

Sellafield RBLA Gate Ecological Impact Assessment

Sellafield Ltd

December 2021





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This document has 29 pages including the cover.

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Non-technical Summary

Report purpose	This report describes the ecological baseline and evaluates the nature conservation importance of ecological features present within the zone of influence for the Proposed Scheme. The assessment identifies impacts (both positive and negative) on important ecological features, sets out agreed avoidance, mitigation, and enhancement measures and provides details on the significance of effects for each important ecological feature.
Proposed Scheme	The Proposed Scheme relates to the enabling works to facilitate the re-opening of RBLA Gate at the Sellafield Site in Cumbria and includes re-surfacing of an existing road and installation of two security checkpoints (Application Boundary shown in Appendix A). The majority of the proposals will be restricted to the existing road. Some areas of adjacent vegetation may require reducing to ground level to improve visibility and access.
Desk studies and field surveys	A desk study was undertaken on 16/08/21 and an ecological walkover survey of areas within and adjacent to the Application Site, including land up to 50 m from the Application Site boundary where access was allowed (the Survey Area), was undertaken on 30/07/2021
Ecological features	The majority of the Application Site comprises areas of hardstanding, with adjacent areas of managed and unmanaged scrub and grassland. A watercourse flows adjacent to the south eastern boundary of the Survey Area. These are considered capable of supporting breeding birds, reptiles, terrestrial invertebrates and badgers. A plan showing the results of the survey are shown in Appendix B. No statutory designated sites for nature conservation are present within 2 km of the Site and there are no non-statutory sites within 1 km. None of the ecological features present, or those which are considered likely to be present, are of local or above value and have not been taken forward for further assessment within the report. Instead, the report has considered appropriate measures to avoid the contravention of the legal protection afforded to breeding birds, reptiles and badgers.
Avoidance, mitigation and compensation measures	 Guidance for pollution prevention and Construction Industry Research and Information Association guidance on the control of water pollution from construction sites will be followed. If vegetation clearance is to be undertaken during the core breeding bird season (the core bird breeding season is March to August inclusive) then a check for nesting birds will be undertaken by an Ecologist. Mitigation measures to avoid killing and injuring reptiles during works will be implemented. Excavations will be infilled or covered at night to prevent animals such as badgers falling in and becoming trapped or, if this is not possible, will be fitted with a means of escape. The above measures are to be detailed within an Ecological Management Plan (EcoMP).

Report Validity

In the event of scope or programme changes or if works do not commence within 12 months of the date of this report then updates to the surveys may be required to ensure the validity of the data, as per CIEEM guidance¹.

¹ CIEEM (2019) Advice Note on the Lifespan of Ecological Reports and Surveys

1. Introduction

Terms of Reference

- 1.1. Atkins, member of the SNC-Lavalin group, was commissioned by Sellafield Ltd to undertake an Ecological Impact Assessment (EcIA) in connection with a detailed application for the recommissioning of the RBLA Gate, hereafter referred to as 'the Proposed Scheme'. The Application Site is located within the existing Sellafield Site, as identified by the planning red line boundary shown on Drawing Ref: *1 BE3093576B RBLA Proposed Site Layout Draft* provided with the planning application submission and shown in Appendix A (hereafter referred to as 'the Application Site').
- 1.2. This report presents the results of the EcIA for the Proposed Scheme and considers both terrestrial and aquatic ecological receptors, which includes designated and non-designated sites for nature conservation, terrestrial and freshwater habitats, plants and species. The assessment has been informed by a desk study and field survey data. This EcIA describes the ecological baseline and evaluates the nature conservation importance of ecological features present within the zone of influence for the Proposed Scheme, characterises the impacts on important ecological features, sets out agreed avoidance, mitigation, compensation and enhancement measures, and assesses the significance of the residual effects of the Proposed Scheme on the important ecological features.
- 1.3. This EcIA has been undertaken with reference to current good practice² and forms part of the technical information to be lodged with the full planning application submission.

The Application Site

1.4. The Application Site is located on the eastern edge of the Sellafield Site in West Cumbria (Shown in Appendix A) and measures approximately 0.8 ha. The Application Site comprises areas of hardstanding and both unmanaged and managed areas of grassland and scrub. Directly north, west and south is the wider Sellafield Site and to the east is open countryside, comprising sheep grazed pasture and scrub. The Application Site is shown on in Appendix A (as shown in the planning application submission).

The Proposed Scheme

- 1.5. The Proposed Scheme relates to the enabling works to facilitate the re-opening of RBLA Gate including re-surfacing of an existing road and installation of two security checkpoints and is shown on Drawing Ref: *BE3093576B RBLA Proposed Site Layout Draft* provided with the planning application submission and shown in Appendix A.
- 1.6. The majority of the proposals will be restricted to the existing road. Some areas of adjacent vegetation may require clearance to ground level to improve visibility and access.

Scope of Assessment

1.7. This report presents ecological information obtained during a desk-study and walkover survey undertaken in July and August 2021 respectively.

²CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.

Methodology 2.

