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Ihlamur Wind Power Plant (WPP) Project

Critical Habitat Assessment (CHA)

June 2024

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Issue and Revision Record

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A	May 2024	Esra Demirhan Melisa M. Turan	Gizem A. Gurler	Neslihan Ayvaz	Draft CHA
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Definitions and Abbreviations

Abbreviation	Definition
AoA	Area of Analysis
AoI	Area of Influence
AZE	Alliance for Zero Extinction
BAP	Biodiversity Action Plan
BMMP	Biodiversity Management and Monitoring Plan
CHA	Critical Habitat Assessment
CITES	Convention for the International Trade in Endangered Species of Wild Fauna and Flora
CR	Critically Endangered
CRM	Collusion Risk Model
DD	Data Deficient
EAAA	Ecologically Appropriate Area of Analysis
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EN	Endangered
EOO	EOO
ESIA	Environmental and Social Impact Assessment
EU	European Union
EUNIS	European Nature Information System
GN	Guidance Notes
IAoI	Indirect Area of Influence
IBA	Important Bird Area
IFC	International Finance Cooperation
IUCN	International Union for Conservation of Nature
JPM	J.P. Morgan
KBA	Key Biodiversity Area
LC	Least Concern
NT	Near Threatened
PBF	Priority Biodiversity Features
PR	Performance Requirement
PS	Performance Standard
RAMSAR	Convention on Wetlands of International Importance Especially as Waterfowl Habitat
VP	Vintage Point
VU	Vulnerable
WPP	Wind Power Plant

Executive summary

CHA for Ihlamur WPP Project has been undertaken in line with IFC PS6 and corresponding GN to identify areas which are considered as critical habitats and critical habitats triggering species. The CHA presents the screening of biodiversity features and threatened wildlife, and plant species identified.

This report aims to identify Critical Habitat-qualifying biodiversity associated with the Project; Natural and Modified Habitat and identify the recommended next steps for the Project, including identification of data gaps and the need for additional field surveys. Thus, based on these aims, literature searches, desktop and field studies were conducted, nationally and internationally recognized areas were considered within EAAA. In line with PS6 and corresponding GN, the critical habitats, critical habitat triggered species and important biodiversity features were determined considering that the critical habitats are areas with high biodiversity value, including (i) habitat of significant importance to CR and/or EN species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory species and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes within EAAA.

Due to a combination of uncertainties with the Project specific data and global and/or regional availability of relevant literature for some species, a high-level assessment was accomplished for the present CHA. This CHA study should be considered preliminary, as extensive additional baseline surveys have been scheduled in 2024 for flora, fauna, birds, bats and invertebrate species to enhance the baseline by addressing data quality and quantity. The CHA is expected to undergo significant revision after the data gaps have been bridged following the baseline collection.

In light of the assessment, 4 habitats were determined as priority biodiversity feature. Additionally, 6 bird species, three plant species, 13 mammal species and 1 reptile species were identified as PBF for a total of 27 PBF triggers. One bird species was identified potential CH trigger to be clarified in 2024 additional baseline.

1 Introduction

1.1 Project Background

Enerjisa Üretim Santralleri Anonim Şirketi has been awarded to invest in the Çanakkale Connection Region on 30 May 2019 within the scope of "Renewable Energy Resource Areas (YEKA)" and Allocation of Wind Energy Based Renewable Energy Resource Areas (YEKA) and Total Connection Capacities" . Upon this award, a "YEKA Use Rights Agreement" was signed between Enerjisa Üretim Santralleri Ananim Şirketi and Ministry of Energy and Natural Resources (MoENR) on 09 March 2020. Subsequently, the "YEKA Use Rights Agreement" signed by Enerjisa Üretim Santralleri Anonim Şriketi for the Çanakkale Connection Region was transferred to Enerjisa Enerji Üretim Ananom Şirketi ("Enerjisa Üretim" or "the Project Company") with the transfer agreements signed on 03 June 2021.

Ihlamur WPP Project ("the Project") with 18 turbines and 75.6 MWm total installed power, is planned to be implemented by Enerjisa Üretim in Çanakkale Province, Yenice District, Yalıoba, Karasu, Güzeloba, Kabalı Neighbourhoods and Balıkesir Province, Gönen District, Fındıklı Neighbourhood. The Project components consists of 18 turbines, a switchyard, Project roads (i.e., access and site roads), a 68.75 tonnes/hour capacity mobile crushing and screening facility and an energy transmission line (ETL) as a Project associate facility. The Project is part of a nine-project wind energy investment package initiated by Enerjisa Üretim which has a 750 MW total installed power from a total of 180 wind turbines located in the Aegean and Marmara Regions of western Türkiye; aiming to evaluate and utilize the wind energy potential of the region and contribute to the national strategy and regional economy.

1.2 Scope of the Study

This report includes CHA for Ihlamur WPP Project, that has been undertaken in line with IFC PS6 and corresponding GN to identify areas which are considered as critical habitats.

PS6 makes several stipulations for Critical Habitat, including achievement of a net gain for Critical Habitat-qualifying biodiversity. A net gain is required for all Critical Habitat features potentially affected by the Project. Where significant residual adverse effects are not predicted, additional conservation actions supported by qualitative evidence and expert opinion may be sufficient to substantiate a net gain. If, however, after the application of feasible preventive and restorative actions in the first steps of the mitigation hierarchy (avoid, mitigate, restore), there is a potentially significant residual impact on a Critical Habitat qualifying feature then ecological compensation (offset) is required with measurable conservation outcomes at an appropriate geographical scale. In Natural Habitat, no net loss, where possible, is required. A robust project specific ESIA baseline is vital, followed by an iterative and thorough application of the mitigation hierarchy to ensure that impacts are avoided, minimized, and restored as far as feasible, reducing the significance of any residual impacts and the requirement for offsetting.

This report is a living document and hence, should be updated to reflect increased understanding of Project program and design throughout construction and operation (until agreed otherwise by Project Lenders) and should also be informed by new information as it becomes available (e.g., as obtained from ongoing/pre-construction surveys or as received from pertinent stakeholders).

2 Approach

In accordance with IFC PS6, habitats are divided into modified, natural and critical habitats. Critical habitats can be either modified or natural habitats supporting high biodiversity value, including:

● Habitat of significant importance to CR and/or EN species (IUCN Red List)

● Habitat of significant importance to endemic and/or restricted-range species

● Habitat supporting globally significant concentrations of migratory species and/or congregatory species

● Highly threatened and/or unique ecosystems

● Areas associated with key evolutionary processes

PS6 guides how to best identify three classes of area based on vegetation condition ('quality' or 'state'), and significance for biodiversity (see. Table 2-1). PS6 uses the term 'habitat' to refer to these areas, rather than the actual vegetation within them. These three-area classed are (i) Modified Habitat; (ii) Natural Habitat; and (iii) Critical Habitat (with Critical Habitat a subset of Modified and Natural Habitat).

Habitat condition is classified as either Natural or Modified based on the extent of human modification of the ecosystem. Monoculture plantations, agricultural areas and urban areas are usually classed as Modified. Both Natural and Modified Habitats may contain globally important biodiversity values, thereby qualifying as Critical Habitat.

Table 2-1 Habitat Classes

Areas Identified in PS6		Condition of the Area	
		Natural	**Modified**
High Biodiversity Values	**Present**	Critical Habitat	Critical Habitat
	Absent	Natural Habitat	Modified Habitat

Since habitat destruction is recognized as a major threat to the maintenance of biodiversity and to assess likely significance of impacts, IFC PS6 requires the following depending on habitat status:

Modified habitats are areas that may contain a large proportion of plant and/or animal species of non-native origin, and/or where human activity has substantially modified an area's primary ecological functions and species composition.

Modified habitats may include areas managed for agriculture, forest plantations, reclaimed coastal zones, and reclaimed wetlands.

PS6 applies to those areas of modified habitat that include significant biodiversity value, as determined by the risks and impacts identification process required in PS1. The client should minimize impacts on such biodiversity and implement mitigation measures as appropriate.

Natural habitats are areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area's primary ecological functions and species composition.

The client will not significantly convert or degrade natural habitats, unless all of the following are demonstrated:

- No other viable alternatives within the region exist for development of the project on modified habitat;
- Consultation has established the views of stakeholders, including Affected Communities, with respect to the extent of conversion and degradation; and
- Any conversion or degradation is mitigated according to the mitigation hierarchy.

In areas of natural habitat, mitigation measures will be designed to achieve no net loss of biodiversity where feasible. Appropriate actions include:

- Avoiding impacts on biodiversity through the identification and protection of set asides,
- Implementing measures to minimize habitat fragmentation, such as biological corridors;
- Restoring habitats during operations and/or after operations; and
- Implementing biodiversity offsets

Critical habitats are areas with high biodiversity value, including (i) habitat of significant importance to CR and/or EN species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory species and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes.

- In areas of critical habitat, the client will not implement any project activities unless all of the following are demonstrated.
- No other viable alternatives within the region exist for development of the project on modified or natural habitats that are not critical;
- The project does not lead to measurable adverse impacts on those biodiversity values for which the critical habitat was designated, and on the ecological processes supporting those biodiversity values;
- The project does not lead to a net reduction in the global and/or national/regional population of any CR or EN species over a reasonable period of time; and
- A robust, appropriately designed, and long-term biodiversity monitoring and evaluation program is integrated into the client's management program.

In such cases where a client is able to meet the requirements defined above, the project's mitigation strategy will be described in a BAP and will be designed to achieve net gains of those biodiversity values for which the critical habitat was designated.

2.1 Applicable Guidelines and Standards

2.1.1 National Requirements

The primary framework of the Turkish legislation for environmental legislation is the Environmental Law (Law No: 2872). National laws and regulations regarding protection of the habitats and species are listed in Table 2-2.

Table 2-2: National Legislation on Biodiversity

Legislation (Official Gazette Date/Number - Last Revision Date)	National Strategy Documents
Law on National Parks (11.08.1983/18132 - 09.07.2018)	National Plan on on-site Protection of Plant Genetic Diversity (1998)
Terrestrial Hunting Law (11.07.2003/25165 - 28.10.2020)	National Environmental Action Plan (1999)
Law on Animal Protection (01.07.2004/25509 - 13.12.2010)	National Forestry Program (2004)
Regulation on the Protection of Wetlands (04.04.2014/28962 - 23.06.2022)	Climate Change Action Plan (2012)
Regulation for Implementing the Convention on International Trade in EN Species of Wild Fauna and Flora (27.12.2001/24623 - 20.07.2019)	Turkish National Action Plan against Desertification (2015)
Regulation on Protection of Wildlife and Wildlife Development Areas (08.11.2004/25637)	National Rural Development Strategy (2015)
Law on Protection of Cultural and Natural Assets (23.07.1983/18113 - 15.06.2022)	National Biological Diversity Strategy and Action Plan (2019)
Regulation on Collection, Protection and Usage of Plant Genetic Resources (19.07.2012/28358)	
Law on Fisheries (04.04.1971/ 13799 - 17.02.2021)	
The Environmental Protection Agency for Special Areas (08.07.2011/ 27988)	
Environment Law (11.08.1983 / 18132 - 15.06.2022)	
Forestry Law (08.09.1956 / 9402 - 25.12.2021)	
Law on Pasture (28.02.1998 / 23272 - 18.01.2019)	
Law on Coastal Areas Management (17.04.1990 / 20495 - 28.10.2020)	

2.1.2   International Requirements

International agreements, conventions, and protocols regarding protection of the habitats and species are listed below:

- The Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention) (1981)
- The Convention on the Conservation of European Wildlife and Natural Habitats (BERN) (1984)
- United Nations Framework Convention on Climate Change (1994)
- RAMSAR (1994)
- The UN Convention on Biological Diversity (1997) and Cartagena Protocol on Biosafety (2004)
- Kyoto Protocol (2009)
- The Convention on International Trade in EN Species of Wild Fauna and Flora (CITES) (1996)
- Paris Agreement (2016)

2.1.3   Project Standards

The Project, which will be realized using the planned financing provided by a group of development finance institutions and commercial lenders, jointly "Project Lenders" and with partial coverage by the German ECA Euler Hermes Aktiengesellschaft ("EH"). The Project Company intends to develop the Project in alignment with the policy and requirements of the Lenders (i.e., EP IV, IFC and EBRD standards).

