

ATAKÖY REGULATOR AND HEPP FACILITY BIODIVERSITY ACTION PLAN

1.1 Entrance

The Ataköy Regulator and Hydroelectric Power Plant (HPP) Facility is located in the Black Sea Region, within the borders of Tokat Province, in the Merkez and Almus districts, on the Yeşilırmak River. The Ataköy Regulator and HPP Facility is situated 2.6 km northwest of the Almus Dam.

Tokat Province, where the project is located, lies in the central part of the Black Sea Region. It is bordered by Samsun to the north, Sivas to the northeast, Yozgat to the southwest, and Amasya to the west.

Access to the project site is possible via roads on the right and left banks of the Yeşilırmak River, branching off from the Tokat-Niksar road. The site is 399 km from Ankara, 232 km from Samsun, 233 km from Ordu, 108 km from Sivas, 206 km from Yozgat, 114 km from Amasya, and 785 km from Istanbul by road.

Additionally, the village of Kadıvakfı is located approximately 1 km from the project site in a straight line. The villages of Derekışla, Çökelikkışla, and Üçgöl are approximately 2.5 km, 2 km, and 1.5 km away from the project site, respectively. Moreover, the important centers of Niksar, Tokat, and Erbaa are approximately 15 km, 23 km, and 33 km away, respectively, from the site in a straight line (Figures 3-4).

There are no significant wetlands in the vicinity of the site, except for the Almus Dam (Figure 5).