Desk Study and Consultation

- The geographical area for obtaining ecological data through desk studies has been determined 2.1. using professional judgement. Baseline data has been gathered from a range of sources through data requests, consultation, and using online resources as outlined below. This included data gathering in relation to statutory and non-statutory designated sites for nature conservation and protected and priority species. The study areas used for the data gathering are detailed in Table 2-1. The desk study was undertaken on 03/08/2021. For species records collected, only those within 10 years of the data collection date have been considered within the assessment.
- 2.2. The following online resources were accessed:
 - Multi-Agency Geographic Information for the Countryside (MAGIC)³; and •
 - Woodland Trust Ancient Tree Inventorv4:
- Ordnance Survey maps and the Grid Reference Finder website (https://gridreferencefinder.com/) 2.3. were used to identify the presence of waterbodies within 500 m of the Application Site boundary, in order to establish if the land within and immediately surrounding the Application Site could be used as terrestrial habitat for great crested newt. This species typically uses suitable terrestrial habitat up to 500 m from a breeding pond. However, there is a notable decrease in great crested newt abundance beyond a distance of 250 m from a breeding pond⁵.
- Cumbria Biodiversity Data Centre (CBDC) was contacted to request relevant desk study data, 2.4. including details of non-statutory designated sites.

Data type	Search area – distance from Proposed Scheme boundary
Statutory designated sites for nature conservation	2 km
Non-statutory designated sites for nature conservation	1 km
Priority habitats (including ancient and veteran trees) and ancient woodland	1 km
Protected and priority species	2 km

Table 2-1 - Data search areas

Planning Policy Review

- A review of national and local planning policy relevant to the Proposed Scheme was undertaken as part of the data gathering. The following policy documents were subject to review and are summarised in Appendix B:
 - Department for Communities and Local Development (2021) National Planning Policy Framework⁶: and
 - The Copeland Local Plan 2013-2028- Core Strategy and Development Management Plan Policies DPD Policy ENV3 and DM257.

Ecological Field Surveys

The geographical area for undertaking ecological field surveys has been determined using the 2.6. current survey guidance, professional judgement and the zones of influence, which have been determined based on the nature of the impacts arising from the Proposed Scheme.

2.5.

³ MAGIC (defra.gov.uk)

 ⁴ <u>Ancient Tree Inventory</u> - <u>Woodland Trust</u>
 ⁵ Natural England (2004) An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt (ENRR576). http://publications.naturalengland.org.uk/publication/134002.

⁶ https://www.gov.uk/government/publications/national-planning-policy-framework--2

⁷ The Copeland Local Plan 2013-2028 Core Strategy and Development Management Plan Policies DPD.

https://www.copeland.gov.uk/sites/default/files/attachments/copeland_local_plan_2013_2028.pdf

Surveyor Competencies

2.7. All the surveys were led by surveyors who have been assessed⁸ to be at least of capable experience following the Chartered Institute of Ecology and Environmental Management (CIEEM) competency framework⁹.

Extended Phase 1 Habitat Survey

- 2.8. An ecological walkover survey of areas within and adjacent to the Application Site, including land up to 50 m from the Application Site boundary where access was allowed (the Survey Area), was undertaken on 30/07/2021 using the extended Phase 1 habitat survey methodology¹⁰ as guidance. All land within and adjacent to the Application Site including land up to 50 m from the Application Site boundary (the Survey Area) was surveyed according to CIEEM guidance⁵. Plant names recorded in this survey follow Stace (2019).
- 2.9. The walkover survey recorded information on the habitats within the Survey Area and also included a search for evidence of the presence of, and the potential of each habitat to support, priority and protected species as recommended by CIEEM¹¹.
- 2.10. This survey method comprised the following:
 - Mapping habitats present according to the JNCC Phase 1 habitat survey methodology⁶, with target notes (TNs) used to record specific details on the plant species composition of the habitats, current management and condition. TNs were also used to record features of ecological importance e.g. veteran trees;
 - Assessing the potential of terrestrial and aquatic habitats to support amphibians. Aquatic habitat was assessed for its suitability to support great crested newts using the Habitat Suitability Index (HSI) assessment;
 - Assessing the suitability of habitats for nesting and wintering birds;
 - Assessing the suitability of habitats for reptiles, badgers, red squirrels
 - Assessing the suitability of watercourses for water vole, otter and white-clawed crayfish;
 - Assessing the suitability of habitats for priority invertebrates.
- 2.11. In addition to the above, specific searches were made to the following:
 - Potential roosting sites for bats within trees and structures e.g. identification of suitable cracks and crevices (survey undertaken from ground only). The assessment of potential suitability of the trees and structures for roosting sites for bats were categorised based on good practice guidance
 - Signs of badger activity including setts, tracks, snuffle holes and latrines; and
- 2.12. Evidence of the presence of the following invasive species was searched :
 - Evidence of animal species as listed on the Invasive Alien Species (Enforcement and Permitting) Order 2019; Chinese mitten crab, red swamp crayfish, signal crayfish, spiny cheek crayfish, muntjac deer, ruddy duck, Egyptian goose and grey squirrel.
 - Evidence of the presence of the following invasive species: Japanese knotweed, giant knotweed, hybrid knotweed, giant hogweed, Himalayan balsam, rhododendron, New Zealand pigmy weed, Virginia creeper, variegated yellow archangel, and cotoneaster. These are listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and subject to strict legal control.
- 2.13. In addition to those listed above, evidence of plant species as listed on the Invasive Alien Species (Enforcement and Permitting) Order 2019: Nuttall's waterweed, Chilean rhubarb, floating pennywort, curly waterweed and parrot's feather, fanwort, water hyacinth and floating water primrose.

