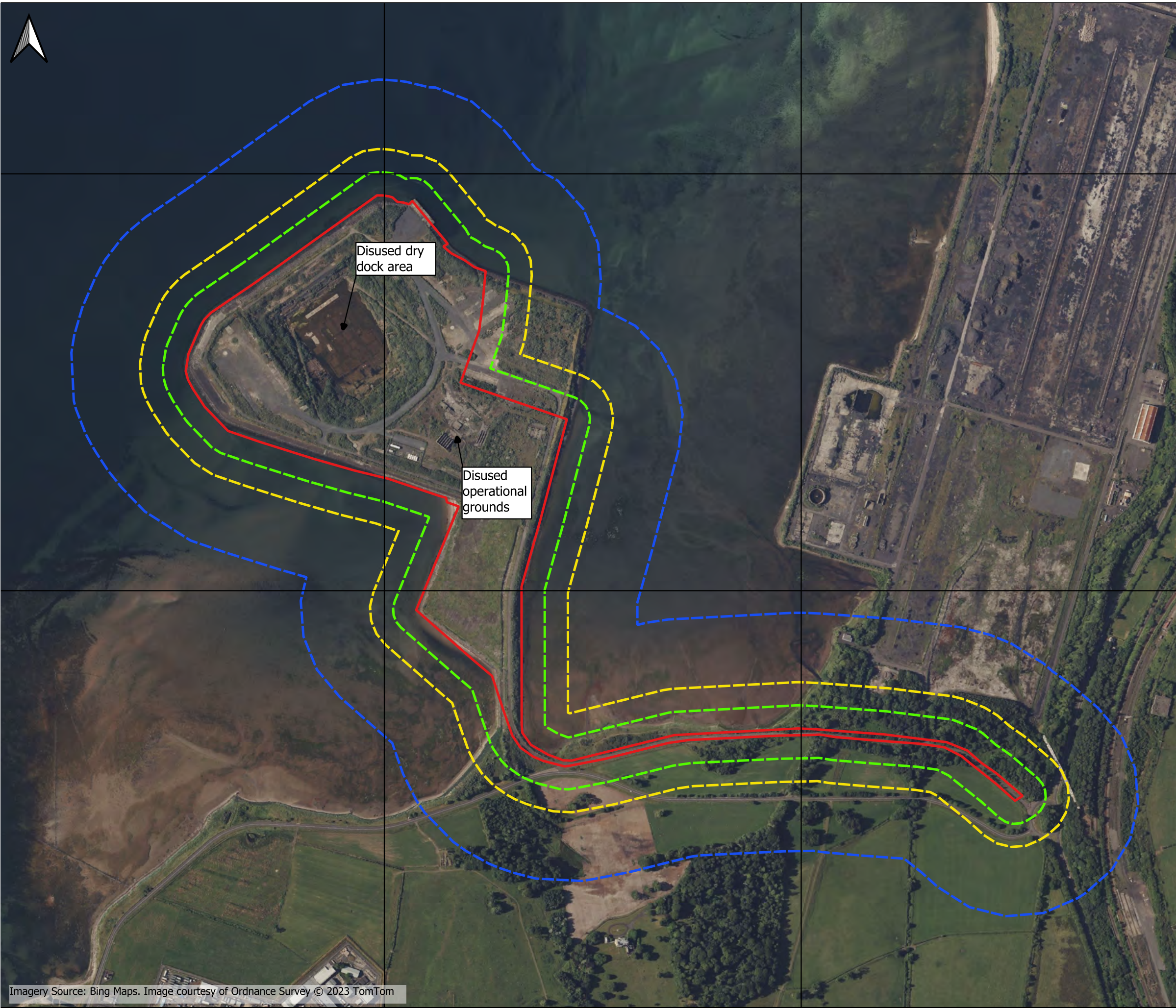
⁵³ NHBS Limited. Available to purchase at: <https://www.nhbs.com/1b-schwegler-nest-box>

⁵⁴ NHBS Limited. Available to purchase at: <https://www.nhbs.com/1fd-schwegler-bat-box>

⁵⁵ NHBS Limited. Available to purchase at: <https://www.nhbs.com/large-multi-chamber-woodstone-bat-box>