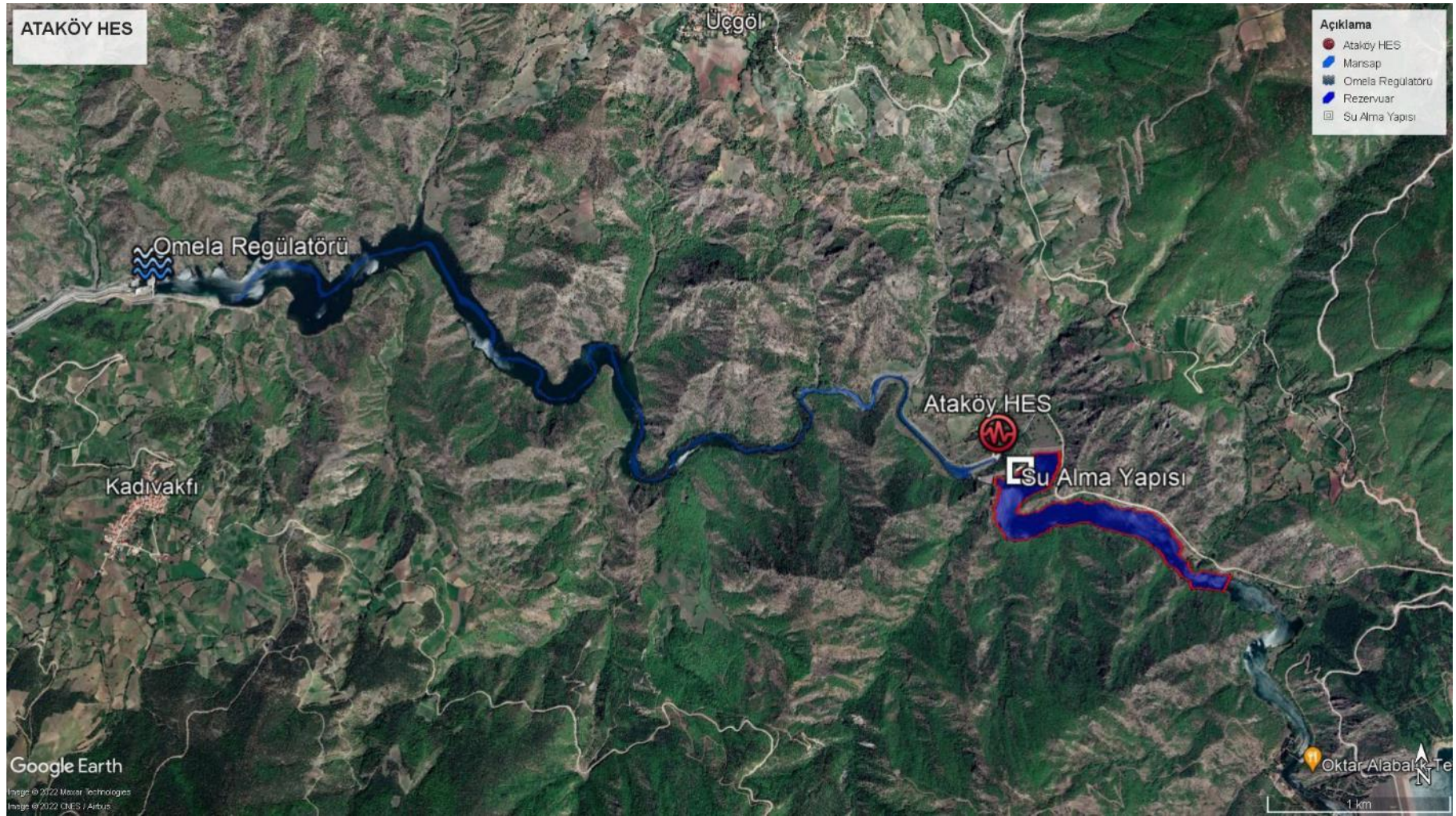


Figure 1 Satellite Image of the Project Site

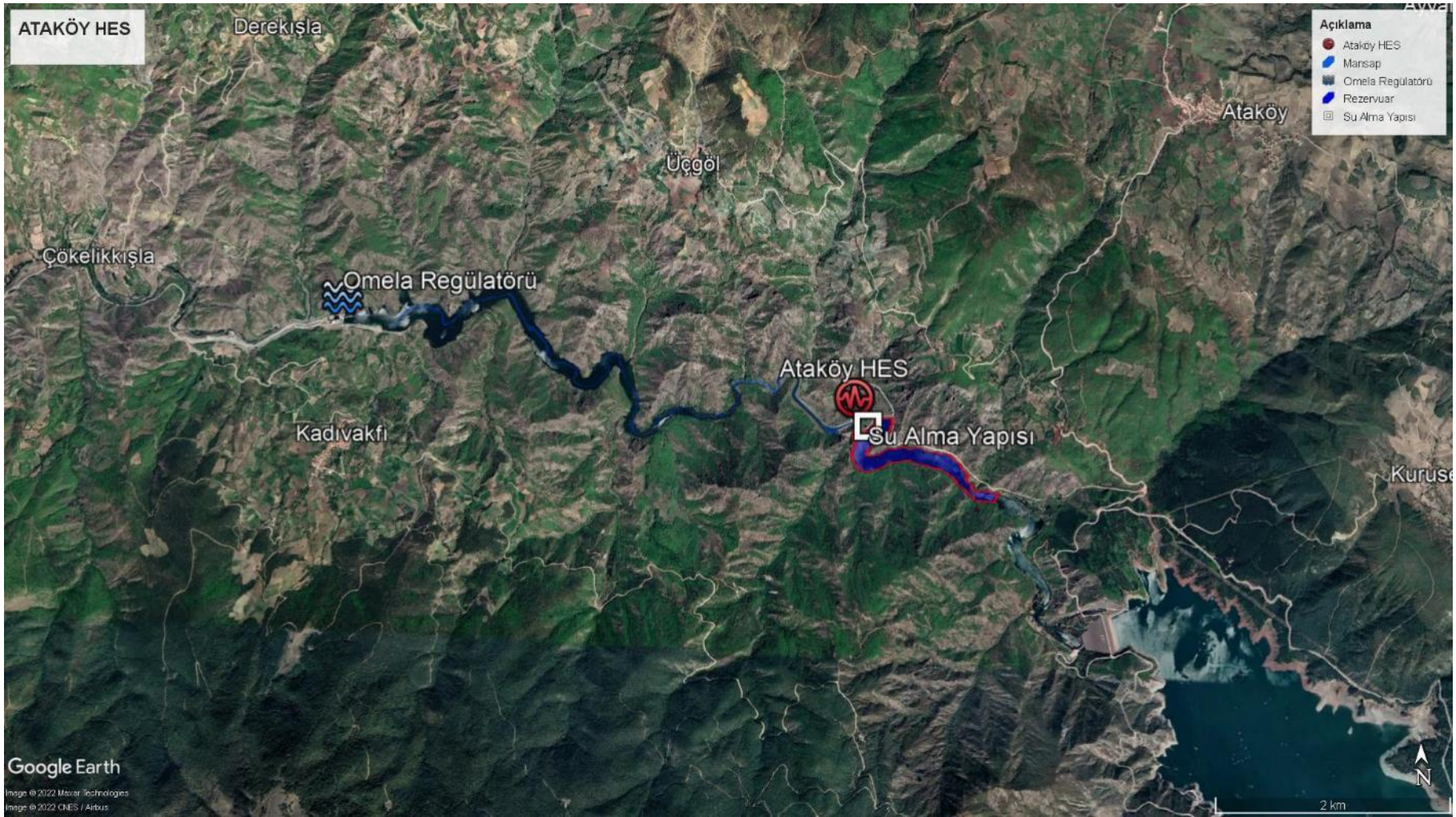


Figure 2 Satellite Image of the Project Site - 2

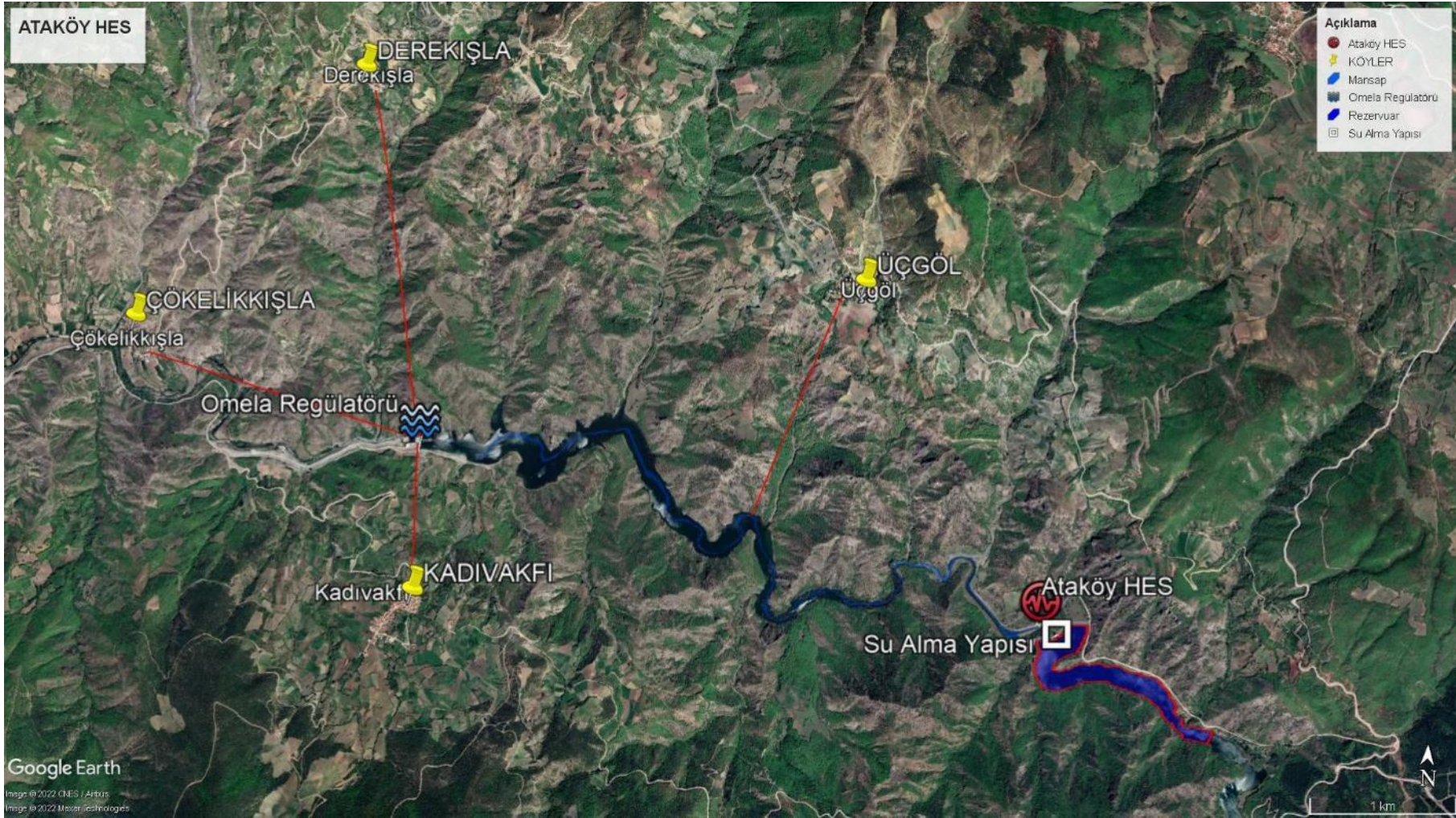


Figure 3 Nearby Villages (Neighborhoods) Around the Project Site