Survey Limitations

2.14. This section identifies any limitations to the surveys or assessment and provides an explanation as to the effect of these on the assessment.

⁸ Assessment undertaken by Atkins ecological technical leadership team in accordance with CIEEM competency criteria.

⁹ https://www.cieem.net/competency-framework

¹⁰ Joint Nature Conservation Committee (2010) Handbook for Phase 1 habitat survey - a technique for environmental audit.

¹¹ Chartered Institute of Ecology and Environmental Management (2017) Guidelines for Preliminary Ecological Appraisal, Second Edition.

- 2.15. There were no access restrictions to the Survey Area, and it is considered that the extended Phase 1 habitat survey was conducted at an optimal time of year (July) when the majority of plant species are in active growth and readily identifiable and animal species are active. However, during and in the 12 hours proceeding the survey there had been heavy rain, such that the water level within the watercourse within the Survey Area was raised and contained a large amount of sediment which may have obscured evidence of certain protected species, for example, water vole and otter field signs. In places, the watercourse and its banks were obscured by dense marginal and tall ruderal plant growth. Other sections of the watercourse and bank could be accessed and the heavy rain and raised water levels are not considered to be a significant constraint to the results of the survey work.
- 2.16. The list of invasive plant and animals' species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) is extensive and these species are found in a range of different habitats, including aquatic habitats. As such some invasive species, in particular those associated with aquatic habitats, may not have been recorded.
- 2.17. Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. The ecological surveys undertaken to support this EcIA have not therefore produced a complete list of plants and animals and the absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future.
- 2.18. The above limitations have been addressed through taking the precautionary approach within the assessment and it is not considered that they pose a significant constraint to the collection of the baseline data or the assessment and recommendations which have been made based on that data.
- 2.19. The desk study reviewed the Woodland Trust Trusts Veteran Trees inventory, this provides records of veteran trees, but is not an exhaustive list and other veteran trees may be present in the area. The walkover survey aimed to identify such features and as such this is not considered a constraint.

Nature Conservation Importance

- 2.20. A number of criteria have become accepted as a means of assessing the nature conservation importance of a defined area of land which are set out in A Nature Conservation Review¹² and include diversity, rarity and naturalness.
- 2.21. The nature conservation importance or potential importance of an ecological feature is determined within the following geographic context:
 - International (e.g. Special Areas of Conservation, Special Protection Areas, Ramsar sites);
 - National (e.g. Sites of Special Scientific Interest);
 - Regional (e.g. Environment Agency regional biodiversity indicators, important features in Natural England Natural Areas);
 - Metropolitan, County, Vice-County or Other Local Authority-wide Area (e.g. Local Nature Reserves, Sites of Importance for Nature Conservation);
 - Local (undesignated ecological features e.g. old hedges, woodlands, ponds);
 - The Application Site and its immediate environs (e.g. small pond, marshy grassland); and
 - Negligible (e.g. areas of hardstanding).
- 2.22. Features that have been identified to be of less than local importance are not considered to be important ecological features and as such have not been considered within the impact assessment. Where mitigation is required for these features for legal reasons this is detailed in Section 4.

Impact Assessment

- 2.23. The assessment of the potential effects of the Proposed Scheme takes into account both on-site impacts and those that may occur to adjacent and more distant ecological features.
- 2.24. The zone of influence is an area within which ecological features may be subject to biophysical changes as a result of the Proposed Scheme. Throughout the EcIA process the zone of influence was regularly reviewed. The zone of influence for the impact assessment is typically the same as the field survey area, as the likely impacts of the Proposed Scheme were considered when establishing the field survey areas. However, this was reviewed during the impact assessment,

¹² Ratcliffe, D. (1977) A Nature Conservation Review. Cambridge University Press.

based on further understanding of the Proposed Scheme impacts and on the results of the desk study, field surveys and consultation. Any changes to the zone of influence are explained in Section 4.