The international lender standards concerning biodiversity for the Project are represented by the IFC PS6 and related GN6, EBRD PR6 and GN6 as well as Equator Principles IV (EP IV).

The impact assessment and CHA are carried out in accordance with the following international requirements:

- IFC PSs on Environmental and Social Sustainability,
- EBRD's Environmental and Social Policy and PRs
- IUCN Red List of Threatened Species
- The Birds Directive (2009/147/EC)
- The Habitats Directive (92/43/EEC10)
- Post-construction Bird and Bat Fatality Monitoring for Onshore Wind Energy Facilities in Emerging Market Countries - Good Practice Handbook (2023)

The IFC PS6 objectives can be listed as:

- To protect and conserve biodiversity,
- To maintain the benefits from ecosystem services,
- To promote the sustainable management of living natural resources through the adoption of practices that integrates conservation needs and development priorities.

Similarly, the EBRD PR6 objectives are as defined below:

- Protect and conserve biodiversity using a precautionary approach,
- Adopt the mitigation hierarchy in the design and implementation of projects with the aim of achieving no net loss, and where appropriate, a net gain of biodiversity,
- Maintain ecosystem services, and
- Promote good international practice in the sustainable management and use of living natural resources.

2.2 Data Collection

The baseline collection methodology of this CHA relies primarily on desktop components which are detailed below and the data from field surveys conducted as part of National EIA. The Consultant conducted a brief site reconnaissance visit as well.

2.2.1 Desktop Study

A desktop review of the study area comprises the major component of the present Biodiversity assessment. The desktop component was performed perusing the following:

- National EIA report (Flora and Fauna section)
- Relevant publicly available peer-reviewed literature
- White and grey literature
- Public biodiversity databases
  - eBird[1],
  - iNaturalist[2],
  - Tramem[3],
  - Trakel[4],
  - Trakus[5],

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[1] URL: Ebird.org. Last accessed: 13 December 2023.

[2] URL: Inaturalist.org. Last accessed: 13 December 2023.

[3] URL: Tramem.org. Last accessed: 13 December 2023.

[4] URL: Trakel.org. Last accessed: 13 December 2023.

[5] URL: Trakus.org. Last accessed: 13 December 2023.

- – Movebank[6],
- – European Breeding Bird Atlas[7],
- – Global Invasive species database[8],
- – Bizimbitkiler[9]
- Satellite imagery and maps
- Opinions of local biodiversity experts (formal / informal)
- Internationally recognized areas
  - – KBAs
  - – IBAs
- IUCN Red List
- Nationally threatened species
- BERN convention and appendices
- EU Habitats Directive
  - – Annex I habitats
  - – Annex II/IV species

Baseline information on terrestrial and aquatic ecology has been collected through ecological surveys conducted within the scope of the National EIA study. Accordingly, the timings of the field studies carried out are given below;

- Flora surveys conducted 15-23 October 2021 (National EIA).
- Bat surveys were conducted in August 2021, September 2021, and October 2021 for a total of 6 day/nights (National EIA).
- For ornithological surveys, the Project area was visited between 18 August – 17 October 2021 and 24 March – 7 April 2022, 15 times each period, for unknown effort duration. (National EIA).
- For terrestrial fauna (non-bat mammals, amphibians, reptiles), 15-23 October 2021. (National EIA).
- For honeybees and beekeeping, late autumn 2021 and early spring 2022 (National EIA).

2.2.2 Field Surveys

Given the limited timescale, it was not possible to undertake the biodiversity baseline surveys during appropriate season before the completion of the CHA study. It was possible to conduct a brief site visit (less than one day) which can be described as a reconnaissance visit.

On 04 October 2023, the Project area was partially visited by two biodiversity consultants of Mott MacDonald. Brief point counts for birds and transect walks for flora and terrestrial fauna were conducted.

Due to the seasonality (autumn) of the day, the visit only provided an opportunity for general observations about habitat characteristics, especially for birds and bats.

If some features were not observed by consultant during this visit, it does not necessarily indicate such features are not present and/or abundant.

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[6] URL: movebank.org. Last accessed: 13 December 2023.

[7] Retrieved November 28, 2023, from ebba2.info

[8] URL: iucngisd.org. Last accessed: 13 December 2023.

[9] URL: Bizimbitkiler.org.tr. Last accessed: 13 November 2023.

2.3   Identification of Ecologically Appropriate Area of Analysis

The Project consists of 18 turbines and their pads, the site and access roads, the switchyard area and the entire length of the ETL and pylons. Although the ETL and pylons are owned and operated by TEIAS, the standards of Project Lenders include these structures, along with the site roads and access roads, in impact assessments and subsequent adaptive management and monitoring programmes.

The investigation into the region's ecology was carried out to define an EAAA, to determine the presence of features that may qualify for Critical Habitat. The EAAA was identified at a scale IAoI of the Project area, considering large-scale ecological processes. This approach ensures that all potential risks within the Project footprint and surrounding vicinity are taken into consideration.

The EAAA was defined using a combination of water catchments, topographic information, and legally protected areas and/or internationally recognized areas of high biodiversity value information. Species with a very specific distribution and ecological requirements were taken into account in defining the EAAA.

For the purposes of this CHA, the EAAA for flora and terrestrial fauna (amphibians, reptiles and non-bat mammals) was designated in consideration of the major terrain and hydrological features. The EAAA for flora and fauna encompasses an area of 618 km^2. The EAAA for flora and terrestrial fauna is shown on Figure 2-1.

For EAAA for birds and bats, the main consideration was bird migration since the Project is located along the Dardanelles routes of migrants. Therefore, the EAAA is a NW-SE oriented area which also considers the nearby hydrological and terrain features. The EAAA for birds and bats encompasses an area of 1571 km^2 and is shown on Figure 2-2.

Within the EAAA, an AoI of the Project on biodiversity values was designated. For flora species, since the main expected impact source is ground preparation during construction phase, and secondary impacts of habitat degradation during operation, the AoI was designated as extending 2 km from the Project footprint. A similar approach was taken for terrestrial fauna species (amphibians, reptiles, and non-bat mammals) however since these species are more mobile, the AoI was designated as extending 5 km from all Project components. For avifauna (birds and bats), which are highly mobile and migratory, and can utilize much larger territories, the extent of impact needs to be studied in a wider area. The primary expected impact source is due to interactions with moving and electrified Project components. Therefore, an AoI of 15 km was adopted. This AoI also ensures coverage of Project roads which are secondary sources of impact for avifauna. Project AoI for all taxa is shown on Figure 2-3.
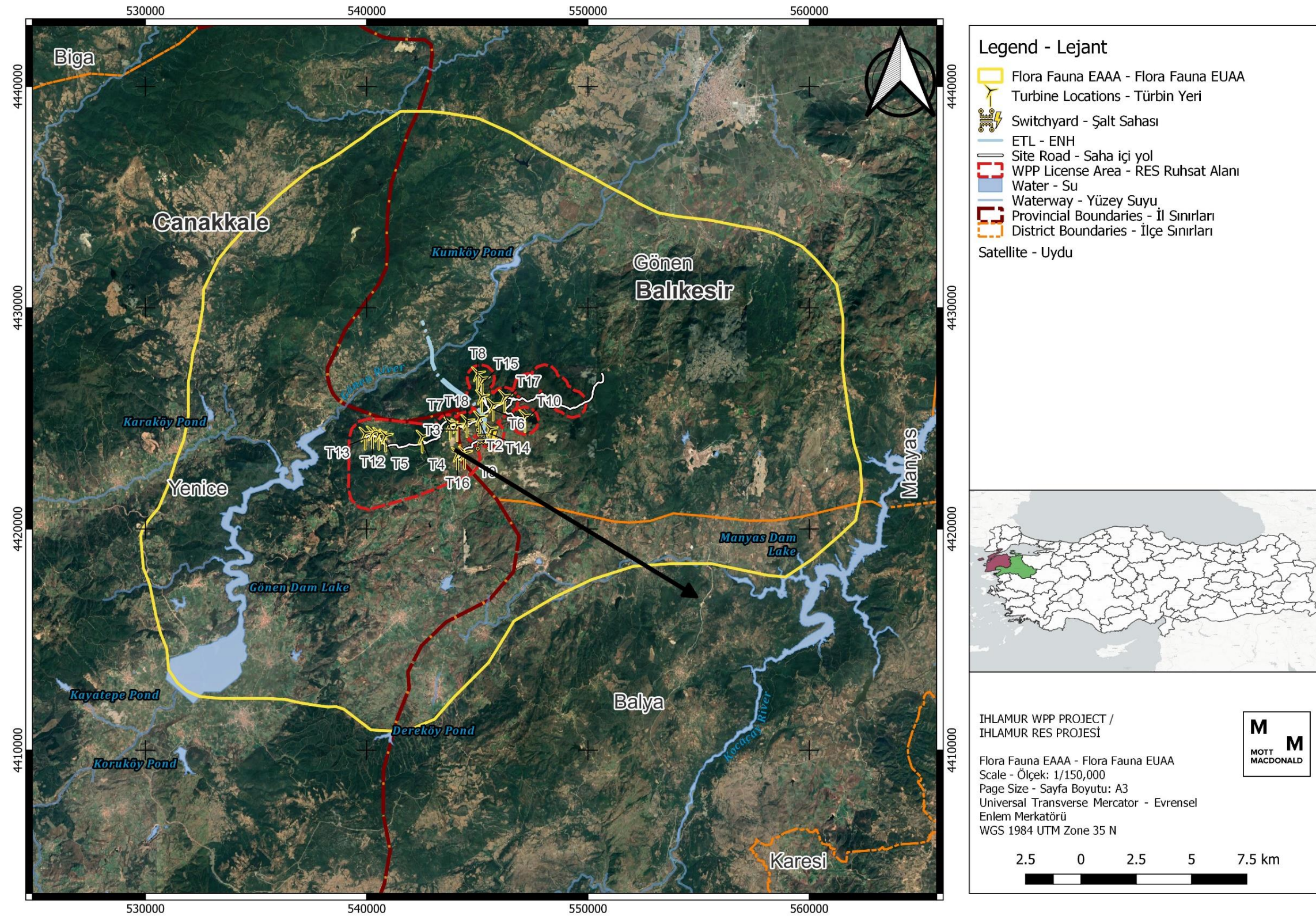
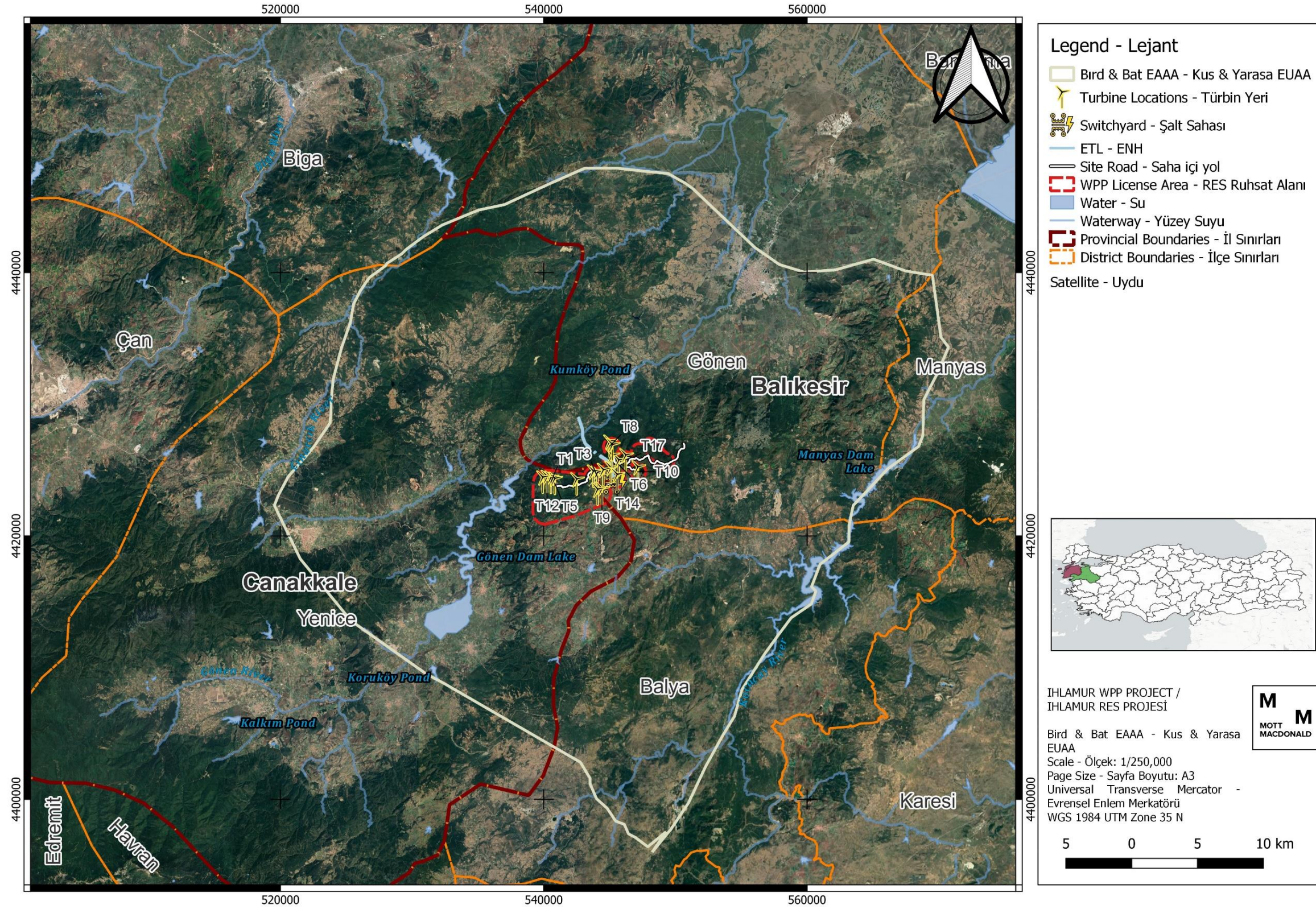**Figure 2-1: EAAA for Flora and Terrestrial Fauna for the Project**

