

Uskmouth AW2 Battery Energy Storage System

784-B070326

Breeding Bird Survey Report

Stoma Tidal Power Ltd.

July 2025

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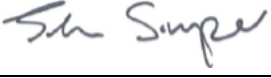
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TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
1.0 INTRODUCTION	4
1.1 Background	4
1.2 Site Location.....	4
1.3 Development Proposals.....	4
1.4 Purpose of the Report	4
2.0 METHODOLOGY	6
2.1 Historic Surveys.....	6
2.2 Desk Study	6
2.3 Field Surveys	6
2.4 Limitations.....	8
3.0 BASELINE CONDITIONS.....	10
3.1 Desk Study	10
3.2 Field Surveys	13
4.0 DISCUSSION.....	16
4.1 Impacts	16
4.2 Mitigation.....	17
4.3 Enhancements.....	18
5.0 CONCLUSIONS.....	20
6.0 REFERENCES	21
FIGURES.....	22
APPENDICES	23

APPENDICES

APPENDIX A: REPORT CONDITIONS

APPENDIX B: LEGISLATION AND POLICY

APPENDIX C: FULL LIST OF BIRD SPECIES RECORDED

EXECUTIVE SUMMARY

Contents	Summary
Site Location	The site is located at Uskmouth Power Station next to the mouth of River Usk in Nash, Newport. The site is centred at Ordinance Survey National Grid Reference ST 32722 83753.
Proposals	The Proposed Development seeks full planning permission for the removal of stored PFA from the site and the installation of a battery energy storage system (BESS) with associated infrastructure. It includes the raising of land levels to create an elevated engineered platform designed to support the new infrastructure and mitigate flood risk
Scope of this Survey(s)	The scope of the survey was to complete a suite of six breeding bird surveys to inform any potential mitigation required to facilitate the development of the site.
Results and Evaluation	A total of 37 bird species were recorded during breeding bird surveys, including: • Seven BoCC Red List species; • Seven BoCC Amber List species; • 20 BoCC Green List species; and • Two species listed as Schedule 1 of the W&CA and Annex 1 of the Birds Directive. • Only 6 species were found to be using the proposed development area with the majority of records coming from adjacent habitats. The site is considered to be of “local importance” for its breeding bird assemblage. No individual species recorded during the breeding bird surveys reach the threshold to be of County importance or higher. The species recorded on site are mostly common species within the district.
Recommendations	In order to maintain the locally important bird assemblage on site, recommendations include: • Conducting all vegetation clearance works, including scrub, woodland and grassland habitats, outside of the breeding bird season (March – September inclusive). If this is not possible, a nesting bird check must be conducted by a suitably qualified ecologist immediately prior to any vegetation clearance works. • Enhance the site through native scrub and tree planting as well as the installation of a range of bird boxes. • Native planting around the perimeter of the development area to provide a screen to adjacent habitats. • Protection and ecological enhancement of water bodies.

	Details to protect and enhance the site will be detailed in a CEMP and LEMP.
Conclusions	With the recommended mitigation, it is considered that the proposed works can be carried out to the legal requirements for the protection of birds and should not have a significant negative impact on breeding species found within the site as well as on the wider bird population and designated sites. Additionally, with the recommended enhancements within this report will meet Planning Policy Wales (PPW) and the Newport Local Development Plan 2015 which require plans to provide enhancements for biodiversity.

1.0 INTRODUCTION

1.1 BACKGROUND

Tetra Tech was commissioned by Stroma Tidal Power Ltd in May 2025 to undertake breeding bird surveys of Uskmouth AW2, hereafter referred to as “the site”.

This report has been prepared by Principal Ecologist John Simper BSc (Hons), MSc, MCIEEM and the conditions pertinent to it are provided in Appendix A.

1.2 SITE LOCATION

The site is located at Uskmouth Power Station next to the mouth of River Usk in Nash, Newport. The site is centred at Ordinance Survey National Grid Reference ST 32550 83529 (Figure 1). It comprises a disused ash storage structure, which has started to be colonised by vegetation. Surrounding this there is a drainage ditch, scattered scrub, colonising ground and semi-improved grassland in amongst the train tracks to the north of the storage area. There are two ponds to the west of the site surrounded by scrub habitats that form a link with the Newport Wetlands NNR to the south, the NNR is consists of estuarine and coastal habitats such as saltmarsh

The survey area included the proposed development area, an adjacent pond and other surrounding habitats.

1.3 DEVELOPMENT PROPOSALS

The Proposed Development seeks full planning permission for the removal of stored PFA from the site and the installation of a battery energy storage system (BESS) with associated infrastructure. It includes the raising of land levels to create an elevated engineered platform designed to support the new infrastructure and mitigate flood risk

1.4 PURPOSE OF THE REPORT

The objectives of this report are to:

- Determine existing bird records and locally designated sites of relevance to birds;
- Summarise the findings of the bird surveys and report on the presence or otherwise of breeding bird species on and around the site;
- Determine if any potential impacts on breeding birds are likely to arise from the development;
- Provide preliminary advice and outline strategies to avoid/mitigate/compensate for any likely impacts on breeding birds; and
- Identify opportunities for enhancement to improve the carrying capacity of the site for breeding birds.

The details of this report will remain valid for a period of **eighteen months** from the date of the final survey (i.e. until January 2027) (CIEEM, 2019), after which the validity of this assessment should be reviewed to determine whether further updates are necessary. The recommendations within this report

should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or development proposals which this report was based on.

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

2.0 METHODOLOGY

2.1 HISTORIC SURVEYS

No previous bird surveys are currently known for the site although Tetra Tech undertook an Ecological Appraisal of the site in 2024 (Tetra Tech 2024a).

2.2 DESK STUDY

The desktop study comprised two elements:

- A data search obtained from South-East Wales Biodiversity Records Centre (SEWBRc) on 4th April 2024 as part of the Uskmouth Chimney BESS PEA report (Tetra Tech, 2024b); and
- An online element including a search using : Magic, Defra's interactive, web-based database for statutory designations (<https://magic.defra.gov.uk>) and Ordnance Survey (OS) and Aerial Imagery (<https://www.bing.com/maps>).