APPENDICES

A SURVEY AREA PLAN



Legend

- Terrestrial Site Boundary
- 50m Buffer
- 100m Buffer
- 250m Buffer

Do not scale this map

Client
Peel Ports

Project
Hunterston Construction Yard

Title
Survey Area Plan

Status
FINAL

Drawing No. 176482-GIS008	Revision -	Date 15 Nov 2023
Drawn LC	Checked JEP	Approved MM

Scale
1:8,000 @ A3

Rev	Date	Amendment	Initials
-	-	-	-

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B SUMMARY OF PROTECTED SPECIES LEGISLATION

European Protected Species (Bats and Otter)

European Protected Species (EPS) are protected under the Conservation (Natural Habitats &c.) Regulations 1994 (the "Habitat Regulations") as amended. Under this legislation it is an offence to deliberately or recklessly:

- Capture, injure or kill such an animal;
- Harass an animal or group of animals;
- Disturb an animal while it is occupying a structure or place used for shelter or protection;
- Disturb an animal while it is rearing or otherwise caring for its young;
- Obstruct access to a breeding site or resting place, or otherwise deny an animal use of a breeding site or resting place;
- Disturb an animal in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species;
- Disturb an animal in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
- Disturb an animal while it is migrating or hibernating;
- Possess, control, transport, sell or exchange specimens of any animal listed on Annex IV of the Habitats Directive. This applies to living or dead specimens and to their derivatives.

It is an offence of strict liability to damage or destroy a breeding site or resting place of such an animal. These sites and places are protected even when the animal is not present. For example, great crested newt ponds are protected all the time as long as it can be shown that the newts use the ponds some of the time.

A licence may be issued to permit the otherwise unlawful activities listed above if these three tests are satisfied:

- There must be a licensable purpose which includes 'preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;'
- There is 'no satisfactory alternative'; and
- The derogation (i.e., any permission/licence granted) is 'not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range'.

Wildlife and Countryside Act 1981 (Red Squirrel and Pine Marten)

Red squirrel and pine marten are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Subject to certain exceptions, it is an offence to intentionally or recklessly:

- kill, injure or take (capture) an individual;
- damage, destroy or obstruct access to any structure or place which they use for shelter or protection;
- disturb an individual while it is occupying a structure or place which it uses for that purpose; or to
- possess or control, sell, offer for sale or possess or transport for the purpose of sale any live or dead animal or any derivative of such an animal.

Knowingly causing or permitting any of the above acts to be carried out is also an offence.

In some cases licences may be issued by NatureScot to enable certain otherwise illegal activities to take place for social, economic or environmental reasons (including development) as long as:

- the licensed activity will contribute to significant social, economic or environmental benefit;
- there is no satisfactory alternative; and
- there will be no significant negative impact on the conservation status of the species.

Water Vole

Water voles are partially protected under Schedule 5, Part 4 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to 'intentionally or recklessly':

- Damage, destroy or obstruct access to any structure or place which a water vole uses for shelter or protection; or to
- Disturb a water vole while it is occupying a structure or place which it uses for that purpose.

Knowingly causing or permitting any of the above acts to be carried out is also an offence.

In some cases, licences may be issued by NatureScot to enable certain otherwise illegal activities to take place for social, economic or environmental reasons (including development) as long as:

- The licensed activity will contribute to significant social, economic or environmental benefit;
- There is no satisfactory alternative; and
- There will be no significant negative impact on the conservation status of the species.

Badger

Badgers are protected under the Protection of Badgers Act (1992) (as amended). Offences under the Act include:

- Wilfully taking, injuring or killing a badger;
- Cruelty to a badger;
- Intentional or reckless interference with a badger sett;
- Sale or possession of a badger; and
- Marking or ringing of a badger

Interfering with a badger sett includes:

- Damaging or destroying a sett or any part of it;
- Obstructing access to a sett;
- Disturbing a badger while it is in a sett; and
- Causing or allowing a dog to enter a badger sett

Where an offence is committed the individual (as well as the body corporate, Scottish partnership or, as the case may be, unincorporated association) is guilty of the offence and is liable to be proceeded against and punished accordingly.

Licences can only permit someone to 'interfere' with a badger sett for the purpose of development. A licence cannot permit the removal, translocation or killing of badgers for the purpose of development.

Interference primarily means anything that might:

- Disturb any badger in a sett; and
- Damage or block the tunnels that radiate from a sett's entrances.

Licences are not generally issued during the breeding season (30 November to 1 July). Activities that necessarily involve disturbance should be scheduled to take place outside of this period.