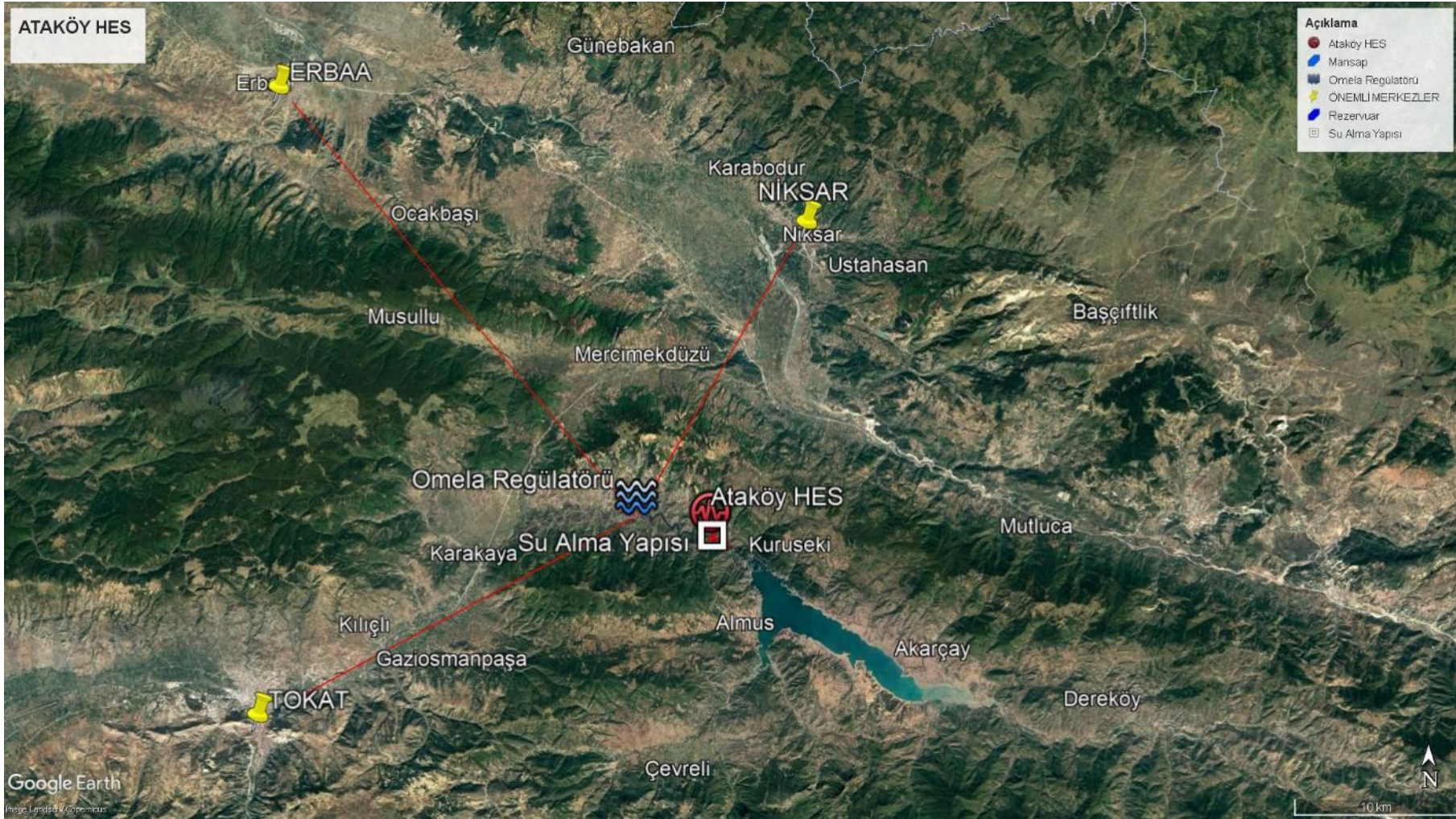


Figure 4 Settlements Near the Project Site

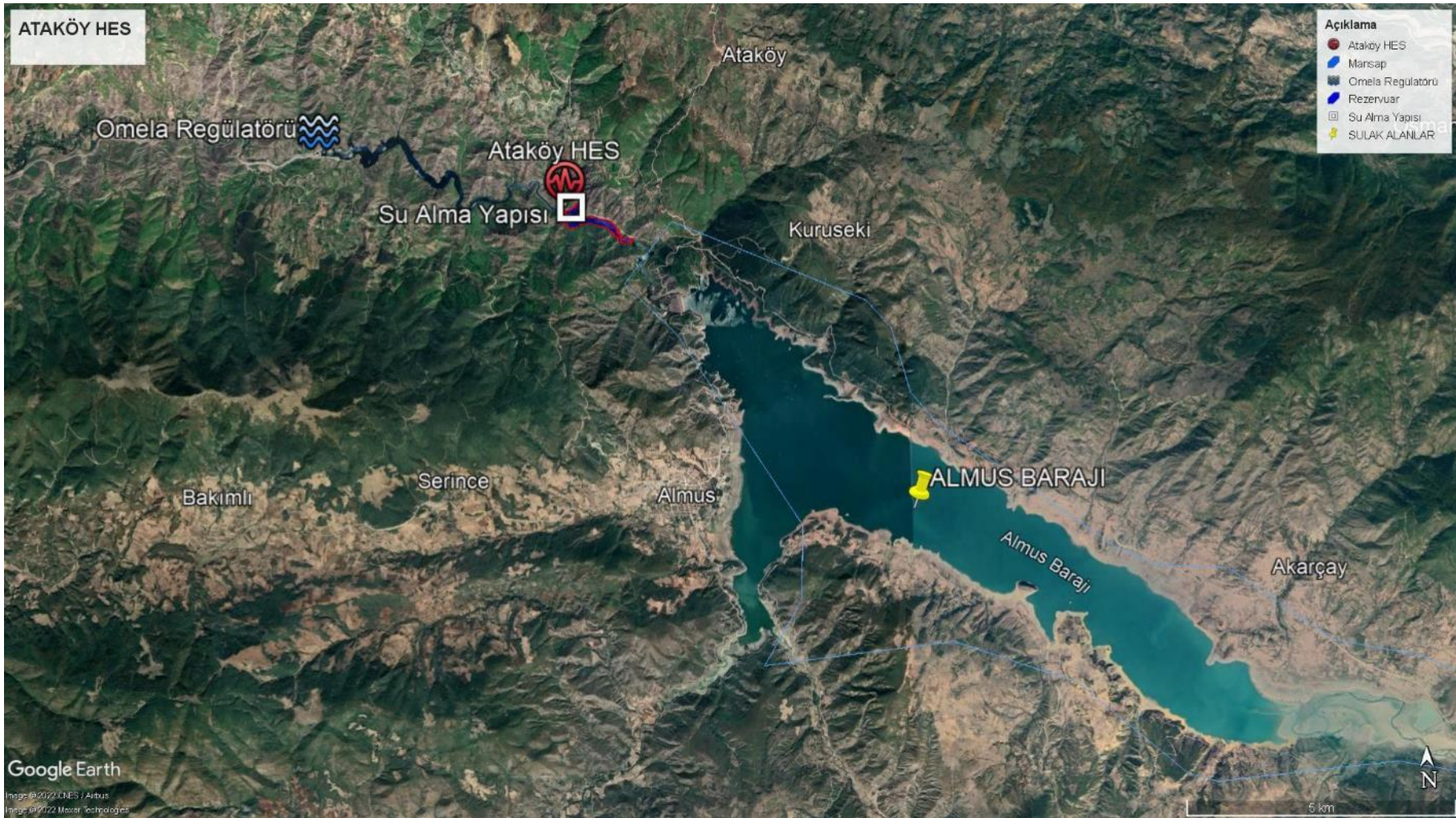


Figure 5 Important Wetlands Around the Project

1.2 Relationship of the Area with Protected and Special Status Areas

When evaluating the location of the Ataköy HPP site in relation to nearby protected areas and important natural sites, it is found that Kelkit Valley is approximately 6 km away in a straight line. Additionally, Zivan Nature Park is located about 32 km away, Ballica Cave Nature Park is approximately 48 km away, and Tokat Kaz Lake is around 58 km from the project site in a straight line. Furthermore, the project site is within the boundaries of the Kelkit Valley Important Natural Area (Figures 6-7).