2.3 FIELD SURVEYS

2.3.1 Breeding Bird Surveys

The survey followed the methodology set out in the Bird Survey Guidelines (Bird Survey & Assessment Steering Group, 2025) and involved four survey visits to the site during the breeding season, between June and early July using the standard techniques as detailed in Bibby *et al.* (2007). This method is based on the observation that many species are territorial during the breeding season. This is found particularly amongst passerines, where territories are often marked by conspicuous song, display, and periodic disputes with neighbouring individuals. Registrations of birds were recorded on an appropriate field map, using standard British Trust for Ornithology (BTO) two letter species codes and activity codes (Gilbert *et al.*, 2002). The surveys were timed between sunrise (starting between half an hour before sunrise and half an hour after sunrise) and midday to record periods of uniform bird activity with one of the surveys being undertaken at sunset extending at least an hour beyond. Evening surveys are designed to catch evening and nocturnal singing birds as well as identify any potentially important roost sites (Gilbert *et al.*, 2002; Bird Survey & Assessment Steering Group, 2025).

The surveys consisted of observations from a walked transect route around the site which ensured full coverage of the survey area (see Figure 2). The registrations of birds, using standard British Trust for Ornithology (BTO) two letter species codes and activity codes (Gilbert *et al.*, 2002), were placed onto an appropriate field map. Specific symbols were used for singing, calling and movements of the same bird between different areas, flying, carrying food, nest building, aggressive encounters and other notable behaviour (Gilbert *et al.*, 2002). The expected outcome of this technique was that mapped registrations fell into clusters, approximately coinciding with territories.

The likelihood of breeding was determined using the BTO breeding status codes table (see link in References), using observations of activities such as singing, food carrying, aggressive encounters and actual nest building.

Confirmed – examples of confirmed breeding include:

- Recently fledged or downy young;
- Adult carrying faecal sac or food for young;
- Nests containing eggs;
- Nest with young seen or heard; and
- Distraction displays / injury feigning.

Probable – examples of probable breeding include:

- Pair seen in suitable habitat;
- Permanent territory (defended over at least two survey visits);
- Courtship and display;
- Visiting potential nest site;
- Agitated behaviour; and
- Nest building / hole excavation.

Possible – examples of possible breeding include:

- Observed in suitable nesting habitat; and
- Singing male.

Non-breeder – examples of non-breeding behaviour include:

- Overflying;
- Migrant;
- Summering non-breeder; and
- Observed in unsuitable nesting habitat.

The field data from each survey was transferred into a map of indicative territories of birds on the site with birds of local importance, birds on the Red and Amber list under Birds of Conservation Concern Wales (BoCC) 4, Schedule 1 and birds listed under section 41 of the NERC Act mapped in Figure 3. This map was analysed to estimate the number of breeding territories found for each species and produce a table with bird species total.

The following meteorological variables were recorded at both the start and end of each survey:

- Cloud cover (0% - clear sky, to 100% - total cloud cover);
- Wind speed (Beaufort scale (BF); Force 0 – no wind, to Force 6 – strong wind (note: surveys should not be carried out above Force 6 wind));
- Temperature (°C); and
- Precipitation (mm).

Details of the breeding bird survey dates and weather conditions are provided in Table 1 below.

Table 1. Breeding bird survey dates and weather conditions.

Survey No.	Date	Time		Air Temperature (°C)	Wind Speed	Cloud Cover (%)	Precipitation (%)
		Start	End				
1	12/06/25	05:45	08:00	17	0	10	0
2	22/06/25	05:45	08:00	19	1	20	0
3	27/06/25	20:00	22:15	13	3	100	0
4	05/07/25	05:45	08:15	19	1	20	0

2.3.2 Species Assemblage Assessment

The conservation value of the species assemblage was assessed in conjunction with Fuller (1980), which recommends the relative importance of the total species assemblage on a site is categorised using the following definition:

- National importance: 85+ species
- Regional importance: 70-84 species
- County importance: 50-69 species
- Local importance: 25-49 species
- Site importance: fewer than 24 (in line with CIEEM guidance for below Local)

2.3.3 Species Assessment

The conservation value of individual species was assessed in conjunction with Fuller (1980), which recommends the relative importance of a breeding population on a site is categorised using the following definition:

- International importance – 1% of international population
- National importance – 1% of national population
- County importance – 1% of county population

2.4 LIMITATIONS

There were no significant limitations during the suite of breeding bird surveys. The interior of the area used for the PFA was covered with very dense scrub. To overcome this, the surveyor stopped regularly around the perimeter of this area and cupped their ears in the direction of the centre of the scrub in order to listen for birds calling and singing in this area. Several bird species were recorded in this area using this technique. Therefore, this is not considered to be a significant limitation.

Normally six survey visits would be undertaken to assess a breeding bird assemblage of a site, four were undertaken as part of this survey and none within the early part of the nesting season. However, it is considered that a wide range of species has been revealed by the surveys and that a robust assessment has been undertaken.

Due to the complexity of avian behaviour some degree of subjectivity is inevitably involved in this assessment. However, overall, the survey is considered to offer a high degree of accuracy in assessing the range of species breeding within the site and their relative abundance.

All surveys were completed in suitable weather conditions with no limitations such as poor visibility. The survey effort applied is considered sufficient to meet the aims of the survey and this report, in accordance with the aforementioned guidelines.

3.0 BASELINE CONDITIONS

3.1 DESK STUDY

The data search returned 1229 records of birds within 2 km. Of these records, 250 were WCA Schedule 1 birds. The majority of these however, had been recorded from the RSPB Newport Wetlands reserve and are dominated by birds that use coastal and wetland environments.

A wide range of nesting and foraging bird species were recorded within wider environment).

