



Black Cart – UB 179-061 BLACK CART TIMBER DECK

25016/R1/Rev2

**Preliminary
Ecological
Appraisal**

**September 2025
Story Contracting Limited**

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REPORT STATUS: DRAFT PRELIMINARY ECOLOGICAL APPRAISAL REPORT		DATE OF ISSUE:
ISSUED TO:		JOB NO: 25016
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DISTRIBUTION			
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1. Introduction

1.1. Terms of Reference

Black-Loch Environmental Consultants Ltd (BLE) was commissioned by Story Contracting Ltd to undertake a Preliminary Ecological Appraisal (PEA) Survey of land identified and referred to as “Black Cart” at Ordnance Survey UK Grid Reference NS452675 near Houston Road, Renfrewshire. This report presents the results of the ecological walkover survey of that land and observations taken of land immediately adjacent to the development boundary and our review of the relevant and public data records.

Additionally, an otter (*Lutra lutra*) survey was conducted, 200m upstream and downstream of the proposed working area on the main River Gryfe and accessible areas around the proposed compound.

1.2. Objectives of the Document

The objective of this document is to detail the following -

- 1) Provide a high-level overview of the potential ecological interest at the site and immediate surroundings;
- 2) To identify what further works may be required to evaluate the quality and nature conservation status of the Site.

1.3. Site Description

Black Cart is located at Grid Reference NS452675, approximately 9.2km North- Northwest of Glasgow Airport; hereafter referenced as the “Site” and the Site Boundary is referenced in Figure 3.

2. Policy & Legislation

The Policy and Legislation relating to this report is that detailed in the IKM Report 2023.

3. Background

3.1. Data Sources

A desk study of publicly available data was conducted to gather baseline data on the activity of protected species within 5 km, Schedule 1 birds within 10 km, and other notable species within 2 km of the Site boundary over the past decade. This study also included a search for designated and non-designated sites within 5 km of the Site boundary. The following resources were consulted during the preparation of this report:

- National Biodiversity Network (NBN) Atlas – Accessed 11/09/2025;
- NatureScot Site Link – Accessed 11/09/25;
- Publicly available aerial photography of the Survey Area; and
- Scottish Biodiversity List 1.4 – 2014 (updated 2017)



Table 1: Data Search from Publicly Available Records.

	Species	Distance (KM)	Records
Bats	<i>Plecotus auritus</i>	5km	2
Bats	<i>Pipistrellus pygmaeus</i>	5km	852
Bats	<i>Pipistrellus pipistrellus</i>	5km	538
Bats	<i>Myotis daubentonii</i>	5km	3
Bats	<i>Myotis nattereri</i>	5km	6
Bats	<i>Nyctalus leisleri</i>	5km	5
Schedule 1 Birds	Barn Owl	10km	64
Schedule 1 Birds	Black Tailed Godwit	10km	342
Schedule 1 Birds	Brambling	10km	121
Schedule 1 Birds	Common Scoter	10km	10
Schedule 1 Birds	Corncrake	10km	1
Schedule 1 Birds	Crossbill	10km	50
Schedule 1 Birds	Fieldfare	10km	641
Schedule 1 Birds	Goldeneye	10km	1279
Schedule 1 Birds	Greenshank	10km	335
Schedule 1 Birds	Gyr Falcon	10km	2
Schedule 1 Birds	Kingfisher	10km	423
Schedule 1 Birds	Little Gull	10km	33
Schedule 1 Birds	Little Ringed Plover	10km	107
Schedule 1 Birds	Long-Tailed Duck	10km	11
Schedule 1 Birds	Mediterranean Gull	10km	70
Schedule 1 Birds	Merlin	10km	52
Schedule 1 Birds	Peregrine Falcon	10km	271
Schedule 1 Birds	Pintail	10km	47
Schedule 1 Birds	Quail	10km	3
Schedule 1 Birds	Red-throated Diver	10km	34
Schedule 1 Birds	Redwing	10km	1185
Schedule 1 Birds	Ruff	10km	44
Schedule 1 Birds	Scaup	10km	31
Schedule 1 Birds	Slavonian Grebe	10km	19
Schedule 1 Birds	Whimbrel	10km	83
Schedule 1 Birds	Whooper Swan	10km	359
Schedule 1 Birds	Wood Sandpiper	10km	1
Butterflies	Peacock Butterfly	2km	5
Butterflies	Green Veined Butterfly	2km	3
Butterflies	Painted Lady	2km	2
Butterflies	Small Tortoiseshell	2km	2
Butterflies	Orange tip Butterfly	2km	2
European Protected Species	Otter	5km	4



European Protected Species	Great Crested Newt	5km	0
European Protected Species	Scottish Wildcat	5km	0
Invasive Species	Mink	5km	2
Invasive Species	Grey Squirrel	5km	221
Invasive Species	New Zealand Flatworm	5km	1
Invasive Species	Giant Hogweed	5km	2
UK Protected Species	Adder	5km	1
UK Protected Species	Slow Worm	5km	0
UK Protected Species	Common Lizard	5km	1
UK Protected Species	Red Squirrel	5km	0
UK Protected Species	Pine Marten	5km	0
UK Protected Species	Badger	5km	2
UK Protected Species	Beaver	5km	0
UK Protected Species	Water Vole	5km	0
UK Protected Species	Common Shrew	5km	1
UK Protected Species	Water Shrew	5km	1
UK Protected Species	Roe Deer	5km	65
UK Protected Species	Brown Hare	5km	4
Fish	Atlantic Salmon	5km	0
Fish	European Eel	5km	1
Fish	Lamprey sp.	5km	1
Fish	Brown/Sea Trout	5km	0

4.



5. Results of the Data Review

Statutory and Non-Statutory Sites are detailed in Figure 1; and described below.

5.1. Statutory Designated Sites

A search for nearby designated nature conservation sites within 5km of the Site's boundary was undertaken September 2025.

Designated Site	Reason for Designation	Distance from 'Working Site'
Black Cart SSSI	Birds - Aggregation of non-breeding whooper swan	1.09km Southeast
Inner Clyde SSSI	Coastlands – Saltmarsh Birds - Cormorant (<i>Phalacrocorax carbo</i>) (non-breeding) Birds - Eider (<i>Somateria mollissima</i>) (non-breeding) Birds - Goldeneye (<i>Bucephala clangula</i>) (non-breeding) Birds - Oystercatcher (<i>Haematopus ostralegus</i>) (nonbreeding) Birds - Red-breasted merganser (<i>Mergus serrator</i>) (nonbreeding) Birds - Red-throated diver (<i>Gavia stellata</i>) (nonbreeding) Birds - Redshank (non-breeding)	3.63km Northeast



Designated Site	Reason for Designation	Distance from 'Working Site'
Black Cart SPA	Regularly supports a wintering population of European importance of the Annex 1 species Whooper Swan (<i>Cygnus cygnus</i>). The population forages over the entire Black Cart SPA, roosts on the open water and uses the area as a winter refuge. The boundary of the Black Cart SPA aligns with that of the Black Cart SSSI.	1.09km Southeast
Inner Clyde SPA (Includes marine component – Inner Clyde Estuary SPA)	Regularly supports an internationally important wintering population of redshank (<i>Tringa totanus</i>). This is one of the highest density wintering populations of redshank in Britain.	3.63km Northeast

Designated Site	Reason for Designation	Distance from 'Working Site'
Inner Clyde Ramsar	Inner Clyde RAMSAR site qualifies under RAMSAR Criterion 6 by regularly supporting 1% or more of the individuals in a population of waterbirds: Redshank	3.63km Northeast

Designated Site	Reason for Designation	Distance from 'Working Site'
Paisley Moss LNR	A remnant of a larger site, it is now a Local Nature Reserve and contains ponds, mossy marshes, reeds and sedge beds supporting hundreds of different animals and plants. Species of found at Paisley Moss LNR include:	2.13km Southeast



	Burnet moths, Orange Tip, Common Blue butterflies, Sedge Warblers, Jack Snipe, White Stork, Snow Goose, and Sundews.	
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The location of Statutory Designated Sites are presented at Figure 1.