Figure 2-2: EAAA for Birds and Bats for the Project
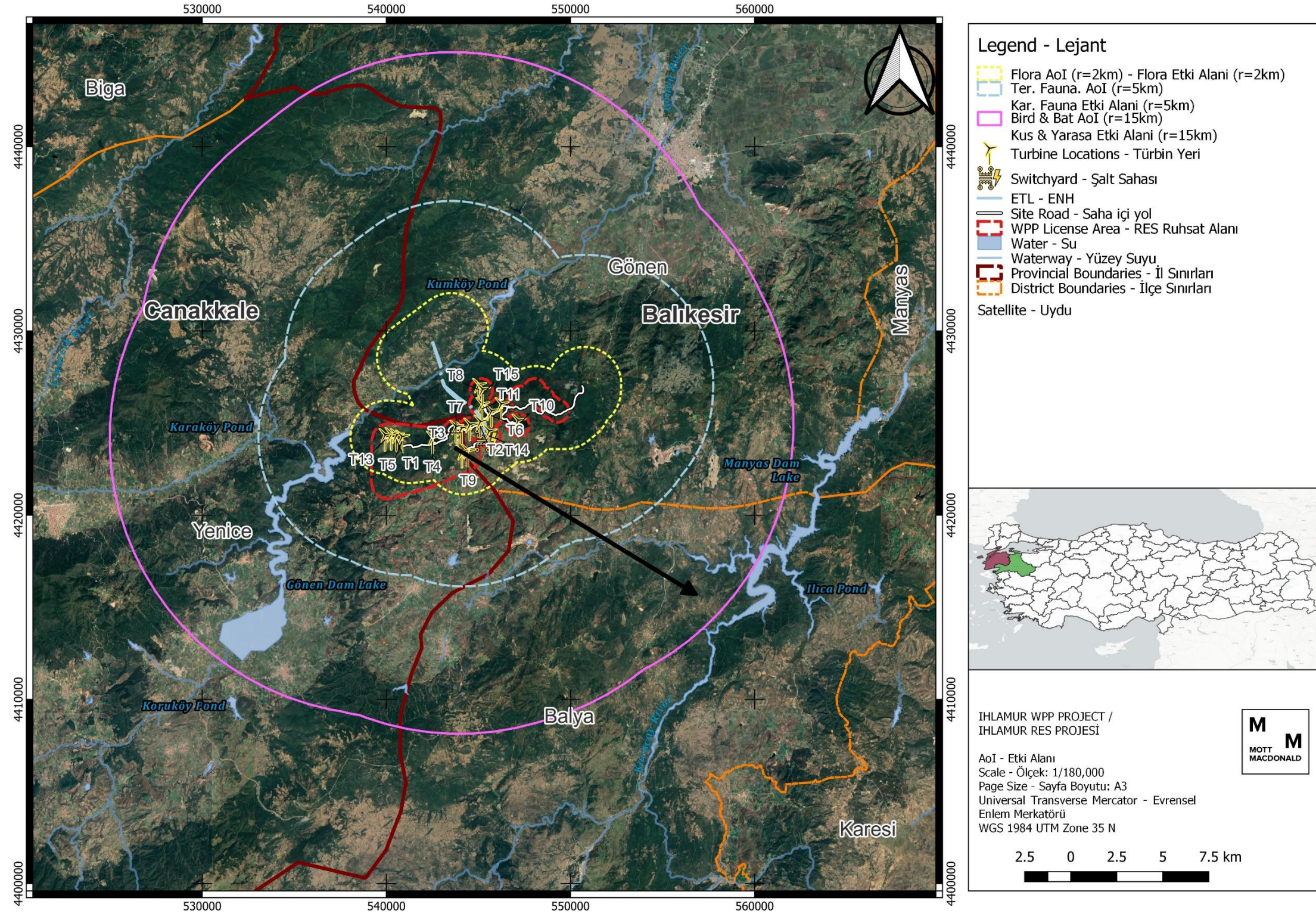
Figure 2-3: AoI for different biological taxa for the Project

2.4   Limitations and Assumptions

The consultant undertakes the CHA study given the following important caveats and limitations:

1. **Field survey duration**: A very limited field survey was undertaken which can be described better as a field reconnaissance survey that lasted half a day. Given the limited timescale, it was not possible to undertake the biodiversity baseline surveys for appropriate duration or effort before the completion of the CHA. The visit was partial due to the following reasons,
   - Access and site roads are only partially accessible by all terrain vehicle,
   - No time was available to cover the site on foot.
2. **Field survey season**: The season (autumn) of the reconnaissance survey was not very conducive to studying the biodiversity features of the Project. Only a general impression of the habitat characteristics was obtained.
3. **Field survey coverage:** Only a limited portion of the Project site was able to be accessed. The entirety of the Project was not visited due to lack of vehicle accessible roads and lack of time to cover the area on foot.
4. **Desktop analysis:** The desktop component relies heavily on National EIA field studies at the Project area. However, the National EIA biodiversity surveys have deficiencies in meeting lender methodology and standards. One of the most significant deficiencies was pertaining to the Vantage Point surveys and Collision Risk Model**.** Additionally, Bat Activity Index is not available.
5. **CHA:** Due to time constraints of the assessment process and the quality/quantity of the field data available from the National EIA study, only a high-level CHA can be conducted. Present CHA relies mainly on (1) Desktop components and (2) National EIA surveys which are only considered preliminary.
6. **Field surveys proposed:** Surveys for baseline collection in 2024 were scheduled by the Project company and will be used to update the present CHA study.

2.5   Critical Habitat Assessment Criteria

A high-level screening was undertaken to identify the likely occurrence of species and habitats that could trigger Critical Habitat using the IFC PS6 GN6 (IFC, 2019). These species included IUCN CR and EN species, restricted-range and migratory/ congregatory species that were identified with IUCN geographic ranges within the EAAA. Likelihood of occurrence was evaluated based on consultation with local biodiversity specialists, landcover mapping, habitat preferences of the species etc.

Critical Habitat Criteria are as follows and should form the basis of any CHA:

- Criterion 1: CR and/or EN species
- Criterion 2: Endemic or restricted-range species
- Criterion 3: Migratory or congregatory species
- Criterion 4: Highly threatened and/or unique ecosystems
- Criterion 5: Key evolutionary processes

Projects that are located within internationally and/or nationally recognized areas of high biodiversity value may require a CHA. Examples include the following:

- Areas that meet the criteria of the IUCN's Protected Area Categories Ia, Ib and II,
- KBAs, which encompass IBAs and KBAs,
- UNESCO Natural and Mixed World Heritage Sites,
- Sites that fit the designation criteria of the AZE

Quantitative thresholds for triggering Critical Habitat for Criteria 1-4 are described in Table 2-3.

Table 2-3: Quantitative thresholds for triggering Critical Habitat for Criteria 1-4

Criteria	Quantitative Thresholds
1. CR / EN Species	(a) Areas that support globally important concentrations of an IUCN Red-listed EN or CR species ($\geqslant$ 0.5% of the global population AND $\geqslant$ 5 reproductive units of a CR or EN species).
	(b) Areas that support globally important concentrations of an IUCN Red-listed VU species, the loss of which would result in the change of the IUCN Red List status to EN or CR and meet the thresholds in GN72(a).
	(c) As appropriate, areas containing important concentrations of a nationally or regionally listed EN or CR species.
2. Endemic / Restricted-range Species[10]	(a) Areas that regularly hold $\geqslant$10% of the global population size AND $\geqslant$10 reproductive units of a species.
3. Migratory / Congregatory Species	(a) Areas known to sustain, on a cyclical or otherwise regular basis, $\geqslant$ 1 percent of the global population of a migratory or congregatory species at any point of the species' lifecycle.
	(b) Areas that predictably support $\geqslant$10 percent of the global population of a species during periods of environmental stress.
4. Highly Threatened / Unique Ecosystems	(a) Areas representing $\geqslant$5% of the global extent of an ecosystem type meeting the criteria for IUCN status of CR or EN.
	(b) Other areas not yet assessed by IUCN but determined to be of high priority for conservation by regional or national systematic conservation planning.

Criterion 1-3: Species Biodiversity Values

In evaluating Armutcuk WPP biodiversity values for criterion 1-3, species demonstrated to regularly occur on site (confirmed through survey or considered likely to be present) were screened against the relevant criteria listed in the table above. Taking into consideration factors such as habitat suitability, movements patterns, foraging and breeding habits within the EAAA were assessed for each species to identify potential critical habitat triggers. Since the population size data of the species in the Project area is in the form of relative abundance for the flora species, the population data was evaluated accordingly.