The data search and desk study also returned a list of protected sites within 10km of the site and the sites which relate to breeding birds have been reviewed. These details are outlined in Table 2 below and Figure 3.

Table 2. Designated sites for breeding birds within 10km of the site (see Figure 30.

Site Name	Designation	Distance and direction from Site	Reasons for designation
Statutory designated sites			
Newport Wetlands	NNR	Adjacent - Southeast	The reason for the NNR designation is the bird assemblage for the following species: little egret <i>Egretta garzetta</i>, ruff <i>Philomachus pugnax</i>, whimbrel <i>Numenius phaeopus</i>, Eurasian curlew <i>N. Arquata</i>, common greenshank <i>Tringa nebularia</i>, Eurasian wigeon <i>Mareca penelope</i>, northern shoveler <i>Spatula clypeata</i>, common pochard <i>Aythya ferina</i>, water rail <i>Rallus aquaticus</i> and the spotted redshank <i>T. erythropus</i>. Additionally, certain fish species of national importance including allis shad <i>Alosa alosa</i>, twaite shad <i>A. fallax</i>, European river lamprey <i>Lampetra fluviatilis</i> and sea lamprey <i>Petromyzon marinus</i>.
Severn Estuary	SPA	c. 0.27 km-Southwest	Designated due to an internationally important population of wintering birds including Bewick's swam <i>Cygnus olumbianus bewickii</i> , greater white-fronted

			goose <i>Anser albifrons albifrons</i>, shelduck <i>Tadorna tadorna</i>, gadwall <i>Anas strepera</i>, dunlin <i>Calidris alpina</i> and redshank <i>T. totanus</i>. Additionally, the Severn Estuary supports nationally important wintering population numbers of wigeon, teal <i>A. crecca</i>, pintail <i>A. acuta</i>, pochard, tufted duck <i>Anythya fuligula</i>, ringed plover <i>Charadrius hiaticula</i>, grey plover, Eurasian curlew, whimbrel and spotted redshank. There is also a nationally important breeding population of lesser black-backed gulls <i>Larus fuscus</i> present.
Severn Estuary (Wales)	SAC	c. 0.27 km - Southwest	The primary reasons for the SAC designation of the Severn Estuary are because of the Annex I habitats present; estuaries, mudflats and sandflats not covered by seawater at low tide, Atlantic salt meadows with qualifying features of sea water covered sandbanks and reefs. The presence of Annex II species sea lamprey, river lamprey and twaite shad, was further evidence for the SAC designation of the Severn Estuary.
Severn Estuary	Ramsar	c. 0.31 km - South	This Ramsar site is an important site for the run of migratory fish between sea and river via estuary and is one of the most diverse river systems / estuarine within Britain, with over 110 species recorded. The lesser black-backed gull, ringed plover, Eurasian teal and Northern pintail <i>A. acuta</i> were found to be present.

Non-statutory designated sites:

Newport Wetlands	SSSI	Adjacent - Southeast	This SSSI is designated for its breeding and over-wintering birds, invertebrates, and aquatic and marginal flora. Also of special interest are the ditch habitat and reedbeds. The SSSI designation has been designated in part because of the wintering species shoveler and black-tailed godwit <i>Limosa limosa</i>. Other over -wintering species that use the site include gadwall, wigeon, shelduck, dunlin, redshank, whimbrel and curlew. During the summer, the wet grasslands, saline lagoons and reedbeds on the site support an exceptional variety of breeding birds, including nationally important breeding populations of avocet <i>Recurvirostra avosetta</i>, redshank, lapwing <i>Vanellus vanellus</i>, water rail, Cetti's warbler <i>Cettia cetti</i> and bearded tit <i>Panurus biarmicus</i>. In addition, breeding populations of ringed plover and little ringed plover <i>Charadrius dubius</i>.
River Usk (Lower Usk)	SSSI	0.25 North	The Usk system, comprising the River Usk and including its upper tributaries, represents a large,

			linear ecosystem that acts as an important wildlife corridor, an essential migration route and key breeding area for many nationally and internationally important species. The site is of special interest for its internationally important populations of otter, Atlantic salmon, bullhead, brook lamprey and river lamprey.
Severn Estuary	SSSI	c. 0.27 km-Southwest	The intertidal zone of mudflats, sand banks, rocky platforms and saltmarsh combined with the immense tidal range and funnel shaped estuary makes this one of the largest and most important in Britain. Designated for supporting populations of wintering and passage wading bird species, including curlew and redshank, and most of its nationally important ringed plover and grey plover. Additionally, the presence of overwintering populations of Tundra swan, greater white-fronted goose, common shelduck and gadwall. More specifically, the site is the single most important wintering ground for dunlin in Britain. In late winter and early spring, the important shelduck and wigeon populations can be found.
Gwent Wetland Reserve	LWS	Adjacent to the access road South	Mosaic of wet grassland reedbeds, open water, hedgerows and saline lagoon, which supports internationally important numbers of wildfowl as well as UK BAP Priority species such as water vole, great crested newt and brown hare <i>Lepus europaeus</i>.
Newport Wetlands	RSPB Reserve	0.18 km Southeast	No citation for designation.
Great Traston Meadows	Wildlife Trust Reserve	1.11 km - Northeast	No citation for designation.
Solutia Site	LWS	1.47 km Northeast	A series of improved and semi-improved grasslands with traditional ditches and ponds; site supports a range of species including nesting birds such as Cetti's warbler, and invertebrates including hairy dragonfly <i>Brachyton prantense</i>.
Alpha Steel Site	LWS	1.52 km Northeast	Area of former Levels, scrub and other habitats which support a range of species including scarce moth species, birds such as Cetti's warbler, and plants including marsh helleborine, bee orchid <i>Ophrys apifera</i>, pyramidal orchid <i>Anacamptis pyramidalis</i>, <i>Dactylorhiza</i> spp.
Afon Ebbw River	LWS	1.73 km – Northwest	Associated species include bulbous foxtail <i>Alopecurus bubous</i> near confluence with Usk, kingfisher <i>Alcedo atthis</i>, sand martin, grass snake <i>Natrix helvetica</i>

No other sites designated for birds were within the search radius.