- 2.25. Where impacts have been identified, details are provided within the assessment to characterise these in terms or their extent and magnitude, duration, frequency and timing, and reversibility. Both positive and negative impacts are discussed. Impacts were also characterised in terms of how they occur, i.e., direct, indirect secondary or cumulative. Impacts can be permanent or temporary and can include:
 - Direct loss and degradation of wildlife habitats;
 - Fragmentation and isolation of habitats;
 - Mortality and injury to species;
 - Disturbance to species from noise, light or other visual stimuli;
 - Changes to key habitat features; and
 - Changes to the local hydrology, water quality and/or air quality.
- 2.26. For designated sites, effects are considered significant when a project and associated activities is likely to either undermine or support the conservation objectives or condition of the site(s) and its features of interest.
- 2.27. For ecosystems, effects are considered significant when a project and associated activities is likely to result in a change in ecosystem structure and function.
- 2.28. Consideration is given to whether:
 - Any processes or key characteristics will be removed or changed;
 - There will be an effect on the nature, extent, structure and function of component habitats;
 - There is an effect on the average population size and viability of component species; and
 - Functions and processes acting outside the formal boundary of a designated site has also been considered, particularly where a site falls within a wider ecosystem, e.g. wetland sites.
- 2.29. Some ecosystems can tolerate a degree of minor changes, such as localised or temporary disturbance or changes in physical conditions, without such changes harming their function or importance. For this EcIA, ecological effects have been considered in the light of any information available about the capacity of ecosystems to accommodate change. Significant effects have been determined as being either negative or positive.
- 2.30. The conservation importance of undesignated habitats and species within a defined geographical area (International to Local) has been used in this assessment to determine whether the effects of the proposals are likely to be significant:
 - For habitats, conservation status is determined by the sum of the influences acting on the habitat that may affect its extent, structure and functions as well as its distribution and its typical species within a given geographical area; and,
 - For species, conservation status is determined by the sum of influences acting on the species concerned that may affect its abundance and distribution within a given geographical area.
- 2.31. When assessing potential effects on conservation importance, the known or likely background trends and variations in status have been taken into account. The level of ecological resilience or likely level of ecological conditions, that would allow the population of a species or area of habitat to continue to exist at a given level or continue to increase along an existing trend or reduce a decreasing trend, has been estimated where appropriate to do so.
- 2.32. The avoidance, mitigation, compensation and/or enhancement measures described within the EcIA have been incorporated into the design and operational phasing programme and taken into account in the assessment of the significance of effects. These mitigation measures include those required to achieve the minimum standard of established good practice together with additional measures to further reduce any negative impacts of the Proposed Scheme. The mitigation measures include those required to reduce or avoid the risk of committing legal offences.
- 2.33. If the design changes or the agreed mitigation cannot be implemented the effects will need to be reassessed and further surveys may be required. In this event, the conclusion of this EcIA may no longer be valid.

2.34. In addition to measures required to ameliorate negative effects on important ecological features, further biodiversity enhancement measures have been identified and will be incorporated into the Proposed Scheme as it is progressed.

Mitigation Hierarchy

- The principles of the mitigation hierarchy^{13/14} have been adopted and used when considering 2.35. impacts and subsequent effects on important ecological features within the zone of influence.
- The principles of the mitigation hierarchy are that in order of preference impacts on biodiversity 2.36. should be subject to:
 - Avoidance: •
 - Mitigation; •
 - Compensation; and •
 - Enhancement. .

¹³ Department for Communities and Local Development (2021) National Planning Policy Framework, Paragraph 118. https://www.gov.uk/government/publications/national-planning-policy-framework--2 ¹⁴ CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine,

Paragraph 1.19. Chartered Institute of Ecology and Environmental Management, Winchester.

3. Baseline Conditions and Importance

3.1. This section provides details of the ecological baseline relevant to the Proposed Scheme recorded during the desk study and field surveys undertaken to inform this EcIA.

Statutory and non-Statutory Designated Sites

3.2. There are no statutory designated sites for nature conservation within 2 km of the Site and no nonstatutory designated sites within 1 km.

Irreplaceable Habitats

3.3. The desk study records did not find any ancient woodland or ancient or veteran trees located within 1 km of the Application Site. Furthermore, no irreplaceable habitats were located within the Survey Area and have not been considered further in this assessment.

Habitats

- 3.4. The Survey Area predominantly comprises an existing road, fencing and access gates with areas of grassland and scrub running parallel to the road. To the south and north of the Survey Area are two watercourses which for the purposes of this report have been named Waterbodies 1 (WB1) and 2 (WB2). There are also areas of dense scrub and two buildings, Buildings 1 (B1) and 2 (B2).
- 3.5. The grassland present is semi-improved neutral grassland typical of coastal grassland on disturbed sites comprising a range of species, with the following species being abundant: wild carrot, wild parsnip, bird's-foot trefoil, common fleabane, red clover, and false-oat grass. Adjacent to the road the grassland was managed as amenity grassland and mown short, whilst in other areas it was uncut. Where the grassland was uncut it often formed a mosaic with dense scrub, with blackthorn and bramble the dominant shrub species. The non-native species Japanese rose was also present.
- 3.6. In one particular area (TN1), the scrub had recently (within the last few months) been cut to ground level and this area has been mapped as semi-improved neutral grassland. Scrub species present here include field maple and blackthorn.
- 3.7. Waterbody WB1 originates from a recessed pool at the north east of the Survey Area. This pool is covered and captures and filters the surface water and discharge from the various areas of hardstanding and buildings within the Sellafield Site. The water discharged from the buildings enters the pool at a temperature of 20^oC¹⁵.
- 3.8. From the pool the water flows in a drainage ditch along the south eastern boundary of the Survey Area, where it is eventually culverted under the Sellafield Site for an approximate length of 250 m before entering the Calder Interceptor Sewer which is located to the west of the Survey Area. At the time of the survey the water within the waterbody was relatively fast flowing and turbid owing to recent rainfall, therefore the depth of the water could not be determined. The majority of the banks were obscured by vegetation but appear to be made up of gabion baskets and earth. The vegetation itself comprised tall ruderal vegetation and emergent species including marsh woundwort, angelica, meadow sweet and greater willowherb were present. This sewer eventually discharges into the Irish Sea.
- 3.9. Waterbody WB2 is a drainage ditch which flows into WB1. There was no appreciable flow and the bankside was obscured by dense vegetation. Vegetation was similar to that present around WB1.
- 3.10. There are two buildings within the Survey Area as previously mentioned. Building B1 is a modern building with a slate roof and stone block type walls. Building B2 is located close to the existing RBLA Gate and is a steel portacabin style building with no windows.
- 3.11. The habitats recorded on the Application Site are not listed on Annex 1¹⁶ and/or listed as priority habitats¹⁷ and as such are considered to be of less than local value.
- 3.12. Table 3-1 provides a summary description of each habitat, identifies those habitats which are listed on Annex 1¹⁸ and/or listed as priority habitats¹⁹, and provides a nature conservation importance for