Birds

All wild bird species in the UK are protected under the Wildlife and Countryside Act 1981 (as amended), with species listed on Schedules A1, 1 and 1A afforded additional protection.

For any wild bird species, it is an offence to intentionally or recklessly:

- Kill, injure or take a bird;
- Take, damage, destroy or interfere with a nest of any bird while it is in use or being built;
- Obstruct or prevent any bird from using its nest;
- Take or destroy an egg of any bird;
- Possess or control a living or dead wild bird; and
- Possess or control an egg of a wild bird (or any such derivatives)

For any wild bird species listed on Schedule 1, it is an offence to disturb:

- Any bird while it is building a nest;
- Any bird while it is in, on, or near a nest containing eggs or young; any bird while lekking; and
- The dependent young of any bird.
- For any wild bird species listed on Schedule 1A, it is an offence to intentionally or recklessly harass any bird.

For any wild bird species listed on Schedule A1, it is an offence to intentionally or recklessly take, damage, destroy or interfere at any time with a nest habitually used by any bird.

Licences cannot be issued for the purpose of development in relation to any of the above offences.

Common Reptiles

Common lizards, slow worms, grass snake, and adders are partially protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under the legislation you are not permitted to intentionally or recklessly permit or cause the killing and injury of individuals.

Licences permitting otherwise unlawful acts in relation to the above are not available for development purposes.

Brown Hare

Brown hares are partially protected under Schedule 5A of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to intentionally or recklessly kill, injure or take an individual within the closed season. The closed season for brown hare is 1 February to 30 September.

All cetacean species found in Scottish territorial waters are classed as [European protected species](#). They are given protection under the [Conservation \(Natural Habitats, &c.\) Regulations 1994](#) (as amended).

Marine Mammals (Dolphins, Whales and Porpoises)

All cetacean species found in Scottish territorial waters are classed as European protected species. They are given protection under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). Cetaceans in waters more than 12 nautical miles from land are protected under the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2017.

In Scottish inshore waters, it is an offence to deliberately or recklessly:

- Kill, injure or capture a cetacean.
- Disturb or harass a cetacean.
- Damage or destroy a cetacean's breeding site or resting place.
- Keep, transport, sell or exchange, or offer for sale or exchange any cetacean (or any part or derivative of one) obtained after 10 June 1994.

Fish

Fish species that are granted full protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) include:

- Basking shark.
- Vendace.
- Powan.

Allis shad and twaite shad receive partial protection under Schedule 5, which regulates how they can be killed or taken.

Other fish species are listed on Schedule 3 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and include:

- River lamprey.
- Atlantic salmon – protected in freshwater only.
- Allis shad.
- Twaite shad.
- Vendace.
- Powan.

For species granted full protection status under Schedule 5, it's an offence to:

- Intentionally or recklessly kill, injure or take fish.
- Possess or sell fish.
- Intentionally or recklessly disturb or harass fish.

Species granted partial protection under Schedule 5 are protected only in terms of regulating how they can be killed or taken.

For Schedule 3 species, it's an offence to use certain methods to catch or take fish in freshwater.

Invasive Non-Native Species (Plants)

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to plant, or otherwise cause to grow, any plant in the wild at a location outside its native range.

'Native range' is defined in the 1981 Act as, "the locality to which the animal or plant of that type is indigenous and does not refer to any locality to which that type of animal or plant has been imported (whether intentionally or otherwise) by any person."

The Scottish Governments Non-natives Code of Practice defines 'in the wild'. Just about everywhere is wild except for:

- Arable and horticultural land;
- Improved pasture;
- Settlements; and
- Private and public gardens.

In exceptional circumstances it may be possible to obtain a licence from NatureScot to permit the above offence.

