November 2024

Screening for Appropriate Assessment (AA) Report

Craddockstown, Naas, Co.Kildare

ASH Ecology & Environmental

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1.0 Introduction

1.1 Purpose of the Report

An Screening for Appropriate Assessment (AA) was undertaken by Ash Ecology & Environmental Ltd (AEE) on behalf of Verdé Environmental Consultants for their client Kildare County Council (KCC) for the construction of 28 social housing units and associated site works at Craddockstown, Naas, Co. Kildare.

It provides information on, and assesses the potential for, the proposed development to impact on the Natura 2000 network (hereafter referred to as European sites).[1] The subject site location is shown in Figures 1 and 2. The existing site is a greenfield site. The proposed site layouts are shown as Figure 3.

An AA is required if significant effects on European sites arising from a proposed development cannot be ruled out at the screening stage, either alone or in combination with other plans or projects. It is the responsibility of the competent authority to make a decision as to whether or not the proposed development is likely to have significant effects on European sites, either individually or in combination with other plans or projects.

AEE has also completed two Bat activity surveys of the treelines and hedge during June and July 2024 with the bat report (AEE, November 2024) submitted with this application.

[1] The Natura 2000 network is a European network of important ecological sites, as defined under Article 3 of the Habitats Directive 92/43/EEC, which comprises both special areas of conservation and special protection areas. Special conservation areas are sites hosting the natural habitat types listed in Annex I, and habitats of the species listed in Annex II, of the Habitats Directive, and are established under the Habitats Directive itself. Special protection areas are established under Article 4 of the Birds Directive 2009/147/EC for the protection of endangered species of wild birds. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats.

In Ireland these sites are designed as European sites - defined under the Planning Acts and/or the Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

1.2 Competency of Assessor

This report has been prepared by Aisling Walsh whose qualifications includes an MSc in Biodiversity and Conservation (TCD), B.Sc. (Hons) Zoology (NUIG), B.Sc. Applied and Aquatic Science (GMIT) along with a Certificate of Competence in Environmental Noise Measurement from the Institute of Acoustics. Aisling is the Managing Director of Ash Ecology & Environmental Ltd and has over 17 years of experience providing environmental consultancy and environmental assessment services. Aisling has written numerous Ecological Impact Assessments (EcIA), Screening for Appropriate Assessment Stage I and Stage II Natura Impact Statements, Environmental Impact Assessments/Statements, Bat Surveys (Aisling is a Licensed Bat Ecologist) and Habitat Surveys. She has also provided input and reviewed Ecological and Environmental assessments for several EIS and EIAR and conducted numerous noise surveys for EPA licenced facilities. AEE is a Registered Practice of the CIEEM (see Appendix A).

2.0 Methodology

2.1 Desk Based Studies

A desk-based review of information sources was completed. Information contained on the websites of the National Parks and Wildlife Service (NPWS) and the National Biodiversity Data Centre (NBDC) was reviewed.

The desktop data sources used to inform the assessment presented in this report are as follows (accessed in June 2024):

- Online data available on European sites and protected habitats/species as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including conservation objectives documents
- Online data available on protected species as held by the National Biodiversity Data Centre (NBDC) from www.biodiversityireland.ie
- Information on the surface water network and surface water quality in the area available from www.epa.ie
- Information on groundwater resources and groundwater quality in the area available from www.epa.ie and www.gsi.ie
- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie
- Information on the location, nature and design of the proposed development supplied by the applicant's design team
- Kildare Development Plan 2023 - 2029

2.2 Field-based Studies

The site was visited for the purposes of this report on June 12th 2024.

2.2.1 Habitat Assessment

Habitats were identified and classified according to Fossitt (2000) and Smith et al. (2011). A habitat map is shown as Figure 4. The main habitats onsite were:

Within the site:

- Improved Agricultural Grassland (GA1): The majority of the site consists of improved agricultural grassland that was previously used for grazing but is currently unmanaged. This habitat is characterised by a low diversity of common agricultural grasses and herbs and is considered to be of low ecological value.
- Treelines/Hedgerows (WL2/WL1): Fragmented strips of mature treelines and hedgerows are present along the southeast, west, and southwest boundaries of the site. These linear woody habitats are the most ecologically significant features within the site.
- Scrub (WS1): Dense patches of scrub habitat have developed in front of many of the treelines along the site boundaries.

Outside or near the site:

- Buildings and Artificial Surfaces (BL3) and Amenity Grassland (GA2): The surrounding housing development to the north and west of the site contains private dwellings, larger housing developments, roads and hard standing (artificial surfaces), and small gardens (amenity grassland). These areas are of low to negligible ecological value.

2.2.2 Birds

The treelines and hedgerows within the site are likely to support a variety of nesting bird species during the breeding season (March 1st to August 31st . Any removal of these habitats to facilitate the development can only be completed outside the bird nesting season, as per the Wildlife Acts.

2.2.3 Mammals

The treelines, hedgerows, and scrub areas within the site provide important habitat for various mammals. Based on recent surveys and site characteristics, several mammal species are known to use or likely use these habitats:

- To assess bat activity and roosting potential, AEE conducted two dedicated bat surveys in June and July 2024 (see Bat Report, AEE November 2024). These surveys focused particularly on treelines that may be impacted by the development, identifying those with moderate or high bat roosting potential.
- A specialist badger survey by Brian Keeley Wildlife Surveys Ireland (November 2024) found no evidence of badger setts onsite but concluded that badgers may occasionally pass through the site given the adjacent agricultural lands.

This survey also documented extensive rabbit activity, with numerous burrows present, and evidence of fox usage of the site.

The dense scrub (WS1) provides particularly suitable cover and burrowing habitat for mammals. Well-worn tracks and trails throughout these areas indicate regular use by various species. Based on habitat suitability and local records, other species likely to utilise the site include Irish hare and hedgehog (both protected under the Wildlife Acts).

The site's mammal populations require consideration under two key pieces of legislation:

- The Wildlife Acts - providing specific protection for certain species including hedgehog and Irish hare
- The Animal Health and Welfare Act 2013 - covering all mammals with Section 12(1) prohibiting "causing unnecessary suffering or endangering the health or welfare of any animal"

To ensure compliance with both acts, a comprehensive Mammal Protection Protocol has been developed (see Appendix C). This protocol outlines specific measures to be incorporated into the Construction Environmental Management Plan (CEMP).

2.2.4 Invasive Species

No invasive species listed on 2011 Regs S.I. 477 were noted onsite (e.g. Japanese knotweed).

2.2.5 Summary of Findings

In summary, the site is dominated by previously grazed, currently unmanaged improved agricultural grassland (GA1) of low ecological value. The treelines/hedgerows (WL2/WL1) and scrub (WS1) along a selection of the site boundaries are the most ecologically significant features, providing potential habitats for nesting birds, invertebrates, bats, and various mammals. Recent surveys have confirmed active use by rabbits and foxes, with potential for protected species like hedgehog and Irish hare. While a specialist badger survey found no evidence of setts, badgers may occasionally pass through the site. The surrounding built-up areas (BL3 and GA2) are of negligible ecological importance. The development will require removal of improved grassland (GA1) along with treelines/hedging/scrub (WL2/WL1/WS1), necessitating implementation of the Mammal Protection Protocol (Appendix C) to ensure compliance with relevant legislation.

2.3 Appropriate Assessment Methodology

This Appropriate Assessment Screening Report has been prepared with regard to the following guidance documents, as relevant:

- Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission, September 2021)
- OPR Practice Note PN01. Appropriate Assessment Screening for Development Management (Office of the Planning Regulator, 2021)
- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, 2010 revision)
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 & PSSP 2/10
- Communication from the Commission on the precautionary principle (European Commission, 2000)
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (European Commission, 2019)

The above-referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if an Appropriate Assessment is required, documented screening is required. Screening identifies the potential for effects on the conservation objectives of European sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects (i.e., likely significant effects). Significant effects on a European site are those that would undermine the conservation objectives supporting the favourable conservation condition of the Qualifying Interest (QI) habitats and/or the QI/Special Conservation Interest (SCI) species of a European site(s).

2.2.1 Screening for Appropriate Assessment

Screening for Appropriate Assessment involves the following steps:

1. Determining whether the project or plan is directly connected with or necessary to the management of any European site(s);
2. Describing the details of the project/plan proposals and other plans or projects that may cumulatively affect any European site(s);
3. Identifying the potential effects on any European site(s);
4. Assessing the significance of any effects on any European site(s).