3.2 FIELD SURVEYS

A total of 36 bird species were recorded during the suite of breeding bird surveys, including:

- Seven BoCC Wales Red List species;
- Six BoCC Amber List species;
- 20 BoCC Green List species;
- One introduced species; and
- Two species listed as Schedule 1 of the W&CA and Annex 1 of the Birds Directive (both also Green Listed species).

The breeding statuses of the 16 notable and protected species recorded during the surveys was as follows:

- Three species were confirmed to be breeding;
- Six species were considered probable breeders;
- Five species were considered possible breeders; and
- Seven species were overflying / non-breeders.

Notable species, along with their breeding status and number of potential territories, are summarised below in Table 3. Please refer to Appendix C for a full bird species list. The locations of species recorded have been mapped and are shown in Figure 2.

With reference to Table 3, it should be noted that the presence of a potential territory does not indicate the total number of breeding territories / pairs, but rather the maximum number of potential breeding territories / pairs during the season when surveys were completed.

Table 3. Notable species recorded

Species Name	Common Name	W&CA and BoCC Status	National Status in UK	Likely status within survey area
<i>Cettia cetti</i>	Cetti's Warbler	Schedule 1, Annex 1, Green List BoCC Wales	Local but increasing resident	Breeding resident – possibly 2 pairs
<i>Falco peregrinus</i>	Peregrine	Red List BoCC Wales, Schedule 1 W&CA 1981	Common resident	Likely nesting on nearby building
<i>Apus apus</i>	Swift	Red List BoCC Wales	Common but declining migrant	Possibly nesting on local buildings
<i>Chloris chloris</i>	Greenfinch	Red List BoCC Wales	Common but declining resident	Possibly nesting. Recoded with development area.
<i>Cuculus canorus</i>	Cuckoo	Red List BoCC Wales	Scarce or fairly common declining	Possible breeding

			breeding resident	
<i>Falco tinnunculus</i>	Kestrel	Red List BoCC Wales	Fairly common or common resident	Possibly nesting in local area
<i>Larus argentatus</i>	Herring gull	Red List BoCC, Wales	Common but declining resident	Likely nesting on nearby buildings
<i>Larus Fuscus</i>	Lesser black-backed gull	Red List BoCC Wales	Common but decreasing resident	Likely nesting on nearby buildings
<i>Sturnus vulgaris</i>	Starling	Red List BoCC Wales	Common but declining resident	Possibly nesting on nearby buildings
<i>Delichon urbicum</i>	House martin	Amber List BoCC Wales	Common but declining resident	Possibly nesting on nearby buildings. Recorded over development area
<i>Fringilla coelebs</i>	Chaffinch	Amber List BoCC Wales	Common but declining resident	Possibly breeding
<i>Larus marinus</i>	Great Black-backed gull	Amber List BoCC Wales	Common/local resident	Likely non-breeding
<i>Motacilla cinerea</i>	Grey Wagtail	Amber List BoCC Wales	Common but declining resident	Likely non-breeding
<i>Prunella modularis</i>	Dunnock	Amber List BoCC Wales	Very common resident	Probably breeding
<i>Rallus aquaticus</i>	Water rail	Amber List BoCC	Local resident	Probably breeding

The majority of the proposed development area was dominated by an area used to store PFA (Pulverised Fuel Ash). This area now covered with dense scrub dominated by bramble (*Rubus fruticosus*) with an area of semi-improved neutral grassland at its eastern extent. Very few birds were recorded in this area, species recorded included low numbers of whitethroat *Sylvia communis*, wren *Troglodytes troglodytes* and greenfinch *Chloris chloris* (Red listed). House martins *Delichon urbicum* (Amber listed) and swifts *Apus apus* (Red Listed) were also noted making foraging flights over this, and the wider area.

The water body located in the western part of the survey area (not included in the development area) supports important bird species, including Cetti's warbler *Cettia cetti* (W&CA 1981 Schedule 1), water rail *Rallus aquaticus* (Amber-listed), cuckoo *Cuculus canorus* (Red-listed), notably, one of its host species, the reed warbler *Acrocephalus scirpaceus*, was also found in the bankside reed beds. A grey wagtail *Motacilla cinerea* was recorded on one occasion. Green-listed species such as tufted duck *Aythya fuligula*, mallard

Anas platyrhynchos and little grebe *Tachybaptus ruficollis* were recorded, with the little grebe confirmed as breeding.

A number of buildings associated with Uskmouth Power Station were present to the north of the site boundary, species of conservation concern were recorded here including herring gull *Larus argentatus*, lesser black-backed gull *Larus fuscus* (Amber listed) and peregrine *Falco peregrinus* (W&CA 1981 Schedule 1). All three species are considered to be likely to be breeding on buildings in this area.

Scrub and grassland habitat to the south of the site boundary included low numbers of dunnock *Prunella vulgaris* (Amber listed), a single record of a kestrel *Falco tinunculus* (Red Listed), chaffinch *Fringilla coelebs* (Amber Listed), Cetti's warbler, cuckoo and a range of common and widespread green listed species such as whitethroat, blackbird *Turdus merula* and song thrush *Turdus philomelos*.

4.0 DISCUSSION

Following the desk study and field surveys, breeding birds have been confirmed as being present within the boundary using the entire site. Activity was spread across the survey area, but activity was low within the area use for PFA storage.

37 different species were recorded in total, with 6 species interacting directly with the proposed development area (i.e. using it to potentially breed or forage). According to Fuller (1980) the site is of **Local importance** in terms of its assemblage.

Upon review of the current proposals) there are likely to be adverse effects on breeding birds through loss of habitat, killing, injury and disturbance during the construction and operational phases if adequate mitigation is not implemented.

