Kelme Wind Farm Project, Lithuania

Biodiversity Action Plan (BAP)

PREPARED FOR

Ignitis Renewables

DATE
14 July 2025

REFERENCE
0779257

Source: Ignitis Renewables

DOCUMENT DETAILS

DOCUMENT TITLE	Kelme Wind Farm Project, Lithuania
DOCUMENT SUBTITLE	Biodiversity Action Plan (BAP)
PROJECT NUMBER	0779257
DATE	14 July 2025
VERSION	1.0
AUTHOR	Adam Teixeira-Leite
CLIENT NAME	Ignitis Renewables

DOCUMENT HISTORY

				ERM APPROVAL TO ISSUE		
VERSION	REVISION	AUTHOR	REVIEWED BY	NAME	DATE	COMMENTS
0.1 draft	000	Adam Teixeira-Leite	-	Serkan Kirdogan	10.07.2025	Draft submitted to client for review and comment
1.0	000	Adam Teixeira-Leite	-	Serkan Kirdogan	14.07.2025	Following client review

SIGNATURE PAGE

Kelme Wind Farm Project, Lithuania

Biodiversity Action Plan (BAP)

0779257

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LIST OF ACRONYMS & ABBREVIATIONS

Name	Description
AoI	Area of Influence
BAP	Biodiversity Action Plan
BICS	Bird Identification and Control System
BMP	Biodiversity Management Plan
BMEP	Biodiversity Monitoring and Evaluation Programme
CH	Critical Habitat
CHA	Critical Habitat Assessment
CORPI	Coastal Research and Planning Institute
CR	Critical Endangered (species threat status, according to IUCN)
DD	Data Deficient (species threat status, according to IUCN)
E&S	Environmental and Social
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EN	Endangered (species threat status, according to IUCN)
ERM	Environmental Resources Management Ltd.
ESAP	Environmental and Social Action Plan

Name	Description
ESMS	Environmental and Social Management System
EU	European Union
GIP	Good International Practice
GN	Guidance Note
IFC	International Finance Corporation
IFI	International Finance Institution
IUCN	International Union for Conservation of Nature
KPI	Key Performance Indicator
kV	Kilo Volt
LC	Least Concern (species threat status, according to IUCN)
MoC	Management of Change
MW	Mega Watt
NG	Net Gain (of biodiversity)
NNL	No Net Loss (of biodiversity)
NT	Near Threatened (species threat status, according to IUCN)
PBR	Potential Biological Removal
PBF	Priority Biodiversity Feature
PCFM	Post-construction Fatality Monitoring
PR	Performance Requirement
RSZ	Rotor Swept Zone
VU	Vulnerable (species threat status, according to IUCN)
WT	Wind Turbine
WTG	Wind Turbine Generator

DEFINITIONS OF KEY TERMS

Critical habitat:
Critical habitat is typically defined as the most sensitive biodiversity features and the definitions varies somewhat between different International Financial Institutions (IFIs). Typically, though, this relates to habitat important for supporting globally/regionally threatened species, endemic and/or restricted-range species, migratory and/or congregatory species, threatened or unique ecosystems/habitats and ecological / evolutionary processes.

EBRDs definition of Critical Habitat (which comprises one of the following): *(i) highly threatened or unique ecosystems;*
(ii) habitats of significant importance to endangered or critically endangered species;
(iii) habitats of significant importance to endemic or geographically restricted species;
(iv) habitats supporting globally significant migratory or congregatory species; and/or
(v) areas associated with key evolutionary processes (EBRD, 2019).
Priority biodiversity features:

This concept replaces the previous definition of natural habitat used previously by EBRD and adopts a criterion-based approach already used for definition of critical habitat. Priority in all EBRD definitions combines consideration of irreplaceability and vulnerability. Priority biodiversity features (PBF) are a subset of biodiversity that have a high, but not the highest, degree of irreplaceability and/or vulnerability. Although a level below critical habitat in sensitivity, they still require careful consideration during project assessment and impact mitigation (EBRD, 2019).

No Net Loss (of biodiversity):
An approach and goal for a development project, policy, plan or activity in which the impacts on biodiversity it causes are balanced by measures taken to avoid and minimize the impacts, to restore affected areas and finally to offset the residual impacts, so that no loss remains.

No net loss is defined as the point at which project-related biodiversity losses are balanced by gains resulting from measures taken to avoid and minimize these impacts, to undertake on-site restoration and finally to offset significant residual impacts, if any, on an appropriate geographic scale (EBRD, 2019).

Net Gain (of biodiversity):
An approach and goal for a development project, policy, plan or activity in which the impacts on biodiversity it causes are outweighed by measures taken to avoid and minimize the impacts, to restore affected areas and finally to offset the residual impacts, so that natural environment is left in a measurably better state than it was beforehand.

Net gains refer to measurable improvements in the condition or extent of biodiversity values for which Critical Habitat was identified. These gains can be achieved either by implementing a biodiversity offset or, if offsets are not required, through on-the-ground actions that enhance habitats and support the protection and conservation of biodiversity in the same area (EBRD, 2019).

(Biodiversity) Offset:
Conservation activities or actions that aim to compensate for the lasting impacts of development on species, habitats and ecosystems that persist even after other mitigation measures have been applied.

Mitigation hierarchy:
A tool commonly applied in Environmental Impact Assessments (EIAs) which helps to manage biodiversity risk. The hierarchy of controls that begins with avoidance, then considers minimization or reduction of impacts, followed by restoration actions and finally compensation for biodiversity loss (e.g. through offsetting) as a last resort measure only once all other options have been considered/exhausted.

1. INTRODUCTION

1.1 BACKGROUND

Environmental Resources Management (ERM) was appointed by Ignitis Renewables (referred to hereafter as "Ignitis" or "the Client") to provide supplementary information concerning the Kelme Wind Farm in Lithuania (the "Project"), in support of the Project seeking finance from the European Bank for Reconstruction and Development (EBRD).

The Project will need to align with the environmental and social (E&S) standards of EBRD (2019), including Performance Requirement 6 (PR6) which deals with the management of risks and impacts of development projects on biodiversity and ecosystems. In order to align with EBRD PR6, ERM conducted a Critical Habitat Assessment (CHA) to identify Critical Habitat (CH) and Priority Biodiversity Features (PBF) associated with the Project area and particularly those which have the potential to be negatively impacted by the Project. *See section 1.3.1 of this BAP report for EBRDs definitions of CH and PBF.*

For CH and PBF at risk of being impacted by the Project, EBRD PR6 requires that a mitigation strategy be developed in line with the mitigation hierarchy that aims to avoid or minimise impacts on CH/PBF before considering other actions such as restoration and compensation finally to address any residual impacts of significance, with the objective of meeting biodiversity Net Gain (NG) for CH and at least No Net Loss (NNL) of biodiversity for PBFs. EBRD PR6 requires that the mitigation strategy be described within a Biodiversity Management Plan (BMP) or Biodiversity Action Plan (BAP), where appropriate.

For this particular Project, the mitigation strategy for the Project has considered several avoidance and minimization measures for the construction and operational phases, however ERM has determined through the CHA that residual post-construction impacts to CH and PBF are still likely to be relevant even where the current mitigation strategy has been followed, and therefore a BAP has been developed in order to identify and define key actions still needed to address these residual impacts and ensure NG/NNL objectives can be achieved for the Project.

An operational BMP (ERM, 2025) has also been compiled to inform and guide the implementation of the mitigation and management actions during operation, based on the mitigation strategy and approach taken by Ignitis. The BAP essentially builds on the measures for avoiding and minimizing impacts on biodiversity documented in the BMP, with a focus on addressing any remaining residual impacts on CH/PBF through appropriate restoration and/or compensation (offset) measures depending on impact significance and whether BMP measures have appropriately managed risks/impacts towards reducing residual effects.

1.2 PURPOSE

This document presents the BAP for the Kelme Wind Farm Project and sets out clear and achievable objectives, actions and interventions to mitigate and manage Project impacts on biodiversity and, where possible, conserve, restore and/or enhance biodiversity, with a specific focus on addressing residual impacts of the Project on CH and PBF values identified in the CHA.

The BAP considers management actions that are intentional, achievable, and measurable and is aligned with the requirements of EBRD PR6. The following information is provided in the BAP

- An overview of the anticipated Project impacts on biodiversity, with a focus on residual impacts on natural habitat CH and PBF;
- Outlines the requirements and strategy to achieve NNL/NG of biodiversity for CH and PBF;
- Guide and demonstrate how the Project will apply the final step of the mitigation hierarchy – offsetting/compensation, as well as restoration - building on the biodiversity impact assessment and mitigation measures documented in the EIA, CHA report and the Biodiversity Management Plan (BMP) prepared for the Project; and
- Provides a high-level action plan for biodiversity (focus on addressing residual impacts to CH, PBF through restoration and compensation actions) together with roles and responsibilities of PGE and implementation partners/stakeholders and indicative timeframes for implementation towards meeting NG/NNL objectives.

The BAP is also designed to be a '*living document*' that will be regularly updated as the Project develops. It is recommended that the BAP be reviewed and updated annually for at least the first five (5) years of the wind farm operational phase and BAP/BMP implementation timeframe, with the frequency of further reviews and updated to be determined at the end of this initial 5-year period. In addition, updates outside of this regular review frequency may be needed through a 'Management of Change' (MoC) process. For example, if there is an urgency that requires a more frequent update that will be observed – e.g. change in Project specifics, other external events, that could change the predicted impacts to biodiversity in relation to EBRD PR6). *See also Section 9.2 for further information on BAP review and updates*.

Information Box. What is a BAP?

A Biodiversity Action Plan or BAP is a Project-specific plan that sets out to specifically address residual impacts on Critical Habitat (CH) and Priority Biodiversity Features (PBF) as defined by International Financing Institutions (IFS) including EBRD. For this Project, alignment with the requirements of EBRD have been considered as the 'applicable standards', and therefore the relevant definitions for CH, PBF and the BAP have been considered (see below).

The BAP sets out the goals, objectives and provides a series of relevant management actions linked to these objectives, towards addressing residual impacts on CH and PBF, in order to meet NNL/NG of PBF or CH, respectively. This aligns with the EBRD ESR6 definition of a BAP (included below). Residual impacts on CH and PBF are those that remain after the initial steps of the mitigation hierarchy have been applied (i.e. avoidance, minimization and restoration), and this is the important distinction between the BAP and the BMP developed for the Project, which focuses on the first steps of the mitigation hierarchy. Included in the BAP are responsible parties and timeframes to inform BAP implementation, and performance/completion indicators and/or monitoring targets are also provided to measure implementation success and inform any adaptive management requirements to ensure success in meeting objectives and targets.

EBRD PR6 mentions that BAPs *"…typically include a series of goals, objectives, and management measures and scheduled milestones to mitigate residual impacts to achieve no net loss/net gains of priority biodiversity features or critical habitat. The goal/objectives should be realistic and based on measurable targets. Each objective should outline a series of actions and include completion indicators or monitoring targets, and the responsible party and a timeframe. BAPs should be developed in consultation with relevant stakeholders, including government, external experts, local/international conservation organizations and project-affected communities."* (EBRD, 2019).

1.3 BAP STRUCTURE

The BAP has been structured as follows:

Chapter 1 Background information that includes:

- Information on applicable standards and key definitions of terms;
- Overview of EBRD PR6 requirements for CH and PBF; and
- Scope of the BAP (temporal and spatial).

Chapter 2 Project background and status.

Chapter 3 Approach and general principles followed in developing the BAP.

Chapter 4 Summary of the CHA findings identifying CH/PBF species and habitats at risk of being impacted by the Project, description of risks on CH/PBF values.

Chapter 5 Description of residual impacts on CH/PBF values.

Chapter 6 Biodiversity management objectives and priorities.

Chapter 7 Action plan for biodiversity together with responsibilities and indicative timeframes for implementation.

Chapter 8 Implementation of the BAP, including roles and responsibilities, monitoring and evaluation, requirements for regular review and updates of the BAP.

1.4 APPLICABLE STANDARDS

The Project seeks to align with the E&S standards of EBRD (2019), including Performance Requirement 6 (PR6) which deals with the management of biodiversity and ecosystems. EBRD PR6 is therefore the applicable standard that applies to this BAP.

Definitions and requirements for managing CH and PBF are provided below in accordance with EBRD PR6.

1.4.1 DEFINITIONS OF CH & PBF

EBRD defines Critical Habitat (CH) and Priority Biodiversity Features (PBF) in PR6.