If the conclusions at the end of screening are that there is no likelihood of significant effects occurring on any European sites as a result of the proposed plan or project, either alone or in combination with other plans and projects, then there is no requirement to undertake an Appropriate Assessment.

2.2.2 Source-Pathway-Receptor Approach

In establishing which European sites are potentially at risk (in the absence of mitigation) from the proposed development, a source-pathway-receptor approach was applied. In order for an impact to occur, there must be a risk enabled by having

a source (e.g., water abstraction or construction works), a receptor (e.g., a European site or its QI(s) or SCI(s)), and a pathway between the source and the receptor (e.g., pathway by air for airborne pollution, or a pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for the impact to occur.

The identification of source-pathway-receptor connection(s) between the proposed development and European sites essentially is the process of identifying which European sites are within the Zone of Influence (ZoI) of the proposed development, and therefore potentially at risk of significant effects. The ZoI is the area over which the proposed development could affect the receiving environment such that it could potentially have significant effects on the QI habitats or QI/SCI species of a European site, or on the achievement of their conservation objectives.

The identification of a source-pathway-receptor link does not automatically mean that significant effects will arise. The likelihood for significant effects will depend upon the characteristics of the source (e.g., extent and duration of construction works), the characteristics of the pathway (e.g., direction and strength of prevailing winds for airborne pollution), and the characteristics of the receptor (e.g., the sensitivities of the European site and its QIs/SCIs).

The 'likely significant effects' test is based on the precautionary principle. The precautionary principle means that, based on the most reliable available information, where there is uncertainty or doubt as to the absence of significant effects, the project cannot be screened out and an appropriate assessment must be carried out.

2.2.3 Regulatory Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna, better known as "The Habitats Directive," provides the framework for legal protection for habitats and species of European importance. Articles 3 to 9 of the Directive provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC) (better known as "The Birds Directive").

Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites. Article 6(3) establishes the requirement for Appropriate Assessment:

"*Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the component national authorities shall agree to the plan or project only after having ascertained that it will not*

adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

Articles 6(3) and 6(4) of the Habitats Directive require an Appropriate Assessment of plans to prevent significant adverse effects on European conservation sites, also known as Natura 2000 sites. In this particular case, the purpose of Appropriate Assessment is to assess the potential impacts of proposed activities on the conservation objectives of European sites. The assessment will determine whether the plan would have significant adverse effects upon the integrity of each site in terms of its nature conservation objectives.

The integrity of the site has been defined as "the coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified" (PPG 9, UK Department of the Environment, October 1994). Where negative effects are identified, other options should be thoroughly examined to avoid any potential damaging effects prior to implementing the plan.

2.2.4 AA Process

The European Commission's Methodological Guidance recommends a 4-stage approach:

Stage 1: Screening

Determining whether the plan 'either alone or in combination with other plans or projects' is likely to have a significant effect on a European site.

Stage 2: Appropriate Assessment
Determining whether, in view of the site's conservation objectives, the plan 'either alone or in combination with other plans or projects' would have an adverse effect (or risk of this) on the integrity of the site. If not, the plan can proceed.

Stage 3: Assessment of Alternative Solutions

Where it has not been proven that measures considered will not avoid or mitigate the adverse effect on the Natura 2000 site, then an assessment of the alternatives will be required; and if none are acceptable then stage 4 is required to be considered.

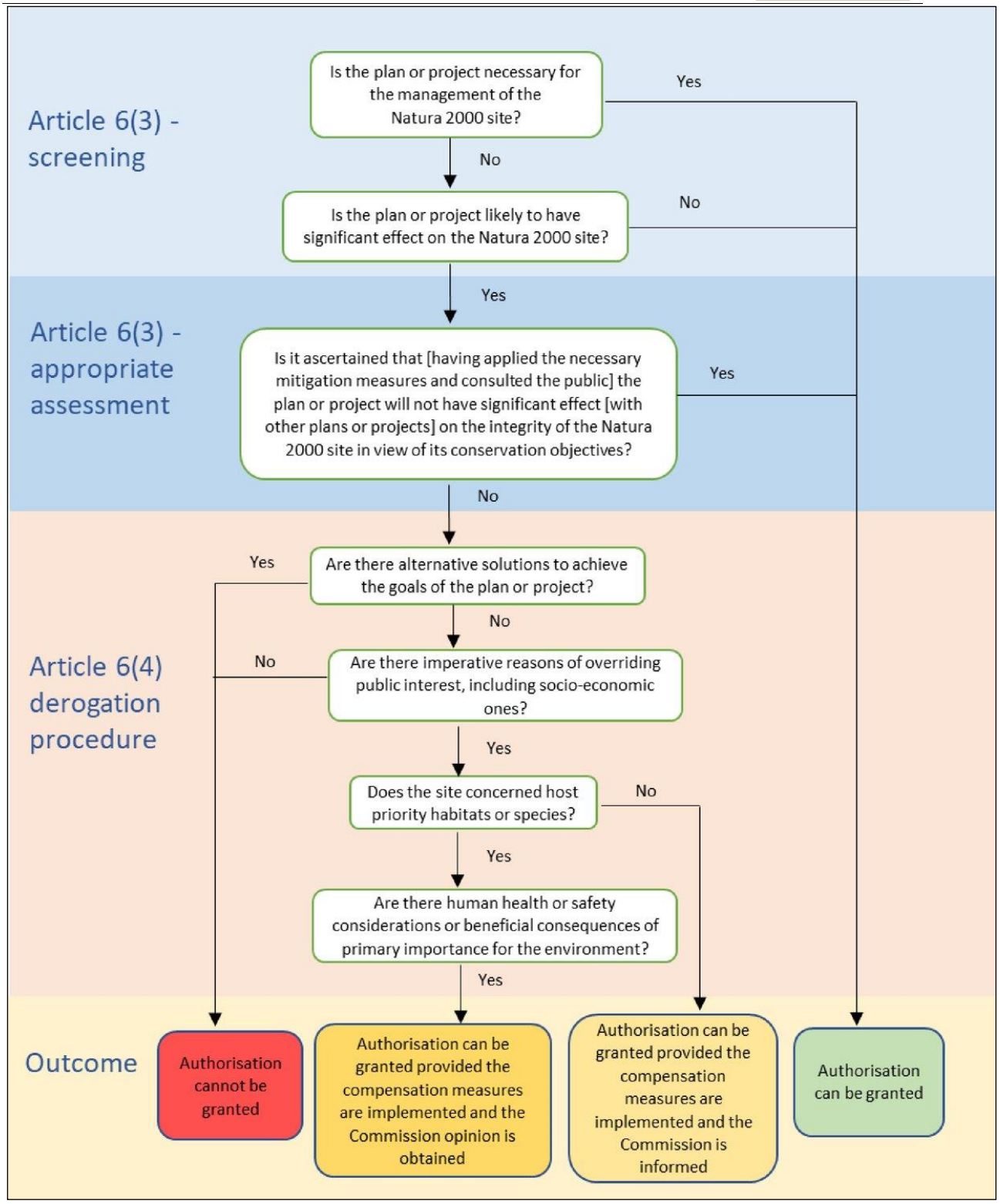
Stage 4: Assessment where no Alternative Solutions Exist & where Adverse Impacts Remain

This will involve assessment where the Plan is considered to result in adverse impacts on the Natura 2000 site and no alternative solutions remain – the imperative reasons of overriding public interest (IROPI) test must be met before authorisation, permission or adoption of the Plan is agreed. This includes the agreement of compensatory measures.

Screening for Appropriate Assessment involves the following steps:[2]

This report covers Stage 1 of Appropriate Assessment - Screening. The outcome of each stage determines whether a further stage in the process is required.