4.1 IMPACTS

4.1.1 Designated Sites

This lies within close proximity to a number of internationally designated sites including Severn Estuary SPA / SAC / Ramsar (c.027km). As such, a report to inform Habitats Regulations Assessment (HRA) has been undertaken (Tetra Tech 2025) to establish whether the development proposals have the potential to affect the integrity of the designated site or its qualifying species. The site is hydrologically linked to the adjacent Newport Wetlands NRR – this should also be given consideration in terms of the potential impacts of the proposals on its ornithological interest.

Within Stage 2 of the Appropriate Assessment it determined (Tetra Tech 2025b) that mitigation is required to cancel the following possible impacts: Increased disturbance from noise/ vibration:

- Visual stimuli,
- Fugitive dust;
- Decrease of water quality from construction and operational water management; including provision to retain, treat and convey water used in firefighting; and
- Invasive non-native species.

4.1.2 Loss of Habitats

The scrub and grassland habitat within the development area will be lost as a result of the proposals and thus some common and widespread species such as wren and whitethroat will lose potential foraging and nesting habitat. The loss of this habitat is likely to have an impact on the species assemblage during its construction and operational phases.

Any vegetation clearance during the breeding season could result in disturbance, destruction, injury or killing of birds nesting within the vegetation. Without mitigation this could result in an offence under the wildlife and countryside act 1981 (as amended).

Further surveys to assess the site's value as wintering bird habitat are not considered necessary as species assemblages within the adjacent designated sites are well documented and providing measures outlined within the HRA and a CEMP impacts to wintering birds are not expected.

4.1.3 Construction-phase Disturbance

During the construction phase, increased noise and activity levels in close proximity to adjacent habitats could result in disturbance to breeding birds such as Cetti's warbler which was located in close proximity to the survey area and protected from disturbance under the W&CA 1981. Additionally, the clearance of vegetation to make way for the proposed development will result in disturbance to habitat being used by breeding birds. Increased lighting, noise accidental damage and storage of equipment could all impact upon breeding birds in adjacent habitats.

Without mitigation, these activities could have a negative impact on breeding birds using the site. Mitigation measures will be detailed within a CEMP and detail measures to reduce noise, and visual disturbance by using acoustic barriers/hoarding around the perimeter of the working area.

4.1.4 Operational-phase Disturbance

During the operational phase, breeding birds could be negatively impacted by increased predation and disturbance from as a result of noise, visual disturbance and increased lighting on the site (The Mammal Society, 1997).

4.2 MITIGATION

Planning Policy Wales (Welsh Government, 2023) and the Newport Local Development Plan (2015) require that impacts on nature and biodiversity are considered in all development proposals. New proposals must avoid adverse impacts on biodiversity or, where these cannot be avoided, ensure that they are appropriately mitigated or compensated to address any loss of biodiversity within the site. Local Plan Policy CE7/SP9 further reinforces that measures to protect protected species must be incorporated into development schemes where such species are present or nearby, to ensure they are not adversely affected by the development.

In accordance with Planning Policy Wales and the Local Development Plan, mitigation must be implemented to protect, conserve, and enhance biodiversity by ensuring that any potential impacts on birds and other protected species are avoided where possible, or otherwise appropriately mitigated and compensated.

The mitigation hierarchy principles (CIEEM, 2024) should also be applied as follows:

- **Avoidance:** Avoid adverse effects as far as possible by designing out impacts or using preventative measures during the construction process, aiming for an environmental effect of neutral significance.
- **Reduction:** Minimise adverse effects as far as possible.
- **Compensation:** Implement measures of equivalent biodiversity value to offset any unavoidable impacts.
- **Enhancement:** Improve management of existing ecological features or provide new ecological features beyond those required for mitigation and compensation, to deliver net environmental gains.

4.2.1 Loss of Habitat

Policy SP9 of Newport Local Plan (2015) specifies that measures must be incorporated into schemes where protected species are present or nearby to ensure that these species are not lost as a result of development. A Landscape and Ecology Management Plan will detail mitigation and enhancement requirements during the construction, operational, and decommissioning phases, and a management framework during the operational phase. Mitigation measures will include native planting schemes and landscaping that will provide habitat and food resources for birds and screen the proposed battery energy storage system from adjacent habitats and sensitive designated sites.

To avoid recklessly disturbing or destroying bird nests during the works, it is recommended that any necessary vegetation removal is undertaken outside of the nesting season where possible (March-September inclusive).

If there is no alternative but to undertake vegetation removal during the nesting season, this must only be undertaken subject to a thorough nest check immediately before works are undertaken by a suitably experienced ecologist to identify any active nests present. Where active nests are found to be present, a buffer zone dependent on the species and habitat type will be recommended in which no disturbance will be permitted until all young have fledged and no longer return to the nest(s). Following a clear pre-works check all vegetation clearance should be supervised under an Ecological Clerk of Works until deemed unsuitable.

4.2.2 Construction-phase disturbance

Many of the issues relating to the construction phase are associated with vegetation clearance and disturbance as detailed in the above section (section 4.1.3).

Other mitigation measures during the construction phase should include:

- During the breeding season (March – September inclusive) any areas of retained habitat on site must be protected as much as possible throughout the construction phase and any temporary lighting if any, must be directed to avoid the retained vegetation.
- Information on breeding birds and their legal status is recommended to be included in the sites induction material; this should also include information on avoidance and protection of suitable habitat for supporting breeding birds;

4.2.3 Operational-phase disturbance

During the operational phase impacts are considered to be low – potential disturbance will be mitigated by through mitigation and enhancement measures detailed within the LEMP (Tir Collective Landscape Architects 2025).