5.2. Non-Statutory Designated Sites

No Scottish Wildlife Trust (SWT) reserves lie within 5km of the Site. However, the Paisely Moss Local Wildlife Reserve lies 2.13km south-east of the Site. This Local Wildlife Reserve provides ecological interest throughout the year. In spring amphibians spawn in the ponds and wet hollows. Reed Buntings (*Emberiza schoeniclus*) hold breeding territories in spring and later in April the BoCC5 Amber listed Sedge Warblers (*Acrocephalus schoenobaenus*) also arrive. Common Snipe (*Gallinago gallinago*) and Grey Heron (*Ardea cinerea*) are present throughout the year and the Paisely Moss LWS is important for its wintering population of Jack Snipe (*Lymnocyrtus minimus*).

There are twenty-two different species of grass and eleven types of sedge growing at Paisley Moss they offer a range of habitats particular for bees and damselflies; particularly the Large Red Damselfly (*Pyrhosoma nymphula*). Common blue (*Polyommatus icarus*) and orange tip (*Anthocharis cardamines*) butterflies are also locally abundant.

6. BLE Site Walkover

6.1.1. Methodology

A PEA walkover survey was undertaken of red line development boundaries presented by Story Contracting Limited. Observations and mapping outwith the boundary were undertaken through a combination of observation from within the Site itself using binoculars and reference to aerial photography. The purpose of this survey method is for mapping broad habitat types and boundaries using Extended Phase 1 Habitat survey methodology.

6.1.2. Limitations

Access restrictions in the form of security fencing were present into the BAE Systems boundary to the northern section of the compound. No line possession was in place for the Preliminary Ecological Appraisal and therefore access to the railway itself, i.e. within 3.5m of the line, was not possible at the time of the survey. These areas were inspected remotely using binoculars but not directly accessed. This presents a moderate limitation to the survey work; which will be addressed by follow up ecological work immediately prior to operations.

The suitability of habitat, but the lack of field evidence for badger and otter activity, suggest that activity by protected mammals may be transient, and that the Site is within range of both



species. Whooper Swan (Part of the Black Cart SPA Population) could be present in the stubble fields locally; further monitoring of these populations will be necessary to avoid impacts on the Whooper Swan population.

Given the potential for badger and otter to enter into the Site it is considered prudent to ensure that an Ecological Clerk of Works (ECoW) should re-check all areas of the Site prior to works, to ensure legislative compliance, with protected species.

6.2. Results of the Habitat Walkover

6.2.1. Flora

A1.1.1 – Broadleaved Woodland: Semi-Natural, comprised silver birch, that have regenerated naturally. These woodlands exhibit a multi-layered structure with a canopy, understorey, and ground flora. In addition to the silver birch regeneration, and Alder *Alnus glutinosa*. Intermixed on the fringe of the broadleaved woodland, trees which could be classified under broadleaved park land trees, were present (see below) and these formed the indistinct boundaries between the broadleaved woodland habitats and that of the adjoining field boundaries.

The majority of the hardstanding area comprised young silver birch regeneration.

A2.1 – Scrub: Dense/Continuous, as defined in the Phase 1 Habitat Survey methodology, refers to areas dominated by woody vegetation typically shrubs and young trees that form a near-continuous canopy, generally over 5 metres in extent. This habitat is characterised by an understory of the broadleaved woodland and comprised Bramble *Rubus fruticosus*, Gorse *Ulex europaeus*, Hawthorn *Crataegus monogyna*, and often represents successional vegetation developing on made ground. Some of the shorter birch regeneration also comes in under this category. Dense scrub provides valuable cover and nesting habitat for birds and small mammals but can also suppress ground flora and reduce botanical diversity. Its presence is ecologically significant and may indicate a transitional phase toward woodland, requiring careful consideration in habitat management and appraisal.

A3.1 – Broadleaved Parkland/Scattered Trees, as defined in the Phase 1 Habitat Survey classification, refers to landscapes where broadleaved trees are distributed irregularly across open ground, typically grassland or pasture, without forming a closed canopy. These habitats are often associated with historic estates, recreational parks, or agricultural land, and included mature native species of Pedunculate oak *Quercus robur*, Ash *Fraxinus excelsior*, and Sycamore *Acer pseudoplatanus* and Goat Willow *Salix caprea*.

The scattered tree structure allows for a diverse understorey and ground flora, supporting a wide range of invertebrates, birds, and mammals. This habitat type is ecologically valuable for its structural diversity, veteran trees, and potential for supporting priority species, and should be considered in ecological appraisals for its contribution to landscape connectivity and biodiversity.

B2.2 – Neutral Grassland: Semi-Improved, as defined in the Phase 1 Habitat Survey classification, refers to grassland on soils of intermediate pH that has undergone some degree of agricultural



improvement such as fertilisation, reseeding, or grazing but still retains elements of semi-natural vegetation. These areas typically support a mix of common grasses like Perennial Ryegrass *Lolium perenne* and Yorkshire fog *Holcus lanatus*, alongside herbs such as meadow buttercup *Ranunculus acris* and white clover *Trifolium repens* and meadow pea *Lathyrus pratensis*. Whilst species diversity is reduced compared to unimproved grassland, semi-improved neutral grasslands can still provide valuable habitat for invertebrates and foraging birds and may act as ecological corridors in fragmented landscapes. Their condition and management history should be carefully considered, particularly where restoration or enhancement is required. Some areas of these habitats could equally qualify as marshy grassland given the dominance of soft rush in areas.

C3.1 – Other Tall Herb and Fern: Ruderal, as defined in the Phase 1 Habitat Survey classification, refers to areas dominated by robust, fast-growing herbaceous vegetation typically found on disturbed or nutrient-enriched soils. These habitats often arise on abandoned land, road verges, rail embankments, or post-industrial sites, where regular disturbance prevents succession to more stable vegetation types. Characteristic species include Common Nettle *Urtica dioica*, Rosebay Willowherb *Chamerion angustifolium*, Broadleaved dock *Rumex obtusifolius* and marsh *Cirsium palustre* and creeping thistle *Cirsium arvense*. While generally low in botanical diversity, ruderal habitats can provide valuable foraging and shelter opportunities for invertebrates and birds and may act as temporary refuges or corridors in fragmented landscapes. Their presence should be noted in ecological appraisals, particularly where land use change or habitat restoration is proposed.