¹⁵ Personal communication with the Site environment team.

¹⁶ http://jncc.defra.gov.uk/page-1523

¹⁷ http://jncc.defra.gov.uk/page-5706

¹⁸ http://jncc.defra.gov.uk/page-1523

¹⁹ http://jncc.defra.gov.uk/page-5706

each habitat. The table also provides details of the area of each habitat within the Application Site and the proportion of the Application Sites this makes up. Habitats are mapped on the extended Phase 1 habitat survey plan (Appendix CC) with specific features highlighted by TNs on the figure. TN descriptions and photographs are provided in Appendix CD.

Habitat type	Location of Habitat ²¹	Area of Habitat/Distance of Linear Feature ²²		Annex 1 habitat y/n	Priority habitat y/n	Importance level
		Ha/M	% of Site			
Semi- improved grassland	Within Survey Area	0.55 ha	27%	n	n	Less than local
Dense Scrub	Within Survey Area	0.69 ha	34%	n	n	Less than local
Watercourses and associated tall ruderal vegetation	Within Survey Area	198 m 0.006 ha	0.2%	n	n	Less than local
Buildings and hardstanding	Within Survey Area	0.75 ha	37%	n	n	Negligible
Bare ground	Within Survey Area a	0.022 ha	1%	n	n	Less than local

Table 3-1 – Habitat type	s within 50 m ²⁰	^o of the Application	Site
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Protected and Priority Species

3.13. This section provides a summary of the results of the desk study, extended Phase 1 habitat survey along with the nature conservation importance for each species or species group.

Badgers

- 3.14. A single record of badger from within 2 km of the Site was provided from CBDC, although the exact location of the record was not provided. No evidence of badgers was recorded within the Survey Area, although the habitats present do provide suitable foraging, commuting and sett building habitat.
- 3.15. Given that badgers are relatively common and widespread animals, with their legal protection afforded due to persecution rather than declines in populations, any population of badgers present within the Survey Area would be of less than local ecological conservation value.

Amphibians

- 3.16. MAGIC returned two European Protected Species Licence for amphibians within 2 km of the Scheme, both of which were for natterjack toad. The closest was 705 m north of the Scheme. There is also a natterjack Wildlife Site approximately 1.1 km south west of the Site from which numerous records of natterjack toads were provided by CBDC.
- 3.17. There is one waterbody within 500 m of the Site, identified from OS maps, which may have suitability for great crested newts or other amphibians. This waterbody is located approximately 325

²⁰ This is the zone of influence for habitats.

²¹ Where habitats are situated outside of the Application Site boundary, the distance and direction is given to the closest point that the habitat from is the Application Site.

²² The area of habitat is only provided for those habitats that fall within the Application Site.

m east of the Site. There are no significant barriers to movement between this waterbody and the Site, however, it is considered that species such as great crested newts typically use terrestrial habitat within 250 m of a pond.

- 3.18. Within the Survey Area, WB1 is likely to be too fast flowing to support breeding populations of amphibians, although WB2 which did not have an appreciable flow could potentially support amphibians. The terrestrial habitat present within the Survey Area could also potentially support amphibians.
- 3.19. With regards to natterjack toads, these species typically prefer to breed in a shallow, ephemeral ponds which are not present within the Survey Area. They are also associated with open sandy habitats which are also not present within the Survey Area.
- 3.20. Given that the wider Sellafield Site is an active site with numerous planning applications previously approved, it is considered likely that any population of great crested newts and natterjack toads within the Sellafield Site would be well documented. Applying ecological provenance suggests that these two species are not present within the Survey Area and they are not considered further within this report.
- 3.21. Common toad a priority species may utilise terrestrial habitat within the Site, but it is considered that the waterbodies WB1 and WB2 do not provide suitable breeding habitat, with common toads typically associated with larger ponds and lakes. However, offsite ponds may support this species and as such they may occur within terrestrial habitat within the Survey Area.