4.3 ENHANCEMENTS

It is a requirement of PPW (Appendix B), policies CE3, CE7 and SP9 of the Newport Local Plan 2015 (Appendix B) and the mitigation hierarchy (CIEEM, 2024) to provide enhancements for biodiversity as part of development. The following enhancement measures should be incorporated into the design scheme to enhance the site for breeding birds:

-
- Provision of further appropriate bird boxes (including swift boxes) within the site and its adjacent areas that are suitable (such as mature trees and buildings).
 - Planting of further native trees, scrub, shrubs and grassland within the landscaping scheme specified in the LEMP; this will provide foraging and nesting habitat for a range of bird species, including those recorded on site.

5.0 CONCLUSIONS

The site is considered to be of Local importance for its species assemblage, with mostly common species recorded during the breeding bird surveys. A low number of species was recorded within the proposed development area.

Measures to protect and enhance breeding and wintering birds are detailed within a CEMP (Tetra Tech 2025b) and LEMP (Tir Collective Landscape Architects 2025).

With the recommended mitigation outlined in Section 4.2, the proposed works can be carried out to the legal requirements for the protection of birds and should not have a significant negative impact upon breeding species found within the site as well as on the wider bird population.

The recommended enhancements within this report will aim to meet the requirements of the PPW and the Newport Local Development Plan 2011-26 (Newport City Council, 2015) which require the plans to provide enhancements of biodiversity within any site.

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FIGURES

Figure 1 – Site Location Plan

Figure 2 – Bird Survey Results

Figure 3 – International Sites within 10 km



Site Location Plan

Uskmouth AW2



AW2 Energy Storage Ltd

Legend

Survey areas

Notes:

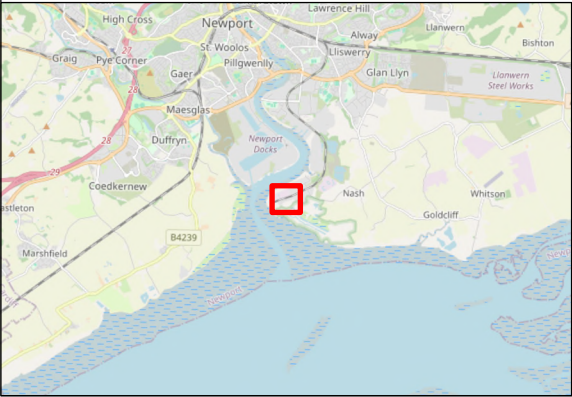
Drawn by: hannah.hamilton
Checked by: Fraser McCarter

Figure No. 1
Revision No. A
11 June 2025

0 25 50 75 100 Meters
Scale 1:2,500 @A3

British National Grid
NGR: 332547E 183534N

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Breeding Birds Results

Uskmouth AW2



AW2 Energy Storage Ltd

Legend

- Site boundary
- Breeding bird

BTO Codes

CH - Chaffinch (1)	HM - House martin (8)
CK - Cuckoo (2)	K. - Kestrel (1)
CW - Cetti's warbler (2)	LB - Lesser black-backed gull (17)
D. - Dunnock (3)	PE - Peregrine (3)
GB - Great black-backed gull (2)	SG - Starling (1)
GL - Grey wagtail (1)	SI - Swift (2)
GR - Greenfinch (1)	WA - Water rail (1)
HG - Herring gull (9)	

Label colour denotes BOCC Status (Red/Amber/Green)

- Annex 1
- Schedule 1

Notes:

Drawn by: DYLAN.GUSSMAN
Checked by: John Simper

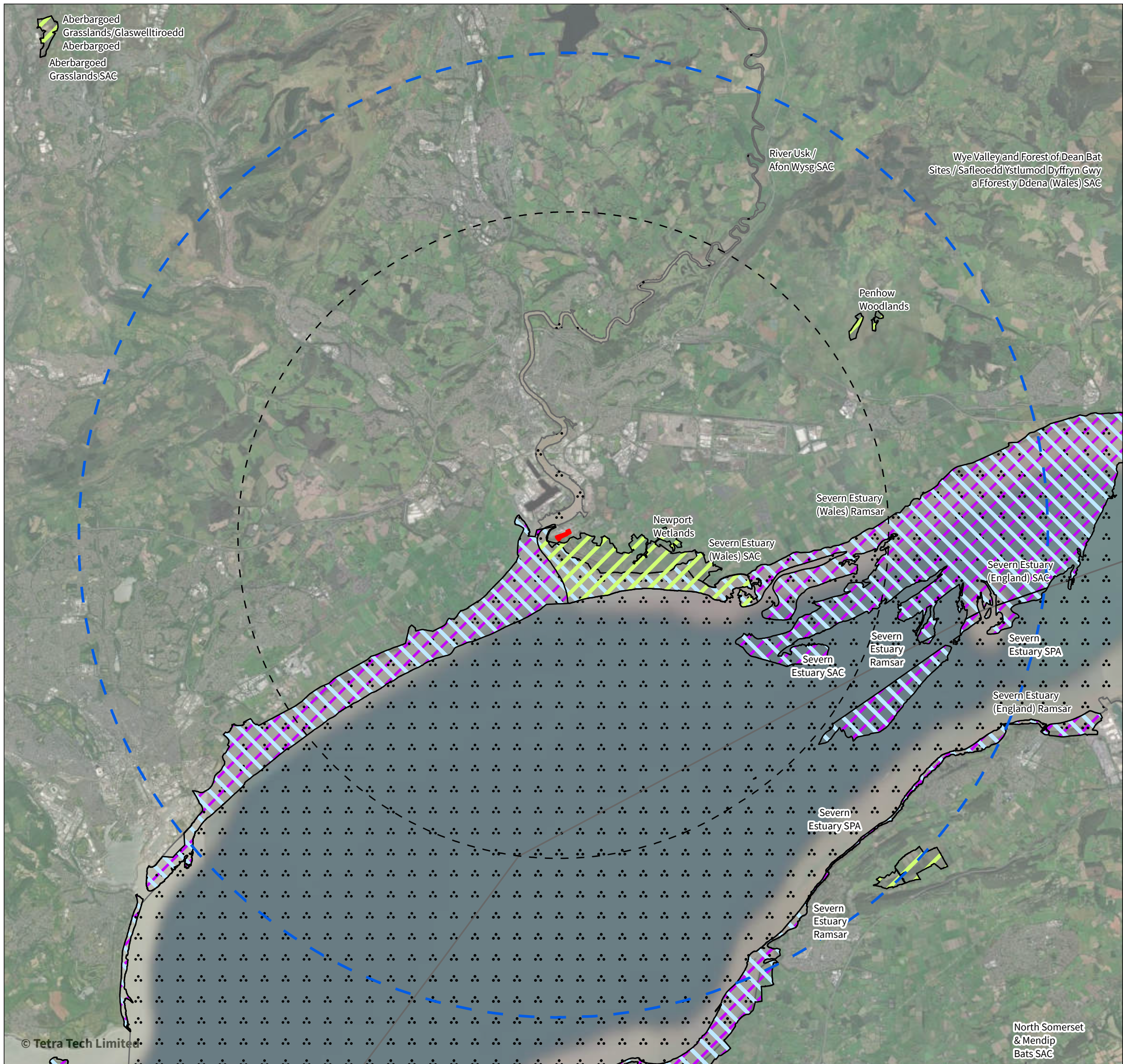
Figure No. 2
Revision No. A
11 July 2025