Critical Habitat (CH): According to EBRD PR6, paragraph 14, CH is defined as the most sensitive biodiversity features, which include one or more of the following:

(i) *highly threatened or unique ecosystems;*

(ii) *habitats of significant importance to endangered or critically endangered species;*

(iii) *habitats of significant importance to endemic or geographically restricted species;*

(iv) *habitats supporting globally significant migratory or congregatory species;*

(v) *areas associated with key evolutionary processes* (EBRD, 2019).

EBRD criteria for defining CH include reference to European Union (EU) Habitat Directive/Birds Directive. *For detailed information on CH defining criteria and thresholds, the reader is referred to Chapter 2: section 2.3 of the CHA report (ERM, 2025).*

Priority Biodiversity Feature (PBF): EBRD define PBF as being sub-set of biodiversity that is irreplaceable or vulnerable, but at a lower priority level than CH, which typically includes*: (i) threatened habitats; (ii) vulnerable species; (iii) significant biodiversity features identified by a broad set of stakeholders or governments; and (iv) ecological structure and functions needed to maintain the viability* (EBRD, 2019).

For detailed information on PBF defining criteria and thresholds, the reader is referred to Chapter 2: section 2.3 of the CHA report (ERM, 2025).

1.4.2 REQUIREMENTS FOR CH

Paragraphs 15 and 16 of EBRD PR6 provide the requirements for the consideration and management of CH, as follows:

*"15. **Critical habitat** shall not be further fragmented, converted or degraded to the extent that its ecological integrity or biodiversity importance is compromised. Consequently, in areas of critical habitat, the client will not implement any project activities unless the following conditions are met:*

- *no other viable alternatives within the region exist for development of the project in habitats of lesser biodiversity value;*
- *stakeholders are consulted in accordance with PR 10;*
- *the project is permitted under applicable environmental laws, recognising the priority biodiversity features;*
- *the project does not lead to measurable adverse impacts on those biodiversity features for which the critical habitat was designated;*
- *the project is designed to deliver net gains for critical habitat impacted by the project;*
- *the project is not anticipated to lead to a net reduction in the population of any endangered or critically endangered species, over a reasonable time period; and*
- *a robust and appropriately designed, long-term biodiversity monitoring and evaluation program aimed at assessing the status of critical habitat is integrated into the client's adaptive management program."*

"16. In such cases where a client is able to meet these requirements, the project's mitigation strategy will be described in a biodiversity management plan or biodiversity action plan, wherever appropriate."

Source: EBRD PR6 (2019).

1.4.3 REQUIREMENTS FOR PBF

Paragraph 13 of EBRD PR6 provides the requirements for the consideration and management of PBF, as follows:

*"13. Where the assessment has identified that the project could have significant, adverse and irreversible impacts to **priority biodiversity features**, the client shall not implement any project related activities unless:*

- *the client can demonstrate that there are no technically and economically feasible alternatives;*

- *stakeholders are consulted in accordance with PR 10;*
- *the project is permitted under applicable environmental laws, recognising the priority biodiversity features; and*
- *appropriate mitigation measures are put in place, in accordance with the mitigation hierarchy, to ensure no net loss and preferably a net gain of priority biodiversity features and the habitats and ecological functions that support them over the long term to achieve measurable conservation outcomes."*

Source: EBRD PR6 (2019)

1.5 SCOPE OF THE BAP

1.5.1 SPATIAL SCOPE

The BAP covers the direct footprint of the now operational wind farm facility (including all infrastructure: turbines, access roads, transmission lines installed below ground, etc.) and extends to the Area of Influence (AoI) determined for assessing direct and indirect impacts on biodiversity and the study area considered in the CHA report (see map in Figure 1-1). This extends to a 5 km buffer around the wind farm turbines (for impacts to volant/fluing species – i.e. birds and bats) and a 700 m buffer around all components (turbines, roads and underground transmission line) for non-volant (non-flying) species such as land mammals, etc. *For further information on the CHA study area and AoI defined, the reader is referred to Chapter 2: section 2.1 of the CHA report (ERM, 2025).*

1.5.2 TEMPORAL SCOPE

The BAP intends to cover the post-construction and operational phase of the Project, as construction has been completed and the wind farm has now entered the operational phase. The focus is now clearly on managing **operational risks and residual impacts** on CH/PBF species and relevant associated habitats for these species as well as addressing any residual impacts post-construction on physical habitats that qualify as CH/PBF. *Note that the BAP is also designed to be a 'living document' that will be regularly reviewed (at least annually for the first 5 years) and updated as the Project develops, in line with the Environmental and Social Action Plan (ESAP) requirements, as well as an adaptive management approach recommended for the Project that focuses on long-term monitoring outputs to inform the implementation and/or refinement of appropriate biodiversity management actions. This builds on the biodiversity impact assessment and mitigation measures in the national EIA and intends to further guide what key actions are required to develop site-specific mitigation and plans to meet the Project-specific requirements around biodiversity management.*

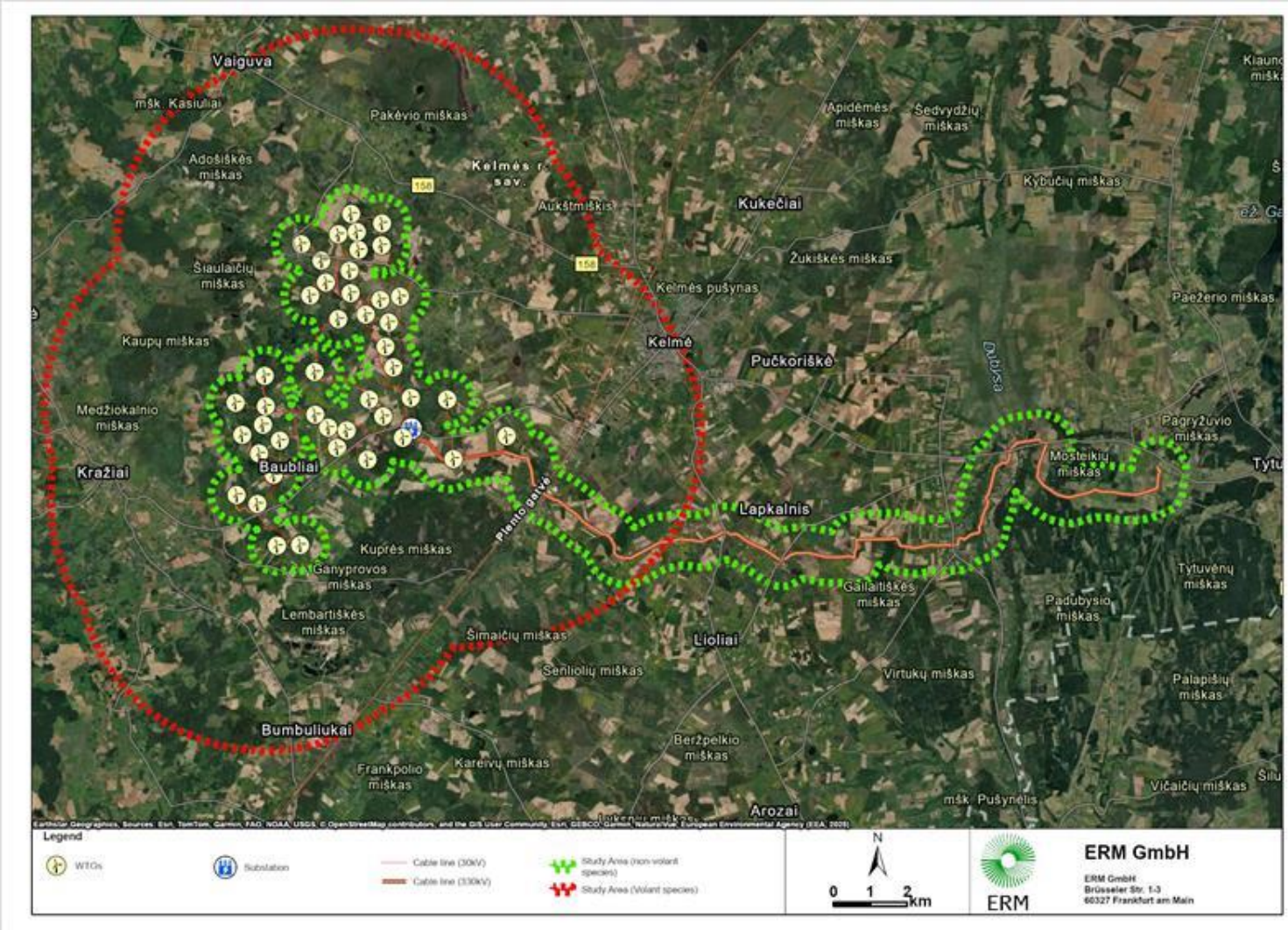

FIGURE 1-1 CHA STUDY AREA FOR VOLANT/FLYING ('RED' OULINE) AND NON-VOLANT/NON-FLYING ('GREEN' OUTLINE) SPECIES

Source: ERM, using Client data

2. PROJECT BACKGROUND

2.1 LOCATION

The Kelme Wind Farm is situated in the Kelmė District Municipality, a predominantly rural area in northwestern Lithuania (see map in Figure 2-1). The region is characterized by a landscape of expansive agricultural fields, interspersed with patches of forest and pastureland. The area currently supports a variety of land uses, including grain cultivation, vegetable farming, and livestock grazing.

FIGURE 2-1 PROJECT LOCATION MAP

Source: ERM, based on data provided by Ignitis

2.2 PROJECT COMPONENTS

The Kelme Project comprises two sub-projects, Kelme I and Kelme II, with a power generation capacity of 105 MW and 195 MW, respectively. Kelme I includes 16 wind turbines (WTs), whilst Kelme II includes 28 WTs. The Project is expected to generate approximately 914.7 GWh annually (P50), with a capacity factor of 34.3% at P50

The Project comprises of the following infrastructure components:

- The Kelmė Wind Farm consists of 44 Nordex N163 6.X turbines, with 16 in Phase I and 28 in Phase II;
- The WTs are located at elevations between 134 m and 168 m above sea level, with a minimum distance of 3.1 times the rotor diameter (3.1D) between the turbines;
- The individual WTs are connected via a network of 33 kV underground transmission line cables to a new 110/33 kV substation (also containing the control room and offices), to be in the northwestern part of the wind farm site;
- The Project also includes a 28.8 km length underground high voltage (330 kV) transmission line connecting the wind farm to the grid.

The Project infrastructure layout plan is shown in Figure 2-2.

2.3 PROJECT STATUS

In line with Lithuanian environmental permitting requirements, the Project underwent environmental assessment procedures between 2019 and 2022. For Kelme I, a screening assessment was conducted and documented by the national consultancy Ekosistema in 2019. For Kelme II, a full Environmental Impact Assessment (EIA) was completed by Ekosistema in 2022.

Following acquiring the relevant environmental authorisations and permits to commence with construction of the wind farm, construction commenced in May 2023. Construction of both Kelme I and II has since been completed and currently both sub-projects are undergoing test operations. Commercial operations for Kelme I are anticipated to start between Q1 and Q2 of 2025, while Kelme II is expected to begin operations later, between Q3 and Q4 of 2025.