G2 – Running Water, as defined in the Phase 1 Habitat Survey classification, refers to all naturally occurring or artificial watercourses where water flows continuously or intermittently. This includes rivers, streams, brooks, and drainage channels, regardless of their size, depth, or flow rate. The habitat is characterised by directional water movement, which should be indicated on survey maps, and may support a range of aquatic and marginal vegetation depending on factors such as flow velocity, substrate type, and nutrient levels. G2 habitats are ecologically significant for their role in supporting diverse aquatic communities, facilitating nutrient cycling, and providing connectivity across landscapes. Their condition, hydrology, and associated species should be carefully assessed in ecological appraisals, particularly where development or land-use change may impact water quality or flow dynamics.

J1.1 – Cultivated/Disturbed Land: Arable, as defined in the Phase 1 Habitat Survey classification, refers to land actively managed for crop production, including cereals, root crops, legumes, and horticultural varieties. This habitat type is typically subject to regular ploughing, sowing, fertilisation, and harvesting, resulting in a highly disturbed soil profile and limited botanical diversity. Vegetation is dominated by the planted crop species, with occasional ruderal or weed species such as *Chenopodium album* (fat hen) or *Stellaria media* (common chickweed) appearing at field margins or during fallow periods. While arable land generally offers low ecological value in terms of plant diversity, it can provide important foraging habitat for Whooper Swan (associated with the Black Cart SPA/SSSI), farmland birds and invertebrates, particularly where field margins, hedgerows, or uncultivated buffer zones are present. Its inclusion in ecological appraisals is essential for assessing land-use impacts and identifying opportunities for habitat enhancement or agri-environment schemes.

J1.3 – Cultivated/Disturbed Land: Ephemeral/Short Perennial, as defined in the Phase 1 Habitat Survey classification, refers to areas of land that have been recently disturbed or cleared, often



through construction, landscaping, or abandonment, and are now colonised by short-lived, opportunistic plant species. These habitats typically supported a patchy and transient vegetation community dominated by ruderal and pioneer species such as Plantains *Plantago* spp., Dandelion *Taraxacum officinale*, clovers *Trifolium repens*, Groundsel *Senecio vulgaris*. The vegetation was generally low growing, and lacked a stable structure, indicating disturbance ground. This habitat has potential to provide valuable resources for pollinators and early successional species and may serve as a temporary refuge or corridor for wildlife in urban and post-industrial landscapes. The land should be reinstated post development.

J1.4 – Introduced Shrub, as defined in the Phase 1 Habitat Survey classification, refers to areas dominated by non-native shrub species that have been deliberately planted or have escaped cultivation, typically in urban, suburban, or landscaped environments. These habitats often occur in railway verges, and around industrial or residential developments. In this situation *Cotoneaster* spp. (cotoneasters), form small but dense thickets that suppress native ground flora through shading and competition. While introduced shrub habitats can offer structural diversity and shelter for some wildlife, they are generally of lower ecological value than native vegetation and may contribute to the spread of invasive species. Their presence should be considered negatively as part of this assessment, with species identified for removal and the site, restored or enhancement after the works are completed.

J3 – Built-up Areas, as defined in the Phase 1 Habitat Survey classification, refers to land predominantly covered by permanent man-made structures and surfaces, including buildings, roads, pavements, car parks, and other urban infrastructure. This habitat type typically lacks significant vegetation cover, although isolated patches of ornamental planting, street trees, or ruderal growth may be present. The built-up areas viewed from within generally of low ecological value due to limited habitat availability and high levels of disturbance, but they can still support urban-adapted species such as pigeons, foxes, and various invertebrates. In ecological appraisals, this category is important for identifying constraints to habitat connectivity and assessing opportunities for biodiversity enhancement through green infrastructure, such as living roofs, wildlife corridors, or urban planting schemes.

J4 – Bare Ground, as defined in the Phase 1 Habitat Survey classification, refers to areas of land that are largely devoid of vegetation, typically due to recent disturbance, compaction, or artificial surfacing. This category includes the area of hardstanding at the site such as surfaces of gravel, concrete, and tarmac, as well as naturally exposed substrates like bare soil, sand, or rock. The area was generally of low botanical interest, but it provides niche habitats for certain invertebrates, pioneer plant species, and nesting birds.



Table 1: Presents the Habitat Areas within the Site Boundary.

Sum of Area (ha)			
Habitats	Northern Area	Southern Area	Grand Total
Introduced shrub	-	0.013	0.013
Built-up areas	0.081	-	0.081
Other tall herb and fern - ruderal	-	0.136	0.136
Running water	-	0.241	0.241
Cultivated/disturbed land - ephemeral/short perennial	0.31	-	0.31
Broadleaved woodland - semi-natural	0.394	-	0.394
Scrub - dense/continuous	0.444	-	0.444
Bare ground	0.01	0.541	0.551
Broadleaved Parkland/scattered trees	0.261	0.355	0.616
Neutral grassland - semi-improved	0.969	0.018	0.987
Cultivated/disturbed land - arable	-	1.776	1.776
Grand Total	2.469	3.08	5.549

The habitats areas from the BLE walkover are detailed at Table 1; whilst a map of the habitats present is detailed in Figure 2

Invasive Non-Native Species (INNS)

Invasive non-native species (INNS) are organisms that have been introduced intentionally, or accidentally, and persist outside their natural range. Once established, they can spread rapidly and cause harm to the environment, economy, or human health. In the context of plants on this Site the following species were recorded Japanese knotweed/hybrid knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and Cotoneaster (*Cotoneaster* sp.). These species outcompete native flora, alter soil chemistry, and disrupt natural habitats. Their aggressive growth patterns often leads to a decline in biodiversity, affecting the food chains and habitat structure for native wildlife. Additionally, Japanese knotweed can cause physical damage to infrastructure or pose health risks to humans. Effective management and early detection are crucial to preventing their spread and mitigating long-term ecological impacts.



Himalayan Balsam

Himalayan balsam an invasive non-native species, was recorded at Target Notes 2, 4, 29, 32, 37, 39, 40, and 45 during the ecological walkover. This fast-growing annual plant poses significant ecological challenges due to its ability to outcompete native vegetation, particularly along riverbanks and damp ground, where it forms dense stands. Its dominance reduces biodiversity and destabilises soil structure, increasing the risk of erosion once the plant dies back in winter. Additionally, Himalayan balsam's explosive seed dispersal mechanism enables rapid colonisation of new areas, further exacerbating its spread.

Cotoneaster

Cotoneaster, an invasive non-native shrub species, was recorded at Target Notes 9, 10, and 33 during the ecological appraisal. Known for its dense growth and prolific berry production, cotoneaster can rapidly spread and dominate habitats, particularly on calcareous soils and disturbed ground. Its presence decreases the biodiversity value of the Site as it suppresses native ground flora through rapid growth shading and competition, reducing plant diversity and altering habitat structure. Cotoneaster has the potential to significantly degrade ecological value and hinder conservation efforts.