[2] Figure 1 of Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission, September 2021)


Article 6(3) - screening
Is the plan or project necessary for the management of the Natura 2000 site?
Yes
No
Is the plan or project likely to have significant effect on the Natura 2000 site?
No
Yes
Article 6(3) - appropriate assessment
Is it ascertained that [having applied the necessary mitigation measures and consulted the public] the plan or project will not have significant effect [with other plans or projects] on the integrity of the Natura 2000 site in view of its conservation objectives?
Yes
No
Article 6(4) derogation procedure
Yes
Are there alternative solutions to achieve the goals of the plan or project?
No
No
Are there imperative reasons of overriding public interest, including socio-economic ones?
Yes
Does the site concerned host priority habitats or species?
No
Yes
Are there human health or safety considerations or beneficial consequences of primary importance for the environment?
Yes
Outcome
Authorisation cannot be granted
Authorisation can be granted provided the compensation measures are implemented and the Commission opinion is obtained
Authorisation can be granted provided the compensation measures are implemented and the Commission is informed
Authorisation can be granted

3.0 Provision of Information for Screening for Appropriate Assessment

The following sections provide information to facilitate the Appropriate Assessment screening of the proposed development to be undertaken by the competent authority. A description of the proposed development and the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are discussed, as relevant to the assessment of ecological impacts where they may highlight potential pathways for impacts associated with the proposed development to affect the receiving ecological environment (e.g., hydrogeological and hydrological data). The potential impacts are examined in order to define the potential zone of influence of the proposed development on the receiving environment. This then informs the assessment of whether the proposed development will result in significant effects on any European sites; i.e., affect the conservation objectives supporting the favourable conservation condition of the European site's QIs or SCIs.

3.1 Project Description

Kildare County Council is planning to construct 28 no. social housing units at Craddockstown, Naas, Co. Kildare. The 0.858 ha site is located approximately 2.2km from South Main Street, Naas, and is zoned as "New Residential" under the County Development Plan 2023-2029.

The proposed development will consist of:

- 3 no. 1B/2P Accessible UD Apartments
- 4 no. 1B/2P Apartments (GF UD)
- 14 no. 2B/4P/2Storey Houses
- 2 no. 3B/6P/2Storey Houses (GF bedroom UD)
- 4 no. 3B/6P/2Storey Houses
- 1 no. 4B/7P/2Storey House (GF bedroom and sensory room UD)

The development includes:

- New access road from Craddockstown Road
- 33 car parking spaces
- Landscaped public open space including natural play features
- Pedestrian/cycle connections to adjacent Eustace Demesne estate
- Associated infrastructure (ESB substation, bicycle parking, public lighting, bin storage)
- Boundary treatments including 2-2.4m high walls
- Removal of some existing vegetation

Foul water from the proposed development will connect to the existing foul water network. A pre-connection agreement with Irish Water will be submitted with application.

Surface water run-off from all of the development's hard surfaces including roads and roofs, will connect to the existing public surface water drainage network. The ULLVSS WWTP Osberstown (D0002) was checked (November 2024) and confirmed to be at 'Green' capacity.

A Planning Stage Construction Environmental Management Plan (CEMP) should be compiled for the main environmental management measures such as noise, dust, water pollution prevention, invasive species control etc.

3.2 Description of Relevant Receptor-Source-Pathway Connections between the proposed development site and European sites Identified

In accordance with the European Commission Methodological Guidance (EC2001), a list of Natura 2000 Sites that can be potentially affected by the proposed works has been compiled. Adopting the precautionary principle in identifying these sites, it has been decided to include all SACs (Special Areas of Conservation) and SPAs (Special Protection Areas) within 15km of the site at Craddockstown, Naas, Co. Kildare.

The nearest protected areas to the site are listed below in Table 1. A map showing the 6 SAC sites and 2 SPA sites within a 15km radius of the site are shown as Figures 5 and 6. The proposed works do not occur within any SAC or SPA.

Table 1 European Sites within 15km of the Site

	Code	Site Name	Approx. Distance (as the crow flies)	Screening Conclusion
SAC Sites				
1	000397	Red Bog, Kildare SAC	7.3km E	All 6 sites are outside the Zone of Influence. There are no hydrological impact to these sites and also the distance >7.3km is sufficient for there to be no disturbance impacts to the conservation interests of any SAC sites due to works.
2	002331	Mouds Bog SAC	9.4km W	
	001387	Ballynafagh Lake SAC	11.6km NW	
3	000391	Ballynafagh Bog SAC	12.4lkm NW	
4	002122	Wicklow Mountains SAC	11.7km SE	
5	000396	Pollardstown Fen SAC	12.3km W	
SPA Sites				
1	004063	Poulaphouca Reservoir SPA	8.3km SE	Sites Screened out as they are outside the Zone of Influence. There are no hydrological impact to these sites and also the distance >8.3km is sufficient for there to be no disturbance impacts.
2	004040	Wicklow Mountains SPA	14.5km SE	

4.0 Screening Assessment of Likely Effects

As the proposed development does not overlap with any European Site, none of the qualifying interest habitats or species of sites listed in Table 1 will be directly impacted with distances of 7.3km and 8.3km to the closest SAC and SPA respectively. Nevertheless a number of factors were examined at this stage and dismissed, or carried forward for appropriate assessment as relevant.

4.1 Habitat Loss/Alteration

As there will be no direct habitat loss of any of European sites listed in Table 1 and impacts arising from habitat loss/alteration are therefore screened out. A landscape plan which promotes net gain for biodiversity should be devised as part of the final proposed layout.

4.2 Disturbance and/or Displacement of Species

Disturbance and displacement of fauna species as a result of construction-related disturbance could potentially occur within the vicinity of the proposed works. For mammal species such as otter and badger, disturbance effects would not be expected to extend beyond 250m[3]. For birds, disturbance effects would not be expected to extend beyond a distance of c.300m, as noise levels associated with general construction activities would attenuate to close to background levels.

The proposed construction works are located at a considerable distance from the nearest European sites, with the nearest being Poulaphouca Reservoir SPA (8.3km southeast) and Red Bog, Kildare SAC (7.3km east). Given this distance, as well as the nature and scale of the proposed development, it is unlikely that any disturbance or displacement effects would extend to the European sites or their qualifying interests.

It is expected that the proposed works are unlikely to affect the conservation objectives or favourable conservation status of any European sites during the operational phase due to the nature of the housing development and its distance from the nearest European sites.

Therefore, disturbance to features of interest of all European Sites are screened out.

While no significant impacts on European sites are anticipated, recent ecological surveys have identified several mammal species using the site. A specialist badger survey (Keeley, November 2024) found no evidence of badger setts but noted badgers may occasionally pass through the site given the adjoining agricultural lands. The survey confirmed presence of rabbits and foxes, with potential use by hedgehog and Irish hare.

[3] This is consistent with Transport Infrastructure Ireland (TII) guidance (Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes and Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes) documents. This is a precautionary distance, and likely to be moderated by the screening effect provided by surrounding vegetation and buildings, with the actual ZoI of construction related disturbance likely to be much less in reality.

Although rabbits and foxes are not specifically protected under wildlife legislation, they are safeguarded by the Animal Health and Welfare Act 2013, which prohibits causing unnecessary suffering. Protected species like hedgehog and Irish hare also require consideration. A detailed Mammal Protection Protocol has been developed (see Appendix C) outlining measures including:

- Pre-construction trail camera surveys
- Burrow mapping and protection
- Directional working methods
- Installation of appropriate site hoarding
- Regular monitoring by ECoW
- Species-specific considerations for each mammal type

Regarding bats, recommendations are specified in the Bat Report (AEE, November 2024), such as tree felling procedure, timing for tree felling, bat friendly lighting, a dark buffer zone/corridor, and pre-felling tree bat surveys. These measures are designed to minimise potential impacts on bat populations that may be using the treelines and hedgerows within the site for roosting or commuting. Adherence to the mitigation measures outlined in the Bat Report will ensure compliance with the Wildlife Acts and the EU Habitats Directive.

4.3 Habitat /Species Fragmentation

Habitat fragmentation has been defined as the 'reduction and isolation of patches of natural environment'[4] usually due to an external disturbance such that an alteration of the spatial composition of a habitat occurs that alters the habitat and 'create[s] isolated or tenuously connected patches of the original habitat.' This results in spatial separation of habitat units which had previously been in a state of greater continuity.

While it is considered that habitat fragmentation of qualifying habitats within European sites will not arise from the proposed works, it is important to consider the potential impacts of removing mature treelines and hedgerows within the proposed development site. These linear habitats provide important ecological corridors for a variety of species, including birds, bats, and small mammals. The removal of these habitats could lead to localised habitat fragmentation, reducing the connectivity between remaining patches of suitable habitat.