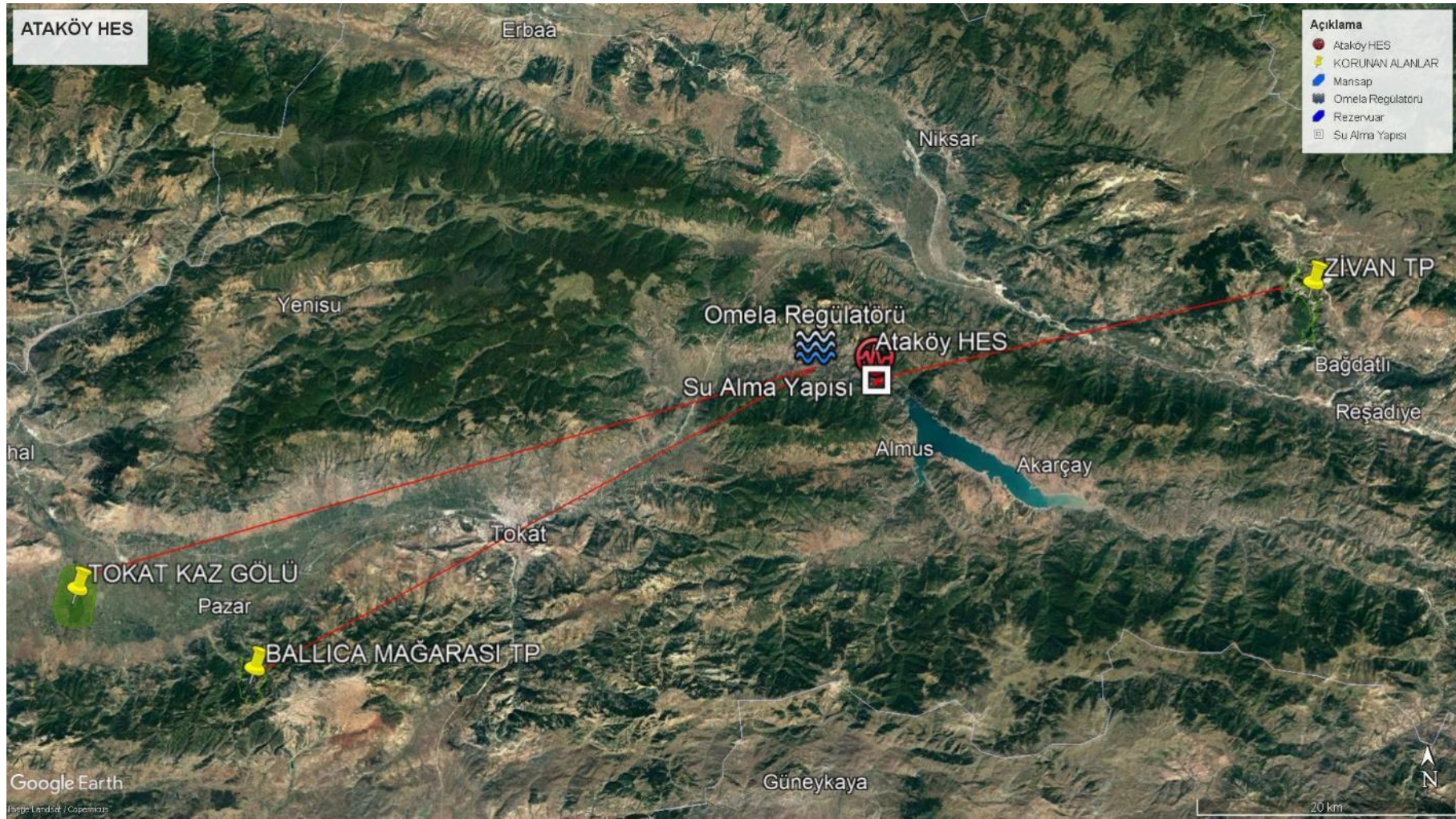


Figure 6 Satellite Image Showing the Relationship Between the Project Site and Protected Areas