Japanese Knotweed

Japanese knotweed (*Fallopia japonica*), a highly invasive non-native plant species, was recorded at Target Note 51 during the ecological appraisal. This species poses significant ecological and structural challenges due to its vigorous growth and ability to outcompete native vegetation, leading to reduced biodiversity and habitat degradation. Its dense stands can alter soil chemistry, hinder natural succession, and disrupt riparian ecosystems. Additionally, Japanese knotweed is notorious for its potential to damage-built structures, including foundations, walls, and drainage systems, making its presence a concern for both ecological integrity and site development.

6.2.2. Fauna

Directive 2009/147/EC Bird Directive - Annex 1 Birds

Field adjacent to the proposed access track hold potential for foraging wildfowl including habitat considered suitable to support loafing or foraging Whooper Swan a bird protected under Annex 1 of the EC Birds Directive (2009/147/EC). The population was assessed to be 207 individuals between 1993 and 1997, and comprise 4% of the GB Population.

Given that the works are being undertaken in winter, and the presence of wintering Whooper Swan population locally at Black Cart SPA/SSSI, there is potential for an indirect effect on the population of the Black Cart SPA/SSSI, if unmitigated as part of the works.

Given that Whooper Swan may be present, a shadow HRA should be undertaken in relation to likely significant effects on the Whooper Swan Population. The local planning authority should be conducted in relation to an Appropriate Assessment for the works.



It is considered, that the likelihood of a likely significant effect, is minimal however a shadow HRA may be required to assess this, given the connectivity that exists between the works are and the Black Cart SPA/SSSI.

BLE feel that with mitigation any impacts on the population could be minimised using similar control measures used to that deployed at Glasgow Airport. It is therefore proposed that a toolbox talk provided would be prepared for Story Contracting Ltd and any other contractors or Network Rail themselves, in relation to the possibility of feeding and loafing Whooper Swan, their identification and a Species Protection Plan (SPP) prepared for Whooper Swan.

Likely input to the Whooper Swan SPP would be to restrict traffic movements on the access road, to 1 or 2 movements per day, and that Heras fencing, with sound reducing barriers <30dB, will be deployed at a distance of 200m from the works area.

Any movements and activities would be monitored weekly by an ECoW. The purpose of the ECoW will be to monitor activity and numbers of any Whooper Swan present in the field and within 200m of the work and to minimise the number of sentry birds active at any one time. It is proposed that the works should follow that successfully employed at Glasgow Airport, where it is understood, that based on a flock size of 30 birds, that no more than four sentry birds are permitted to be alert at anyone time, and works are paused until the sentry birds, recover to four or less birds, before being soft started again.

European Protected Species

Bats

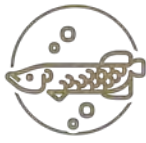
During the ecological appraisal, several trees were identified as having potential to support roosting bats, particularly at Target Notes 17, 18, 31, and 46. These trees comprising sycamore (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*), and goat willow (*Salix caprea*) exhibited features commonly associated with bat roosting habitat, including split limbs, cavities, loose bark, and dense ivy cover. Such features offer potential sheltering opportunities for a range of bat species, in the form of daytime roosts, maternity sites, or hibernation refuges.

Given the above, further surveys, identifying the status of any bat roosting features (PRFs) within the sycamore, ash and goat willow, or consider buffering these habitats >30m from the works. If at any stage during the works, a bat, or suspected bat is found, all works within 30m must stop, the area made safe, and a licenced bat contractor contacted immediately.

No evidence of bat activity was previously recorded by the survey by IKM and the habitats under the bridge were considered to be generally in line with this report. The brickwork was well pointed, and any gaps/fissures were damp with running water which falls from the track above and along the face of the brickwork. These features were assessed to be unsuitable to support bat roosting.

Otter

An otter survey was undertaken as part of the ecological appraisal to assess the presence and habitat suitability for Otter *Lutra lutra* within a 200m upstream/downstream buffer of the Site and its surrounding watercourses. The methodology followed standard best practice guidelines,



involving a systematic walkover of riparian habitats to identify field signs such as spraints, footprints, feeding remains, holts, couches, and potential resting or breeding sites. Survey effort focused on accessible banks, under bridges, and vegetated margins, with particular attention to areas offering cover and connectivity. Otter target notes (TN) 1-10 all recorded evidence of historic otter activity or were identified as offering suitable habitat features, including dense bankside vegetation, overhanging tree roots, and secluded hollows.

These findings confirm the ecological importance of the site for otters and should inform mitigation and enhancement measures in any future development proposals. No definitive evidence of otter was identified during the walkover survey. However, this was a single walkover survey, and those habitats present do hold potential to support otter as part of a wider territory.

It is possible that otter lie within commuting range of this location and may on occasion pass through, short cutting between watercourses, and the Site does offer sheltering opportunities, and although it is considered to hold low nature conservation value for otter; further evaluation of key features trackside will be required prior to construction to determine legal compliance with this species legislation and legal protection.

Of particular interest are the features identified at Otter TN 2, 7, 9 and 12 which should be camera trapped prior to worked to check for usage.

UK Protected Species

Water Vole

The walkover survey was conducted at the optimal time of year to assess water vole *Arvicola amphibius* activity; however, no evidence such as footprints, latrines, or grazing signs was observed. Consequently, the habitat is considered suboptimal for supporting a riparian water vole population. Their presence adjacent to the site is considered unlikely, and the Site is deemed to offer negligible nature conservation value for water vole. No suitable habitat for this species was identified within the Survey Area. The River Gryfe was not considered suitable for supporting a water vole population given its size and fast flow, ruling out the potential for this species to colonise this watercourse. Water vole are not considered any further within this appraisal.

Red Squirrel

No direct confirmation of red squirrel (*Sciurus vulgaris*) was noted during the survey. No dreys, scat or footprints/claw marks were observed, and no direct observation was made of the animals themselves. Suitable habitat is present in the form of broad-leaved trees, within and adjacent to the Survey Area. Red squirrel are not considered any further in this appraisal.

Pine Marten

No evidence of pine marten was identified within the Survey Area. Although the Survey Area supported areas of trees, the surrounding landscape is managed for agricultural purposes. This habitat was considered to be sub-optimal for pine marten foraging and lacked any suitable denning opportunities. Pine marten are not considered any further in this appraisal.



Badger

Whilst the habitat is suitable to support badger *Meles meles*, no evidence to suggest the Survey Area supports any badger setts was identified. In addition, minimal signs of badger using the Survey Area for commuting or foraging was present only at TN 27 was there possible evidence of activity. The lack of field sign does not necessarily preclude their presence trackside, or in the future, as records for badger exist within the area of search for desk study results. Further survey is therefore recommended trackside. A survey within 30m of the Site will seek further field sign of badgers and any setts and inform any CEMP.

Amphibians and Reptiles

No ponds or standing water bodies were identified within the boundaries of the site during the ecological appraisal. However, Target Notes 13, 15, 22 were found to offer potential habitat and refugia for reptiles and amphibians. These areas contained features such as concrete slabs, woody debris, and rubble piles, which provide shelter, basking opportunities, and overwintering sites for species such as common lizard (*Zootoca vivipara*), slow worm (*Anguis fragilis*), and common frog (*Rana temporaria*). Checks prior to site clearance are recommended for the areas detailed around TN 13, 15 and 22.