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Scale 1:2,500 @A3

British National Grid
NGR: 332594E 183615N

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Habitat sites within 15km

Uskmouth AW2

**AW2 Energy Storage Ltd**

Legend

-
- Legend:
- Proposed development
 - Zone of Influence (10 km)
 - Zone of Influence (15 km)
 - Special Areas of Conservation (SAC)
 - Ramsar
 - Special Protection Areas (SPA)
 - National Nature Reserves

Data Sources:

National Nature Reserves
Ramsar
Special Areas of Conservation
Special Protection Areas

Notes:

Symbolism similar to that used within the MAGIC Application

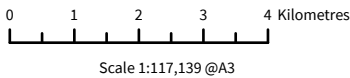
Drawn by: DYLAN.GUSSMAN

Figure No. 3

Checked by: Danny de la Hey

Revision No. A

30 June 2025



British National Grid

NGR: 332550E 183535N

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APPENDICES

APPENDIX A – REPORT CONDITIONS

APPENDIX B – LEGISLATION AND POLICY

APPENDIX C – FULL LIST OF BREEDING BIRD SPECIES RECORDED

APPENDIX A: REPORT CONDITIONS

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

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

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

APPENDIX B: LEGISLATION AND POLICY

Habitats Directive

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales, and via the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

Conservation of Habitats and Species Regulations 2017 (as amended)

The 2018 amendments mainly related to the impact of the *People Over Wind* decision and some implications arising for neighbourhood plan development and a range of other planning tools including Local Development Orders and Permission in Principle – see here for full details:

<https://www.legislation.gov.uk/uksi/2018/1307/note/made>

The 2019 amendments related to the EU exit. Most of these changes involved transferring functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant. The obligations of a competent authority in the 2017 Regulations for the protection of sites or species do not change. – see here for full details:

<https://www.legislation.gov.uk/ukdsi/2019/9780111176573>

Wildlife & Countryside Act 1981 (as amended)

All wild birds in the UK are protected under Section 1 of the W&CA which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs. Bird species listed in Schedule 1 of the W&CA receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird

Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

Forty-nine bird species are listed as 'species of principal importance for the conservation of biological diversity in England' under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

Planning Policy Wales

Planning Policy Wales (Welsh Government, 2023) sets out the national planning policy framework for Wales. It is supported by key guidance such as Technical Advice Note (TAN) 5: Nature Conservation and Planning, which provides detailed advice on biodiversity and geological conservation within the planning system.

Under PPW and TAN 5, the presence of protected species is a material consideration in the planning process. The policy establishes that:

- a) If significant harm to biodiversity resulting from a development cannot be avoided (for example, by locating the development on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) Development whose primary objective is to conserve or enhance biodiversity should be supported; and opportunities to incorporate biodiversity improvements in and around developments should be encouraged, particularly where these can secure measurable net gains for biodiversity.

This approach aligns with Welsh statutory obligations under the Environment (Wales) Act 2016 and the Conservation of Habitats and Species Regulations 2017 (as amended), reinforcing the protection and enhancement of biodiversity through the planning system in Wales.

Birds of Conservation Concern

The conservation status of all regularly occurring British birds has been analysed in co-operation with the leading governmental and non-governmental conservation organisations, including the Royal Society for the Protection of Birds (RSPB), British Trust for Ornithology (BTO) and Birdlife International Birds of Conservation Concern Wales 4 (Johnstone *et al.*, 2022). The basis of species ongoing population trends are assigned to one of three lists of Conservation Concern. These are the UK Red, Amber and Green list.

The criteria for birds being included in the lists is as follows:

1.0 Red List

- 2.0 Globally threatened.
- 3.0 Historical population decline in UK during 1800–1995.

4.0 Severe (at least 50%) decline in UK breeding population over last 25 years, or longer-term period (the entire period used for assessments since the first BoCC review, starting in 1969). Severe (at least 50%) contraction of UK breeding range over last 25 years, or the longer-term period.

5.0 Amber List

6.0 Species with unfavourable conservation status in Europe (SPEC = Species of European Conservation Concern).

7.0 Historical population decline during 1800–1995, but recovering; population size has more than doubled over last 25 years.

8.0 Moderate (25–49%) decline in UK breeding population over last 25 years, or since 1969.

9.0 Moderate (25–49%) contraction of UK breeding range over last 25 years, or since 1969.

10.0 Moderate (25–49%) decline in UK non-breeding population over last 25 years, or since 1969.

11.0 Rare breeder; 1–300 breeding pairs in UK.

12.0 Rare non-breeders; less than 900 individuals.

13.0 Localised; at least 50% of UK breeding or non-breeding population in 10 or fewer sites, but not applied to rare breeders or non-breeders.