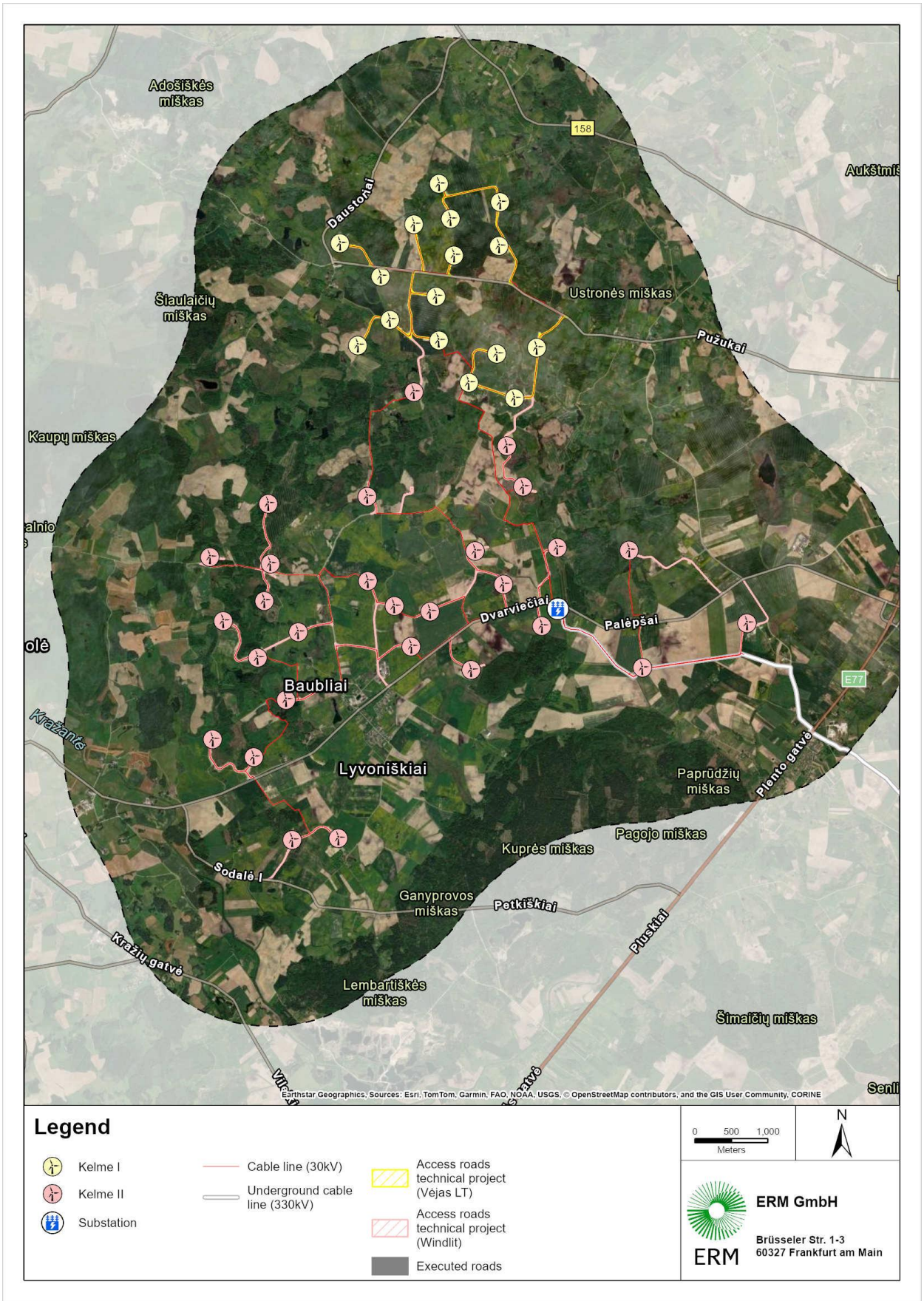

FIGURE 2-2 PROJECT INFRASTRUCTURE LAYOUT PLAN

Source: ERM, based on layout data provided by Ignitis

3. APPROACH AND PRINCIPLES FOLLOWED

3.1 APPROACH TO THE BAP DEVELOPMENT

The approach taken to developing the BAP follows the steps outlined below:

Step 1: Understanding and contextualizing residual impacts on CH and PBF

- Summarizing findings of the CHA report including residual impacts (after measures to avoid, minimize and restore have been considered).
- Supplementary spatial analysis to understand temporary and permanent habitat loss as this relates to CH and PBF (i.e. physical habitat impacts).

Step 2: Setting objectives, goals and targets

- Identify and set NG/NNL objectives and corresponding targets for relevant CH and PBF identified under Step 1.

Step 3: Defining NNL/NG strategy

- Develop an overall strategy for how NG/NNL will be achieved for habitats and species qualifying as CH/PBF and where residual impacts are expected.
- Include opportunities for onsite restoration of temporary affected areas and compensation for any significant, permanent residual impacts to habitat and/or species.

Step 4: Setting actions towards meeting objectives/targets

- Develop a set of actions linked to the objectives and targets set for CH and PBF under Steps 2 and informed by the overall BAP strategy under Step 3.

3.2 PRINCIPLES FOLLOWED

In alignment with the EBRD PR6 requirements, the following principles were followed in developing the BAP, which include:

- Application of the **mitigation hierarchy**:
  - EBRD PR6 requires developers to prioritize the avoidance of impacts on CH and PBF. In essence, this requires the Developer to consider options to avoid impacts before considering minimization of impacts and restoration to address residual impacts. Offsets as a means of compensating for 'significant' residual impacts are only to be considered as a last resort measure, after other measures have first been investigated in full.
  - Given that construction has been completed, additional avoidance and reduction measures for construction risks/impacts are no longer possible, beyond what was agreed to as part of the national EIA and permitting process. This mitigation is documented in the EIA report (UAB Ekosistema, 2022). That being said, there is still an opportunity to restore or compensate for residual impacts to biodiversity that were initiated during construction and of course to mitigate operational impacts in future.

- **Adaptive management and monitoring**:
  - Biodiversity and natural ecosystems can be inherently dynamic systems that may not always respond predictably to management measures, rehabilitation or restoration actions. Given this complexity and uncertainty, monitoring is an extremely useful means for evaluating the state and functioning of ecosystems, habitats and species over time to refine management controls and mitigation as necessary.
  - EBRD PR6 acknowledges how essential monitoring is with regards to biodiversity management and requires that an 'adaptive management' approach to the management of biodiversity be integrated into planning, informed by long-term monitoring of biodiversity with a focus on CH and PBF.
  - Adaptive management has therefore been integral in terms of the design and approach for biodiversity management for this Project, as per the BAP and the separate Biodiversity Management Plan (BMP) compiled for the operational phase of the Project.
- **Life-cycle approach**:
  - Aligned with EBRD PR6, the BAP takes a life-cycle approach to the Project, by addressing all phases of the projects (entire life-cycle) from design/planning, construction, commissioning, operation, decommissioning, closure and (where applicable) post-closure.
  - As mentioned above, given that construction has been completed, additional avoidance and reduction measures for construction risks/impacts, beyond what was agreed to as part of the national EIA and permitting process. The focus of the BAP is therefore on operational risks/impacts and addressing residual impacts to biodiversity that were initiated during construction where possible.

4. SUMMARY OF THE CRITICAL HABITAT ASSESSMENT FINDINGS

A summary of the main findings of the Critical Habitat Assessment (CHA) has been included below. *For further detailed information, the reader is referred to the Executive Summary and Chapters 3, 4 and 5 of the CHA report (ERM, 2025).*

This summary serves to provide the basis for the BAP in terms of identifying CH and PBF species and physical habitats that stand to be at risk of being impacted by the Project and for which NG/NNL objectives apply in terms of management of CH and PBF, respectively.

4.1 CRITICAL HABITAT (CH)

CH has been identified for the following:

- Several habitat types qualify as CH due to their regional Endangered (EN) threat status and/or listing in Annex I of the EU Habitats Directive as 'priority' habitat types;
- Based on the EBRD PR6 Criterion 2, only one species of bird, Black Kite (*Milvus migrans)* is considered to qualify as CH due to its nationally EN threat status, rarity and low population estimates for Lithuania; and
- 13 bat species qualify as CH given their listing in Annex IV of the EU Habitats Directive.

4.2 PRIORITY BIODIVERSITY FEATURES (PBF)

PBF has been identified as follows:

- Remaining habitats listed in Annex I of the EU Habitats Directive that are NOT 'priority' habitat types or EN types regionally; and
- 69 species of birds (including several species of raptors, storks, cranes, waterfowl, passerines) due to their listing in Annex I of the EU Birds Directive, Annex II of the EU Habitats Directive and/or Resolution 6 of the BERN convention.

The full list of CH and PBF has been included as **Annexure A** (section 10.1 for physical habitats and section 10.2 for species) at the end of the BAP, for reference. *For further information the reader is referred to the separate Critical Habitat Assessment (CHA) report (ERM, 2025).*

5. RESIDUAL IMPACTS ON CH & PBF

Impacts on biodiversity are covered in detail in the EIA and CHA reports for the Project. However, in this section the focus has been on understanding the residual impacts Critical Habitat (CH) and Priority Biodiversity Features (PBF) which are the focus of the BAP.

5.1 PROJECT RISKS TO CH AND PBF

The CHA considered risk of impacting on physical habitat and species identified as qualifying as CH/PBF for the Project. A summary is provided here, however for the full analysis of Project-related risks to CH and PBF, see **Annexure A** (section 10.1 for physical habitats and section 10.2 for species) at the end of the BAP. *For further information the reader is referred to the separate Critical Habitat Assessment (CHA) report (ERM, 2025).*

5.1.1 RISK OF IMPACT TO PHYSICAL HABITATS

Based on a visual analysis in Geographical Information Systems (GIS) undertaken by ERM, it was confirmed that the Project has entirely avoided the Annex I physical habitats that qualify as CH or PBF, and this was also confirmed through a field survey of habitats in June 2025 by CORPI/ERM as part of the 'Habitat Residual Impact Assessment' (see report by ERM, 2025). On this basis residual impacts on Annex I physical habitats that qualify CH/PBF during the construction phase are unlikely. *For further detailed information, the reader is referred to the CHA report (ERM, 2025).*

5.1.2 RISK OF IMPACT TO SPECIES

PROJECT OPERATIONAL RISK TO BIRDS AND BATS THAT QUALIFY AS CH/PBF HAS BEEN CONSIDERED IN THE CHA REPORT AND IS SUMMARIZED IN TABLE 5-1TABLE 10-1 SUMMARY OF POTENTIAL PROJECT RISK TO ANNEX I HABITATS THAT QUALIFY AS CH OR PBF

Habitat Classification: Annex I of the EU Habitats Directive	Annex I Priority Habitat Type?	EUNIS Habitat Type and Code (2012)	Revised EUNIS Habitat Type and Code (2021)	EU Terrestrial Habitat Red List: Code and Name	EU Red List Status (2016)	CH or PBF?	Residual Impact due to Project
3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	No	C1.2 Permanent mesotrophic lakes, ponds and pools	-	C1.2a Permanent oligotrophic to mesotrophic waterbody with Characeae	VU	PBF	None
3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition — type vegetation	No	C1.3 Permanent eutrophic lakes, ponds and pools	-	C1.2b Mesotrophic to eutrophic waterbody with vascular plants	NT	PBF	None
3160: Natural dystrophic lakes and ponds	No	C1.4 Permanent dystrophic lakes, ponds and pools	-	C1.4 Permanent dystrophic waterbody	NT	PBF	None
*6120 Xeric sand calcareous grasslands	Yes	E1.9 Open non-Mediterranean dry acid and neutral grassland, including inland dune grassland	R1P Oceanic to subcontinental inland sand grassland on dry acid and neutral soils	E1.9a Oceanic to subcontinental inland sand grassland on dry acid and neutral soils	EN	CH	None
6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates	No	E1.2 Perennial calcareous grassland and basic steppes	R1A Semi-dry perennial calcareous grassland	E1.2a Semi-dry perennial calcareous grassland	VU	PBF	None

Habitat Classification: Annex I of the EU Habitats Directive	Annex I Priority Habitat Type?	EUNIS Habitat Type and Code (2012)	Revised EUNIS Habitat Type and Code (2021)	EU Terrestrial Habitat Red List: Code and Name	EU Red List Status (2016)	CH or PBF?	Residual Impact due to Project
(Festuco-Brometalia) (important orchid sites)			(meadow steppe)				
*6230 Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	Yes	E1.7 Closed non-Mediterranean dry acid and neutral grassland	R1M Lowland to montane, dry to mesic grassland usually dominated by Nardus stricta	E1.7 Lowland to submontane, dry to mesic Nardus grassland	VU	CH	None
*6270 Fennoscandian lowland species-rich dry to mesic grasslands	Yes	E2.2 Low and medium altitude hay meadow	R22 Low and medium altitude hay meadow	E2.2 Low and medium altitude hay meadow	VU	CH	None
6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	No	E3.5 Moist or wet oligotrophic grassland	R37 Temperate and boreal moist or wet oligotrophic grassland	E3.5 Temperate and boreal moist or wet oligotrophic grassland	EN	PBF	None
6450: Northern boreal alluvial meadows	No	E3.4 Moist or wet eutrophic and mesotrophic grassland	R35 Moist or wet mesotrophic to eutrophic hay meadow	E3.4a Moist or wet mesotrophic to eutrophic hay meadow	LC	PBF	None
6510: Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	Yes	E2.2 Low and medium altitude hay meadows	R22 Low and medium altitude hay meadow	E2.2 Low and medium altitude hay meadow	EN	CH	None
*7110 Active raised bogs	Yes	D1.1 Raised bogs	-	D1.1 Raised bog	EN	CH	None
7140 Transition mires and quaking bogs	No	D2.2 Poor fens and soft-water spring mires	-	D2.2a Poor fen	VU	PBF	None
7160 Fennoscandian mineral-rich springs and springfens	No	D2.2 Poor fens and soft-water spring mires	-	D2.2c Intermediate fen and soft-water spring mire	VU	PBF	None
*9010 Western Taïga	Yes	G1.9 Non-riverine woodland with birch, aspen or rowan	T1C Temperate and boreal mountain Betula and Populus tremula forest on mineral soils	G1.9a Temperate and boreal mountain Betula and Populus tremula forest on mineral soils	LC	CH	None
*9020 Fennoscandian hemiboreal natural old broad-leaved deciduous forests (Quercus, Tilia, Acer, Fraxinus or Ulmus) rich in epiphytes	Yes	G1. A Meso- and eutrophic oak, hornbean, ash, sycamore, lime, elm and related woodland	T1E Carpinus and Quercus mesic deciduous forest	G1. Aa Carpinus and Quercus mesic deciduous woodland	NT	CH	None
9050 Fennoscandian herb-rich forests with Picea abies	No	G3.A Spruce taiga woodland	T3F Dark taiga	G3.A Picea taiga woodland	NT	PBF	None
*9080 Fennoscandian deciduous swamp woods	Yes	G1.4 Broadleaved swamp woodland not on acid peat	T15 Broadleaved swamp forest on non-acid peat	G1.4 Broadleaved swamp woodland on non-acid peat	VU	CH	None
9160 Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	No	G1. A Meso- and eutrophic oak, hornbean, ash, sycamore, lime, elm and related woodland	T1E Carpinus and Quercus mesic deciduous forest	G1. Aa Carpinus and Quercus mesic deciduous woodland	NT	PBF	None
*9180 Tilio-Acerion forests of slopes, screes and ravines	Yes	G1.A Meso- and eutrophic oak, hornbean, ash, sycamore, lime, elm and related woodland	T1F Ravine Forest	G1. Ab Ravine woodland	NT	CH	None