The potential impacts of habitat fragmentation on local biodiversity can be offset through the implementation of appropriate measures, such as:

- Minimising the extent of treeline and hedgerow removal wherever possible.
- Incorporating native species planting into the landscaping plan to maintain and enhance ecological connectivity within the site.
- Ensuring that any unavoidable habitat removal is carried out in a phased manner to allow species to adapt and disperse to other suitable habitats nearby.

[4] Franklin, A. N. (2002). What is Habitat Fragmentation? *Studies in Avian Biology*, 20-29.

By considering the potential impacts of habitat fragmentation on local biodiversity and implementing appropriate mitigation measures, the proposed development can minimise its ecological footprint and contribute to the maintenance of biodiversity in the area.

Impacts to species associated with European sites are screened out due to the distance between the proposed development site and the nearest European sites, as well as the lack of ecological pathways between them.

4.4 Changes in Population Density

The proposed development is not expected to cause any significant changes in the population density of qualifying species associated with European sites. The distance between the proposed development site and the nearest European sites, coupled with the lack of ecological pathways and the nature of the development, makes it highly unlikely that the project would have any direct or indirect impacts on the population dynamics of these species.

However, it is important to consider the potential impacts of the proposed development on local biodiversity. The removal of mature treelines and hedgerows within the site could lead to a temporary reduction in the local population density of species that rely on these habitats for nesting, foraging, or commuting, such as birds, bats, and small mammals. A recent specialist badger survey (Keeley, November 2024) found no evidence of badger setts but confirmed active use by rabbits and foxes, with potential for protected species like hedgehog and Irish hare.

To reduce potential impacts on local mammal populations:

- Implementation of the Mammal Protection Protocol (Appendix C) including pre-construction surveys, directional working methods, and regular ecological supervision
- Tree and hedgerow removal to be carried out outside of the bird nesting season (March 1st to August 31st)
- Follow recommendations in the Bat Report (AEE, November 2024) including maintenance of 5m dark corridor buffer zones along commuting routes
- Ensure compliance with both Wildlife Acts (for protected species) and Animal Health and Welfare Act 2013 (for all mammals)

In conclusion, while the proposed development is not expected to cause significant changes in the population density of qualifying species associated with European sites, impacts on local biodiversity will be effectively managed through implementation of the above measures.

4.5 Impacts to Water Quality

4.5.1 Overview of Water Quality

The Water Framework Directive (WFD) is a key initiative aimed at improving water quality throughout the European Union. It requires member states to assess, monitor, and manage their water bodies to ensure that they achieve at least 'Good' ecological status. In Ireland, the Environmental Protection Agency (EPA) is responsible for assessing and reporting on the status of water bodies in line with the WFD.

The WFD classification system assesses the ecological and chemical status of water bodies using a variety of parameters, including biological quality elements (such as fish, invertebrates, and aquatic flora), physico-chemical elements (such as temperature, oxygen, and nutrient conditions), and hydromorphological elements (such as flow and habitat conditions). The classification ranges from 'High' to 'Bad' status, with the objective being to achieve at least 'Good' status for all water bodies.

The hydrology of the area surrounding the proposed development site is shown on Figure 7. The site is located within:

- Hydrometric Area – 09 – Liffey and Dublin Bay: This is one of the 40 hydrometric areas in Ireland, each representing a major river basin or a group of smaller catchments.
- River Sub-Catchment 'Liffey_SC_060': A sub-catchment is a smaller area within a hydrometric area that drains to a specific river or stream.
- WFD River Sub Basins 'LIFFEY_120': River sub-basins are further subdivisions of sub-catchments, representing the smallest unit of management for WFD implementation.
- WFD Rivers Waterbodies Status (2016-2021) – 'LIFFEY_120' = Good: This indicates that the river waterbody achieved 'Good' ecological status during the 2016-2021 assessment period.
- WFD Rivers Risk Status (2016-2021) – 'LIFFEY_120' = 'Not at Risk': This suggests that the river waterbody is not at risk of failing to achieve its WFD objectives.
- WFD 2016-2021 Groundwater Body Status of 'Kilcullen' is 'Good' but Risk Status is 'At Risk': The groundwater body in the area has achieved 'Good' status, but it is considered to be at risk of failing to maintain this status in the future.

4.5.2 Potential Impacts on Water Quality

The proposed development site does not contain any watercourses or drains, and there is no direct pathway to nearby streams, such as the Castlesize Stream located approximately 750m northeast within the same river sub-basin (see Figure 7). As a result, the potential for the proposed development to cause water pollution during the construction phase is considered to be low.

During the operational phase, surface water runoff from the development's hard surfaces will be directed to a new connection to the public surface water drainage network. Foul water will be discharged to the public mains and treated at the Upper Liffey Valley Sewerage Scheme (ULLVSS) Wastewater Treatment Plant (WWTP) at Osberstown, which serves Naas (D0002). As of November 2024, the WWTP was

confirmed to have 'Green' capacity status, indicating that it has sufficient capacity to handle the additional wastewater generated by the proposed development without causing deterioration in the quality of the receiving waters.

4.5.3 Screening of Impacts on European Sites

Given the distance between the proposed development site and the nearest European sites, the lack of direct hydrological connections, and the low potential for water quality impacts, it is concluded that the proposed development will not have any significant negative effects on the water quality of European sites. Therefore, impacts on European sites due to water quality deterioration are screened out.

4.6 Invasive Species

Invasive non-native species are one of the most significant threats to biodiversity worldwide. In Ireland, the number of non-native species recorded in watercourses and on land has increased substantially in the 20th century. Invasive species can have severe adverse impacts on native communities and habitats by competitively excluding or out-competing less robust native species, preying on native species, or altering the natural aquatic, riparian, or terrestrial habitats in which they reside.

In addition to their ecological effects, invasive species can negatively impact the recreational and amenity use of infested watercourses by restricting activities such as angling, boating, swimming, and other water-based leisure pursuits. They can also affect industry by clogging engines, turbines, and water intake pipes, resulting in significant economic costs.

No invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011) were observed growing within the proposed development site or its immediate vicinity during the site surveys. However, there is a potential risk of introducing invasive species seeds or seedlings via construction machinery brought onto the site.

To minimise this risk, it is recommended that the Construction Environmental Management Plan (CEMP) for the proposed works includes a requirement that any material brought onto the site originates from a depot that is free of invasive species listed on S.I. 477/2011. This will help prevent the unintentional introduction and spread of invasive species as a result of the construction activities.

4.7 Change Impacts

The proposed housing development is not expected to result in any significant greenhouse gas emissions during its operational phase, given its small scale and the nature of its use. While there may be a temporary and localised increase in emissions during the construction phase due to the use of machinery and equipment, the limited scale and short duration of the works render these emissions negligible in the context of climate change.

Considering the modest scope of the proposed housing development and the minimal greenhouse gas emissions associated with its construction and operation, it is concluded that the proposed works will not have any discernible negative climate

change impacts on the qualifying interests (QIs) of European sites. The QIs of these sites, which are located at considerable distances from the proposed development site, are not expected to be significantly affected by the negligible contribution of the project to global greenhouse gas emissions.

Therefore, the potential for climate change impacts affecting the QIs of European sites as a result of the proposed works can be screened out. This conclusion is based on the small scale of the development, the absence of any significant greenhouse gas emissions during its operational phase, and the lack of any identifiable pathway by which the project's minimal emissions could significantly impact the distant European sites or their qualifying interests.

5.0 In Combination Effects of Plans & Projects

The Habitats Directive requires that due consideration be given to any plan or project which is likely to have a significant effect alone or in combination with other plans and projects. In-combination effects may arise from the development of other projects in the vicinity of the site, such as construction of housing, roads, rail, water and wastewater infrastructure, gas, electricity, provision of tourism facilities, and telecommunications infrastructure. However, the in-combination effects of other developments would depend on factors such as the distance in relation to the site, the scale, and the characteristics, e.g., the types and quantities of emissions.

The Kildare County Development Plan 2023-2029, in compliance with the requirements of the Habitats Directive, stipulates that all Projects and Plans that could affect the European sites in Kildare would be initially screened for Appropriate Assessment. If a Stage 2 AA is required, appropriate mitigation measures would be put in place to avoid, reduce, or ameliorate negative impacts. The plan includes specific objectives and policies aimed at protecting and conserving European sites which states that "It is an objective of Kildare County Council to require all planning applications for development that may have (or cannot rule out) likely significant effects on European sites in view of the site's Conservation Objectives, either in isolation or in combination with other plans or projects, to submit a Natura Impact Statement in accordance with the requirements of the EU Habitats Directive and the Planning and Development Act, 2000 (as amended)." These objectives and policies ensure that any in-combination impacts with plans or projects for this area of Craddockstown, Naas, Co. Kildare, would be avoided.