Bird Species

Birds observed and heard on site included common and widespread species namely, Robin *Erithacus rubecula*, Chiffchaff *Phylloscopus collybita*, Great Tit *Parus major*, Goldcrest *Regulus regulus*, Nuthatch *Sitta europaea*, Woodpigeon *Columba palumbus*, Blue Tit *Cyanistes caeruleus*, Coal Tit *Periparus ater*, Treecreeper *Certhia familiaris*, Pheasant *Phasianus colchicus* Wren *Troglodytes troglodytes*, Goldfinch *Carduelis carduelis*.

The vegetation surrounding the site, including along the riverbanks and scattered trees in the wider area offered suitable habitat for a range of bird species common to the geographical area, including ground nesting species. Included in the wider area the Inner Clyde regularly supports an internationally important wintering population of redshank. Whilst the Black Cart regularly supports a wintering population of European importance of the Annex 1 species whooper swan.

During the ecological appraisal, evidence of nesting birds was recorded across the site, with several locations showing active nests or suitable nesting habitat within scrub and mature trees at TN 1, TN 16, and TN36. In addition to these observations, field signs indicative of song thrush (*Turdus philomelos*) feeding behaviour were identified, notably clusters of broken snail shells found on flat stones and tree roots at TN 35. These are characteristic of a song thrush anvil used by the bird to crack open snail shells to access the soft tissue inside.

7. Summary

The Site lies outwith any designated nature conservation site. However, the Black Cart Special Protection Area (SPA) and Inner Clyde Ramsar/SPA lie within 0.73 (1.09) km from the Site. The Compound Site does not hold any habitats to support the qualifying interests of either SPA, and



given the minimum disturbance distances of 200m for whooper swan (Goodship, N.M. and Furness, R.W., 2022), the short nature/duration of the works, and the distance from the SPAs, it is considered that there would be no Likely Significant Effect (LSE) on the qualifying interests of the SPA and no effect on the SSSI from the proposed works. However, the Local Planning Authority should be consulted in relation to the works and the need to conduct an Appropriate Assessment.

The access track across the field and the works area under the bridge itself, does present habitat in which Whooper Swan could be present for foraging or loafing, and could be connected with the SPA and the SSSI, albeit the habitat present is urbanised, lying immediately adjacent to the railtrack and the M8 motorway, and subject to a level of background disturbance. The area of the proposed access track, is also utilised by the local gun club for pigeon control. A shoot from hides was underway at the time of this survey. Given the level of background disturbance from traffic and human activity, and the size of the area of field available to Whooper Swan, it is considered that it is possible that any shadow HRA and Appropriate Assessment is considered to conclude no Likely Significant Effect to the Whooper Swan population associated with the Black Cart SPA but further assessment of the bird population would be required to qualify this statement. If a SPP for Whooper Swan is prepared in advance of the works, and based on those measures successfully deployed at Glasgow Airport, consultation held with NatureScot and the Local Planning Authority, it is likely that a way forward could be agreed to monitor the population and embed mitigation into the works package to prevent any displacement or disturbance to any Whooper Swan population locally and considered unlikely alter the status of the population of the Black Cart SPA as a whole.

The Black Cart Site of Scientific Interest (SSSI) and Inner Clyde SSSI are not predicted to have any direct or indirect impacts on the cited species listed for either SSSI; this is based on the distance between the structure and the two SSSI sites, and the nature and duration of the works.

The Local Nature Reserve Works is will not be directly or indirect impacted by the works. Therefore, no impact is predicted on the Paisley Moss LNR located 2.13km SE from structure, as it is not structurally or functionally connected to the work area.

The main constraint associated with the Site relates to the presence of Invasive Non-Native plant Species (INNS), namely: Cotoneaster, Himalayan balsam and Japanese knotweed. An Invasive Non-Native Species Management Plan needs to be added to any Construction Environmental Management Plan (CEMP) prepared for these works. The extent of the INNS should be marked out and delineated on site to avoid any spread prior to removal and disposal.

The Site and its riparian habitats fall within range of badger, bats and otter, UK and European Protected Species, respectively. No definitive evidence for badger, bats or otter was identified during the walkover surveys, however the area trackside was not surveyed, and could hold additional habitat for these species. It is recommended that a full check of the Site is undertaken immediately prior to works to ensure legal compliance for wildlife legislation.



8. Recommendations

- Consultation with NatureScot and Local Planning Authority in relation to Whooper Swan and the need for an Appropriate Assessment.
- Prepare a SPP for Whooper Swan, Otter and Badger and ensure that a toolbox talk is delivered to staff working on the site from Story Contracting Ltd and their sub-contractors.
- Consider Haras fencing with sound barriers for the agricultural field and demarcate a zone of 200m to ensure that Whooper Swan do not enter into that area during the works. Consider making habitats more attractive for Whooper Swan foraging, outwith 600m of the Site, if necessary.
- Engage the services of an ECoW for the duration of the works; frequency of visits to be determined but it is considered that weekly visits will be suitable for this Project.
- Further survey of habitats trackside for protected species and INNS;
- Camera trapping of the alder tree and compressed common reeds should be undertaken at Target Note Locations: 2, 7, 9 and 12 ideally two weeks prior to the commencement of works in that area.
- Mark Out and Restrict Access to areas identified around the Invasive Non-Native Species of Plant at TNs: 13, 14, 21, 23 – 24,
- It is recommended that an Invasive Non-Native Method Statement is prepared in relation to the control, management and disposal of the INNS plants: Cotoneaster, Himalayan Balsam and Japanese Knotweed

Additionally, the following species-specific surveys should be undertaken where works are to proceed within 30m of the locations of TN prior to any proposed works to check for the presence of protected species, trackside and within the footprint of the scheme.

- Bats – Given the legal protection afforded to bats and their roosts under UK wildlife legislation, further survey work may be required to confirm usage and inform any necessary licence mitigation prior to site clearance or tree works.
- Otter – Re-check for otter activity trackside and within 30m of the proposed working footprint of the scheme. Reason: To ensure no otter activity has occurred additionally to those included in this report and to ensure legal compliance with wildlife legislation. Camera trapping at otter TNs 2, 7, 9, 12
- Badger – re-check for badger setts trackside and again sweep over the working area within a 50m buffer. Reason: to ensure no further badger activity has occurred and that the works comply with wildlife legislation.
- Birds – Nesting Birds & Schedule 1 Species – it is recommended that a toolbox talk is undertaken to ensure protection of birds that can nest throughout the year e.g. pigeons. Attention should also be drawn to the potential for Schedule 1 species e.g. whooper swan if they become present within 200-600m from the Site.
- Reptiles and Amphibians - Although aquatic breeding habitat was absent, the presence of terrestrial refugia highlights the importance of retaining or enhancing these microhabitats in any future site management or development plans. Reptiles in particular are protected under the Wildlife and Countryside Act (1981) as amended in Scotland and this protection
- .



- Himalayan Balsam - Its presence across multiple locations on site highlights the need for targeted management and control measures to prevent further ecological degradation and support native habitat restoration. All works in this area should be avoided and a 7m exclusion zone around all plants should be marked out on site and no works, storage or passing through should take place within the exclusion zone.
- Japanese Knotweed - It is recommended that the area to the northwest of the structure is resurveyed during the growing season (from May onwards) to determine the size of the infestation. A 7m exclusion zone around all plants should be marked out on site and no works, storage or passing through should take place within the exclusion zone.
- Cotoneaster - Its identification across multiple locations on site highlights the need for appropriate management to prevent further spread and support the restoration of native vegetation communities.