C GEOGRAPHICAL LEVEL OF IMPORTANCE OF ECOLOGICAL FEATURES

Level of Importance	Sites	Habitats	Species
International	Designated, candidate or proposed Special Areas of Conservation, Special Protection Areas and Ramsar sites; UNESCO (Ecological) World Heritage Sites; UNESCO Biosphere Reserves; Biogenetic Reserves.	A viable area of habitat included in Annex I of the EC Habitats Directive; a habitat area that is critical for a part of the life cycle of an internationally important species.	A European Protected Species; an IUCN Red Data Book species that is globally Vulnerable, Endangered or Critically Endangered; a Category A internationally important bryophyte assemblage ⁵⁶ .
National (UK)	Sites of Special Scientific Interest/Areas of Special Scientific Interest; National Nature Reserves; Nature Conservation Review Sites; Marine Conservation Zones (UK offshore).	An area of habitat fulfilling the criteria for designation as an SSSI/ASSI or MCZ; a habitat area that is critical for a part of the life cycle of a nationally important species.	An IUCN Red Data Book species that is Vulnerable, Endangered or Critically Endangered in the UK; a species that is Rare in the UK (<15 10km grid squares); a Schedule 5 ⁵⁷ (animal) or Schedule 8 (plant) species included in the Wildlife and Countryside Act 1981; any species protected under national (UK) legislation where there is the potential for a breach of the legislation; a Category A nationally important bryophyte assemblage ⁵⁸ ; a species that is Vulnerable, Endangered or Critically Endangered in The Vascular Plant Red Data List for Great Britain ⁵⁹ .
National (Scotland)	National Parks; Marine Protected Areas (Scotland offshore); Marine Consultation Areas (Scotland);	Habitats of principal importance for biodiversity in the relevant countries ⁶⁰ , including; Scottish Biodiversity List (SBL) Priority Habitats and Priority Marine Features (PMFs) ⁶¹ (Scotland);	Species of principal importance for biodiversity in the relevant countries ⁶² , including; SBL Priority Species and PMFs (Scotland);

⁵⁶ Averis, A.B.G, Genney, D.R, Hodgetts, N.G, Rothero, G.P. & Bainbridge, I.P. 2012. Bryological assessment for hydroelectric schemes in the west highlands – 2nd edition. Scottish Natural Heritage Commissioned Report No. 449b

⁵⁷ <https://www.legislation.gov.uk/ukpga/1981/69/schedule/5/enacted>

⁵⁸ Averis, A.B.G, Genney, D.R, Hodgetts, N.G, Rothero, G.P. & Bainbridge, I.P. 2012. Bryological assessment for hydroelectric schemes in the west highlands – 2nd edition. Scottish Natural Heritage Commissioned Report No. 449b

⁵⁹ Cheffings, C.M. & Farrell, L. (eds), Dines, T.D., Jones, R.A., Leach, S.J., McKean, D.R., Pearman, D.A., Preston, C.D., Rumsey, F.J., Taylor, I. (2005) *The Vascular Plant Red Data List for Great Britain. Species Status No. 7*. JNCC, Peterborough. Available at: <https://hub.jncc.gov.uk/assets/cc1e96f8-b105-4dd0-bd87-4a4f60449907>

⁶⁰ These are all the habitats that were identified as requiring action in the UK Biodiversity Action Plan and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework, including any additions.

⁶¹ In July 2014, Scottish Ministers adopted a list of 81 priority marine features (PMFs) – many of which are features characteristic of the Scottish marine environment. Most are on other conservation status lists so may be valued higher than this.

⁶² These are all the species that were identified as requiring action in the UKBAP and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework, including any additions.

Level of Importance	Sites	Habitats	Species
Regional	Regional Parks (Scotland).	Regional Local Biodiversity Action Plan habitats noted as requiring protection.	A species that is Nationally Scarce in the UK (present in 16-100 10km grid squares); a species that is included in the Regional LBAP; an assemblage of regionally scarce species.
County / Metropolitan	Local Nature Reserves; Woodland Trust Sites; Royal Society for the Protection of Birds Sites; Local Wildlife Sites (Scotland).	County LBAP habitats noted as requiring protection; semi-natural, ancient woodland >0.25ha in extent.	A species that is included in the County LBAP; an assemblage of species that are scarce at the county level.
Local		Semi-natural, ancient woodland <0.25ha in extent; semi-natural habitats that are unique or important in the local area.	Species as defined by Local Authority lists (if available).
Site		Common and widespread habitats not covered above.	Common and widespread species not covered above.
Negative			An Invasive Non-Native Species (INNS) as defined by the GB Non-Native Species Secretariat (NNSS) and supported by the GB Invasive Non-native Species Strategy (2015); legally controlled species under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended by the relevant country legislation).