Habitat Classification: Annex I of the EU Habitats Directive	Annex I Priority Habitat Type?	EUNIS Habitat Type and Code (2012)	Revised EUNIS Habitat Type and Code (2021)	EU Terrestrial Habitat Red List: Code and Name	EU Red List Status (2016)	CH or PBF?	Residual Impact due to Project
*91D0 Bog woodland	Yes	G3.D Boreal bog conifer woodland	T3J Pinus and Larix mire forest	G3. Da Pinus mire woodland	VU	CH	None
*91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	Yes	G1.1 Riparian and gallery woodland, with dominant alder, birch, poplar or willow	T11 Temperate Salix and Populus riparian forest	G1.1 Temperate and boreal softwood riparian woodland	NT	CH	None

Table key:

EU Red List threat status: EN = Endangered, VU = Vulnerable, NT = Near Threatened, LC = Least Concern

CH = Critical Habitat, PBF = Priority Biodiversity Feature

*asterix indicates priority habitats in terms of Annex I of the EU Habitats Directive

Source: Critical Habitat Assessment (ERM, 2025), Geoportal for Lithuania (https://www.geoportal.lt) EUNIS classification, EU Habitats Directive, European Red List of Habitats for terrestrial and freshwater ecosystems (Janssen et al., 2016)

5.2 ANNEXURE B: LIST OF CH AND PBF SPECIES IDENTIFIED IN THE CHA

Table 10-2 (*for the full list of qualifying CH/PBF species and potential operational phase risks/impacts considered, the reader is referred to section 5.1 of the CHA report – ERM, 2025*).

This assessment suggests that species that could be impacted by the Project operations include the following:

Birds (qualify as PBF, except Black Kite which is CH*):

- Black Kite, *Milvus migrans* (CH*)
- European Honey-buzzard, *Pernis apivorus*
- Lesser Spotted Eagle, *Clanga (Aquila) pomarina*
- White Stork, *Ciconia ciconia*
- White-tailed Sea-eagle, *Haliaeetus albicilla*

Bats (all species qualify as CH):

- Barbastelle Bat, *Barbastella barbastellus*
- Common Noctule, *Nyctalus noctula*
- Common Pipistrelle, *Pipistrellus pipistrellus*
- Kuhls Pipistrelle, *Pipistrellus kuhlii*
- Leisler's Bat, *Nyctalus leisleri*
- Nathusius` Pipistrelle, *Pipistrellus nathusii*
- Northern Bat, *Eptesicus nilssonii*
- Parti-colored Bat, *Vespertilio murinus*
- Serotine, *Eptesicus serotinus*
- Soprano Pipistrelle, *Pipistrellus pygmaeus*

TABLE 5-1 POTENTIAL PROJECT RISK TO AVIAN SPECIES THAT QUALIFY AS CH OR PBF

Common / Species Name	Threat Status (IUCN: global / regional)	National Threat Status	Number of counts recorded on site	CH or PBF?	Project Operational Risk Conceptualized
BIRDS					
Black Kite *Milvus migrans*	LC	EN	29	CH	Potentially impacted due to potentially significant collision risk (72% of flight time at collision risk height) and given very low Potential Biological Removal or PBR[1] based on national population estimates (2 birds/annum).
European Honey-buzzard *Pernis apivorus*	LC		68	PBF	Potentially impacted due to potentially significant collision risk (56% of flight time at collision risk height[2]) and given low PBR (298 birds/annum).
Lesser Spotted Eagle *Clanga (Aquila) pomarina*	LC	VU	1,444		Potentially impacted due to potentially significant collision risk (59% of flight time at collision risk height) and given low PBR (29 birds/annum).
White Stork *Ciconia ciconia*	LC		1,955		Potentially impacted due to potentially significant collision risk (42 % of flight time at collision risk height) and with a moderate number of birds recorded during field surveys (PBR: 2,472 birds/annum).
White-tailed Sea-eagle *Haliaeetus albicilla*	LC	NT	150		Potentially impacted due to potentially significant collision risk (53% of flight time at collision risk height) and given very low national PBR (4 birds/annum).
BATS					
Barbastelle bat *Barbastella barbastellus*	NT globally (VU in Europe)	VU	180	CH	Relatively low occurrence / abundance based on field survey data. May be impacted during operation due to medium collision risk (based on EUROBATS guidelines: Rodrigues at el., 2015).
Common noctule *Nyctalus noctula*	LC		1,144		Relatively abundant based on field survey data. May be impacted during operation due to potential high collision risk (EUROBATS).
Common Pipistrelle *Pipistrellus pipistrellus*	LC		18		Low occurrence / abundance based on field survey data. May be impacted during operation due to potential high collision risk (EUROBATS).
Kuhls Pipistrelle *Pipistrellus kuhlii*	LC		1,765		Relatively frequent occurrence / moderate abundance based on field survey data. May be impacted during operation due to potential high collision risk (EUROBATS).
Leisler's Bat *Nyctalus leisleri*	LC		2,833		
Nathusius` Pipistrelle *Pipistrellus nathusii*	LC		1,765		
Northern bat	LC		3,920		

[1] Potential biological removal (PBR) refers to the maximum human-induced mortality that can be sustained each year by a wildlife population (bird species in this case) while allowing it to reach or maintain its optimum sustainable level (Dillingham and Fletcher, 2008). PBR provides a useful measure to understand bird species population-level risks of wind energy projects, by providing data on what level of mortalities can be sustained by bird species.

[2] Collision risk height refers to the height band (range) above ground level that aligns with the Rotor Swept Zone (RSZ) for turbines, within which the risk of collision leading to possible mortality for birds and bats is considered greatest.

Common / Species Name	Threat Status (IUCN: global / regional)	National Threat Status	Number of counts recorded on site	CH or PBF?	Project Operational Risk Conceptualized
Eptesicus nilssonii					
Parti-coloured Bat *Vespertilio murinus*	LC	DD	204		Relatively low occurrence / abundance based on field survey data. May be impacted during operation due to potential high collision risk (EUROBATS).
Serotine *Eptesicus serotinus*	LC		851		
Soprano Pipistrelle *Pipistrellus pygmaeus*	LC		192		

Table key:

Threat status: EN = Endangered, VU = Vulnerable, NT = Near Threatened, DD = Data Deficient, LC = Least Concern

CH = Critical Habitat, PBF = Priority Biodiversity Feature

Source: CHA report (ERM, 2025)

5.3 RESIDUAL IMPACTS TO CH AND PBF

For the CH/PBF values potentially at risk due to the Project (section 5.1), residual impacts were conceptualized after taking into consideration the mitigation already implemented by the Project as described in the EIA, conditions of the Environmental Decision and the Biodiversity Management Plan (BMP) for the operational phase. A summary of the mitigation that has either already been implemented (or is in the process of being implemented) for the Project has been included below in Table 5-2.

Where residual impacts are predicted (even with the mitigation implemented as per the BMP, etc.), this is indicated and additional actions have been recommended to address residual impacts where possible, with a focus on prioritizing also the most significant residual impacts predicted.

TABLE 5-2 SUMMARY OF RESIDUAL IMPACTS TO CH AND PBF TAKING INTO CONSIDERATION MITIGATION AS PER THE EIA AND BMP

Component of biodiversity	Type	Potential impacts	Project mitigation (from EIA, BMP)	Statement on residual impacts	References	Recommendations for inclusion in BAP (ERM)
Physical Habitats (forest, wetland, riverine)	CH, PBF	Destruction and loss of physical habitat	**Avoidance:** The Project layout planning has avoided direct impacts on protected areas and habitats that qualify as CH/PBF as per their listing in Annex I EU Habitats Directive.	Based on a desktop analysis in GIS and the findings of a field survey of habitats in June 2025 by CORPI as part of the 'Habitat Residual Impact Assessment' (see report by ERM, 2025), it was confirmed that residual impacts on Annex I physical habitats that qualify CH/PBF that occurred during the construction phase are unlikely. However, there are residual impacts to other natural / semi-natural habitats that were identified in the 'Habitat Residual Impact Assessment' which are worth noting, despite these habitats not qualifying as CH or PBF. This includes disturbance of the following semi-natural habitats: • Wet scrubland with grassland fragments • Woodland patch • Natural wetland • Shrub wetland • Shrubland • Meadow	CHA report (ERM, 2025) Habitat Residual Impact Assessment (ERM, 2025)	Despite residual impacts to semi-natural habitat having occurred and these habitats not qualifying CH/PBF, there is a responsibility in terms of managing residual impacts to other natural habitats according to the mitigation hierarchy (restoration or compensation) that should be implemented for the Project to align with EBRD PR6 requirements. For a few areas assessed, it could not be determined whether impacts to habitats relate to the Project or other activities related to agriculture for example and for these areas, the vegetation and habitat is in a state of recovery following disturbance, Here it is **recommended that natural recovery be allowed, with monitoring** to determine the need for any active intervention (such as active planting or alien plant/weed control measures). *The monitoring of natural recovery of vegetation and habitat can form part of the BMEP.* For other habitats that have been visibly impacted and where elements have been permanently lost, it is **recommended that actions be taken to restore habitats to compensate for residual impacts and mowing to preserve grassland vegetation**. This requires fairly small areas (<1 ha in size).
Birds – 5 species including:	Black Kite is CH	Turbine collision risk leading to	**Avoidance/minimization:** external contractor (ProTecBird) was commissioned to design, install, maintain and operate a	Potential collision risk to birds will be managed through the implementation of the BICS in order to avoid collisions through	Bird and Bat Monitoring Program (CORPI, 2022/23)	It is recommended to include an **adaptive management framework** in the operational BMP and reference to this provided in the BMEP, that

Component of biodiversity	Type	Potential impacts	Project mitigation (from EIA, BMP)	Statement on residual impacts	References	Recommendations for inclusion in BAP (ERM)
• Black Kite • European Honey-buzzard • Lesser Spotted Eagle • White-tailed Sea-eagle • White Stork	Rest are PBF	possible mortality.	real-time, digitally advanced Bird Identification and Control System (BICS). The BICS uses the latest technology to inform smart turbine shutdown based on real-time collision risk assessed by the automated system. The BCIS will be operated and maintained during the life-time of the wind farm operational phase. **Monitoring**: A Post-construction Fatality Monitoring Program (PCFM) aligned with GIP (IFC, EBRD and KfW, 2023) has been developed that includes operational carcass monitoring protocol and plan for birds/bats and advise on timing and frequency of monitoring activities. The monitoring will be implemented during operation. Monitoring and surveillance by remote transmitters for rare/vulnerable species (raptors mainly) is integrated into the monitoring program. For birds vulnerable to wind farm impacts identified as breeding in the vicinity (i.e. Lesser Spotted Eagle, Eurasian Buzzard and/or White Stork), install remote GPS/GSM transmitters and monitor/track movements.	the selective shut down of turbines informed by real-time monitoring and detection. Where this is successfully implemented, no significant residual impacts are predicted in terms of species mortalities due to the operational wind farm. There is however a need to include adaptive measures in the BMP and BMEP should monitoring reveal any actual significant impacts during operation.		considers a decision-tree with possible adaptive measures informed by operational carcass monitoring and fatality estimations for birds, to determine where additional mitigation may be necessary in future.
		Disturbance and displacement. Loss of breeding sites/nests.	**Avoidance:** Nests for birds have been identified through the pre-operational monitoring of birds/bats and these have been avoided.	Through avoidance of active nests, avoidance or at least minimization of disturbance effects will be achieved in theory. However, monitoring would be needed to confirm no residual	Bird and Bat Monitoring Summary Report (ERM, 2025) Operational BMP (ERM, 2025)	**Monitoring of existing nests** already identified during pre-operational surveys in 2024 is recommended to verify that no residual impacts take place during operation of the wind farm (i.e. that nests are still being actively used and