14.0 Internationally important; at least 20% of European breeding or non-breeding population in UK (NW European and East Atlantic Flyway populations used for non-breeding wildfowl and waders respectively).

15.0 Green List

16.0 Species that occur regularly in the UK but do not qualify under any of the above criteria.

Although the lists confer no legal status in themselves, they are useful in evaluating the conservation significance of bird assemblages, and for assessing the potential significance of impacts and informing appropriate levels of mitigation with respect to bird populations.

Local Planning Policy

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level) and are usually drawn up by a consortium of local Government organisations and conservation charities.

Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision-making process.

Newport Local Development Plan 2011-26 (Newport City Council, 2015)

Policy CE3: Environmental Spaces and Corridors	4.7 Environmental Spaces and corridors form a valuable part of Newport's green infrastructure provision. They provide a network of connected, accessible, multi-functional sites including parks, woodland, informal open spaces, amenity areas, footpaths and bridleways, hedgerows, commons and village greens, and nature reserves as well as linkages such as river corridors, wildlife corridors and the Monmouthshire & Brecon Canal, that can bring about multiple social, health, economic and environmental benefits to the area. The sites are multi-functional in that apart from their ecological value they can be used for various purposes, for example, leisure activities and promoting tourism with associated benefits in terms of health and the economy.
Policy CE7: Conservation Areas	4.35 Newport has a rich and unique natural environment which this Plan seeks to protect and enhance. Areas such as the Gwent Levels, have been specifically recognised by the Wales Spatial Plan. Proposed developments will be required to avoid the loss of such a finite resource. The Plan has been subject to a Sustainability Appraisal (incorporating Strategic Environmental Assessment) and Habitat Regulations Assessment both of which consider the effect that the Plan has on the environment. These assessments have been undertaken alongside the Plan's development. 4.36 The strategy of the Plan clearly promotes a brownfield preference to development. This seeks to assist in the protection of sensitive areas including those of nature conservation. It is important to recognise the nature conservation value of brownfield sites which will need to be considered as part of any proposal.
Policy SP9: Conservation of the Natural, Historic and Built Environment	2.33 Newport has a rich diversity of natural and historic sites which are recognised at the international, national and local level. Those habitats and species of nature conservation interest represent important environmental resources, and the Council has a duty under various legislation including the Natural Environment and Rural Communities Act (2006)¹⁴, or as amended, Conservation of Habitats and Species Regulations (2010)¹⁵, Countryside and Rights of Way Act (2000)¹⁶, or as amended, and the Town and Country Planning Act (Environmental Impact Assessment) (England and Wales) Regulations (1999)¹⁷, or as amended, to ensure that they are protected from inappropriate or damaging development. National guidance sets out a clear requirement for the planning system to improve as well as protect the environment. Planning Policy Wales¹⁸ and Technical Advice Note 5: Nature Conservation and Planning (2009)¹⁹ set out this framework identifying nature conservation as an integral part of planning for sustainable development. Local advice will be set out in the Supplementary Planning Guidance on Wildlife and Development. Available at: Strategic-Environmental-Assessment-and-Habitat-Regulations-Assessment-Screening-Report_draft-SPG (newport.gov.uk)

APPENDIX C: FULL LIST OF BIRD SPECIES RECORDED

Species Name	Common Name	W&CA and BoCC Status
<i>Acrocephalus scirpaceus</i>	Reed warbler	Green List BoCC Wales
<i>Anas platyrhynchos</i>	Mallard	Green List BoCC Wales
<i>Apus apus</i>	Swift	Red List BoCC Wales
<i>Aythya fuligula</i>	Tufted duck	Green List BoCC Wales
<i>Carduelis carduelis</i>	Goldfinch	Green List BoCC Wales
<i>Cettia cetti</i>	Cetti's warbler	Green List BoCC Wales, Sched 1 W&CA 1981
<i>Columba palumbus</i>	Woodpigeon	Green List BoCC Wales
<i>Cyanistes caeruleus</i>	Blue Tit	Green List BoCC Wales
<i>Delichon urbica</i>	House martin	Amber List Wales BoCC
<i>Dendrocopos major</i>	Great spotted woodpecker	Green List BoCC Wales
<i>Erithacus rebecula</i>	Robin	Green List BoCC Wales
<i>Falco peregrinus</i>	Peregrine	Green List BoCC Wales, Sched 1 W&CA 1981
<i>Falco tinnunculus</i>	Kestrel	Red List BoCC Wales
<i>Fringilla coelebs</i>	Chaffinch	Amber List BoCC Wales
<i>Gallinula chloropus</i>	Moorhen	Green List BoCC Wales
<i>Hirundo rustica</i>	Swallow	Green List BoCC Wales
<i>Larus argentatus</i>	Herring gull	Red List BoCC Wales
<i>Larus fuscus</i>	Lesser black-backed gull	Green List BoCC Wales
<i>Larus marinus</i>	Great black-backed gull	Amber List BoCC Wales
<i>Motacilla alba</i>	Pied wagtail	Green List BoCC Wales
<i>Parus major</i>	Great tit	Green List BoCC Wales
<i>Phasianus colchicus</i>	Pheasant	Introduced
<i>Phylloscopus collybita</i>	Chiffchaff	Green List BoCC Wales
<i>Pica pica</i>	Magpie	Green List BoCC Wales
<i>Prunella modularis</i>	Dunnock	Amber List BoCC Wales
<i>Rallus aquaticus</i>	Water rail	Amber List BoCC Wales
<i>Sylvia atricapilla</i>	Long-tailed tit	Green List BoCC Wales
<i>Sylvia communis</i>	Common whitethroat	Green List BoCC Wales

<i>Tachybaptus ruficollis</i>	Little grebe	Green List BoCC Wales
<i>Troglodytes troglodytes</i>	Wren	Green List BoCC Wales
<i>Turdus merula</i>	Blackbird	Green List BoCC Wales
<i>Turdus philomelos</i>	Song thrush	Green List BoCC Wales