9. Plates

Plate 1: Site Entrance – Showing INNS Himalayan Balsam Plant





Plate 2: Scrub Transition into Broadleaved Woodland



Plate 3: Compound Hardstanding





Plate 4: Extent of Survey Area – Fence at BAE Systems



Plate 5: Potential Reptile Hibernacula





Plate 6: Burrow under tree roots





Plate 7: Close up of Himalayan Balsam INNS





Plate 8: Bat roosting potential in mature oak tree





Plate 9: Semi-Improved Grassland & Marshy Grassland



Plate 10: Tributary to the River Gryfe





Plate 11: Structure over River Gryfe



Plate 12: Himalayan Balsam (INNS) and Japanese Knotweed (INNS) – immediately downstream of the Structure





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Plate 13: Close up of Japanese Knotweed at the Confluence of the Tributary and River Gryfe





10. Appendices

Habitat Survey Notes

TN	Details	X	Y
1	Extent of Survey Area		
2	10x10 snuffle hole in the earth – likely to be deer on the evidence of footprints; but habitat holds badger potential also. Check of area for badger should be undertaken immediately prior to the works to ensure legal compliance.	245209	667669
3	Deer scraping and grazing on the ground	245213	667654
4	Mature trees, ash, goat willow, and silver birch with low bat roosting potential; Checks required by bat ecologist if works are within 30m of the trees or noise and light will impact upon the area. Checks by bat ecologist prior to works.	245216	667644
5	Low bat roosting potential splits in limb of mature sycamore; checks to be undertaken if works within 30m or subject to noise at night or lighting from the works. Checks required by bat ecologist prior to works.	245222	667437
6	Ash and goat willow tree with crack in stem raised bark and silver birch with limb cavity holds bat roosting potential. Checked to be undertaken by an ECoW and Bat ecologist prior to works.	245223	667624
7	Nesting pigeon – check of general areas will be required by ECoW before works – as pigeons nest all year round. Otherwise, a 10m exclusion zone should be applied to ensure protection of nesting birds.	245230	667620
8	Fencing debris and concrete possible amphibian and reptile hibernacula – checks required by an ECoW prior to earth works.	245231	667662
9	Concrete slabs and wood debris offer amphibian/reptile hibernacula – checks required by an ECoW prior to works	245233	667619
10	Enriched area around the metal entrance gate of Yorkshire fog and meadow pea; checked the area for evidence of badger activity – no field sign were present at the time of survey. ;	245237	667588
11	Hawthorn along field boundary – following the post and wire fence line. Checked for mammal activity – no field evidence present.	245239	667609



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12	1x1m patch of rubble debris holds possible hibernation for amphibian/reptiles – check prior by the ECoW immediately prior to any earth works.	245245	667585
13	Invasive Non-Native Species: Stand of Himalayan balsam approximately 20x10m in area – will require a Species Management Plan prior to works.	245249	667363
14	Invasive Non-Native Species: Japanese knotweeds stand 12x11m will require a Species Management Plan prior to works.	245250	667345
15	Likely deer snuffle holes in the earth; however, badger habitat is also present and could also be foraging holes for badger. Checks to be undertaken by the ECoW immediately prior to works.	245259	667630
16	Marshy grassland patch in wider semi-improved neutral grassland	245262	667481
17	Mature pedunculate oak tree with possible bat roosting potential in limbs with cracks and splits. Requires check by bat ecologist if works are to be undertaken within 30m of the tree or lights directed onto the treeline from the working area.	245263	667580
18	Human interference with the site; evidence of tree felling being undertaken prior to works.	245264	667606
19	Improved grassland stand with Yorkshire fog and meadow pea	245266	667542
20	Hard standing growing over with foxgloves, percolate St John's wort, flatweed, false oat grass and overlain by mosses	245282	667542
21	Wetter area dominated by soft rush amongst Himalayan balsam; suggesting more marshy grassland than semi-improved grassland.	245291	667486
22	Stand of hawthorn bushes with nesting bird potential. Requires to be checked by an ECoW	245292	667506
23	Invasive non-native species – stands of Cotoneaster – needs to have a Species Management Plan for their removal/disposal.	245292	667504
24	Invasive non-native species single stand of Himalayan balsam - needs to have a Species Management Plan for their removal/disposal.	245296	667595
25	Stand of soft rush and bracken with an understory of hawthorn, goat willow tree along the tree line.	245298	667590
26	Bracken stand	245298	667489
27	Invasive non-native species single stand of Himalayan balsam - needs to have a Species Management Plan for their removal/disposal.	245298	667489



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28	5m area of Invasive non-native species – stands of Cotoneaster regeneration – needs to have a Species Management Plan for their removal/disposal.	245300	667514
29	Rubbish debris in the forms of tyres – need to be checked by an ECoW for amphibians and reptiles prior to removal from Site.	245301	667489
30	Silver birch 5m _10m broom. Sitka saplings	245301	667492
31	Refuse debris unknown in bags – check for reptiles and amphibians by ECoW immediately prior to removal.	245303	667487
32	Stands of tall ruderals	245305	667482
33	Goat willow with decayed limbs offering bat roosting potential; Requires check by bat ecologist if works are to be undertaken within 30m of the tree or lights directed onto the treeline from the working area.	245305	667580
34	Invasive non-native species single stand of Himalayan balsam - needs to have a Species Management Plan for their removal/disposal.	245306	667481
35	Deer scraping	245308	667530
36	Pile of snail shells suggesting thrush anvil – but checks for slow worms should also be undertaken in rubble piles to ensure legal compliance.	245309	667530
37	Invasive non-native species – stands of Cotoneaster – needs to have a Species Management Plan for their removal/disposal.	245318	667520
38	Defunct bird nest – check by ECoW and remove prior to works,	245318	667505
39	Hawthorn, goat willow and silver birch with understory of dense bracken and Himalayan balsam.	245324	667546
40	Invasive non-native species single stand of Himalayan balsam - needs to have a Species Management Plan for their removal/disposal if works are to be undertaken in this area.	245326	667506
41	Alder with bat roosting potential – avoid if possible, by >30m of inspect by bat ecologist prior to works.	245331	667343
42	Confluence of minor burn <5m with the main River Gryfe, no evidence of otter, at the confluence, or along the channel, and no evidence of sheltering noted on either bank.	245340	667330
43	Hogweed and willowherb dominated occasional Himalayan balsam. along with hawthorn and birch treeline.	245357	667500