Component of biodiversity	Type	Potential impacts	Project mitigation (from EIA, BMP)	Statement on residual impacts	References	Recommendations for inclusion in BAP (ERM)
			Avoidance/minimization: The operational BMP also contains actions to control access and avoid interactions with breeding birds during operational maintenance at the wind farm.	impacts to breeding birds and that any compensation measures have fulfilled their objectives.		to rule-out operational phase effects that may contribute to disturbance or displacement of breeding birds). **Compensation: Artificial nest sites/bird platforms** are recommended to be installed in adjacent areas away from wind turbines, both as compensation for disturbance/ displacement and habitat loss due to the Project and also to reduce the number of birds in the wind farm area and therefore reduce collision risk by attracting avifauna species to alternative sites away from the wind farm. **Operational monitoring of artificial nests / platforms** is also recommended to verify use by birds and gauge the level of success of compensation actions and inform adaptive measures if necessary.
Bats - 10 species[3]	All bats are CH	Turbine collision risk leading to possible mortality.	**Monitoring**: A Post-construction Fatality Monitoring Program (PCFM) aligned with GIP (IFC, EBRD and KfW, 2023) has been developed that includes operational carcass monitoring protocol and plan for birds/bats and advise on timing and frequency of monitoring activities. The monitoring will be implemented during operation.	There could be residual impacts to bat species that are known to be at moderate to high collision risk (EUROBATS), however the extent and significance cannot be easily predicted and therefore remains largely uncertain at this stage. The monitoring proposed (PCFM) will inform of actual impacts and advise on operational mitigation requirements.	Bird and Bat Monitoring Program (CORPI, 2022/23)	It is recommended to include an **adaptive management framework** in the operational BMP and BMEP with a decision-tree linked to possible adaptive measures informed by operational carcass monitoring and fatality estimations for bats, to determine where additional mitigation may be necessary for specific turbines/clusters of turbines, such as: adjusting turbine cut-in speeds

[3] Barbastelle bat, Common noctule, Common Pipistrelle, Kuhls Pipistrelle, Leisler's Bat, Nathusius` Pipistrelle, Northern bat, Parti-coloured Bat, Serotine, Soprano Pipistrelle

Component of biodiversity	Type	Potential impacts	Project mitigation (from EIA, BMP)	Statement on residual impacts	References	Recommendations for inclusion in BAP (ERM)
						(curtailment[4]) for site-specific and seasonal bat activity peaks, auditory deterrents, etc.
		Disturbance and displacement.	**Avoidance/minimization:** The operational BMP contains actions to control access and avoid interactions with bats during operational maintenance at the wind farm. **Compensation**: Artificial bat-boxes have been installed in adjacent areas away from wind turbines, both as compensation for disturbance/displacement and habitat loss due to the Project and also to reduce the number of bats in the wind farm area and therefore reduce collision risk by attracting bat species to alternative sites away from the wind farm.	Through the installation of bat boxes, compensation for disturbance impacts will be achieved in theory. However, monitoring would be needed to confirm no residual impacts to bats and that compensation measures have fulfilled objectives.	Operational BMP (ERM, 2025) Bird and Bat Monitoring Summary Report (ERM, 2025)	**Monitoring of artificial bat boxes** installed is recommended to verify use by bats and gauge the level of success of compensation actions and inform adaptive measures if necessary.

[4]It is acknowledged in the literature (Behr et al., 2017) that pre-construction survey estimates of bat collision risk at wind project sites is methodologically extremely difficult and with high levels of prediction uncertainty. Cut-in speed adjustment (5m/s) for site-specific and seasonal bat activity peaks will therefore not be implemented from the start of the Project. In depth understanding of collision risk will need to be informed by operational carcass monitoring and through an adaptive management programme whereby monitoring and modelling during operation can be used to inform interventions such as the recommendation of detailed and site-specific curtailment measures. Based on the monitoring results, curtailment can then be adjusted after 2-3 months of operation where necessary (e.g. high-risk areas). The cut-in speeds and periods will be reviewed annually to test the efficacy of the curtailment regime and adjusted accordingly. The use of habitat management to mitigate potential impacts on bats either through diversion to alternate feeding areas, or improvement in bat survival through provision of additional feeding, roosting and commuting resource remains a complimentary method of reducing impacts, however curtailment is acknowledged as the primary, and currently only proven method for reducing collision effects. Behr et al. (2017) recommend that operational monitoring and modelling of bat collision risk should be implemented to inform more efficient operational mitigation that incorporates additional variables (e.g. time of night, wind speed, temperature, associated bat activity) to define operation rules that are turbine-specific and maximize energy production with the lowest possible collision risk for bats.

6. MANAGEMENT OBJECTIVES AND PRIORITIES

6.1 PBF OBJECTIVES AND PRIORITIES FOR CH

EBRD PR6 requires that biodiversity **Net Gain (NG)** be achieved for CH values, and this applies to one nationally EN and nationally rare bird species (Black Kite, *Milvus migrans*) and 10 bat species recorded for the Project that are at potential risk of impact during wind farm operation

6.2 PBF OBJECTIVES AND PRIORITIES FOR PBF

At a minimum, **No Net Loss (NNL)** of biodiversity will be achieved for PBF (preferably NG where possible) and this applies to the four species of birds (White stork and three raptor species) that are considered vulnerable to collision with wind turbines and at potential risk of impact (mortality, displacement) during wind farm operation.

7. BIODIVERSITY ACTION PLAN

Based on an evaluation of the existing mitigation that has already been implemented for the Project (or are in the process of being implemented still) as per Table 5.1, ERM has considered it appropriate for the Project to consider additional actions as part of the BAP towards addressing possible remaining residual impacts.

Four (4) additional actions are proposed as follows:

Action 1: Implement habitat restoration and compensation measures to address residual impacts of construction on physical semi-natural habitats.

Based on the Residual Habitat Impact Assessment (ERM, 2025), the linear infrastructure for the Project (i.e. access roads and underground transmission line) has resulted in impacts on physical habitat that remains semi-natural. Despite not qualifying as CH or PBF, it is recommended that actions be taken to ensure residual impacts are addressed through restoration/compensation where needed, to show alignment with the mitigation hierarchy and EBRD PR6 requirements. This is not specifically aimed at meeting any NNL/NG targets, but rather to show fulfillment of the mitigation hierarchy for the Project and to align with EBRDs requirements.

Guided by the recommendations made by the habitat specialists/botanists from CORPI that are contained in the 'Habitat Residual Impact Assessment' report (ERM, 2025), implement habitat restoration/compensation for the selected habitats where residual impacts from construction of the Kelme Project were identified. These are summarized below in Table 7-1 with the map in Figure 7-1 showing the location of the habitats (per site #).

Furthermore, monitoring actions to verify the successful implementation of restoration/compensation actions will need to be included in the BMEP (under development at the time of compiling this BAP).

TABLE 7-1 SUMMARY OF HABITAT FIELD SURVEY AND ASSESSMENT FINDINGS

Site #	Habitat Type	Habitat Condition	Habitat Status	Residual impact due to Project?	Initial Recommendations[5]
6	Wet scrubland with grassland fragments	Semi-intact	Lost	The road crossing has disturbed a small part (approx. 0.02 ha) of the edge of the wetland habitat, but no significant adverse effects on the overall status of the entire habitat have been identified at this time.	To preserve the mesophytic grassland vegetation on the roadside, it is recommended to mow the roadside. It is relevant to monitor changes in the hydrological regime in order to assess further impacts of the road culvert
7	Woodland	Degraded and Artificial	Lost	An area of 0,02 ha has been converted, and a culvert has been built under the road. The forest cover is preserved. The road area itself cannot be restored, but the surrounding areas will undergo natural regeneration.	Allow for natural recovery (with monitoring).
13	Natural wetland	Degraded	Permanently impacted	A newly constructed access road crosses a natural wetland located within a small gully. On the southern side of the road, approximately 0.26 ha of natural vegetation has been destroyed. A pond was excavated, likely causing drainage of the area up to the road. On the northern side of the road, soil was either deposited or pushed into the wetland during road embankment construction, resulting in patches of exposed bare soil that are now undergoing spontaneous re-naturalization. A culvert connects the wetland on both sides of the road.	Compensation required. It is recommended to restore 0.26 hectares of natural meadow, preferably on moist soils.
19	Shrub wetland	Degraded / Artificial	Recovering	The road is built on the edge of a wetland. Major disturbance to the habitat is observed in the area around the wind turbine, where the relief has been altered, spruce trees have been planted and scrub has been cleared. About 40% of the wetland has been drained. We cannot assess whether the construction of the turbines was related to land drainage activities	Assisted revegetation necessary. Remove planted spruce trees, allowing the habitat to transform naturally. In order to preserve the main habitat of the wetland, it is necessary to restore the hydrological regime, to restore the culvert and to assess the parameters of the culvert built under the road.
23	Shrubland	Degraded	Permanently impacted	On the western side of the road, the shrubs and the grass cover underneath have been removed and part of the area has been sown with agricultural crops.	Allow for natural recovery (with monitoring).
25	Natural shrubland	Degraded	Recovering	Not possible to determine whether clearance of habitat is the result of construction or agricultural activities.	Allow for natural recovery (with monitoring).
27	Planted forest	Modified	-	It is not possible to determine whether this change is a consequence of wind energy facility construction or agricultural activities.	It is recommended to restore 0.46 hectares of natural meadow.

[5] Note that for some of the recommendations proposed by CORPI, there may be limitations or constraints to implementing onsite restoration or compensation as landowners may be against such measures. Consultations with landowners will need to take place before any actions are taken to implement restoration/compensation measures and where this is not possible at specific sites, alternative locations for restoration/compensation interventions will need to be sought on a case-by-case basis, under the guidance of external experts (botanist, habitat restoration specialist).