The River Basin Management Plan (RBMP) 2022-2027 and its associated Natura Impact Statement also outline measures to protect and improve water quality in Ireland's rivers, lakes, estuaries, and coastal waters. The RBMP includes a range of actions to address pressures on water quality, such as those arising from agriculture, urban wastewater, and forestry. These actions will help to mitigate potential in-combination effects on European sites that could arise from multiple developments or activities within the same catchment area.

The Cycle 3 – Liffey and Dublin Bay Catchment Report (HA 9) (May 2024) provides a comprehensive assessment of the water quality status and pressures in the catchment area. The report identifies the main pressures on water quality and outlines a programme of measures to address these pressures. The implementation

of these measures will contribute to the protection of European sites within the catchment area and help to avoid potential in-combination effects.

A review of recent planning applications in the vicinity of the proposed development site indicates that all applications have been subject to Appropriate Assessment screening by Kildare County Council, as required by Article 6(3) of the Habitats Directive. In cases where potential impacts on European sites were identified, appropriate mitigation measures were imposed to ensure that no significant effects would occur. The outcomes of these AA screenings support the conclusion that in-combination effects with other local developments are unlikely.

The proposed development at Craddockstown, Naas, Co. Kildare is relatively small in scale and is located within an existing residential area. The potential impacts of the development, such as noise disturbance, lighting disturbance, and water quality impacts, have been assessed and screened out in this report. Given the nature and location of the proposed development, it is unlikely to contribute significantly to any cumulative impacts on European sites in combination with other plans and projects.

In conclusion, considering the mitigation measures outlined in the Kildare County Development Plan 2023-2029, the actions and measures set out in the River Basin Management Plan 2022-2027 and the Catchment Report, and the outcome of AA screenings for other local planning applications, it is determined that the proposed development at Craddockstown, Naas, Co. Kildare will not have significant in-combination effects with other plans and projects on any European sites.

6.0 Screening Statement Conclusions

According to NPWS (2009), the Appropriate Assessment Screening exercise can either identify that an Appropriate Assessment is not required; or that there is no potential for significant effects (i.e. Appropriate Assessment is not required); or that significant effects are certain, likely or uncertain (i.e. the project must either proceed to Stage 2 (AA) or be rejected).

As per Section 4.0, all impacts to European Sites listed in Table 1 were screened out.

In conclusion, upon the examination, analysis and evaluation of the relevant information including, in particular, the nature of the proposed works and the likelihood of significant effects on any Natura 2000 site, in addition to considering possible in-combination effects, and applying the precautionary principles, it is concluded by the author of this report that, on the basis of objective information, the possibility may be excluded that the proposed works will have a significant effect on any of the European sites below:

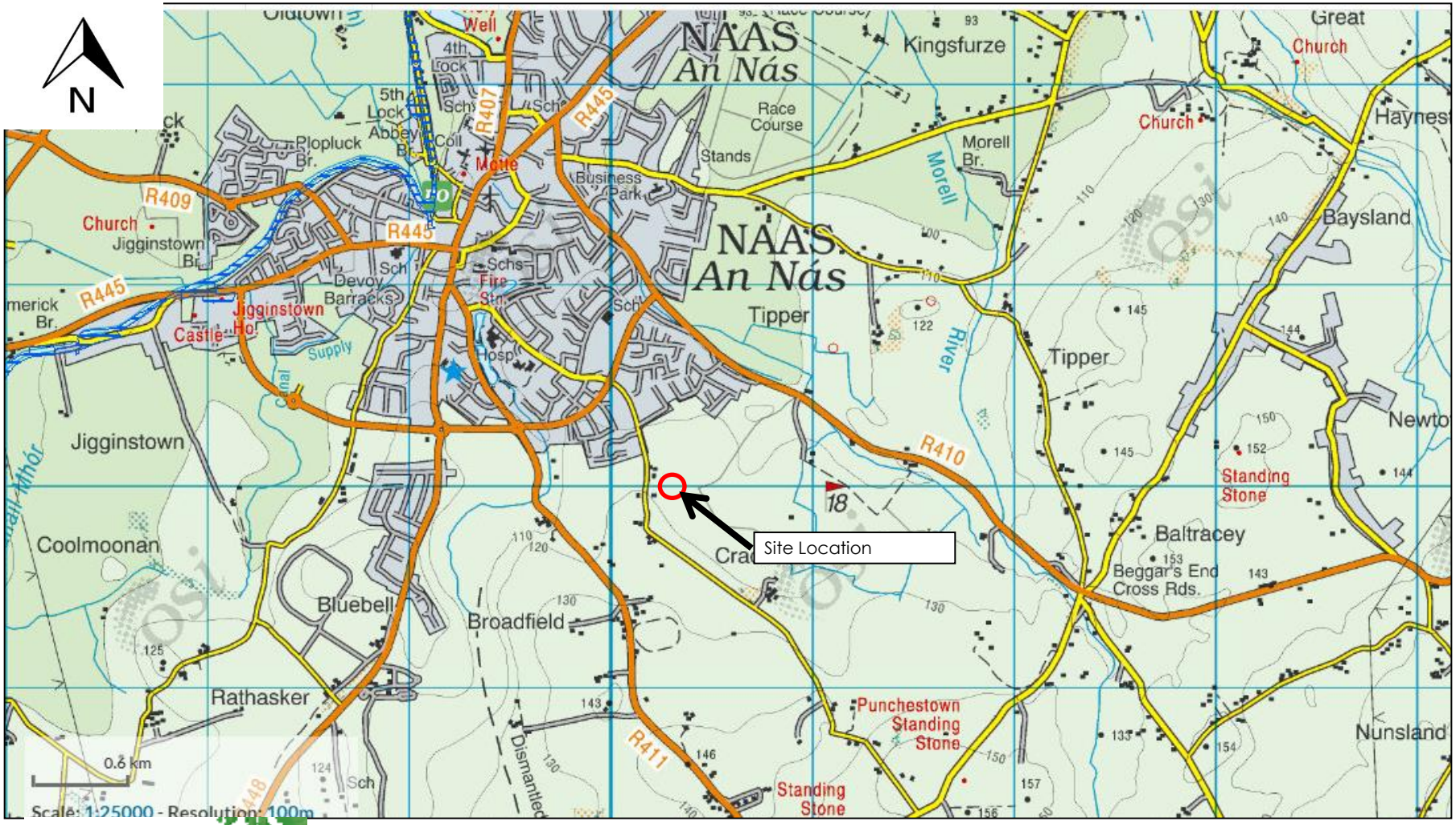
- Red Bog, Kildare SAC
- Mouds Bog SAC
- Ballynafagh Lake SAC
- Ballynafagh Bog SAC
- Wicklow Mountains SAC
- Pollardstown Fen SAC
- Poulaphouca Reservoir SPA

- Wicklow Mountains SPA

These complete, precise and definitive findings, based on the best available scientific evidence, remove all reasonable scientific doubt that the proposed works will have any significant impacts on the European sites detailed above; and it is therefore concluded that there will be no likely significant negative impacts caused to any European sites as a result of the proposed works. A Natura Impact Statement (NIS) is not required.