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44	Potential for otter couch in stands of dense reed canary grass and meadowsweet; no definitive evidence of otter but ECoW to check and camera trap prior to works.	245373	667324
45	Alder with suitable cavities for a resting place for an otter. This feature was fully searched for otter signs no field evidence of otter noted. Camera trap prior to works.	245407	667331
46	Nesting bird potential	245431	667372
47	Invasive Non-Native Species: Japanese knotweeds stand 12x15m will require a Species Management Plan prior to works.	245435	667351
48	Invasive non-native species single stand of Himalayan balsam - needs to have a Species Management Plan for their removal/disposal if works are to be undertaken in this area.	245467	667312
49	Invasive non-native species single stand of Himalayan balsam - needs to have a Species Management Plan for their removal/disposal if works are to be undertaken in this area.	245467	667312
50	Flattened area of reeds likely deer but checks for otter – given riparian strip and small mammal pathways should be undertaken by the ECoW immediately prior to works.	245490	667426
51	Small narrow mammal pathway – tunnelling effects through tall grasses – but no definitive evidence		
52	Small narrow mammal pathway – tunnelling effects through tall grasses – but no definitive evidence		
Otter Specific Target Notes			
1	Small narrow mammal pathway – tunnelling effects through tall grasses – but no definitive evidence	245241	667591
2	Tree burrow under Goat Willow suggest camera trapping	245251	667694
3	Rock habitat with cavities underneath but no evidence of activity	245251	667646
4	Small narrow mammal pathways leading to drain	245255	667653
5	Small narrow mammal pathway – tunnelling effects through tall grasses – but no definitive evidence	245273	667649
6	Small narrow mammal pathway – tunnelling effects through tall grasses – but no definitive evidence	245312	667362
7	Compressed common reed – has potential for couching but no definitive evidence	245353	667322



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8	Small narrow mammal pathway – tunnelling effects through tall grasses – but no definitive evidence	245377	667326
9	Possible burrows 20x20 to the river right bank under willow – suggest camera trapping	245388	667306
10	Mammal path leading from river to left bank	245422	667335
11	River check by binocular from river left bank no evidence of otter activity but structure access is restricted by deep water and fence line	245431	667336
12	Patch of compressed reeds likely overtopping but could present a couch – suggest camera trapping	245532	667440



11. Floral Species List

Species	Common name
<i>Phragmites australis</i>	Common reed
<i>Geranium pratense</i>	Meadow crane's-bill
<i>Phalaris arundinacea</i>	Reed canary grass
<i>Epilobium hirsutum</i>	Great willowherb
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Lythrum salicaria</i>	Purple loosestrife
<i>Stachys palustris</i>	Marsh woundwort
<i>Solanum dulcamara</i>	Bittersweet
<i>Cirsium palustre</i>	Marsh thistle
<i>Valeriana officinalis</i> agg.	Garden-heliotrope
<i>Persicaria hydropiper</i>	Water-pepper
<i>Juncus effusus</i>	Soft rush
<i>Galeopsis tetrahit</i> agg.	Common hempnettle
<i>Deschampsia cespitosa</i> agg.	Tussock grass
<i>Impatiens glandulifera</i>	Himalayan balsam
<i>Scrophularia nodosa</i>	Common figwort
<i>Salix caprea</i>	Goat willow
<i>Geranium robertianum</i> agg.	Herb Robert
<i>Rosa canina</i>	Dog rose
<i>Rosa rubiginosa</i> agg.	Sweet briar
<i>Quercus robur</i>	Pedunculate oak
<i>Picea sitchensis</i>	Sitka spruce
<i>Heracleum sphondylium</i>	Hogweed
<i>Crataegus monogyna</i>	Hawthorn
<i>Vicia cracca</i> agg.	Cow vetch
<i>Dryopteris filix-mas</i> agg.	Common male-fern
<i>Rubus Rubus</i> sect.	Shrubby blackberry
<i>Lathyrus pratensis</i>	Meadow pea
<i>Euphrasia nemorosa</i> agg.	Eastern eyebright
<i>Prunella vulgaris</i>	Heal-all
<i>Epilobium montanum</i>	Broad-leaved willowherb
<i>Hypochaeris radicata</i>	Flatweed
<i>Cotoneaster dielsianus</i>	Diels' cotoneaster
<i>Fragaria vesca</i>	Wild strawberry
<i>Pilosella</i> Sp.	Hawkweeds
<i>Digitalis purpurea</i>	Foxglove
<i>Pogonatum urnigerum</i>	Urn haircap
<i>Centaurea nigra</i>	Lesser knapweed
<i>Alchemilla mollis</i>	Garden lady's-mantle
<i>Gallium aparine</i> agg.	Cleavers



<i>Epilobium angustifolium</i>	Rosebay Willowherb
<i>Cytisus scoparius</i>	Broom
<i>Urtica dioica</i>	Common Nettle
<i>Hypericum perforatum</i>	Perforate St John's-Wort
<i>Lapsana communis</i>	Nipplewort
<i>Sonchus asper</i>	Prickly sow-thistle
<i>Alnus glutinosa</i>	Alder
<i>Betula pendula</i>	Silver Birch
<i>Rubus fruticosus</i>	Bramble
<i>Salix caprea</i>	Goat Willow
<i>Trifolium repens</i>	White Clover
<i>Holcus lunatus</i>	Yorkshire Fog
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Rumex obtusifolius</i>	Broadleaved Dock
<i>Cirsium arvense</i>	Creeping Thistle
<i>Cirsium palustre</i>	Marsh Thistle
<i>Fraxinus excelsior</i>	Ash
<i>Acer pseudoplatanus</i>	Sycamore
<i>Chenopodium album</i>	Fat hen
<i>Stellaria media</i>	Common chickweed
<i>Taraxacum sp.</i>	Dandelion
<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Senecio vulgaris</i>	Groundsel