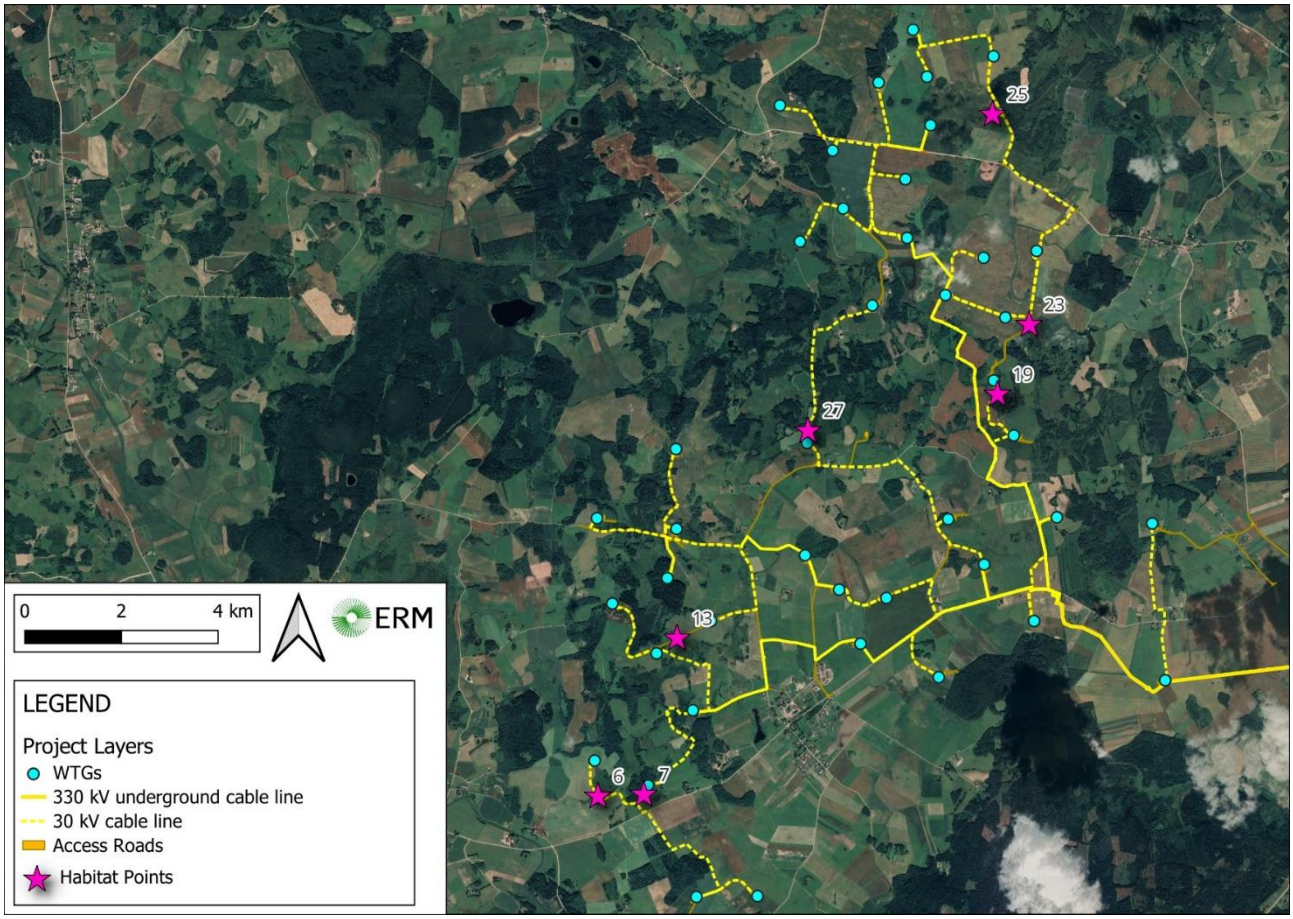

FIGURE 7-1 HABITAT LOCATION MAP RELATIVE TO THE WIND FARM LAYOUT

Source: ERM, based on data provided by Ignitis

Action 2: Implement artificial nesting sites / platforms for birds.

To compensate for any possible loss of breeding areas or displacement effects on breeding birds, it is recommended that artificial nesting sites/platforms be installed in adjacent areas away from wind turbines, both as compensation for disturbance/ displacement and habitat loss due to the Project and also to reduce the number of birds in the wind farm area and therefore reduce collision risk by attracting avifauna species to alternative sites away from the wind farm.

The estimated number and desired location for artificial nesting structures should be confirmed through consultation with the local ornithologists/bird experts from CORPI.

Action 3: Monitoring of bird nests / bat boxes.

It is recommended that the use of existing bird nests in the Project area be monitored during operation, to verify if any disturbance/displacement impacts and inform what actions need to be taken.

It is also necessary to monitor any artificial habitat elements such as bird nests / nesting platforms and bat boxes constructed to check if these are being actively used by species and

have effectively mitigated residual impacts to bird and bat species potentially displaced/disturbed by the Project.

These monitoring actions will be documented in the BMEP (under development at the time of compiling this BAP).

Action 4: Develop and implement an adaptive management framework to guide operational management of birds & bats (informed by monitoring).

It is recommended to include an adaptive management framework in the operational BMP and BMEP with a decision-tree linked to possible adaptive measures informed by operational carcass monitoring and fatality estimations for bats, to determine where additional mitigation may be necessary.

This action has been included in the BMP already.

The action plan is presented in Table 7-2 and the following guide has been developed to assist the reader in interpreting the action plan:

Guide to interpreting the BAP action table (Table 7-2)

Main Actions: The first column indicates the actions recommended in the high-level action plan.

Category: Several categories of actions are presented as follows:

- ***Enabling action:*** *These actions are fundamental for kickstarting or facilitating biodiversity conservation efforts within the project. They can involve obtaining necessary permits, licenses, or approvals, undertaking further surveys or analysis as well as developing supplementary management/monitoring plans where necessary.*
- ***Management action:*** *actions involving the management or mitigation of impacts/risks in accordance with the mitigation hierarchy: avoid, minimize, restore, offset. Typically involves the implementation of a plan, program or specific intervention type.*
- ***Monitoring action:*** *an action requiring monitoring of some sort to be undertaken (for example to evaluate the success of implementation of an action or management intervention).*

Further Sub-actions or Steps Required: Provides detail on what are the further actions or steps required to implement the action. This is particularly important for actions regarded as 'uncertain' and where further steps are required to understand actual relevance.

Cross Reference to Specific Plan(s): Provides the reference to a specific plan that is being developed or will be developed to fulfill the relevant action.

Responsibility: Indicates who is responsible for implementing the action (may require multiple parties).

Timeframe: Indicates generally the timeframe for implementing the action (i.e. pre-construction, during construction, after construction, during operation, during decommissioning).

KPI: Key Performance Indicator that dictates how successful implementation of actions will be evaluated.

Targets: quantitative or qualitive targets set for the particular action and used to inform monitoring of successful implementation.

Status: Indicates the status towards completion of the action.

TABLE 7-2 BIODIVERSITY ACTION PLAN FOR KELME WIND FARM

#	Main Actions	Category	Further Sub-actions or Steps Required	Cross Reference to Specific Plan(s)	Responsibility	Timeframe	KPIs	Target(s)	Status
Action 1: Habitat restoration and compensation for post-construction residual impacts on semi-natural habitats									
1.1	**Plan for habitat restoration and compensation.**	Enabling action	▪ Confirm targets/goals for habitat restoration / compensation as per the 'Habitat Residual Impact Assessment' report recommendations (see summary in Table 7-1 of the BAP). ▪ Select most relevant degraded/modified habitats to form compensation areas for targeted restoration actions, guided by the 'Habitat Residual Impact Assessment' report recommendations (see summary in Table 7-1 of the BAP). ▪ Undertake necessary stakeholder consultation involving identification of local stakeholders (e.g. land owners, farmers) around restoration/ compensation sites to secure buy-in and address any concerns, if these are relevant. ▪ Where limitations or constraints to implementing onsite restoration or compensation are identified following consultations with landowners, alternative locations for	Habitat Residual Impact Assessment (ERM, 2025)	Wind farm developer and operator (Ignitis) External experts Implementer (external contractor)	During operational phase.	Restoration or compensation goals and targets confirmed. Restoration/ compensation areas confirmed. Necessary stakeholder engagement undertaken. Alternative sites selected where relevant based on constraints. Permits secured where necessary. Timelines and requirements finalised. Implementer / implementati	As Habitat Residual Impact Assessment (see summary in Table 7-1 of the BAP)	Incomplete: future step required

#	Main Actions	Category	Further Sub-actions or Steps Required	Cross Reference to Specific Plan(s)	Responsibility	Timeframe	KPIs	Target(s)	Status
			restoration/compensation interventions will need to be sought on a case-by-case basis, under the guidance of external experts (botanist, habitat restoration specialist). ▪ Secure any necessary permits or agreements for conservation work (e.g. habitat restoration activities) to take place (if relevant). ▪ Finalise approach, timelines and appoint implementer / implementation partner to undertake relevant actions to restore or compensate for habitat losses.				on partner appointed.		
1.2	**Implement habitat restoration and compensation.**	Management action	▪ Implement measures to restore / compensate for natural habitat impacts.	Habitat Residual Impact Assessment (ERM, 2025)	Wind farm developer and operator (Ignitis) External experts Implementer (external contractor)	During operational phase. Following completion of action #1.2 above.	Habitat restoration / compensation actions implemented	As above.	Incomplete: future step required
1.3	**Monitor and report on the success of implementation of habitat restoration / compensation measures.**	Monitoring action	▪ Implement monitoring and report on success of restoration/compensation actions. ▪ Measure success against habitat targets. ▪ Implement adaptive measures where	Biodiversity Monitoring and Evaluation Program (BMEP) (ERM, 2025) (still being developed by ERM)	Wind farm developer and operator (Ignitis) External experts	During operational phase. Following completion of action #1.3 above.	Monitoring confirms success of restoration/ compensation interventions Adaptive measures implemented	As above.	Incomplete: future step required

#	Main Actions	Category	Further Sub-actions or Steps Required	Cross Reference to Specific Plan(s)	Responsibility	Timeframe	KPIs	Target(s)	Status
			necessary based on monitoring outcomes.				where necessary		
Action 2: Implement artificial nesting sites/platforms for birds									
2.1	**Plan to construct artificial nests/platforms for birds.**	Enabling action	▪ Consult with the local ornithologists/bird experts from CORPI as to estimated number and location for artificial nesting structures to be constructed and details regarding design. etc. ▪ Secure any necessary permits or agreements for conservation work (e.g. habitat restoration activities) to take place (if relevant).	-	Wind farm developer and operator (Ignitis) External experts Implementer (external contractor)	During operational phase.	Artificial bird nests / platforms constructed at desired locations	No Net Loss (for PBF) To be confirmed (# of interventions)	Incomplete: future step required
2.2	**Construct artificial nests/platforms for birds.**	Management action	▪ Appoint implementer / implementation partner to undertake relevant actions ▪ Construct artificial nesting sites/platforms in adjacent areas away from the wind farm.	-	Wind farm developer and operator (Ignitis) External experts Implementer (external contractor)	During operational phase. Following completion of action #2.1 above.	Artificial bird nests / platforms constructed at desired locations	No Net Loss (for PBF) To be confirmed (# of interventions)	Incomplete: future step required
Action 3: Monitoring of bird nests / bat boxes									
3.1	**Undertake monitoring of existing bird nests to check for active use and signs of disturbance.**	Monitoring action	▪ Integrate monitoring of existing nests identified for birds in the Project area into the Project monitoring program. ▪ Include adaptive management measures as needed in the BMP.	Operational BMP (ERM, 2025). Biodiversity Monitoring and Evaluation Program (BMEP) (ERM, 2025)	External experts	During operational phase.	Monitoring included in the BMP and BMEP	No Net Loss (for PBF)	Incomplete: future step required

#	Main Actions	Category	Further Sub-actions or Steps Required	Cross Reference to Specific Plan(s)	Responsibility	Timeframe	KPIs	Target(s)	Status
3.2	**Include monitoring of artificial nesting sites and bat boxes to document their use.**	Monitoring action	▪ Integrate monitoring of artificial habitat elements (bird nests, bat boxes) into a relevant monitoring program for the Project to determine whether these are being used. ▪ Include adaptive management measures as needed in the BMP.	Operational BMP (ERM, 2025). Biodiversity Monitoring and Evaluation Program (BMEP) (ERM, 2025)	External experts	During operational phase.	Monitoring included in the BMP and BMEP	No Net Loss (for PBF) Net Gain (for CH)	Incomplete: future step required
Action 4: Develop and implement an adaptive management framework to guide operational management of birds & bats									
4.1	**Develop and implement adaptive management framework for birds and bats.**	Enabling action Management action	▪ Develop and include an adaptive management framework for birds and bats for operational phase. ▪ Include a simple decision-tree with adaptive measures that can be informed by operational monitoring outcomes.	Operational BMP (ERM, 2025). Biodiversity Monitoring and Evaluation Program (BMEP) (ERM, 2025)	External biodiversity expert (ERM)	During operational phase.	BMP to contain adaptive management framework	No Net Loss (for PBF) Net Gain (for CH)	Integrated into BMP To be implemented during operation

8. IMPLEMENTATION OF THE BAP

8.1 ROLES AND RESPONSIBILITIES

The ultimate responsibility for implementing the BAP rests with the developer and wind farm operator, Ignitis Renewables.

However, specific technical tasks and measures will need to be delegated to contractors / independent experts with the relevant expertise in the implementation of specific actions and monitoring.

Key roles and responsibilities for BAP implementation are presented in Table 8-1 below.