Bats

- 3.22. MAGIC returned three European Protected Species Licences for bats within 2 km of the Scheme, the closest (reference EPSF2011-3850) was 1 km north of the Application Site and allowed for the destruction of a resting place for common pipistrelle, soprano pipistrelle, noctule and Daubenton's. Numerous records for bats were provided by CBDC from within 2 km of the Site including records for common and soprano pipistrelle, Daubenton's, noctule and brown long-eared bat.
- 3.23. None of the buildings within the Survey Area were considered to have potential to support roosting bats, with no obvious access features recorded.
- 3.24. The watercourse and terrestrial habitat are likely to provide a foraging resource for bats within the local area. However, being a large industrial site, the Survey Area is well lit at night, as evidenced by several lighting towers which may limit the suitability of the Survey Area for certain, light sensitive species.
- 3.25. Within the wider landscape area areas of pasture and woodland which are likely to be of value for foraging bats than the habitats present within the Survey Area, such that the loss of foraging habitat within the Survey Area is unlikely to have a significant impact on the local bat population. On this basis, it is considered likely that the Survey Area supports common and widespread bat species of less than local value.

Red squirrel

3.26. Numerous records for red squirrel were provided by CBDC, associated with an area of woodland approximately 1 km east of the Site. There is no suitable habitat within the Site to support red squirrel and no suitable connecting habitat (woodland or tree lines) connecting the Site to this area of woodland. It is, therefore, considered unlikely that red squirrels are present within the Site and they are not considered further within this report.

Birds

- 3.27. A large number of bird records were provided by CBDC from within 2 km of the Site. The majority of these included seabirds and wading birds associated with the coastline and sea to the west of the Application Site, species which are unlikely to use the limited habitats present within the Survey Area.
- 3.28. The areas of grassland and scrub do, however, provide suitable nesting habitat for a range of bird species. Although, given the size of the Survey Area and limited areas of suitable habitat within it is likely to only support a small number of breeding territories and any population assemblage or species population of breeding birds is likely to be of less than local value.

Invertebrates

- 3.29. Records for the priority species dingy skipper, wall and small heath (all butterflies) were provided by CBDC from within 2 km of the Site
- 3.30. The terrestrial habitats are likely to support a range of invertebrate species. Common bird's-foot trefoil, the food plant of the dingy skipper was present within the areas of grassland within the Survey Area and as such this species may potentially be present as well as species such as wall and small heath which are associated with coastal grassland habitats.
- 3.31. With regard to aquatic invertebrate species, the elevated water temperatures of the water entering WB1 may potentially result in lower oxygen levels (oxygen levels decrease as the temperature of water increase), particularly during the summer which may limit the diversity of aquatic invertebrates.
- 3.32. Given the size of the Survey Area and that other areas of similar habitat are present within the wider Sellafield Site and wider landscape it is considered unlikely that the Survey Area supports individual populations of invertebrates or an invertebrate assemblage of less than local value.

Reptiles

- 3.33. Records for common lizard, slow-worm and adder were provided by CBDC from within 1.2 km of the Site, associated with the coastal habitat to the west of the Application Site.
- 3.34. The areas of grassland and scrub within the Survey Area provides suitable habitat for common reptile species (slow-worm, common lizard, grass snake, and adder) and there are areas of grassland and scrub along the eastern boundary of the Sellafield Site which provide good connectivity between the Survey Area and areas of coastal habitat. However, given the size of the Survey Area and that other areas of similar habitat are present within the wider Sellafield Site and wider landscape it is considered unlikely that the Survey Area supports a reptile population of less than local value.

Otter

3.35. MAGIC returned one European Protected Species Licence for otter (EPSF2011-3851) within 1 km of the Scheme; this was 1 km north of the Application Site. There are also records of otter from the River Calder, approximately 400 m west of the Application Site. However, WB1 and WB2 within the Survey Area are isolated from the River Calder via a culvert which extends approximately 250 m from the River Calder to the point where WB1 flows into the culvert. It is considered unlikely that otters would swim through the culvert for such a considerable length. Above the culvert, between the River Calder the WB1 is the wider developed area of the Sellafield Site and it is considered unlikely that otters would traverse this area to reach WB1.

Water vole

- 3.36. No records of water vole from within 1 km of the Site were provided from CBDC.
- 3.37. WB1 and WB2 provide suitable habitat for water voles although no evidence of water voles was recorded during the extended Phase 1 habitat survey. As previously discussed for otters, given the lack of suitable connectivity to the Calder River it is considered unlikely that water voles would be present within WB1 and WB2 and they are not discussed further within this report.

White-clawed crayfish

- 3.38. No records of white-clawed crayfish from the Calder River were provided by CBDC although it does provide suitable habitat for this species.
- 3.39. The water entering WB1 is known to be heated to 20°C at its source which is likely to have impacts on the oxygen levels within the water, potentially making the watercourse unsuitable for whiteclawed crayfish. However, the potential presence of white clawed crayfish within WB1 and WB2 cannot be ruled out on this basis entirely. WB1 and WB2 will not be directly affected by the works and as such white-clawed crayfish not discussed further within this report.