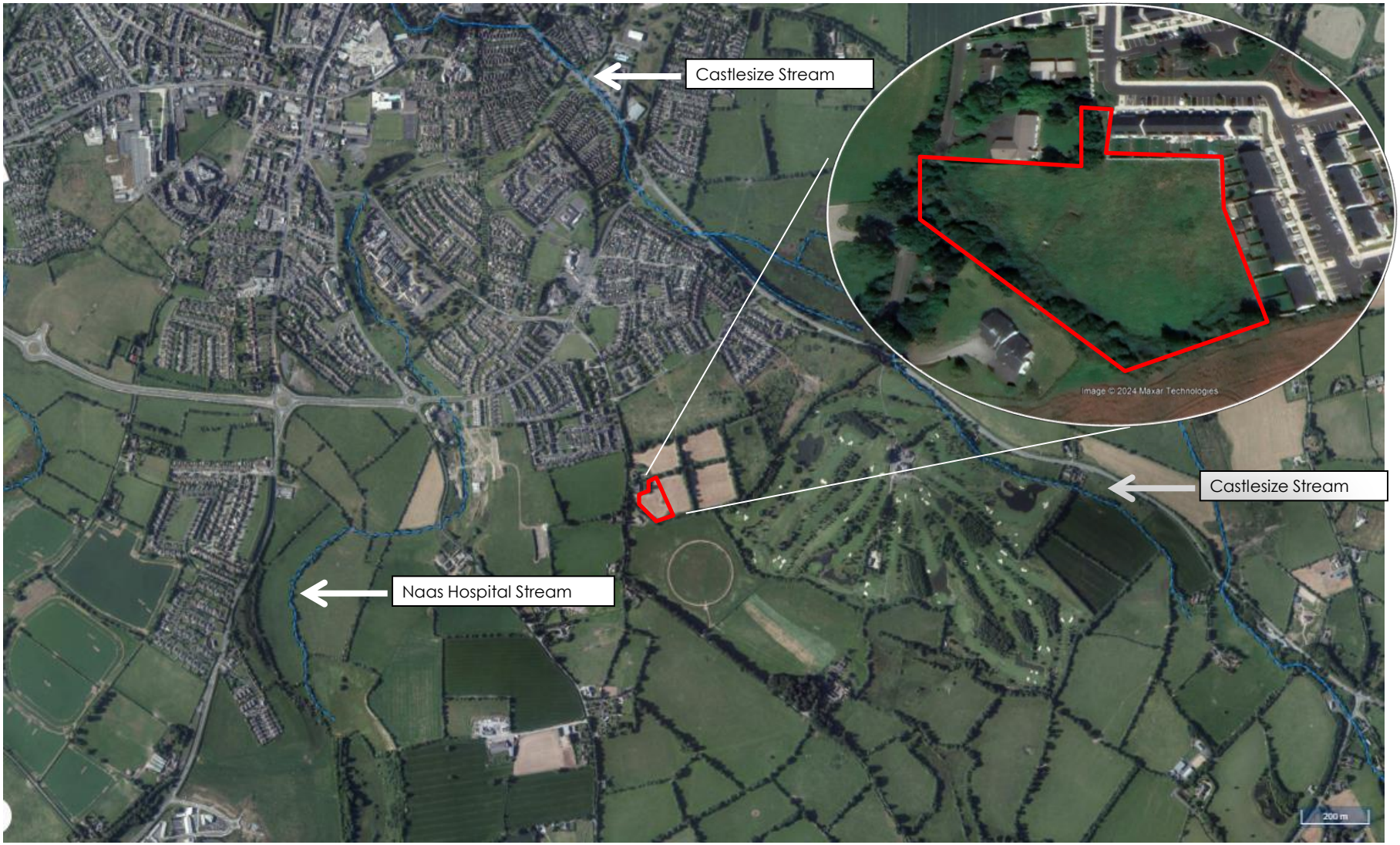
Recommendations for other wildlife and protected species within this report should also be followed to minimise impacts to same along with those outlined in in the Bat Report (AEE, November 2024).

FIGURES



Map sourced from National Biodiversity Data Centre Website – www.nbdc.ie

Client Verdé Environmental Consultants for KCC			**Drawing** Site location map			
Job Screening Report						
	Drawing Number: Figure 1	Status: Final	Sht. Size: A4	Scale: As Shown	Date: Nov 24	Drawn: AW

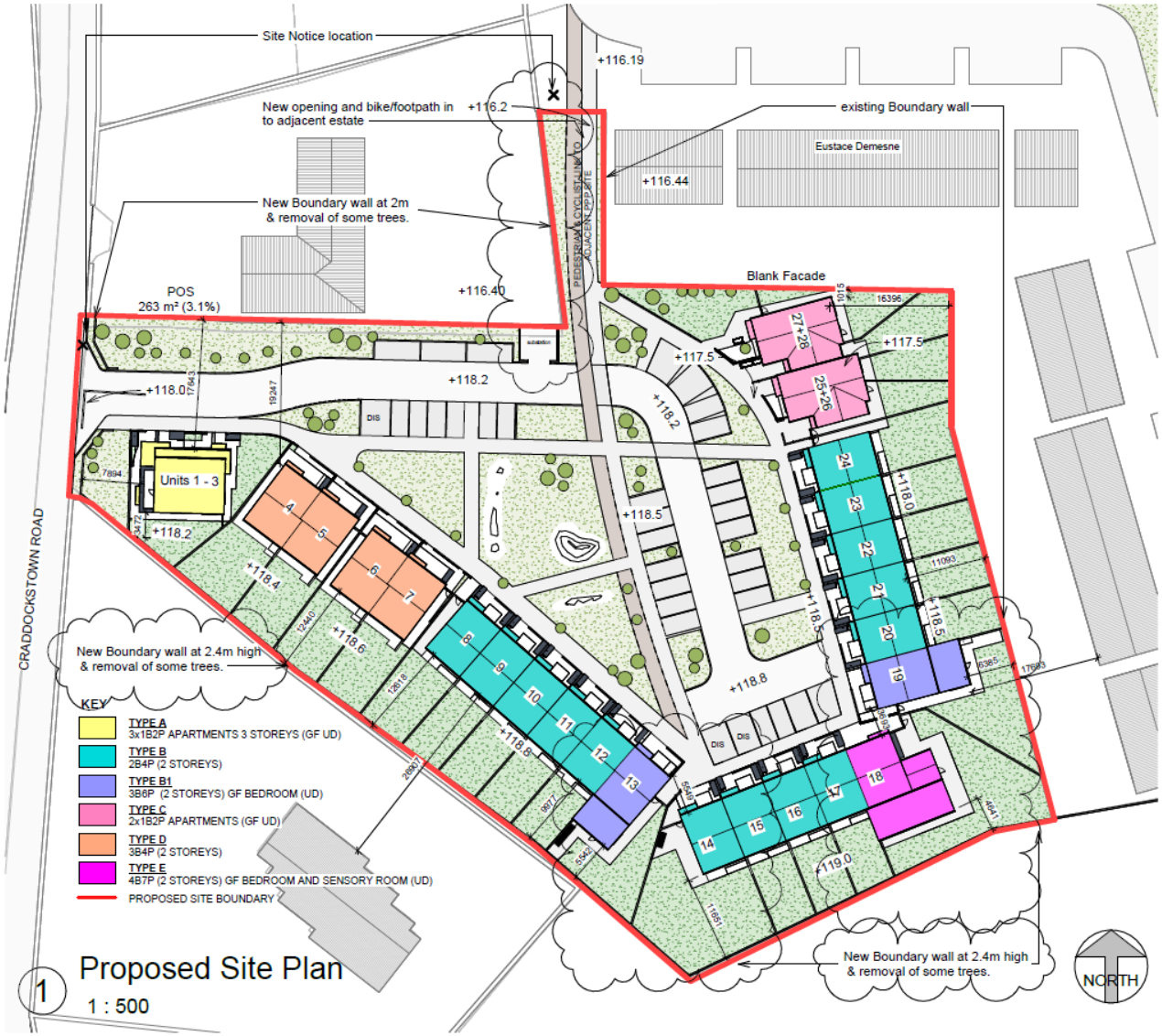


Approx. Site location and Boundary

Rivers and Streams

N

Client Verdé Environmental Consultants for KCC			**Drawing** Aerial Photo & Drainage Network			
Job Screening Report						
	Drawing Number: Figure 2	Status: Final	Sht. Size: A4	Scale: As Shown	Date: Nov 24	Drawn: AW



NOTE
Zoning: Residential
Density: 28 no. Units = 33 units/ha
Site area: 0.858Ha
UD Units: 6no. (21%)

Mix:
7 x 1 Bed Unit
14 x 2 Bed Units
6 x 3 Bed Units
1 x 4 Bed Unit

Parking: 33 provided for 28 no. houses

Bike and Bin Stores to be provided within the curtilege of individual units. Bike storage for visitors and units 1-3 to be provided centrally.
Refer to Landscape Architect's information.
Refer to Civil Engineer's information for levels and site services.