TABLE 8-1 BAP IMPLEMENTATION ROLES AND RESPONSIBILITIES

Role	**Responsibilities** (BAP related)
Environmental and Permitting Project Manager (Ignitis)	• Overall accountability for the Project including delivery in line with Applicable Standards. • Ensure E&S requirements are communicated throughout the business. • Responsible for providing the required resources (financial, technical and external support) to complete the required tasks and to facilitate Group-level support to the Project. • Ultimate responsibility for ensuring implementation of required corrective actions including in response to identified E&S non-compliances and incidents. • Communicate the content of the BAP (including any updates as relevant) and acts as the focal point to promote implementation, performance monitoring and provide guidance and support. • Ensure periodic review of the BAP effectiveness in line with the provisions of this plan. • Ensure that the BAP is kept up to date and appropriate to the nature and scale of the Project and ensuring effective implementation of relevant actions. • Selection of specialized external contractor(s) for specific tasks to be carried out as part of the implementation of this Plan such as (but not limited to) additional studies, stakeholder engagement and data analysis and reporting. • Facilitate organization of additional studies and stakeholder engagement activity where required. • Assist with developing Scope of Works and Terms of Reference for implementation of actions and monitoring.
Specialized contractors / consultants (external) See further details on external support functions in Table 8-2 below	• External consultant(s) appointed by Ignitis to support with specific biodiversity-related matters. • Effective execution of the specific tasks assigned in conformity with the BAP action plan and according to contractual arrangements with Ignitis. • Lead the development and implementation of key biodiversity-related plans, monitoring programs and key actions, as required by the BAP. • Collaborate with local ecological NGOs (such as birdlife international, etc.) and experts particularly for carrying out operational bird and bat monitoring and other field-based biodiversity activities. • Inform the Environmental and Permitting Project Manager about biodiversity performance and provide recommendations on mitigation measures to be implemented. • Adhoc support onsite or remotely via phone/email as necessary. • Support Ignitis with reviews and updates to the BAP as necessary. • Support Ignitis with periodic review of the BAP effectiveness in line with the provisions of this plan. • Support Ignitis to deliver training on implementation of the BAP and supporting plans and protocols.

Table 8-2 below indicates what specific external support from experts/consultants is likely to be required for the implementation of the BAP.

TABLE 8-2 EXTERNAL EXPERT/CONTRACTOR SUPPORT FUNCTIONS

External Support	Role and Functions / Responsibilities
Biodiversity expert	**Habitat restoration / compensation planning and implementation support:** • Develop habitat restoration / compensation plans • Support with implementation of habitat restoration/compensation actions and interventions • Monitoring and reporting on success of habitat restoration/compensation **Environmental training support:** • Support with developing training materials on biodiversity management • Deliver training (where relevant) **Stakeholder consultation:** • Support with stakeholder consultation (where required)
Botanist / habitat specialist	**Habitat restoration / compensation planning and implementation support:** • Support with developing/implementing habitat restoration/compensation plans (where relevant)
Ornithologist (bird expert) **Bat expert**	**Bird and Bat Monitoring and Management:** • Support with implementation of the monitoring program • Support with review and updates of monitoring programs for birds/bats • Undertaking carcass monitoring (surveys), fatality estimations and reporting • Recommending adaptive measures and actions for birds and bats, as necessary
Implementer	**Habitat restoration / compensation:** • Implementation of habitat restoration/compensation actions and interventions **Other actions:** • Implementing adaptive measures and actions for birds and bats, as necessary

8.2 MONITORING AND EVALUATION

The early identification of any important issues, challenges, constraints to management/mitigation measures implementation, failures of key actions and changes in the environment, through an appropriately designed Monitoring and Evaluation (M&E) programme, allows adaptive management solutions to be identified and tailored to the WPP projects.

Monitoring essentially forms the basis for evaluating performance of biodiversity management plans and actions as follows:

- More accurately defines the actual level of impact of Project-related activities on biodiversity;
- Allows for the evaluation of the level of success of impact management and mitigation measures prescribed.

In aligning with the requirements and recommendations of EBRD PR6, these acknowledge how essential monitoring is with regards to biodiversity management and for informing adaptive

management. *In particular, where CH has been identified and there is a potential for negative impacts thereon for example, a robust and long-term biodiversity monitoring and evaluation program ("BMEP") is required, in order to assess the status of CH and integrated into an adaptive management program for the project (EBRD PR6, 2019).*

Monitoring of BAP and BMP implementation will both be covered under the BMEP (Biodiversity Monitoring and Evaluation Program) which is still being prepared for the Project.

8.3 BAP REVIEW AND UPDATE

The BAP is designed to be a 'living document' that requires regular review and updates as actions are developed and implemented, and as the process of adaptive management guides delivery of biodiversity outcomes in meeting the defined objectives and targets.

A regular review frequency of at least an annual BAP review (to inform updates where necessary) is proposed whereby BAP actions, Key Performance Indicators (KPIs) and targets are reviewed against M&E outputs and taking into consideration also stakeholder expectations and feedback, and revised/refined as necessary in line with BAP objectives.

Essentially the question that needs to be answered is:

> How successful has implementation of the BAP been and what needs to or could be improved and how*?*

A periodic review (at least annual) of KPIs and targets will be important to check if these are being met and if targets are indeed realistic. This should lead to an understanding of causes and corrective actions needed to ensure BAP objectives are being met.

The annual review to inform updates would be for at least the first five (5) years of the wind farm operational phase and BAP/BMP implementation timeframe. After this initial 5-year period, the frequency of further reviews will be determined through consultation with the external biodiversity specialist responsible for reviews/updates to the BAP. As the Project is developed, there may be an opportunity to reconsider the review frequency and recommend either more or less frequent review frequencies depending on how successful BAP implementation has been and the timeframes of actions that are still to be implemented (*for example, if the majority of actions have been successfully implemented and closed-out, and only a handful of actions remain that are to be implemented at a future date, the review frequency could be extended to align with these timeframes*). Note that a full rationale and justification will need to be provided and approved by lenders before any changes to review frequency can be adopted in an updated BAP.

In addition to a minimum annual review frequency, there is also a component of 'management of change' (MoC) which is an adaptive management approach that allows for updates to the BAP as needed and as changes in the project and environment could occur under various scenarios that cannot be easily identified or predicted at this early stage in the process:

- Any major amendments to the BAP that affect its application will be undertaken in consultation with the appropriate regulatory authorities, lender's and/or other key interested/affected stakeholders.
- Any fundamental changes to the Project could potentially result in a material change to the BAP, specifically with regards to the final layout of the project infrastructure.

- Changes in the Project may occur due to unanticipated situations. Adaptive changes may also occur during the course of the project life cycle. Any fundamental changes to the project/operation that could potentially result in a material change to the BAP need to be considered, specifically with regards to the design, layout and activities involved. The BAP will be regularly reviewed and updated after any change in the context in which the Project operates and during the construction phase.
- New biodiversity risks or impacts may appear that require to be addressed over the life-cycle of the project and this will typically require a review and update of the BAP as necessary.
- Urgent updates in line with the principle of 'adaptive management' can be the responsibility of the Ignitis' internal management team, however any material changes to intervention design, the timing of monitoring activities, etc. should be made in consultation with a third-party consultant to ensure accountability. *Typically, lenders including EBRD prefer that the same consultant who authored the BAP in its original format be retained for the sake of consistency and continuity, however this is not a prescriptive requirement.*

Recommendations regarding decommissioning of the Project in future

In future, the BAP will also need to be reviewed and updated prior to the decommissioning phase to ensure that relevant impacts/risks are accounted for in the BMP / ESMP, or alternatively a specific decommissioning phase BAP and BMP can be developed to inform site decommissioning and closure, or alternatively repowering.

Contributions of rehabilitation / restoration of the site post-closure towards NG/NNL objectives for the Project should be reflected in the revised BAP at this stage and confirmed later through site verification of restoration outcomes.

As this is still decades away and uncertain, and site conditions and biodiversity requirements and procedures are likely to change (possibly significantly) over this period, developing such a plan at this stage is not recommended. Instead, it is suggested that at least one year prior to decommissioning is planned, the BAP be reviewed and updated comprehensively and any necessary plans for decommissioning (e.g. site decommissioning, closure and rehabilitation/restoration plans) be developed timeously prior to decommissioning taking place.

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10. ANNEXURES

10.1 ANNEXURE A: LIST OF CH AND PBF HABITATS IDENTIFIED IN THE CHA

TABLE 10-1 SUMMARY OF POTENTIAL PROJECT RISK TO ANNEX I HABITATS THAT QUALIFY AS CH OR PBF

Habitat Classification: Annex I of the EU Habitats Directive	Annex I Priority Habitat Type?	EUNIS Habitat Type and Code (2012)	Revised EUNIS Habitat Type and Code (2021)	EU Terrestrial Habitat Red List: Code and Name	EU Red List Status (2016)	CH or PBF?	Residual Impact due to Project
3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	No	C1.2 Permanent mesotrophic lakes, ponds and pools	-	C1.2a Permanent oligotrophic to mesotrophic waterbody with Characeae	VU	PBF	None
3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition — type vegetation	No	C1.3 Permanent eutrophic lakes, ponds and pools	-	C1.2b Mesotrophic to eutrophic waterbody with vascular plants	NT	PBF	None
3160: Natural dystrophic lakes and ponds	No	C1.4 Permanent dystrophic lakes, ponds and pools	-	C1.4 Permanent dystrophic waterbody	NT	PBF	None
*6120 Xeric sand calcareous grasslands	Yes	E1.9 Open non-Mediterranean dry acid and neutral grassland, including inland dune grassland	R1P Oceanic to subcontinental inland sand grassland on dry acid and neutral soils	E1.9a Oceanic to subcontinental inland sand grassland on dry acid and neutral soils	EN	CH	None
6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (important orchid sites)	No	E1.2 Perennial calcareous grassland and basic steppes	R1A Semi-dry perennial calcareous grassland (meadow steppe)	E1.2a Semi-dry perennial calcareous grassland	VU	PBF	None
*6230 Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	Yes	E1.7 Closed non-Mediterranean dry acid and neutral grassland	R1M Lowland to montane, dry to mesic grassland usually dominated by Nardus stricta	E1.7 Lowland to submontane, dry to mesic Nardus grassland	VU	CH	None
*6270 Fennoscandian lowland species-rich dry to mesic grasslands	Yes	E2.2 Low and medium altitude hay meadow	R22 Low and medium altitude hay meadow	E2.2 Low and medium altitude hay meadow	VU	CH	None
6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	No	E3.5 Moist or wet oligotrophic grassland	R37 Temperate and boreal moist or wet oligotrophic grassland	E3.5 Temperate and boreal moist or wet oligotrophic grassland	EN	PBF	None
6450: Northern boreal alluvial meadows	No	E3.4 Moist or wet eutrophic and mesotrophic grassland	R35 Moist or wet mesotrophic to eutrophic hay meadow	E3.4a Moist or wet mesotrophic to eutrophic hay meadow	LC	PBF	None
6510: Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	Yes	E2.2 Low and medium altitude hay meadows	R22 Low and medium altitude hay meadow	E2.2 Low and medium altitude hay meadow	EN	CH	None
*7110 Active raised bogs	Yes	D1.1 Raised bogs	-	D1.1 Raised bog	EN	CH	None
7140 Transition mires and quaking bogs	No	D2.2 Poor fens and soft-water spring mires	-	D2.2a Poor fen	VU	PBF	None

Habitat Classification: Annex I of the EU Habitats Directive	Annex I Priority Habitat Type?	EUNIS Habitat Type and Code (2012)	Revised EUNIS Habitat Type and Code (2021)	EU Terrestrial Habitat Red List: Code and Name	EU Red List Status (2016)	CH or PBF?	Residual Impact due to Project
7160 Fennoscandian mineral-rich springs and springfens	No	D2.2 Poor fens and soft-water spring mires	-	D2.2c Intermediate fen and soft-water spring mire	VU	PBF	None
*9010 Western Taïga	Yes	G1.9 Non-riverine woodland with birch, aspen or rowan	T1C Temperate and boreal mountain Betula and Populus tremula forest on mineral soils	G1.9a Temperate and boreal mountain Betula and Populus tremula forest on mineral soils	LC	CH	None
*9020 Fennoscandian hemiboreal natural old broad-leaved deciduous forests (Quercus, Tilia, Acer, Fraxinus or Ulmus) rich in epiphytes	Yes	G1. A Meso- and eutrophic oak, hornbean, ash, sycamore, lime, elm and related woodland	T1E Carpinus and Quercus mesic deciduous forest	G1. Aa Carpinus and Quercus mesic deciduous woodland	NT	CH	None
9050 Fennoscandian herb-rich forests with Picea abies	No	G3.A Spruce taiga woodland	T3F Dark taiga	G3.A Picea taiga woodland	NT	PBF	None
*9080 Fennoscandian deciduous swamp woods	Yes	G1.4 Broadleaved swamp woodland not on acid peat	T15 Broadleaved swamp forest on non-acid peat	G1.4 Broadleaved swamp woodland on non-acid peat	VU	CH	None
9160 Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	No	G1. A Meso- and eutrophic oak, hornbean, ash, sycamore, lime, elm and related woodland	T1E Carpinus and Quercus mesic deciduous forest	G1. Aa Carpinus and Quercus mesic deciduous woodland	NT	PBF	None
*9180 Tilio-Acerion forests of slopes, screes and ravines	Yes	G1.A Meso- and eutrophic oak, hornbean, ash, sycamore, lime, elm and related woodland	T1F Ravine Forest	G1. Ab Ravine woodland	NT	CH	None
*91D0 Bog woodland	Yes	G3.D Boreal bog conifer woodland	T3J Pinus and Larix mire forest	G3. Da Pinus mire woodland	VU	CH	None
*91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	Yes	G1.1 Riparian and gallery woodland, with dominant alder, birch, poplar or willow	T11 Temperate Salix and Populus riparian forest	G1.1 Temperate and boreal softwood riparian woodland	NT	CH	None