Relative abundance is calculated by local abundance / dominance method using Braun-Blanquette and Pavillard cover percentage scale. The scale is given below:

- Abundant species, weak cover percentage   1
- Abundant species or cover percentage more than 5%   2
- Cover percentage between 25% and 50%   3
- Cover percentage between 50% and 75%   4
- Cover percentage between 75% and 100%   5

For bat species, since both Bat Activity Index is unavailable from the Project area (or a nearby comparable project), and population (global and regional) data are very limited, it is not feasible to undertake CHA based on population sizes and predicted impact on populations. Therefore, all available information was gathered for the species which were observed or clearly indicated in literature for the area, and Priority Biodiversity Feature designations were made based on assigning 1 point each for the following criteria: (1) conservation status is VU or higher, (2)

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[10] For terrestrial vertebrates and plants, restricted-range species are defined as those species that have an EOO less than 50,000 km^2

For coastal, riverine, and other aquatic species in habitats that do not exceed 200 km width at any point (for example, rivers), restricted range is defined as having a global range of less than or equal to 500km linear geographic span (i.e., the distance between occupied locations furthest apart).

collision risk is high (half point for medium) and (3) species is a mid or long-distance migrant. Species which scored 2 or 3 were included as Priority biodiversity feature.

Criterion 4: Highly Threatened / Unique Ecosystems

A desk study was undertaken to identify if a formal IUCN Red List of Ecosystems assessment has been performed in the EAAA. Where no formal IUCN assessment has been undertaken, a search for national/regional level assessments, which use systematic methods, is undertaken and identified. The presence of Annex I priority habitats designated in the EU Habitats Directive was also considered in line with EBRD PR6.

Criterion 5: Key Evolutionary Processes

The structural attributes of a region, such as its topography, geology, soil, temperature, and vegetation, as well as combinations of these variables, can influence the evolutionary processes that give rise to regional configurations of species and ecological properties such as genetically unique populations or subpopulations of plant and animal species. Maintaining these key evolutionary processes inherent in a landscape as well as the resulting species (or subpopulations of species) is important for the conservation of genetic diversity. By conserving species diversity within a landscape, the processes that drive speciation, as well as the genetic diversity within species, ensure the evolutionary flexibility in a system.

The determination of critical habitat for Key Evolutionary Processes is determined qualitatively on a case-by-case basis and heavily reliant on scientific knowledge (IFC, 2019); therefore, a literature review would need to be undertaken as part of a full CHA to assess if the EAAA includes sites where key evolutionary processes occur for biodiversity values.

Priority Biodiversity Features (PBF)

PBF 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 PR6 defines PBF as including:

- threatened habitats,
- VU species,
- significant biodiversity features identified by a broad set of stakeholders or governments (such as KBAs or IBAs), and

ecological structure and functions needed to maintain the viability of PBF.

3 Baseline Conditions

3.1 Internationally Recognised and Nationally Protected Areas

Ihlamur WPP, including its components such as the ETL and roads, is not located within a legally protected or internationally recognised area. The closest such area is Kaz Mountains KBA, which the Project AoI overlaps.[11] Although interaction with Kaz Mountains is expected to be low, it is important to note that European Honey-buzzard (*Pernis apivorus*) is a KBA trigger. The other KBA trigger bird species is Kruper's Nuthatch (*Sitta kruperi*). This is a species whose entire global distribution consists mainly of coastal Anatolian forests and is considered a regional endemic. Kaz Mountain forests are a significant breeding region for this species.

3.2 Habitats and Flora

The recorded habitats are listed in Table 3.1 below and shown in Figure 3-1, along with their wide distribution areas within the study area. The amount of habitat lost due to site roads, turbine footprints and switchyard area are given in Table 3.1, Table 3-2, Table 3-3, and Table 3-4.

Table 3.1: Habitat Types of the Project AoI

Broad habitat type	EUNIS Habitat Type	Extend within Project Footprint (ha)	Percentage (%)
Woodland	G1.A Meso- and eutrophic Quercus, Carpinus, Fraxinus, Acer, Tilia, Ulmus and related woodland (Galio-Carpinetum oak-hornbeam forests)	953.3407625	9.945%
	G1.3 Mediterranean riparian woodland	76.56489999	0.799%
	G1.7 Termophilus deciduous woodland	3792.201672	39.561%
	G1.6 Beech woodland	863.5591646	9.009%
Maquis	F5.2 Mediterranean maquis and arborescent matorral	1007.365262	10.509%
Grassland	E1.2 Perennial calcareous grassland and basic steppes	121.9628939	1.272%
	E2.1 Permanent mesotrophic pastures and aftermath-grazed meadows	24.53491001	0.256%
Freshwater	C2.3 Permanent non-tidal, smooth-flowing watercourses	23.23591084	0.242%
Constructed, industrial and other artificial habitats	J1.2 Residential buildings of villages and urban peripheries	46.10109631	0.481%
	J3.2 Active opencast mineral extraction sites, including quarries	21.17963048	0.221%
Regularly or recently cultivated agricultural, horticultural and domestic habitats	I1.1 Intensive unmixed crops	2655.70158	27.705%
Total		9585.747784	

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[11] Turkey's Nature | Key Biodiversity Areas of Turkey (keybiodiversityareasturkey.org)
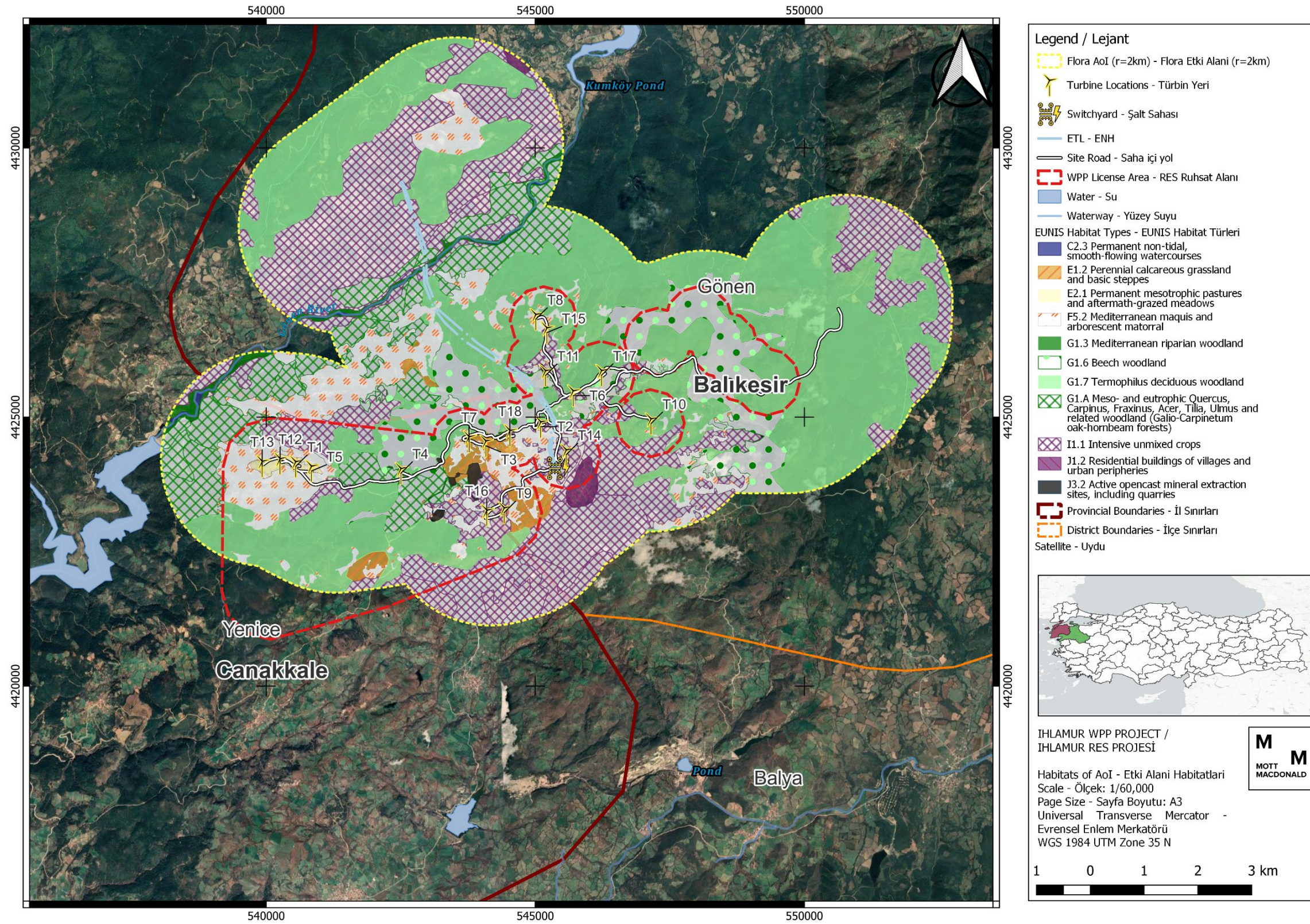
Figure 3-1: EUNIS Habitat Classification of the Project AoI

Table 3-2: Habitat Loss on Site Roads

EUNIS	Area (ha)	Percentage
E1.2 Perennial calcareous grassland and basic steppes	1.91	1.5620%
E2.1 Permanent mesotrophic pastures and aftermath-grazed meadows	1.14	4.6552%
F5.2 Mediterranean maquis and arborescent matorral	1.66	0.1644%
G1.6 Beech woodland	3.94	0.4561%
G1.7 Termophilus deciduous woodland	9.18	0.2421%
G1.A Meso- and eutrophic Quercus, Carpinus, Fraxinus, Acer, Tilia, Ulmus and related woodland (Galio-Carpinetum oak-hornbeam forests)	1.10	0.1157%
I1.1 Intensive unmixed crops	8.29	0.3121%
J3.2 Active opencast mineral extraction sites, including quarries	0.19	0.9122%
Total	27.41	

Table 3-3: Habitat Loss on Turbine Footprint

EUNIS	Area (ha)	Percentage
E1.2 Perennial calcareous grassland and basic steppes	3.53	2.8956%
E2.1 Permanent mesotrophic pastures and aftermath-grazed meadows	5.49	22.3794%
F5.2 Mediterranean maquis and arborescent matorral	2.09	0.2071%
G1.6 Beech woodland	2.04	0.2363%
G1.7 Termophilus deciduous woodland	1.94	0.0513%
G1.A Meso- and eutrophic Quercus, Carpinus, Fraxinus, Acer, Tilia, Ulmus and related woodland (Galio-Carpinetum oak-hornbeam forests)	1.44	0.1510%
I1.1 Intensive unmixed crops	10.74	0.4046%
J3.2 Active opencast mineral extraction sites, including quarries	0.00	0.0000%
Total	27.28	

Table 3-4: Habitat Loss on Switchyard Area

EUNIS	Area (ha)	Percentage
E1.2 Perennial calcareous grassland and basic steppes	0.00	0.0000%
E2.1 Permanent mesotrophic pastures and aftermath-grazed meadows	0.00	0.0000%
F5.2 Mediterranean maquis and arborescent matorral	0.11	0.0108%
G1.6 Beech woodland	0.00	0.0000%
G1.7 Termophilus deciduous woodland	0.00	0.0000%
G1.A Meso- and eutrophic Quercus, Carpinus, Fraxinus, Acer, Tilia, Ulmus and related woodland (Galio-Carpinetum oak-hornbeam forests)	0.00	0.0000%
I1.1 Intensive unmixed crops	2.08	0.0782%
J3.2 Active opencast mineral extraction sites, including quarries	0.00	0.0000%
Total	2.19	

Table 3-5: Habitat Loss on ETL

EUNIS	Area (ha)	Percentage
C2.3 Permanent non-tidal, smooth-flowing watercourses	0.198141	0.8527%
F5.2 Mediterranean maquis and arborescent matorral	8.572583	0.8510%
G1.3 Mediterranean riparian woodland	0.78615	1.0268%
G1.6 Beech woodland	9.985955	1.1564%
G1.7 Termophilus deciduous woodland	31.65528	0.8347%
G1.A Meso- and eutrophic Quercus, Carpinus, Fraxinus, Acer, Tilia, Ulmus and related woodland (Galio-Carpinetum oak-hornbeam forests)	2.749124	0.2884%
I1.1 Intensive unmixed crops	18.72308	0.7050%

Local EIA flora surveys were conducted between 15-23 October 2021. Although the survey dates do not reflect seasonally suitable periods, the species list given is satisfactory. A list of

endemic species, based on all available information with their conservation status and whether they were encountered during field studies at the Project area is provided. A total of 320 plant taxa were identified. The full list of species is not presented in this document, endemic species are listed with National Red List categories in Table 3-6. Given these species have not yet been evaluated by IUCN, national categories have been used.