Planning Application

Notes:
- This drawing has been prepared for planning only
- All drawings to be read in conjunction with all other consultant drawings, Architect to be informed immediately of any discrepancies
- Figured dimensions only to be taken from this drawing. All dimensions and levels to be checked on site, Architect to be informed immediately of any discrepancies

REVISION

REV	NOTES	DATE
P01	DRAFT ISSUE	05.09.24
P02	Updated Draft	19.09.24
P03	Planning Issue	15.10.24
P04	Updarted for planning	25.10.24

Kildare County Council,
Architectural Services Section,
Devoy Park,
Naas,
Co. Kildare

HYPERLINK "mailto:customerservice@kildarecoco.ie

Craddockstown Social Housing

Client:
Annette Aspell, Director of Housing

Prepared By: Capital Housing Team,
Architectural Services Section,
Housing Department,
Kildare County Council
A/Senior Exec. Architect: Paddy Henderson, MRIAI

Dwg : Proposed Site Plan
Dwg No: 23052-KCC-XX-XX-DR-A-1001
Scale As indicated

Project No: 23052

Drawn By	Checked By	Date
AD	DR	14/11/2024 12:42:48

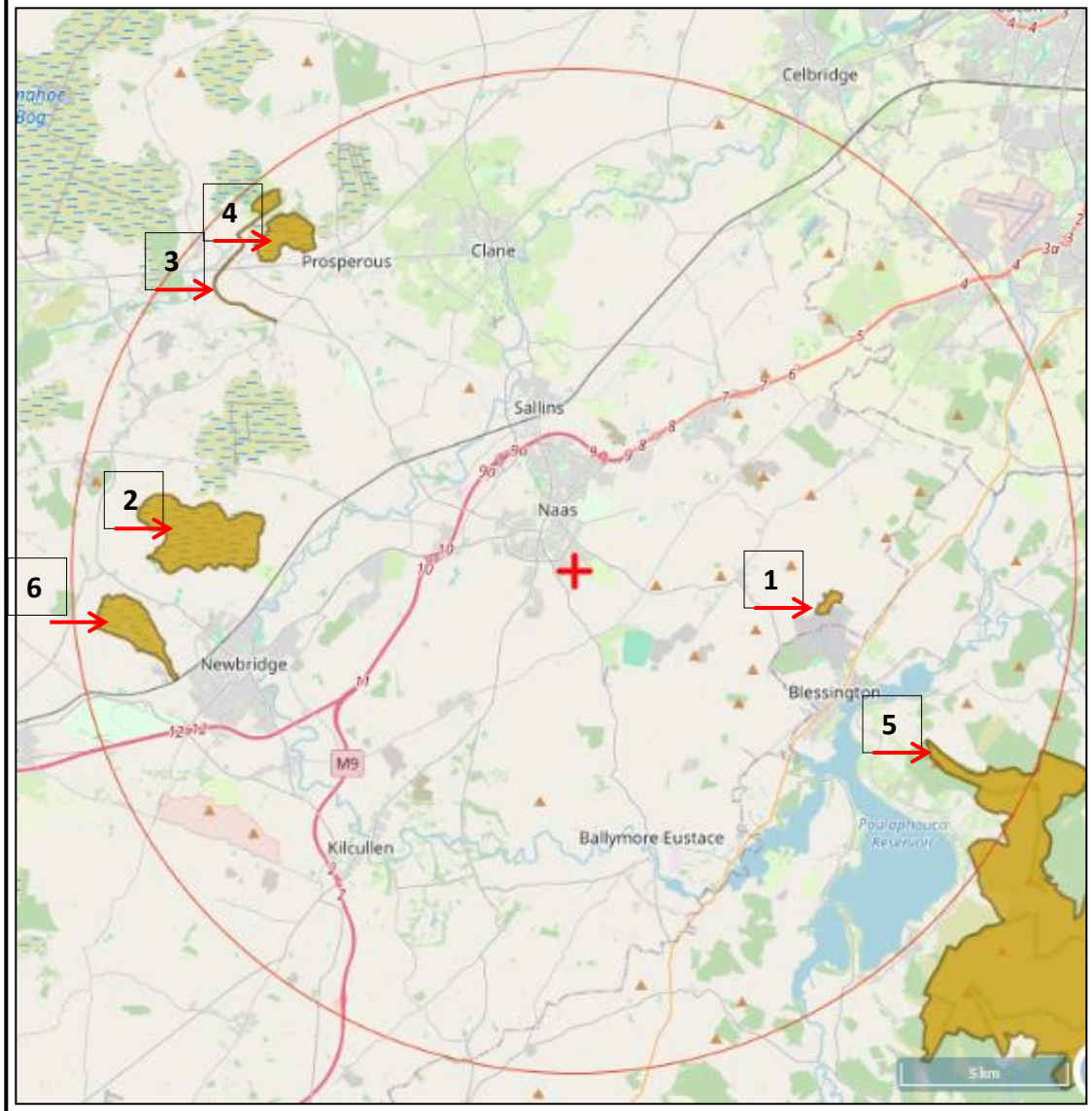
Client Verdé Environmental Consultants for KCC			**Drawing** Proposed Site Layout			
Job Screening Report						
	Drawing Number: Figure 3	Status: Final	Sht. Size: A4	Scale: As Shown	Date: Nov 24	Drawn: AW

Site Boundary
Treeline/ Hedgerow (WL2/WL1)
Hedgerow (WL1)
Improved Agricultural Grassland (GA1)
Scrub at base of Treelines (WS1)
Buildings and Artificial Surfaces (BL3) – Walls

Amenity Grassland (GA2)
Arable Crops (BC1)

N

Client: Verdé Environmental Consultants for KCC			Drawing: Habitat Map			
Job: Screening Report						
Drawing Number: Figure 4	Status: Final	Sht. Size: A4	Scale: As Shown	Date: Nov 24	Drawn: AW	



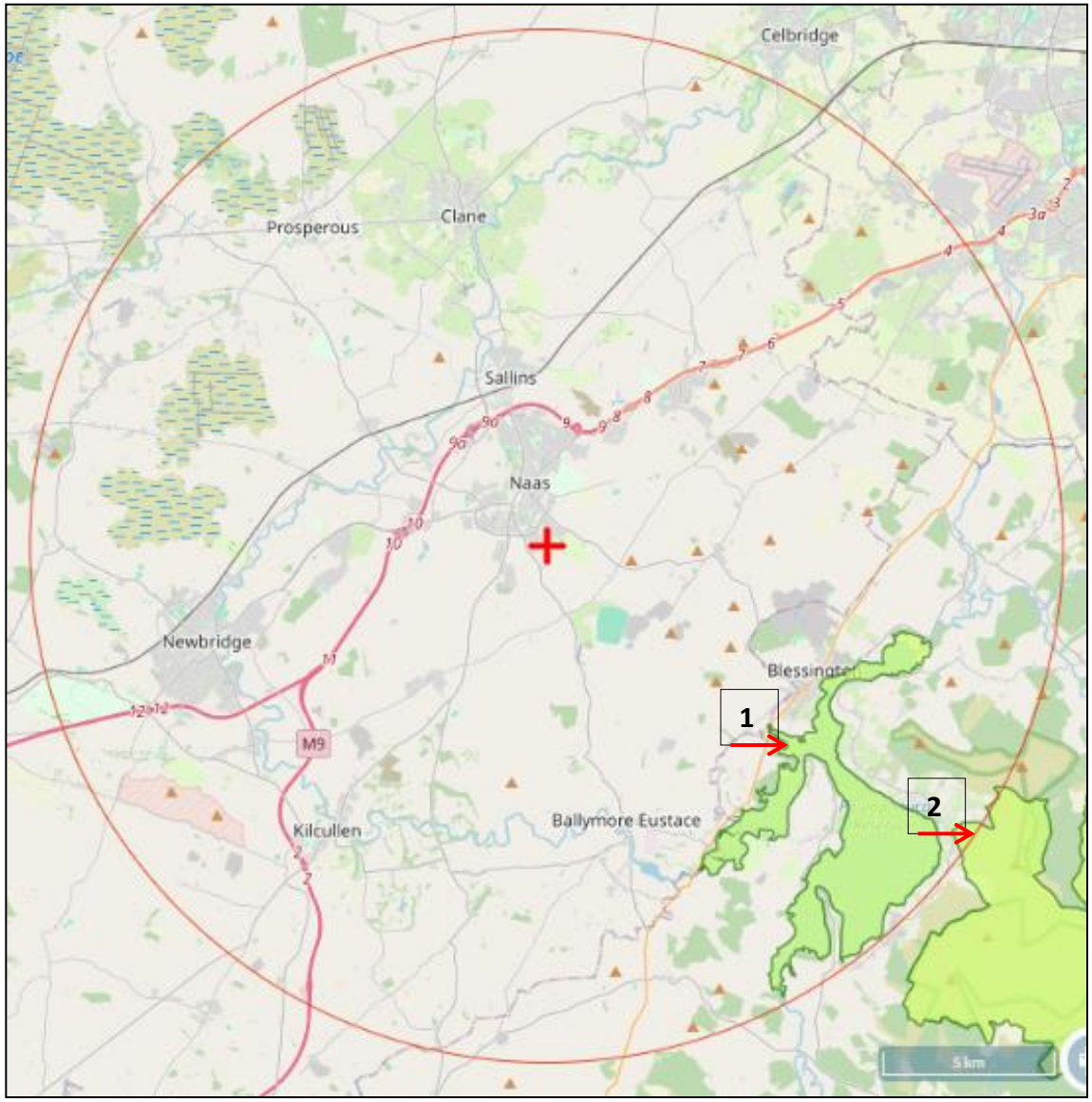
No.	Site Code	Name	Distance
1	000397	Red Bog, Kildare SAC	7.3km E
2	002331	Mouds Bog SAC	9.4km W
3	001387	Ballynafagh Lake SAC	11.6km NW
4	000391	Ballynafagh Bog SAC	12.4lkm NW
5	002122	Wicklow Mountains SAC	11.7km SE
6	000396	Pollardstown Fen SAC	12.3km W