Table key:

EU Red List threat status: EN = Endangered, VU = Vulnerable, NT = Near Threatened, LC = Least Concern

CH = Critical Habitat, PBF = Priority Biodiversity Feature

*asterix indicates priority habitats in terms of Annex I of the EU Habitats Directive

Source: Critical Habitat Assessment (ERM, 2025), Geoportal for Lithuania (https://www.geoportal.lt) EUNIS classification, EU Habitats Directive, European Red List of Habitats for terrestrial and freshwater ecosystems (Janssen et al., 2016)

10.2 ANNEXURE B: LIST OF CH AND PBF SPECIES IDENTIFIED IN THE CHA

TABLE 10-2 SUMMARY OF POTENTIAL PROJECT RISK TO AVIAN SPECIES THAT QUALIFY AS CH OR PBF

Common Name	Species Name	Type	Project Operational Risk
BIRDS			
Bean Goose	*Anser fabalis*	PBF	NO: Not at risk of collision based on high avoidance rates and observed behavior (migratory overflights).
Black Kite	*Milvus migrans*	CH	YES: Potentially impacted due to potential collision risk (72% of flight time at collision risk height) and given very low PBR (2 birds/annum).
Black Stork	*Ciconia nigra*	PBF	NO: Unlikely to be impacted based on very low numbers recorded during field surveys and low collision risk (0% of flight time at collision risk height).
Black Tern	*Chlidonias niger*	PBF	NO: Not at risk of collision based on avoidance rates and observed behavior (migratory overflights).
Black Woodpecker	*Dryocopus martius*	PBF	NO: Not at risk of collision.
Black Headed-Gull	*Larus ridibundus*	PBF	NO: Not at risk of collision.
Canada Goose	*Branta canadensis*	PBF	NO: Not at risk of collision based on very low numbers recorded and high avoidance rates and observed behavior (migratory overflights).
Caspian Gull	*Larus cachinnans*	PBF	NO: Unlikely to be impacted based on very low numbers recorded during field surveys and not vulnerable to collisions.
Common Blackbird	*Turdus merula*	PBF	NO: Not at risk of collision.
Common Crane	*Grus grus*	PBF	NO: Low collision risk (20% of flight time at collision risk height).
Common Goldeneye	*Bucephala clangula*	PBF	NO: Unlikely to be impacted based on very low numbers recorded during field surveys.
Common Greenshank	*Tringa nebularia*	PBF	NO: Unlikely to be impacted based on low numbers recorded during field surveys.
Common Kingfisher	*Alcedo atthis*	PBF	NO: Not at risk of collision and very low numbers recorded.
Common Snipe	*Gallinago gallinago*	PBF	NO: Not at risk of collision.
Common Starling	*Sturnus vulgaris*	PBF	NO: Not at risk of collision.
Common Moorhen	*Gallinula chloropus*	PBF	NO: Unlikely to be impacted based on low numbers recorded during field surveys.
Common Tern	*Sterna hirundo*	PBF	NO: Not at risk of collision.
Common Wood Pigeon	*Columba palumbus*	PBF	NO: Not at risk of collision.
Eurasian Bullfinch	*Pyrrhula pyrrhula*	PBF	NO: Not at risk of collision and very low numbers recorded.
Eurasian Chaffinch	*Fringilla coelebs*	PBF	NO: Not at risk of collision.
Eurasian Collared Dove	*Streptopelia decaocto*	PBF	NO: Not at risk of collision and very low numbers recorded.
Eurasian Coot	*Fulica atra*	PBF	NO: Not at risk of collision and very low numbers recorded.
Eurasian Curlew	*Numenius arquata*	PBF	NO: Not at risk of collision.
Eurasian Golden Plover	*Pluvialis apricaria*	PBF	NO: Not at risk of collision.
Eurasian Jay	*Garrulus glandarius*	PBF	NO: Not at risk of collision.
Eurasian Magpie	*Pica pica*	PBF	NO: Not at risk of collision.
Eurasian Skylark	*Alauda arvensis*	PBF	NO: Not at risk of collision.
Eurasian Sparrowhawk	*Accipiter nisus*	PBF	NO: Low collision risk (26% of flight time at collision risk height).
Eurasian Woodcock	*Scolopax rusticola*	PBF	NO: Not at risk of collision.
Eurasian Wren	*Troglodytes troglodytes*	PBF	NO: Not at risk of collision.
European Herring Gull	*Larus argentatus*	PBF	NO: Not at risk of collision.
European Honey-buzzard	*Pernis apivorus*	PBF	YES: Potentially impacted due to potential collision risk (56% of flight time at collision risk height) and given low PBR (298 birds/annum).
Fieldfare	*Turdus pilaris*	PBF	NO: Not at risk of collision.
Great Spotted Woodpecker	*Dendrocopos major*	PBF	NO: Not at risk of collision.

Common Name	Species Name	Type	Project Operational Risk
Great White Egret	*Ardea alba*	PBF	NO: Low collision risk (5% of flight time at collision risk height).
Greater White-fronted Goose	*Anser albifrons*	PBF	NO: Not at risk of collision based on high avoidance rates and observed behavior (migratory overflights).
Grey Partridge	*Perdix perdix*	PBF	NO: Not at risk of collision.
Grey-headed Woodpecker	*Dendropicos spodocephalus*	PBF	NO: Not at risk of collision.
Greylag Goose	*Anser anser*	PBF	NO: Not at risk of collision based on high avoidance rates and observed behavior (migratory overflights).
Hen Harrier	*Circus cyaneus*	PBF	NO: Low collision risk (15% of flight time at collision risk height).
Jackdaw	*Corvus monedula*	PBF	NO: Not at risk of collision.
Lesser Black-backed Gull	*Larus fuscus*	PBF	NO: Not at risk of collision.
Lesser Spotted Eagle	*Clanga (Aquila) pomarina*	PBF	YES: Potentially impacted due to potential collision risk (59% of flight time at collision risk height) and given low PBR (29 birds/annum).
Mallard	*Anas platyrhynchos*	PBF	NO: Not at risk of collision based on observed behavior and low numbers recorded during field surveys.
Merlin	*Falco columbarius*	PBF	NO: Very low numbers recorded and very ow collision risk (0% of flight time at collision risk height).
Mew (Common) Gull	*Larus canus*	PBF	NO: Not at risk of collision.
Middle Spotted Woodpecker	*Leiopicus medius*	PBF	NO: Not at risk of collision, very low numbers recorded.
Mistle Thrush	*Turdus viscivorus*	PBF	NO: Not at risk of collision.
Montagu's Harrier	*Circus pygargus*	PBF	NO: Low collision risk (4% of flight time at collision risk height).
Mute Swan	*Cygnus olor*	PBF	NO: Not at risk of collision based on high avoidance rates and observed behavior (migratory overflights).
Northern Goshawk	*Accipiter gentilis*	PBF	NO: Very low numbers recorded.
Osprey	*Pandion haliaetus*	PBF	NO: Very low numbers recorded.
Pallid Harrier	*Circus macrourus*	PBF	NO: Very low numbers recorded and very ow collision risk (0% of flight time at collision risk height).
Red Kite	*Milvus milvus*	PBF	NO: Very low numbers recorded and low collision risk (29% of flight time at collision risk height).
Red-backed Shrike	*Lanius collurio*	PBF	NO: Not at risk of collision.
Red-footed Falcon	*Falco vespertinus*	PBF	NO: Very low numbers recorded and very low collision risk (0% of flight time at collision risk height).
Redwing	*Turdus iliacus*	PBF	NO: Not at risk of collision.
Rock Dove (Domestic Pigeon)	*Columba livia*	PBF	NO: Not at risk of collision.
Rook	*Corvus frugilegus*	PBF	NO: Not at risk of collision based on observed behavior
Ruff	*Calidris pugnax*	PBF	NO: Not at risk of collision and very low numbers recorded.
Song Thrush	*Turdus philomelos*	PBF	NO: Not at risk of collision.
Stock Dove	*Columba oenas*	PBF	NO: Not at risk of collision.
Tufted Duck	*Aythya fuligula*	PBF	NO: Not at risk of collision and very low numbers recorded.
Tundra Swan	*Cygnus columbianus*	PBF	NO: Not at risk of collision based on high avoidance rates and observed behavior (migratory overflights).
Western Marsh-harrier	*Circus aeruginosus*	PBF	NO: Low collision risk (11% of flight time at collision risk height).
White Stork	*Ciconia ciconia*	PBF	YES: Potentially impacted due to potential collision risk (42 % of flight time at collision risk height) and with a moderate number of birds recorded during field surveys (PBR: 2,472 birds/annum).
White-tailed Sea-eagle	*Haliaeetus albicilla*	PBF	YES: Potentially impacted due to potential collision risk (53% of flight time at collision risk height) and given low PBR (4 birds/annum).
Whooper Swan	*Cygnus cygnus*	PBF	NO: Not at risk of collision based on high avoidance rates and observed behavior (migratory overflights).
Wood Sandpiper	*Tringa glareola*	PBF	NO: Not at risk of collision and very low numbers recorded.
Woodlark	*Lullula arborea*	PBF	NO: Not at risk of collision and very low numbers recorded.
BATS			

Common Name	Species Name	Type	Project Operational Risk
Barbastelle bat	*Barbastella barbastellus*	CH	YES: Relatively low occurrence / abundance based on field survey data. May be impacted during operation due to Medium collision risk (EUROBATS: Rodrigues at el., 2015).
Brown Long-eared Bat	*Plecotus auritus*	CH	NO: Relatively low occurrence / abundance based on field survey data. Low collision risk (EUROBATS). Unlikely to be significantly affected by operation.
Common noctule	*Nyctalus noctula*	CH	YES: Relatively abundant based on field survey data. May be impacted during operation due to High collision risk (EUROBATS).
Common Pipistrelle	*Pipistrellus pipistrellus*	CH	YES: Low occurrence / abundance based on field survey data. May be impacted during operation due to High collision risk (EUROBATS).
Daubenton's bat	*Myotis daubentonii*	CH	No: Relatively low occurrence / abundance based on field survey data. Low collision risk (EUROBATS). Unlikely to be significantly affected by operation.
Kuhls Pipistrelle	*Pipistrellus kuhlii*	CH	YES: Relatively frequent occurrence / moderate abundance based on field survey data. May be impacted during operation due to High collision risk (EUROBATS).
Leisler's Bat	*Nyctalus leisleri*	CH	YES: Relatively frequent occurrence / high abundance based on field survey data. May be impacted during operation due to High collision risk (EUROBATS).
Nathusius`Pipistrelle	*Pipistrellus nathusii*	CH	YES: Relatively frequent occurrence / moderate abundance based on field survey data. May be impacted during operation due to High collision risk (EUROBATS).
Natterer's bat	*Myotis nattereri*	CH	NO: Low occurrence / abundance based on field survey data. Low collision risk (EUROBATS). Unlikely to be significantly affected by operation.
Northern bat	*Eptesicus nilssonii*	CH	YES: Relatively frequent occurrence / high abundance based on field survey data. May be impacted during operation due to High collision risk (EUROBATS).
Parti-colored Bat	*Vespertilio murinus*	CH	YES: Relatively low occurrence / abundance based on field survey data. May be impacted during operation due to High collision risk (EUROBATS).
Pond bat	*Myotis dasycneme*	CH	NO: Low occurrence / abundance based on field survey data. Low collision risk (EUROBATS). Unlikely to be significantly affected by operation.
Serotine	*Eptesicus serotinus*	CH	YES: Relatively low occurrence / abundance based on field survey data. May be impacted during operation due to High collision risk (EUROBATS).
Soprano Pipistrelle	*Pipistrellus pygmaeus*	CH	YES: Relatively low occurrence / abundance based on field survey data. Unlikely to be significantly affected by operation.

Table key:

CH = Critical Habitat, PBF = Priority Biodiversity Feature

Source: Critical Habitat Assessment (ERM, 2025).

ERM HAS OVER 140 OFFICES ACROSS THE FOLLOWING COUNTRIES AND TERRITORIES WORLDWIDE

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