Table 3-6 The endemic species in the Project area and their coordinates

	Taxon	IUCN	Coordination
	Regional Endemic Species		
1	*Erodium somanum*	EN	35 S 541072 N 4423858 D
			35 S 540926 N 4424014 D
			35 S 545127 N 4426669 D
2	*Cirsium balikesirense*	VU	35 S 544316 N 4423013 D
			35 S 545636 N 4424549 D
			35 S 545029 N 4424878 D
	Widespread Endemic Species		
3	*Stachys cretica subsp. smyrnaea*	LC	35 S 540926 N 4424014 D
	Non-Endemic Rare Species		
4	*Cyclamen hederifolium*	VU	35 S 541901 N 4422332 D
			35 S 541072 N 4423858 D
			35 S 542939 N 4424014 D
			35 S 543878N 4424616 D
			35 S 544518 N 4424664 D
			35 S 544316 N 4423013 D
			35 S 546206 N 4425762 D
			35 S 545990 N 4425588 D
			35 S 545711 N 4425411 D
			35 S 545306 N 4425939 D
			35 S 545029 N 4424878 D

3.3 Birds

The Project area is located close to a minor migratory route of birds, namely the Dardanelles route[12][13]. Three groups of bird species are specifically important for the Project area: (1) large soaring migratory species (storks, pelicans, eagles, buzzards, sparrowhawks, falcons, harriers, kites), (2) large soaring resident species and (3) other resident species of conservation significance. Target species are provided on Table 3-7.

Table 3-7. List of significant bird species

English name	Scientific name	IUCN	National	Bird directive	BERN	L/O
Levant Sparrowhawk	*Accipiter brevipes*	LC	VU	Annex I	Appendix II	L
Northern Goshawk	*Accipiter gentilis*	LC	NT	-	Appendix II	O

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[12] UYSAL, İ., & TOSUNOĞLU, M., (2016). The Bird Migration Routes on the Gelibolu Peninsula and the Effects of Wind Energy Plants . 5th International Eurasian Ornithology Congress, Vol. V (pp.44). Çanakkale, Turkey

[13] Erciyas Yavuz, K. 2014. Turkiye'deki Kus Hareketliligi Haritalari; movebank.org and eBird data.

English name	Scientific name	IUCN	National	Bird directive	BERN	L/O
Eurasian Sparrowhawk	*Accipiter nisus*	LC	NT	-	Appendix II	O
Cinereous Vulture	*Aegypius monachus*	NT	EN	Annex I	Appendix II	L
Golden Eagle	*Aquila chrysaetos*	LC	-	Annex I	Appendix II	O
Imperial Eagle	*Aquila heliaca*	VU	EN	Annex I	Appendix II	O
Gray Heron	*Ardea cinerea*	LC	-	-	Appendix III	O
Purple Heron	*Ardea purpurea*	LC	VU	Annex I	Appendix II	O
Eurasian Eagle-Owl	*Bubo bubo*	LC	-	Annex I	Appendix II	L
Common Buzzard	*Buteo buteo*	LC	-	-	Appendix II	O
Rough-legged Hawk	*Buteo lagopus*	LC	-	-	Appendix II	L
Long-legged Buzzard	*Buteo rufinus*	LC	NT	Annex I	Appendix II	O
White Stork	*Ciconia ciconia*	LC	-	Annex I	Appendix II	O
Black Stork	*Ciconia nigra*	LC	-	Annex I	Appendix II	O
Short-toed Snake-Eagle	*Circaetus gallicus*	LC	VU	Annex I	Appendix II	O
Eurasian Marsh-Harrier	*Circus aeruginosus*	LC	NT	Annex I	Appendix II	O
Hen Harrier	*Circus cyaneus*	LC	DD	Annex I	Appendix II	L
Pallid Harrier	*Circus macrourus*	NT	CR	Annex I	Appendix II	L
Montagu's Harrier	*Circus pygargus*	LC	EN	Annex I	Appendix II	O
Greater Spotted Eagle	*Clanga clanga*	VU	VU	Annex I	Appendix II	O
Lesser Spotted Eagle	*Clanga pomarina*	LC	EN	Annex I	Appendix II	O
Black-winged Kite	*Elanus caeruleus*	LC	-	Annex I	Appendix II	L
Lanner Falcon	*Falco biarmicus*	LC	VU	Annex I	Appendix II	L
Saker Falcon	*Falco cherrug*	EN	CR	Annex I	Appendix II	L
Merlin	*Falco columbarius*	LC	-	Annex I	Appendix II	L
Eleonora's Falcon	*Falco eleonorae*	LC	EN	Annex I	Appendix II	L
Lesser Kestrel	*Falco naumanni*	LC	VU	Annex I	Appendix II	L
Peregrine Falcon	*Falco peregrinus*	LC	VU	Annex I	Appendix II	O
Eurasian Hobby	*Falco subbuteo*	LC	-	-	Appendix II	O
Eurasian Kestrel	*Falco tinnunculus*	LC	-	-	Appendix II	O
Red-footed Falcon	*Falco vespertinus*	VU	-	Annex I	Appendix II	O
Bearded Vulture	*Gypaetus barbatus*	NT	EN	Annex I	Appendix II	L
Eurasian Griffon	*Gyps fulvus*	LC	EN	Annex I	Appendix II	O
White-tailed Eagle	*Haliaeetus albicilla*	LC	CR	Annex I	Appendix II	L
Booted Eagle	*Hieraaetus pennatus*	LC	VU	Annex I	Appendix II	O
Black Kite	*Milvus migrans*	LC	EN	Annex I	Appendix II	O
Red Kite	*Milvus milvus*	LC	DD	Annex I	Appendix II	L
Egyptian Vulture	*Neophron percnopterus*	EN	VU	Annex I	Appendix II	O
Osprey	*Pandion haliaetus*	LC	DD	Annex I	Appendix II	L
Dalmatian Pelican	*Pelecanus crispus*	NT	VU	Annex I	Appendix II	L
Great White Pelican	*Pelecanus onocrotalus*	LC	EN	Annex I	Appendix II	O

English name	Scientific name	IUCN	National	Bird directive	BERN	L/O
European Honey-buzzard	*Pernis apivorus*	LC	NT	Annex I	Appendix II	O
Eurasian Spoonbill	*Platalea leucorodia*	LC	EN	Annex I	Appendix II	L
Glossy Ibis	*Plegadis falcinellus*	LC	EN	Annex I	Appendix II	L
European Turtle-Dove	*Streptopelia turtur*	VU	VU	Annex II B	Appendix III	O
Redwing	*Turdus iliacus*	NT	-	Annex II B	Appendix III	L

*L: Literature, O: Observation

3.4 Bats

A list of bat species, their conservation status, collision risk and whether they were observed in National EIA (O) or at other wind farms nearby / indicated in literature (L) are provided in Table 3-8.

Table 3-8. List of bat species of the Project area

Common Name	Scientific Name	IUCN Global	IUCN EU	IUCN Med	BE RN	EU Habitat Directive	Collision Risk	L/O
Western Barbastelle	*Barbastella barbastellus*	NT	VU	NT	I, II	II, IV	Medium	L
Serotine	*Eptesicus serotinus*	LC	-	-	II	IV	Medium	O
Savi's Pipistrelle	*Hypsugo savii*	LC	LC	LC	II	IV	High	O
Schreiber's Bent-winged Bat	*Miniopterus schreibersii*	VU	-	-	I, II	II, IV	High	O
Alcathoe Bat	*Myotis alcathoe*	DD	-	-	II	IV	Low	L
Steppe Whiskered Bat	*Myotis aurascens*	LC	LC	LC	II	IV	Low	L
Bechstein's Myotis	*Myotis bechsteinii*	NT	VU	NT	I, II	II, IV	Low	O
Lesser Mouse-eared Myotis	*Myotis blythii*	LC	NT	NT	I, II	II, IV	Low	L
Long-fingered Bat	*Myotis capaccinii*	VU	VU	VU	I, II	II, IV	Low	L
Daubenton's Myotis	*Myotis daubentonii*	LC	-	-	II	IV	Low	O
Geoffroy's Bat	*Myotis emarginatus*	LC	LC	LC	I, II	II, IV	Low	L
Greater Mouse-eared Bat	*Myotis myotis*	LC	LC	LC	I, II	II, IV	Low	L
Whiskered Myotis	*Myotis mystacinus*	LC	LC	LC	II	IV	Low	L
Natterer's Bat	*Myotis nattereri*	LC	-	-	II	IV	Low	L
Giant Noctule	*Nyctalus lasiopterus*	VU	DD	NT	II	IV	High	O
Lesser Noctule	*Nyctalus leisleri*	LC	LC	LC	II	IV	High	O
Noctule	*Nyctalus noctula*	LC	LC	LC	II	IV	High	O
Kuhl's Pipistrelle	*Pipistrellus kuhlii*	LC	LC	LC	II	IV	High	O
Nathusius' Pipistrelle	*Pipistrellus nathusii*	LC	LC	LC	II	IV	High	O

Common Name	Scientific Name	IUCN Global	IUCN EU	IUCN Med	BE RN	EU Habitat Directive	Collision Risk	L/O
Common Pipistrelle	*Pipistrellus pipistrellus*	LC	-	-	III	IV	High	O
Soprano Pipistrelle	*Pipistrellus pygmaeus*	LC	LC	LC	II	IV	High	O
Brown Long-eared Bat	*Plecotus auritus*	LC	-	-	II	IV	Low	O
Grey Long-eared Bat	*Plecotus austriacus*	NT	NT	-	II	IV	Low	L
Mediterranean Long-eared Bat	*Plecotus kolombatovici*	LC	NT	LC	II	IV	Low	L
Mountain Long-eared Bat	*Plecotus macrobullaris*	LC	NT	NT	II	IV	Low	L
Blasius's Horseshoe Bat	*Rhinolophus blasii*	LC	VU	NT	I, II	II, IV	Low	L
Mediterranean Horseshoe Bat	*Rhinolophus euryale*	NT	VU	VU	I, II	II, IV	Low	L
Greater Horseshoe Bat	*Rhinolophus ferrumequinum*	LC	NT	NT	I, II	II, IV	Low	L
Lesser Horseshoe Bat	*Rhinolophus hipposideros*	LC	NT	NT	I, II	II, IV	Low	L
Mehely's Horseshoe Bat	*Rhinolophus mehelyi*	VU	VU	VU	I, II	II, IV	Low	L
European Free-tailed Bat	*Tadarida teniotis*	LC	LC	LC	II	IV	High	O
Particoloured Bat	*Vespertilio murinus*	LC	LC	-	II	IV	High	O

*L: Literature, O: Observation

3.5   Terrestrial fauna (non-bat mammals, reptiles, amphibians)

A list of significant species are provided in Table 3-9.