Additional References Reviewed

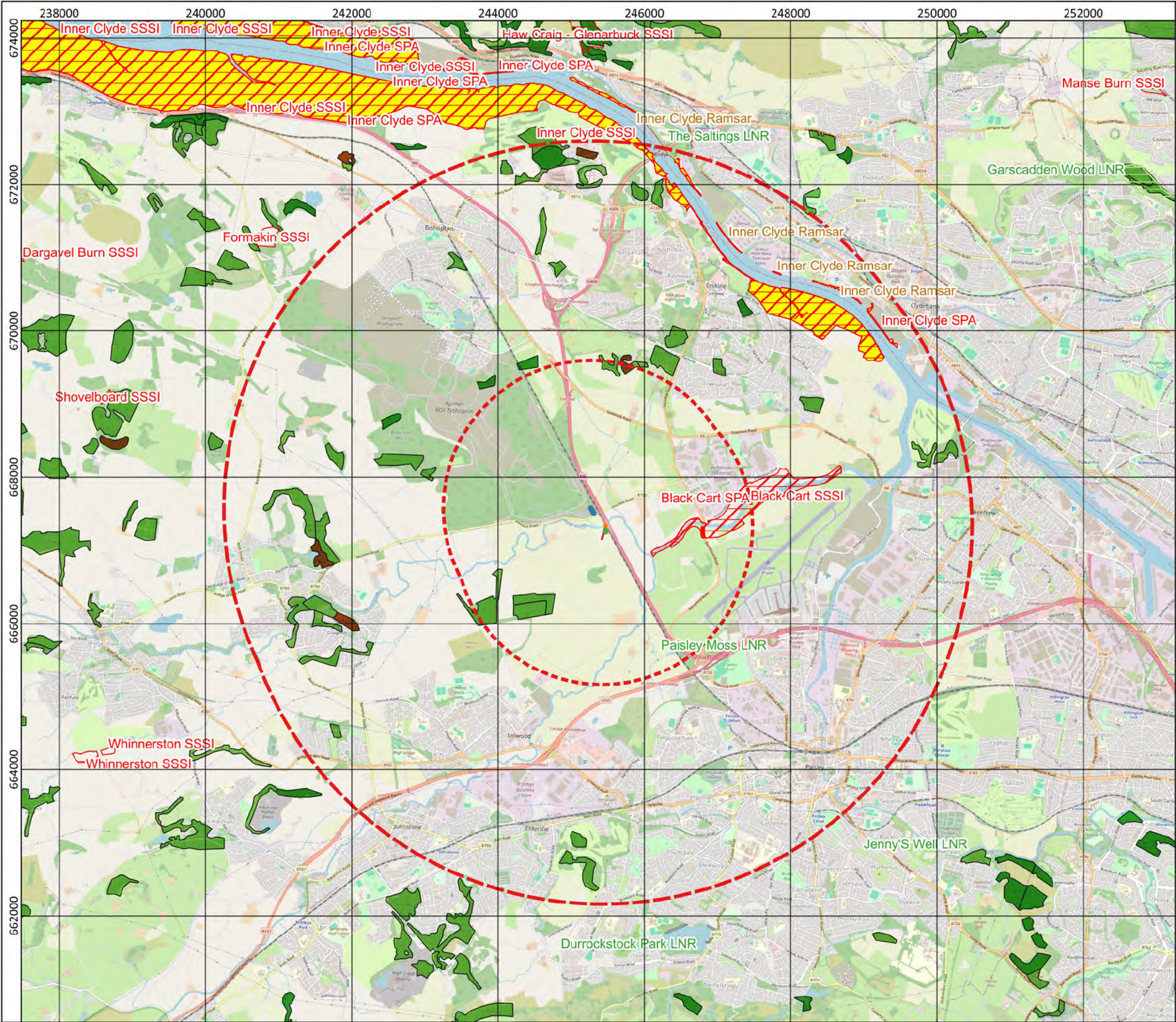
IKM 2023 "UB 179-061 BLACK CART TIMBER DECK PRELIMINARY ECOLOGICAL APPRAISAL"

Goodship, N.M. and Furness, R.W. (2022) Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283.



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12. Figures



Black Cart Timber Deck

Figure 1: Designated Sites

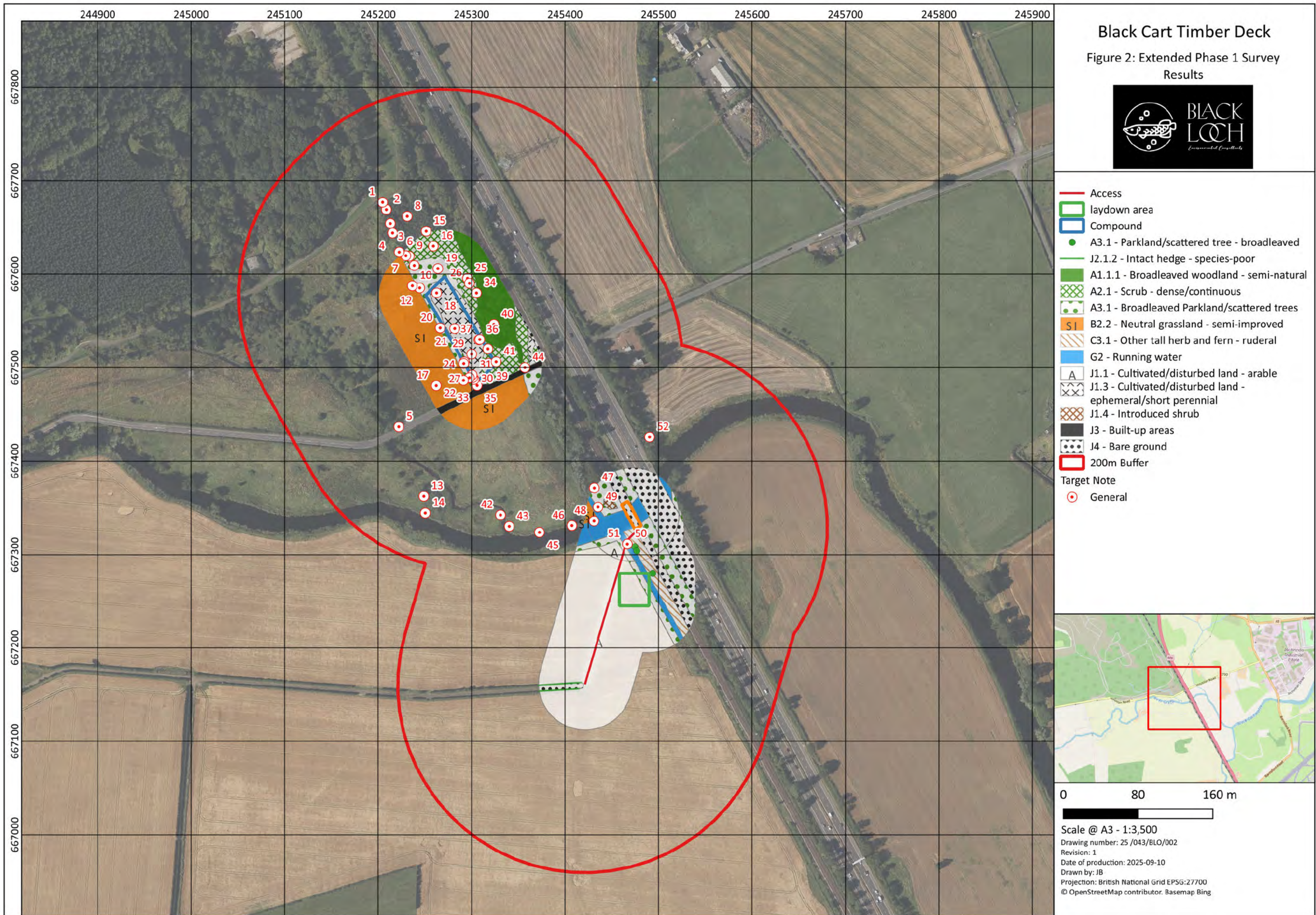


- Access
- laydown area
- Compound
- Designated Sites
 - Special Protection Area
 - Site of Special Scientific Interest
 - Ramsar Site
 - Local Nature Reserve
- Ancient Woodland Inventory
 - Ancient (of semi-natural origin)
 - Long-Established (of plantation origin)
 - Other (on Roy map)



0 1,000 2,000 m

Scale @ A3 - 1:50,000
Drawing number: 25 /043/BLO/001
Revision: 1
Date of production: 2025-09-10
Drawn by: JB
Projection: British National Grid EPSG:27700
© OpenStreetMap contributor. Basemap Bing





Black Cart Timber Deck

Figure 3: Protected Species Walkover Results



- Access
- laydown area
- Compound
- 200m Buffer

Protected Species
[Redacted]



0 80 160 m

Scale @ A3 - 1:3,500
Drawing number: 25 /043/BLO/003
Revision: 1
Date of production: 2025-09-10
Drawn by: JB
Projection: British National Grid EPSG:27700
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