Special Area of Conservation

Site Location

N

Client: Verdé Environmental Consultants for KCC			Drawing: Special Areas of Conservation (SACs) within 15km of Site			
Job: Screening Report						
	Drawing Number: Figure 5	Status: Final	Sht. Size: A4	Scale: As Shown	Date: Nov 24	Drawn: AW



No.	Site Code	Name	Distance
1	004063	Poulaphouca Reservoir SPA	8.3km SE
2	004040	Wicklow Mountains SPA	14.5km SE

Special Protection Area

Site Location

N

Client Verdé Environmental Consultants for KCC			**Drawing**			
Job Screening Report			Special Protection Areas (SPAs) within 15km of Site			
Drawing Number: Figure 6	Status: Final	Sht. Size: A4	Scale: As Shown	Date: Nov 24	Drawn: AW	

Hydrometric Area – 09 –Liffey and Dublin Bay
River Sub-Catchment 'Liffey_SC_060'
WFD River Sub Basins 'LIFFEY_120'
WFD Rivers Waterbodies Status (2016-2021) –LIFFEY_120' = Good
WFD Rivers Risk Status (2016-2021) –LIFFEY_120'= 'Not at Risk'
WFD 2016-2021 Groundwater Body Status of 'KIlcullen' is 'Good' but Risk Status is 'At Risk'
Site Location

Map sourced from EPA Maps
Website – www.epamaps.ie

Client Verdé Environmental Consultants for KCC			**Drawing** Water Quality Data			
Job Screening Report						
	Drawing Number Figure 7	Status Final	Sht. Size A4	Scale As Shown	Date Nov 24	Drawn AW

APPENDICES

APPENDIX A

Registered Practices Certificate

April 2024 – March 2025

ASH Ecology and Environmental Ltd

has been admitted as a Registered Practice

of the

Chartered Institute of Ecology

and Environmental Management

on the 1st day of April 2024

Richard Handley CEcol MCIEEM

President

1st April 2024

APPENDIX B

Plate 1 Treeline/Hedgerow (WL2/WL1) for removal to the front of site.

Plate 2 Treeline/Hedgerow (WL2/WL1) for removal to the front of site with existing entrance to the right.

Plate 3 Treeline/Hedgerow (WL2/WL1) for removal to the front of site with existing entrance in centre. Looking east.

Plate 4 Treeline/Hedgerow (WL2/WL1) on boundaries shown with Improved Agricultural Grassland (GA1) the main habitat affected. Recently mown. Adjacent housing development also shown east of site. Looking southeast.

Plate 5 Extensive areas of Scrub (WS1) to the base/front of the mature Treeline/Hedgerow (WL2/WL2) on boundaries. Will be affected for works. Mammals tracks and trials noted, see arrow for example. Any removal works will need to take out place outside of the bird nesting season.

Plate 6 Wall (BL3) on east and part of north boundaries. Also shown is Improved Agricultural Grassland (GA1) - the main habitat affected. Recently mown with taller areas on edges. Adjacent housing development also shown east and northeast of site. Looking north.

Plate 7 Treeline/Hedgerow (WL2/WL1) on boundaries shown in distance with Improved Agricultural Grassland (GA1) the main habitat affected. Recently mown but with an area fenced off in centre. Looking southwest.

Plate 8 Garden Hedgerow (WL1) on part of north boundary, see arrow with adjacent private dwelling (BL3 - Buildings and Artificial Surfaces). Improved grassland (GA1) also shown, the main habitat affected for proposal.

Plate 9 Examples of presumably rabbits burrows. Larger burrows that may belong to fox or badger may be present under the extensive areas of affected scrub and should be checked by a mammal ecologist prior to clearance to comply with the Animal Welfare act 2013.

APPENDIX C

Mammal Protection Protocol - for Hedgehog, Hare, Rabbit and Fox

In accordance with the Animal Health and Welfare Act 2013 and best practice ecological guidance, the following measures should be implemented to protect all mammals during construction works, including those without formal protected status. This protocol should be included in the Construction Environmental Management Plan (CEMP).

Pre-Construction Phase

A comprehensive pre-construction survey should be undertaken to establish baseline mammal activity across the site. This should include deployment of trail cameras at key locations such as burrow entrances, well-worn trails, and site boundaries for a minimum of 2 weeks prior to works commencing. These cameras should help document species presence, movement patterns, and timing of activity.

Within 48 hours of works commencing, an detailed burrow mapping survey should be conducted. This should involve GPS location of all burrows (active and inactive), mapping of main mammal trails, and photographic documentation. This information should inform the positioning of protective measures and working methodologies during construction.

Construction Phase

Protection Measures and Working Methods

Construction activities should progress in a consistent direction to allow mammals to naturally relocate away from working areas. The direction of work should move away from known active burrows and main wildlife corridors, with 24-hour gaps maintained between phases to allow animal dispersal.

For active burrows that cannot be avoided, a careful protocol should be followed involving installation of one-way exclusion fencing, monitoring via trail camera for 5 days, and careful hand excavation under ECoW supervision once confirmed inactive. Any discovered animals should be safely relocated to suitable nearby habitat by the ECoW.

Solid hoarding should be installed around construction zones, extending 300mm below ground to prevent burrowing, with mammal gates provided every 50m along lengthy sections. All excavations should be either covered overnight or provided with escape ramps (maximum 45° slope). Regular inspections of both hoarding and excavations should be undertaken before work commences each day by the ECoW.

Vegetation clearance should be conducted directionally towards areas of retained habitat, undertaken progressively in stages over multiple days to allow animal dispersal. The ECoW should hand search areas of dense vegetation before any clearance.

Species-Specific Considerations

Different mammals require tailored approaches based on their behaviour and habitat preferences:

For rabbits, all warren systems should be mapped and a program of progressive exclusion from active working areas implemented, while maintaining alternative burrowing areas if possible.

Fox dens should be identified and mapped, with crossing points maintained through the site. Night working restrictions should apply near known dens, and careful food waste management should be implemented to avoid attracting animals to the construction area.

For hedgehogs and European Hare, particular attention should be paid during hibernation season (November-March) with careful hand searching of dense vegetation and leaf litter. Dark corridors should be maintained through the site, and log pile refuges created in retained habitat areas.

Monitoring and Documentation

The ECoW should maintain detailed records including a daily log of mammal observations, photographic records of protection measures, trail camera footage archive, and incident reports if required. A summary reports should be produced documenting the effectiveness of protection measures and any required modifications to procedures.

This protocol should be reviewed by the ECoW and updated based on monitoring results and changing site conditions. All site personnel should receive training on these procedures through toolbox talks, with particular emphasis on identification of common mammals, protocol if animals are encountered, and reporting procedures.