Summary of Features of Nature Conservation Importance

3.40. The following features that have been valued at less than local are not considered to be important ecological features and as such are not discussed further within this report:

- Habitats, including semi-improved grassland, buildings and hardstanding, bare ground, dense scrub, tall ruderal vegetation, associated with the watercourses; and
- Terrestrial Invertebrates.
- 3.41. The following features that have been valued at less than local are not considered to be important ecological features and as such as not discussed within the impact assessment. However due to legal considerations, mitigation is required, which is detailed in Section 4. Mitigation has, therefore, been developed for legal reasons for:
 - Water pollution
 - Nesting birds
 - Reptiles
 - Mammals
 - Non-native invasive species
- 3.42. The Application Site and its immediate surroundings are of limited biodiversity importance. Whilst the features recorded have not been assessed to be important ecological features, they are considered to provide a biodiversity benefit for the immediate locale. These features do not fall into the criteria of requiring detailed impact assessment. However, their presence has been considered within the context of the Application Site and the design has considered these features in terms of achieving no net biodiversity loss and, where possible, net gain.

Non-native Invasive Species

3.43. Japanese Rose was recorded within areas of scrub with the Survey Area. No other non-native invasive plant species (INNPS) were recorded, and no non-native invasive animal species were recorded.

4. Design Features and Mitigation Measures

4.1. The Application Site and its immediate surroundings are of limited biodiversity importance. Whilst the features recorded have not been assessed as important ecological features, they are considered to provide a biodiversity benefit for the immediate locale. These features do not fall into the criteria of requiring detailed impact assessment. However, their presence has been considered within the context of the Application Site and the design has considered these features in terms of achieving no net biodiversity loss and, where possible, net gain.

Mitigation Measures

- 4.2. The following general measures will be implemented during the construction phase of the Proposed Scheme and are to be detailed in an Ecological Management Plan (EcoMP).
- 4.3. The details of the EcoMP are to be briefed to all Site personnel via a toolbox talk and a copy of the EcoMP is to be kept on the Application Site at all times.
- 4.4. The following mitigation measures will be adhered to:
 - Guidance for Pollution Prevention (GPPs)²³ will be followed and Construction Industry Research and Information Association (CIRIA) guidance on the control of water pollution from construction sites²⁴.
 - Where possible, vegetation clearance will be minimised and undertaken outside the core bird nesting season (the core nesting season is 1 March to 31 August, though it should be noted that variation in dates is possible, for example from geographical variations in climate, or due to a particularly mild winter) to avoid damage or destruction of occupied nests or harm to breeding birds. If this cannot be achieved, works within the core bird nesting season will require an inspection of vegetation to be cleared for breeding birds and their occupied nests by a suitably qualified ecologist no more than 24 hours prior to any works being undertaken. If any nesting birds are identified during the survey, they will be left in situ for their entire nesting period and alternative approaches to the work proposed. This may include leaving an exclusion zone around the nests to avoid disturbance.
 - Where works are undertaken when reptiles are active (1 March to 31 October inclusive) areas of grassland will be directionally strimmed, i.e. from north to south, to 150 mm to encourage reptiles to move away from the works area and into adjacent suitable habitat, followed by a hand search for reptiles by an ecologist. Thereafter, any vegetation will be maintained close to ground level (<50 mm) to dissuade reptiles from moving into the works area. Works will avoid disturbing potential hibernation sites (brash/ log piles, etc.) during the winter period (1 November to 28 February inclusive). Where this is unavoidable further mitigation measures are likely to be required.
 - Excavations will be filled or covered overnight to prevent animals (such as badger) becoming entrapped. Where excavations cannot be filled or covered overnight, a plank of wood (or similar) will be placed into the excavation at an angle that allows a means of escape.
 - Japanese rose has been recorded with the Survey Area, although the proposed works will not impact the areas in which it grows. Therefore, the works are considered unlikely to cause the spread of Japanese rose and no specific mitigation is required. Should the footprint of the proposed works change, an ecologist will be contacted to determine whether there is a risk of spreading Japanese rose.
 - If any protected species or evidence of protected species, or any INNPS, are unexpectedly encountered at any point during the works, all works will cease, and an ecologist will be contacted for further advice on how to proceed.

²³ Guidance for Pollution Prevention (GPPs), <u>https://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/</u>

²⁴The CIRIA documents are a series of publications developed by the Construction Industry Research and Information Association. Each document is targeted at a particular type of business or activity and covers environmental good practice to minimise pollution.

5. Impact Assessment

5.1. Subject to the implementation of the mitigation measures outlined above it is not considered that there will be any likely contravention of the legal protection afforded to badgers, reptiles, breeding birds and bats.

6. Conclusion

- 6.1. The survey work undertaken by Atkins has confirmed that the Application Site is of limited ecological value, although may potentially support populations of reptiles, breeding birds, terrestrial invertebrates, badgers and common and widespread species of bats. Measures to avoid any contravention of the legal protection afforded to reptiles, badgers, breeding birds and bats has been provided within this report.
- 6.2. On the basis of the above, it is considered that the Proposed Scheme will be compliant with both National and Local planning policy and relevant legislation.

Report Validity

6.3. In the event of scope or programme changes or if works do not commence within 12 months of the date of this report then updates to the surveys may be required to ensure the validity of the data, as per CIEEM guidance²⁵.