Table 3-9. List of significant terrestrial fauna for the Project area

Common Name	Scientific Name	IUCN	BERN	Habitats directive	L/O
Anatolian Banded Newt	*Ommatotriton nesterovi*	NA (NT)	Appendix III	-	L
Common tortoise	*Testudo graeca*	VU	Appendix I-II	Appendix II-IV	O
Roe deer	*Capreolus capreolus*	LC	Appendix III	-	O
Marbled polecat	*Vormela peregusna*	VU	Appendix I-II	Appendix II-IV	L
Brown Bear	*Ursus arctos*	LC	Appendix I-II	Appendix II-IV	L

*L: Literature, O: Observation

3.6   Invertebrates

Ottoman's Copper (*Lycaena ottomana*) is VU globally according to its arguably dated assessment in IUCN in 2000. Its habitat preference is low altitude, coastal maquis, and

woodland clearings in the region, favouring wet valley floors. Its preferred host species is *Rumex* genus, which is widespread and common. The most recent assessment for the species is the IUCN Mediterranean designation (2013) which is LC, and the species conservation status nationally is currently being updated by the foremost butterfly experts of Turkiye, due to recent studies establishing its populations are robust and the species is common (in litt).

Big-Bellied Glandular Bush-Cricket (*Bradyporus macrogaster*) is found in forest, scrub and grassland habitats at altitudes ranging from 0 to 1,270 metres.The species inhabits steppe-like habitats dominated by xeric grasses and sparse scrub, in some areas like the Aegean coast of Anatolia it enters Mediterranean vegetation, such as sparse xerothermic oak forests or scrub or mesoxeric grass associations. The species prefers sparse vegetation cover areas in terms of forest and shrub areas. The Project AoI does not include this type of vegetation cover.

The proposed ETL route of the Project involves passing through a section of riparian and lotic habitats of Gonen Stream. In addition to being significant habitat types that demand attention, this segment may also support important species and populations of freshwater fauna such as endemic fish and threatened benthic macroinvertebrates. Thick-shelled River Mussel (Unio crassus) is EN globally, with population status decreasing. They are associated with inland wetlands, mostly with lotic habitats of flowing streams, but also reported in lakes. It is widely, but patchily distributed in Eurasia from the Atlantic to the Amur Basin, including Türkiye. Part of the species reproductive behaviour relies on stream banks. They also parasitize host fish species for their reproductive cycle, so their populations also rely on healthy host fish populations, for which it is noted as a host fish generalist with some preferences. Population status is not known in Türkiye and significant data deficiencies are noted. Section of the Gonen Stream intersected by the proposed ETL route may support this species based on available information.

4 Critical Habitat Assessment

Evaluation against each criterion is carried out in table format which includes potential trigger species, their IUCN status, relation to the Project AoA, observation status in the AoA and summary of findings. Potential species were selected in line with the CHA Criteria from literature and survey findings. For Criterion 1 to 3, in case of the limited information to estimate numbers of individuals of potentially qualifying species within the AoA, expert opinion has been applied to evaluate the importance of the identified potential Critical Habitat in terms of global populations. The EOO of species has been applied as a surrogate for local population data. This means that a precautionary approach was applied in the evaluation against PS6 thresholds. Global EOO information was obtained from the IUCN Red List Database which covers all of the potential Critical Habitat trigger species. Local distributions of the plant species for the AoA was derived from bizimbitkiler.org and TUBIVES (Turkish Plants Data Service). In some cases, the presence of species in the AoA has been inferred based on habitat suitability and in cases where presence has been confirmed, the distribution within the species range and project AoA has been assumed. This results in a conservative Critical Habitat evaluation. For threatened ecosystems, there is limited data on extents and condition within the AoA or wider area. This results in a conservative Critical Habitat evaluation.

4.1 Criteria 1-3: Species Biodiversity Values

For Criterion 1, CR, EN and VU species were examined whether the Project area supports more than 0.5% globally important concentrations of these species or whether the Project could lead to a decrease in population of species categorized as VU. For this examination, both national and international categories of these species were considered. For Criterion 3, migratory species were examined whether the Project area sustains more than 1% of global population in a regular basis or whether the area supports more than 10% of the global population of the species during environmental stress period.

The global population, the EOO and the Project area were considered to estimate the global range of species in AoI to assign Critical Habitat trigger status of species based on Criterion 1 and 3. When the observed number of species was unknown or species information was obtained from literature; the global population, the EOO and the Project area were considered to estimate the global range of species in AoI to assign Critical Habitat trigger status of species based on Criterion 1 and 3.

For bat species, since both Bat Activity Index is unavailable from the Project area (or a nearby comparable project), and population (global and regional) data are very limited, it is not feasible to undertake CHA based on population sizes and predicted impact on populations. Therefore, all available information was gathered for the species which were observed or clearly indicated in literature for the area, and Priority Biodiversity Feature designations were made based on assigning one point each for the following criteria: (1) conservation status is VU or higher, (2) collision risk is high (half point for medium) and (3) species is a mid or long-distance migrant. Species which scored 2 or 3 were included as Priority Biodiversity Feature.

For plant species, since global population and population data within the AoI were not available, the Braun-Blanquet cover percentage scale data used by the flora expert in the National EIA process were used in the approach.

Table 4-1 Plant Species CHA based on Criteria 1 and 2

| Species	National Threatened Status / IUCN	EU Directive	BERN	Endemic / Restricted Range	Global Population / EOO	Evaluation	CH Trigger or Priority Biodiversity Feature	Lit./ Obs.
Erodium somanum	EN	-	-	Regional Endemic	45,926 km^2 (Türkiye)	Based on the habitat preferences, Perennial calcareous grassland and basic steppes within the AoI is considered as suitable habitat for the species. It is distributed above tree line, in Soma/Manisa, at the western part of Türkiye. Also, in a study carried out in 2019, it has been reported that the species has spread in Kadriye/Bursa in addition to the previously known distribution area. The population of this species within the Study Area was 50. It is estimated that the EAAA supports <0.5% of the global population, the EAAA will be – precautionary - considered to host of significance population the species. Thus, the species will be considered as PBF under Criteria 1c and 2a.	**Priority Biodiversity Feature**	O
Cirsium balikesirense	VU	-	-	Regional Endemic	Unknown	Based on its habitat preferences, Lowland to montane Mediterranean Pinus woodland within the AoI is considered as suitable habitat for the species. The species is known from Balıkesir, Bursa, and Yalova provinces in western Türkiye. The total EOO is less than 29,920 km^2. This is below the 50,000 km^2 threshold used to define range restricted species. It is assuming that the EAAA will be considered to support a regularly occurring range restricted species. Thus, the species will be considered as PBF under Criteria 1b and 2a.	**Priority Biodiversity Feature**	O
Campanula lyrata subsp. *lyrata*	LC	-	-	Widespread Endemic	Unknown	Based on its habitat preferences, Perennial calcareous grassland and basic steppes, Permanent mesotrophic pastures and aftermath-grazed meadows and Maquis within the AoI is considered as suitable habitat for the species. The species spread from the central parts of Türkiye to the west with healthy population. The distribution area of the species extents over an area of 323,639 km^2.Therefore, exceeding the EOO threshold of 50,000 km^2. The population within the EAAA is not considered to host important concentration of the species population.	Not Trigger	O
Dianthus anatolicus	LC	-	-	Widespread Endemic	Unknown	Based on its habitat preferences Perennial calcareous grassland and basic steppes, Permanent mesotrophic pastures and aftermath-grazed meadows and Maquis within the AoI is considered as suitable habitat for the species. The species has spread the central and western parts of Türkiye with healthy population. The distribution area of the species extents over an area of 314,107 km2.Therefore exceeding the EOO threshold of 50,000 km^2. The population within the EAAA is not considered to host important concentration of the species population.	Not Trigger	O
Stachys cretica subsp *smyrnaea*	LC			Widespread Endemic	Unknown	Based on its habitat preferences Thermophilous deciduous woodland within the AoI is considered as suitable habitat for the species. The species has spread the western parts of Türkiye with healtly population. The distribution area of the species extents over an area of 152,554 km^2.Therefore exceeding the EOO threshold of 50,000 km^2. The population within the EAAA is not considered to host important concentration of the species population.	Not Trigger	O
Cyclamen hederifolium	VU / LC			Rare restricted	Unknown	Based on its habitat preferences woodlands within the AoI is considered as suitable habitat for the species. The species has spread the western parts of Türkiye with healtly population. Total distribution area of the species in Türkiye is 49,129 km^2. Given the range is close to meet the trigger for a range restricted species, EAAA would still not exceed the required 10% of the global concentration to trigger this CH Criterion. However, considering the conservation status of the species (VU), expert opinion, and the species range close to restricted species, it will be qualified as PBF under Criterion 2.	**Priority Biodiversity Feature**	O
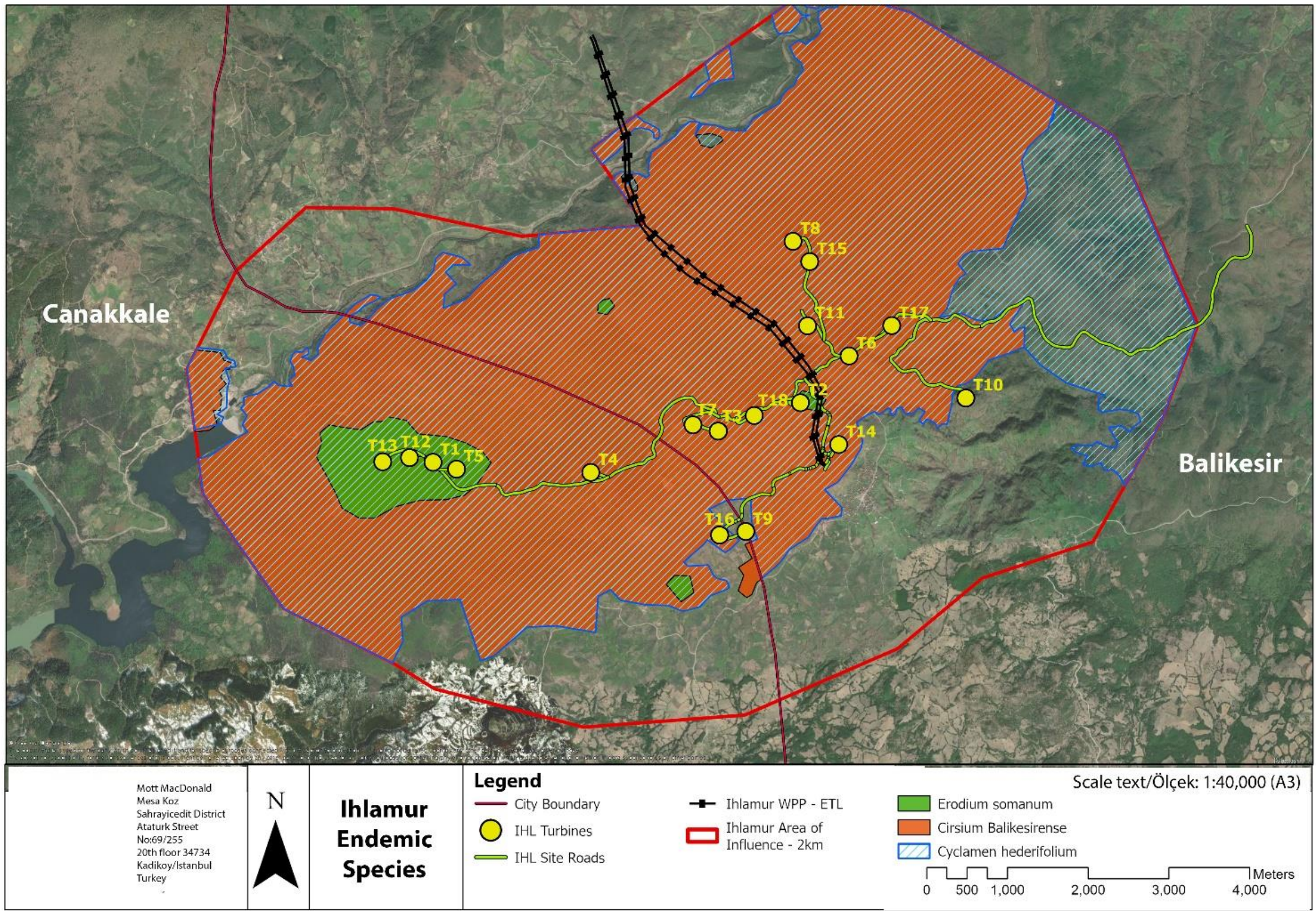
Figure 4.1: Location of PBF Flora Species