D GEOGRAPHICAL LEVEL OF IMPORTANCE OF ORNITHOLOGICAL FEATURES

Level of Importance	Assessment Criteria		
	Legal Protection	Conservation Status	Population Size
International	Any species within Annex 1 of the EU Birds Directive	Any species which is listed as Critically Endangered or Endangered on the IUCN Red List	Supporting greater than 1% of the EC population
National (UK)	Any species within Schedule 1 of the Wildlife and Countryside Act	Any species on the BoCC Red List	Supporting greater than 1% of the UK population
National (Scotland)		Any species on the Scottish Biodiversity List	Supporting greater than 5% of the Scottish population
Regional		Any species on the BoCC Amber List	Supporting greater than 0.5% of the UK population
County		Any species that is listed as a Priority Species in the LBAP	Supporting greater than 0.05% of the UK population
Local		BoCC Green List; or species with no conservation concern; common and widespread throughout the UK	Supporting less than 0.05% of the UK population

E DESIGNATED SITES PLAN

212000

216000

220000

224000

656000

656000

652000

652000

648000

648000

Imagery Source: OS maps. Image courtesy of Ordnance Survey © 2023
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212000

216000

220000

224000

Legend

- terrestrial site boundary
- Designated Sites 5km Buffer
- Ballochmartin Bay SSSI
- Kames Bay SSSI
- Portencross Woods SSSI
- Southannan Sands SSSI

Do not scale this map

Client
Peel Ports

Project
Hunterston Construction Yard

Title
Designated Sites Plan

Status
FINAL

Drawing No. 176482-GIS011	Revision -	Date 14 Dec 2023
Drawn LC	Checked JEP	Approved MM

Scale
1:45,000 @ A3

Rev	Date	Amendment	Initials
-	-	-	-



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F HABITATS PLAN

218700

219600

653400

653400

652500

652500

218700

219600



Imagery Source: Bing Maps. Image courtesy of Ordnance Survey © 2023 TomTom

Legend

- Terrestrial Site Boundary
- g3c - Other Neutral Grassland
- h2c - Sea Buckthorn Scrub
- u1b - Developed Land. Sealed Surface
- u1b6 - Other Developed Land
- u1c - Artificial Unvegetated Unsealed Surface
- u1f - Sparsely Vegetated Urban Land
- t2h - Beach
- u1e - Road
- u1e - Track
- u1e - Wall
- u1e - Fence

Do not scale this map

Client
Peel Ports

Project
Hunterston Construction Yard

Title
Habitats Plan

Status
FINAL

Drawing No. 176482-GIS009	Revision -	Date 15 Nov 2023
Drawn LC	Checked JEP	Approved MM

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-	-	-	-

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G PHOTOGRAPHS



Photo 1: Neutral grassland on site.



Photo 2: Sea buckthorn scrub on site.



Photo 3: Beach on site.



Photo 4: Sealed surface where the dry docks used to be located at the centre of the site (photo taken March 2023).



Photo 5: Dry dock area flooded with sea water.



Photo 6: Sea walls.



Photo 7: Area of gravel with low, sparse vegetation.



Photo 8: Walls on site.



Photo 9: Main access road on site.



Photo 10: Tracks on site.



Photo 11: Sparsely vegetated are of land near the operational grounds, surrounded by scrub patches.



Photo 12: Buddleja on site.

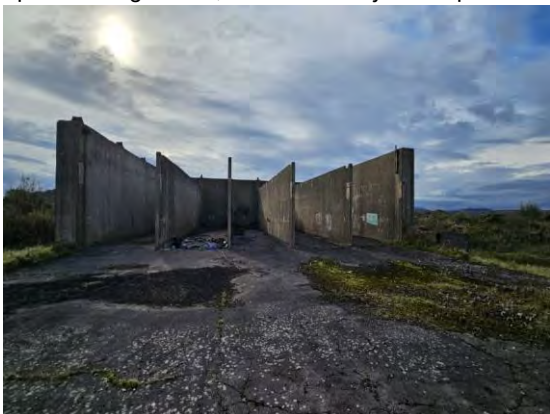


Photo 13: Concrete structure with parallel walls on site.



Photo 14: Burn Gill.



Photo 15: Rabbit burrow.

H ECOLOGICAL CONSTRAINTS PLAN



Legend

- Terrestrial Site Boundary
- 50m Buffer
- Patch of Buddleja
- ◆ Rhododendron
- Rabbit Burrow

Do not scale this map

Client
Peel Ports

Project
Hunterston Construction Yard

Title
Ecological Constraints Plan

Status
FINAL

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