²⁵ CIEEM (2019) Advice Note on the Lifespan of Ecological Reports and Surveys

Appendices

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Appendix A. Site Location Plan





Appendix B. Planning Policy

National Planning Policy Framework, 2021

- B.1. The National Planning Policy Framework (NPPF) sets out the Governments planning policies for England and how these are expected to be applied by Local Authorities within their Local Development Frameworks (LDF). The revised National Planning Policy Framework was published in July 2021.
- B.2. Chapter 15 of the NPPF 'Conserving and enhancing the natural environment' sets out the requirements to consider biodiversity in planning decisions.
- B.3. The paragraphs within Chapter 15 relevant to the Scheme, the key information from which is detailed below:

Para 170: Planning policies and decisions should contribute to and enhance the natural and local environment by

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Para 171: Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework²⁶; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

Para 172: Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads²⁷. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major

²⁶ Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a high quality

²⁷ English National Parks and the Broads: UK Government Vision and Circular 2010 provides further guidance and information about their statutory purposes, management and other matters.



development²⁸ other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

- a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;
- b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and
- c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

Para 173. Within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 172), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.

Habitats and biodiversity

Para 174. To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity²⁹; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation³⁰; and
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

Para 175. When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts),
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons³¹ and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity

²⁸ For the purposes of paragraphs 172 and 173, whether a proposal is 'major development' is a matter for the decision maker, taking into account its nature, scale and setting, and whether it could have a significant adverse impact on the purposes for which the area has been designated or defined.

²⁹ Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

³⁰ Where areas that are part of the Nature Recovery Network are identified in plans, it may be appropriate to specify the types of development that may be suitable within them.

³¹ For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.



improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

Para 176. The following should be given the same protection as habitats sites:

a) potential Special Protection Areas and possible Special Areas of Conservation;
 b) listed or proposed Ramsar sites³²; and

c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

Para 177. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

³² Potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar sites are sites on which Government has initiated public consultation on the scientific case for designation as a Special Protection Area, candidate Special Area of Conservation or Ramsar site.



Copeland Local Plan 2013-2028: Adopted Core Strategy and Development Management Policies.

B.4. Policy ENV3 – *Biodiversity and Geodiversity* and DM25- *Protecting Nature Conservation Sites, Habitats and Species* of the Copeland Local Plan sets out how the council with protect local biodiversity..

Policy ENV3- Biodiversity and Geodiversity

The Council will contribute to the implementation of the UK and Cumbria Biodiversity Action Plan within the plan area by seeking to:

- a. Improve the condition of internationally, nationally and locally designated sites
- b. Ensure that development incorporates measures to protect and enhance any biodiversity interest
- c. Enhance, extend and restore priority habitats and look for opportunities to create new habitat
- d. Protect and strengthen populations of priority or other protected species
- e. Boost the biodiversity value of existing wildlife corridors and create new corridors, and steppingstones that connect them, to develop a functional Ecological NetworkRestrict access and usage where appropriate and necessary in order to conserve an area's biodiversity valuepolicy



Policy DM25 – Protecting Nature Conservation Sites, Habitats and Species

A All development proposals should:

i.Protect the biodiversity value of land and buildings

- ii. Minimise fragmentation of habitats
- iii. Maximise opportunities for conservation, restoration, enhancement and connection of natural habitats and creation of habitats for species listed in UK and Cumbria Biodiversity Action Plans. Special consideration should also be given to those European habitats that lie outside the boundaries of European designated sites.

B Development proposals that would cause a direct or indirect adverse effect on locally recognised sites of biodiversity and geodiversity importance, including County Wildlife Sites, Local Nature Reserves and Regionally Important Geological/Geomorphological Sites or protected species will not be permitted unless:

i) The benefits of the development clearly outweigh the impacts on the features of the site and the wider network of natural habitats, and;

ii) Prevention, mitigation and/or compensation measures are provided. An appropriate long-term management plan will be sought and arrangements to provide adequate funding will be made in accordance with a formal planning agreement or obligation

C Where compensatory habitat is created, it should be of equal or greater size than the area lost as a result of the development

D Development proposals where the principal objective is to conserve or enhance biodiversity or geodiversity interests will be supported in principle

E Where there is evidence to suspect the presence of protected species any planning application should be accompanied by a survey assessing their presence and, if present, the proposal must be sensitive to, and make provision for, their needs

F All development proposals must take into account any likely significant effects on the internationally important sites both within the Borough and within a 20km radius of the Borough boundary as well as those that are hydrologically linked to the development plan area 10.5.4.



Appendix C. Extended Phase 1 Habitat Survey Plan and Target Notes





Appendix D. Target Notes and Photographs

Table D-1 - Site photographs

Habitat type	Description	Photograph
Grassland and scrub	Areas of grassland and scrub at south of Survey Area.	
WB1	View of WB1 showing dense tall ruderal vegetation and emergent vegetation.	
B1	Building B1 - Modern building with no access features. Negligible bat roosting suitability.	



Building B2 - Steel container. Negligible bat roosting suitability.





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