Table 4.2: CHA for Bird Species depends on Criteria 1-3

Common Name	Scientific name	IUCN	Nat. Red List	Bird Directive	BERN	Global Population	Population Status	Estimated EOO (km²)	Observed individuals	Estimated birds/year	Cr 1,3 %Global Range in AoI	Evaluation	CH Trigger or Not
Northern Goshawk	*Accipiter gentilis*	LC	NT	-	Appendix II	1000000-2499999	Unknown	113000000	5	13	0.00	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 13. For Cr3, the EAAA should support 10000 individuals, so the species does not qualify for this criteria.	Not trigger
Eurasian Sparrowhawk	*Accipiter nisus*	LC	NT	-	Appendix II	2000000-3200000	Stable	54400000	33	54	0.00	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 54. For Cr3, the EAAA should support 20000 individuals, so the species does not qualify for this criteria.	Not trigger
Golden Eagle	*Aquila chrysaetos*	LC	-	Annex I	Appendix II	85000-160000	Stable	139000000	12	5	0.01	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 5. For Cr3, the EAAA should support 850 individuals, so the species does not qualify for this criteria.	Not trigger
Imperial Eagle	*Aquila heliaca*	VU	EN	Annex I	Appendix II	2500-9999	Decreasing	14900000	7	3	0.12	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 3 (national EIA count is considered to be either a high count or repeat observation of the same individuals). For Cr3, the EAAA should support 25 individuals, so the species does not qualify for this criteria. PBF was designated due to conservation status.	**PBF**
Great Egret	*Ardea alba*	LC	EN	Annex I	Appendix II	590000-2200000	Uknown	366000000	20	27	0.00	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 27. For Cr3, the EAAA should support 5900 individuals, so the species does not qualify for this criteria.	Not trigger
Gray Heron	*Ardea cinerea*	LC	-	-	Appendix III	500000-2500000	Unknown	136000000	38	96	0.02	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 96. For Cr3, the EAAA should support 5000 individuals, so the species does not qualify for this criteria.	Not trigger
Purple Heron	*Ardea purpurea*	LC	VU	Annex I	Appendix II	180000-380000	Decreasing	109000000	2	2	0.00	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 2. For Cr3, the EAAA should support 1800 individuals, so the species does not qualify for this criteria.	Not trigger
Common Buzzard	*Buteo buteo*	LC	-	-	Appendix II	2000000-3500000	Increasing	33500000	301	692	0.03	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 692. For Cr3, the EAAA should support 20000 individuals, so the species does not qualify for this criteria.	Not trigger
Long-legged Buzzard	*Buteo rufinus*	LC	NT	Annex I	Appendix II	100000-499999	Stable	32300000	28	24	0.02	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 24. For Cr3, the EAAA should support 1000 individuals, so the species does not qualify for this criteria.	Not trigger
White Stork	*Ciconia ciconia*	LC	-	Annex I	Appendix II	700000-704000	Increasing	52700000	284	843	0.12	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 843. For Cr3, the EAAA should support 7000 individuals, so the species does not qualify for this criteria.	Not trigger
Black Stork	*Ciconia nigra*	LC	-	Annex I	Appendix II	24000-44000	Unknown	25100000	40	66	0.28	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 66. For Cr3, the EAAA should support 240 individuals, so the species does not qualify for this criteria.	Not trigger
Short-toed Snake-Eagle	*Circaetus gallicus*	LC	VU	Annex I	Appendix II	50000-99999	Stable	48800000	59	291	0.58	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 291. For Cr3, the EAAA should support 500 individuals, so the species does not qualify for this criteria.	

Eurasian Marsh-Harrier	*Circus aeruginosus*	LC	NT	Annex I	Appendix II	600000-1100000	Stable	24800000	29	47	0.01	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 47. For Cr3, the EAAA should support 6000 individuals, so the species does not qualify for this criteria.	Not trigger
Montagu's Harrier	*Circus pygargus*	LC	EN	Annex I	Appendix II	300000-550000	Decreasing	18000000	1	1	0.00	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 1. For Cr3, the EAAA should support 3000 individuals, so the species does not qualify for this criteria.	Not trigger
Greater Spotted Eagle	*Clanga clanga*	VU	VU	Annex I	Appendix II	3900-10000	Decreasing	15300000	3	2	0.05	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 2. For Cr3, the EAAA should support 39 individuals, so the species does not qualify for this criteria. PBF was designated due to conservation status.	**PBF**
Lesser Spotted Eagle	*Clanga pomarina*	LC	EN	Annex I	Appendix II	40000-60000	Stable	6550000	185	394	0.99	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 394. For Cr3, the EAAA should support 400 individuals, so the species does not qualify for this criteria. As a precaution, species was designated PBF, with a potential for Cr3, and status should be clarified after 2024 baseline.	**PBF / Potential Cr3**
Peregrine Falcon	*Falco peregrinus*	LC	VU	Annex I	Appendix II	100000-499999	Increasing	413000000	6	10	0.01	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 10. For Cr3, the EAAA should support 1000 individuals, so the species does not qualify for this criteria.	Not trigger
Eurasian Hobby	*Falco subbuteo*	LC	-	-	Appendix II	900000-1500000	Decreasing	49300000	41	66	0.01	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 66. For Cr3, the EAAA should support 9000 individuals, so the species does not qualify for this criteria.	Not trigger
Eurasian Kestrel	*Falco tinnunculus*	LC	-	-	Appendix II	4300000-6700000	Decreasing	106000000	70	112	0.00	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 112. For Cr3, the EAAA should support 43000 individuals, so the species does not qualify for this criteria.	Not trigger
Red-footed Falcon	*Falco vespertinus*	VU	-	Annex I	Appendix II	287500-400000	Decreasing	3360000	10	22	0.01	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 22. For Cr3, the EAAA should support 2875 individuals, so the species does not qualify for this criteria. PBF was designated due to conservation status.	**PBF**
Eurasian Griffon	*Gyps fulvus*	LC	EN	Annex I	Appendix II	80000-900000	Increasing	20400000	11	4	0.01	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 4. For Cr3, the EAAA should support 800 individuals, so the species does not qualify for this criteria.	Not trigger
Booted Eagle	*Hieraaetus pennatus*	LC	VU	Annex I	Appendix II	150000-195000	Stable	62000000	21	30	0.02	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 30. For Cr3, the EAAA should support 1500 individuals, so the species does not qualify for this criteria.	Not trigger
Black Kite	*Milvus migrans*	LC	EN	Annex I	Appendix II	4000000-5700000	Stable	115653659	44	64	0.00	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 64. For Cr3, the EAAA should support 40000 individuals, so the species does not qualify for this criteria.	Not trigger
Egyptian Vulture	*Neophron percnopterus*	EN	VU	Annex I	Appendix II	12400-36000	Decreasing	50100000	11	5	0.04	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 5. For Cr3, the EAAA should support 124 individuals, so the species does not qualify for this criteria. PBF was designated due to conservation status.	**PBF**
Great White Pelican	*Pelecanus onocrotalus*	LC	EN	Annex I	Appendix II	265000-295000	Unknown	51200000	40	124	0.05	The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 124. For Cr3, the EAAA should support 2650 individuals, so the species does not qualify for this criteria.	Not trigger

| European Honey-buzzard | *Pernis apivorus* | LC | NT | Annex I | Appendix II | 290000-430000 | Stable | 18200000 | 77 | 181 | 0.06 | The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 181. For Cr3, the EAAA should support 2900 individuals, so the species does not qualify for this criteria. | Not trigger |
| European Turtle-Dove | *Streptopelia turtur* | VU | VU | Annex II B | Appendix III | 12800000-47600000 | Decreasing | 7080000 | 38 | 81 | 0.00 | The EAAA should support at least 1 percent of global population of species to have Critical Habitat trigger species based on Criteria 3. Estimated number of individuals supported throughout the year is 81. For Cr3, the EAAA should support 128000 individuals, so the species does not qualify for this criteria. PBF was designated due to conservation status. | **PBF** |

Table 4.3: CHA for Bat Species depends on Criteria 1-3

Common Name	Scientific Name	IUCN Global	IUCN Eu	IUCN Med	BERN	EU Habitat Directive	L/O	Collision Risk	Migratory status	Population Status	Global Population	Estimated EOO (km2)	Cr 1,3 %Global Range in AoI	Score	CH Trigger or Not
Western Barbastelle	*Barbastella barbastellus*	NT	VU	NT	I, II	II, IV	L	Medium	Mostly sedentary	Declining	Unknown	12455378	Unknown	0.5	Not trigger
Serotine	*Eptesicus serotinus*	LC	-	-	II	IV	O	Medium	mostly sedentary	Stable	Unknown	Unknown	Unknown	0.5	Not trigger
Savi's Pipistrelle	*Hypsugo savii*	LC	LC	LC	II	IV	O	High	Probably migrant	Stable	Unknown	15658670	Unknown	2	**PBF**
Schreiber's Bent-winged Bat	*Miniopterus schreibersii*	VU	-	-	I, II	II, IV	O	High	Mid and long range migrant	Declining	Unknown	19946710	Unknown	3	**PBF**
Alcathoe Bat	*Myotis alcathoe*	DD	-	-	II	IV	L	Low	-	Unknown	Unknown	2860473	Unknown	0	Not trigger
Steppe Whiskered Bat	*Myotis aurascens*	LC	LC	LC	I, II	IV	L	Low	-	Stable	Unknown	4766158	Unknown	0	Not trigger
Bechstein's Myotis	*Myotis bechsteinii*	NT	VU	NT	I, II	II, IV	O	Low	mostly sedentary	Declining	Unknown	6640673	Unknown	0	Not trigger
Lesser Mouse-eared Myotis	*Myotis blythii*	LC	NT	NT	I, II	II, IV	L	Low	mostly sedentary	Declining	Unknown	23471950	Unknown	0	Not trigger
Long-fingered Bat	*Myotis capaccinii*	VU	VU	VU	I, II	II, IV	L	Low	Mid-range seasonal migrant	Declining	Unknown	5387022	Unknown	2	**PBF**
Daubenton's Myotis	*Myotis daubentonii*	LC	-	-	II	IV	O	Low	Facultative migrant	Stable	Unknown	Unknown	Unknown	1	Not trigger
Geoffroy's Bat	*Myotis emarginatus*	LC	LC	LC	II	II, IV	L	Low	mostly sedentary	Stable	Unknown	15654608	Unknown	0	Not trigger
Greater Mouse-eared Bat	*Myotis myotis*	LC	LC	LC	II	II, IV	L	Low	Mid-range migrant	Stable	Unknown	7071111	Unknown	1	Not trigger
Whiskered Myotis	*Myotis mystacinus*	LC	LC	LC	II	IV	L	Low	mostly sedentary	Unknown	Unknown	13823224	Unknown	0	Not trigger
Natterer's Bat	*Myotis nattereri*	LC	-	-	II	IV	L	Low	Facultative migrant	Stable	Unknown	16030693	Unknown	1	Not trigger

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[14] Hutterer, Rainer & Ivanova, T. & Meyer-Cords, C.H. & Rodrigues, Luisa. (2005). Bat migration in europe. A review of banding data and literature. Federal Agency for Nature Conser Vation

Common Name	Scientific Name	IUCN Global	IUCN Eu	IUCN Med	BERN	EU Habitat Directive	L/O	Collision Risk	Migratory status	Population Status	Global Population	Estimated EOO (km2)	Cr 1,3 %Global Range in AoI	Score	CH Trigger or Not
Giant Noctule	*Nyctalus lasiopterus*	VU	DD	NT	III	IV	O	High	Long distance migrant	Declining	0-9999	8955906	Unknown	3	**PBF**
Lesser Noctule	*Nyctalus leisleri*	LC	LC	LC	II	IV	O	High	Long distance migrant	Unknown	Unknown	20171114	Unknown	2	**PBF**
Noctule	*Nyctalus noctula*	LC	LC	LC	II	IV	O	High	Long distance migrant	Unknown	Unknown	24101079	Unknown	2	**PBF**
Kuhl's Pipistrelle	*Pipistrellus kuhlii*	LC	LC	LC	I, II	IV	O	High	Sedentary	Unknown	Unknown	51385949	Unknown	1	Not trigger
Nathusius' Pipistrelle	*Pipistrellus nathusii*	LC	LC	LC	I, II	IV	O	High	Long distance migrant	Unknown	Unknown	11175990	Unknown	2	**PBF**
Common Pipistrelle	*Pipistrellus pipistrellus*	LC	-	-	I, II	IV	O	High	Long distance migrant	Stable	Unknown	Unknown	Unknown	2	**PBF**
Soprano Pipistrelle	*Pipistrellus pygmaeus*	LC	LC	LC	I, II	IV	O	High	Probably migrant	Unknown	Unknown	10673041	Unknown	2	**PBF**
Brown Long-eared Bat	*Plecotus auritus*	LC	-	-	I, II	IV	O	Low	Sedentary	Stable	Unknown	12039091	Unknown	0	Not trigger
Gray Long-eared Bat	*Plecotus austriacus*	NT	NT	0	II	IV	L	Low	Sedentary	Declining	Unknown	6047987	Unknown	0	Not trigger
Mediterranean Long-eared Bat	*Plecotus kolombatovici*	LC	NT	LC	II	IV	L	Low	Sedentary	Declining	Unknown	Unknown	Unknown	0	Not trigger
Mountain Long-eared Bat	*Plecotus macrobullaris*	LC	NT	NT	II	IV	L	Low	Sedentary	Declining	Unknown	4767971	Unknown	0	Not trigger
Blasius's Horseshoe Bat	*Rhinolophus blasii*	LC	VU	NT	II	II, IV	L	Low	Mostly sedentary	Declining	Unknown	8849478	Unknown	0	Not trigger
Mediterranean Horseshoe Bat	*Rhinolophus euryale*	NT	VU	VU	II	II, IV	L	Low	Sedentary	Declining	Unknown	10858126	Unknown	0	Not trigger
Greater Horseshoe Bat	*Rhinolophus ferrumequinum*	LC	NT	NT	II	II, IV	L	Low	Mostly sedentary	Declining	Unknown	Unknown	Unknown	0	Not trigger
Lesser Horseshoe Bat	*Rhinolophus hipposideros*	LC	NT	NT	II	II, IV	L	Low	Mostly sedentary	Declining	Unknown	22157273	Unknown	0	Not trigger

Table 4.4: CHA for Terrestrial Fauna Species depends on Criteria 1-3

Common Name	Scientific Name	IUCN	BERN	Habitats directive	L/O	Global Population	Population Status	Estimated EOO (km²)	Cr 1,3 %Global Range in AoI	Evaluation	CH Trigger or Not

Common tortoise	*Testudo graeca*	VU	Appendix I-II	Appendix II-IV	O	Unknown	Unknown	Unknown	-	Due to the lack of information on the population status of the species, it is difficult to provide an assessment of whether the species critical habitat trigger or not. Since the IUCN category is VU, it has been evaluated as a priority biodiversity feature under Criterion 1b.	**PBF**
Marbled Polecat	*Vormela peregusna*	VU	Appendix II	II, IV	L	Unknown	Decreasing	>20,000	-	Due to the lack of information on the population status of the species, it is difficult to provide an assessment of whether the species critical habitat trigger or not. Since the IUCN category is VU and population status is decreasing, it has been evaluated as a priority biodiversity feature under Criterion 1b.	**PBF**
Roe deer	*Capreolus capreolus*	LC	Appendix III	-	O	15000000	Increasing	Unknown	-	It has been evaluated as a priority biodiversity feature as it is hunting incidents in the region and degradation of the species' habitat throughout the country.	**PBF**
Brown bear	*Ursus arctos*	LC (Med.VU)	Appendix I-II	Appendix II-IV	L	110000	Stable	-	-	Due to the lack of information on the population status of the species, it is difficult to provide an assessment of whether the species critical habitat trigger or not. Since the IUCN category is VU for Mediterranean region, it has been evaluated as a priority biodiversity feature under Criterion 1b.	**PBF**

Table 4.5: CHA for Invertebrate Species depends on Criteria 1-3

Common Name	Scientific Name	IUCN	BERN	Habitats directive	L/O	Global Population	Population Status	Estimated EOO (km²)	Cr 1,3 %Global Range in AoI	Evaluation	CH Trigger or Not
Ottoman's Copper	*Lycaena ottomana*	LC	-	-	L	Unknown	Stable	Unknown	-	Species is common and populations are robust in Turkiye and the Mediterranean. Located on a mountain ridge, Project AoI does not overlap the preferred habitat of the species.	Not trigger
Thick-shelled River Mussel	*Unio crassus*	EN			L	Unknown	Decreasing	Unknown	-	Since the ETL crossing does not involve construction within the stream, and the pylon construction will not take place within the riparian zone of Gonen Stream, the freshwater species including this invertebrate were scoped out from CHA.	Not Trigger
Big-Bellied Glandular Bush-Cricket	*Bradyporus macrogaster*	EN	-	-	L	Unknown	Decreasing	200000	-	Big-Bellied Glandular Bush-Cricket is found in forest, scrub and grassland habitats at altitudes ranging from 0 to 1,270 metres. The species inhabits steppe-like habitats dominated by xeric grasses and sparse scrub, in some areas like the Aegean coast of Anatolia it enters Mediterranean vegetation, such as sparse xerothermic oak forests or scrub or mesoxeric grass associations. The species prefers sparse vegetation cover areas in terms of forest and shrub areas. The Project AoI does not include these type of habitats. Thus, the species is not considered as critical habitat trigger species.	Not Trigger

4.2   Criterion 4 Highly Threatened/ Unique Ecosystems

Based on EUNIS level 3, 11 habitat types were determined based on desk study and field observation. Among these, habitats with plant species defined as PBF and habitats included in the BERN convention annexes were evaluated within the scope of CR4. Although it is not considered as a critical habitat as the loss of habitats in the region is low due to the Project footprint , they are evaluated as PBF due to they contain PBF flora species and are on the BERN list. (Table 4-6).

Table 4-6 Criterion 4- Highly Threatened / Unique Ecosystems Assessment

EUNIS Habitat Type	EUNIS	EU Habitat Directive Annex I	BERN	CH/PBF
E1.2 Perennial calcareous grassland and basic steppes	NT	Ann I	R4	**Priority Biodiversity Feature** (Criterion 1.i – ecosystems / habitats listed in terms of Resolution 4 of Bern Convention)
G1.7: Thermophilous deciduous woodland	LC	-	R4	**Priority Biodiversity Feature** (Criterion 1.i – ecosystems / habitats listed in terms of Resolution 4 of Bern Convention)
G1.6: Fagus woodland	NT	-	R4	**Priority Biodiversity Feature** (Criterion 1.i – ecosystems / habitats listed in terms of Resolution 4 of Bern Convention)
G1.A: Meso- and eutrophic Quercus, Carpinus, Fraxinus, Acer, Tilia, Ulmus and related Woodland	NT	-	R4	**Priority Biodiversity Feature** (Criterion 1.i – ecosystems / habitats listed in terms of Resolution 4 of Bern Convention)

4.3   Criterion 5: Key Evolutionary Processes

The Project is not substantially different from the surrounding landscape in terms of elevation or moisture gradients, or any other geological, ecological, or evolutionary factors that would suggest that the area is vital for sustaining unique or distinctive evolutionary processes. There is not isolation, spatial heterogeneity, and wealth of environmental gradients. Therefore, the Project does not trigger Criterion 5.

5 Conclusion

The present CHA results are presented below. Due to gaps in both white and grey literature, and Project specific baseline, it was evaluated that not enough data exists in order to safely conclude or rule out Critical Habitat triggers. The CHA is therefore preliminary and high level. The biodiversity values that were identified as sensitive are presented below as PBF triggers, with the recommendation that further baseline collection is carried out in 2024. According to the results of enhanced baseline, accurate identification of CH trigger species will be possible. As such, the present CHA study is expected to be significantly revised with robust, Project specific data.

Based on the data available for the CHA, potential Critical Habitat trigger species were identified (Table 5-1), and PBF are listed in Table 5-2.

Table 5-1 Critical Habitat Trigger Species

Scientific Name	IUCN	CH Trigger Criterion	Source
Clanga pomarina		Potential Cr3	Observation

Table 5-2 PBF

Scientific Name / Habitat Type	IUCN	Source
Habitat		
G1.7: Thermophilous deciduous woodland		
G1.6: Fagus woodland		
E1.2 Perennial calcareous grassland and basic steppes		
G1.A: Meso- and eutrophic Quercus, Carpinus, Fraxinus, Acer, Tilia, Ulmus and related Woodland		
Plant		
Erodium somanum	EN	Observation
Cirsium balikesirense	VU	Observation
Cyclamen hederifolium	VU / LC	Observation
Bird		
Aquila heliaca	VU (EN)	Observation
Clanga clanga	VU (VU)	Observation
Clanga pomarina	LC (EN)	Observation
Falco vespertinus	VU (-)	Observation
Neophron percnopterus	EN (VU)	Observation
Streptopelia turtur	VU (VU)	Observation
Mammal		
Hypsugo savii	LC	Observation
Miniopterus schreibersii	VU	Observation
Myotis capaccinii	VU	Literature

Nyctalus lasiopterus	VU	Observation
Nyctalus leisleri	LC	Observation
Nyctalus noctula	LC	Observation
Pipistrellus nathusii	LC	Observation
Pipistrellus pipistrellus	LC	Observation
Pipistrellus pygmaeus	LC	Observation
Vespertilio murinus	LC	Observation
Capreolus capreolus	LC	Observation
Vormela peregusna	VU	Literature
Ursus arctos	LC	Literature
Reptile		
Testudo graeca	VU	Observation

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