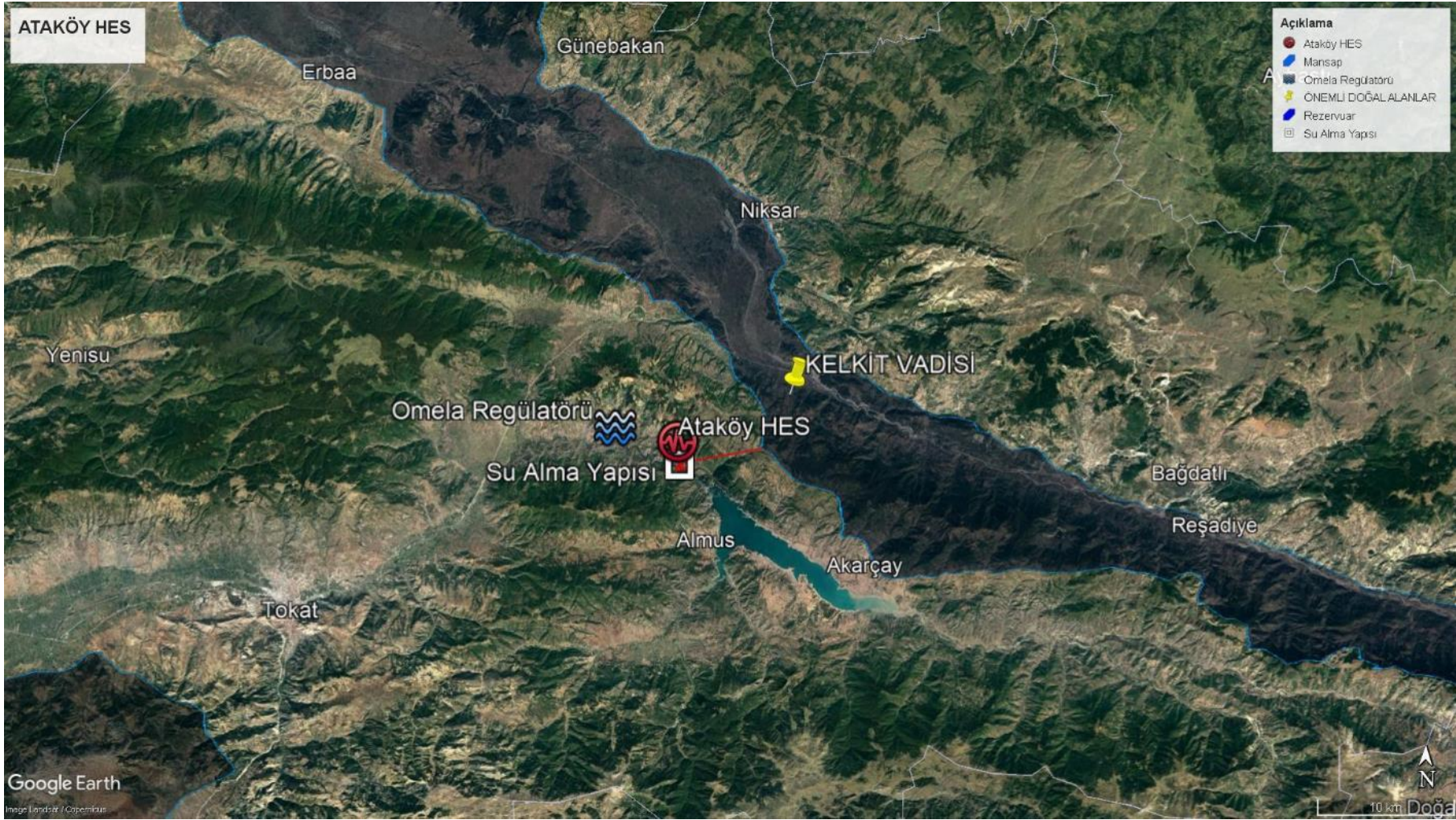


Figure 7 Satellite Image Showing the Relationship Between the Project Site and Protected Areas

1.3 Identification and Classification of Habitats in the Impact Area of the Ataköy Regulator and HPP Facility

The Ataköy Regulator and HPP Facility, operated by Zorlu Doğal Elektrik Üretimi A.Ş., is located on the Yeşilirmak River within the borders of Tokat Province, in the Merkez and Almus districts of the Black Sea Region. The project site is situated approximately 2.6 km northwest of the Almus Dam.

There are 11 different habitat types within the project area. Of these habitats, 7 are natural, while the remaining 5 are classified as modified habitats. The vegetation types that have developed in the natural areas are classified according to the EUNIS Habitat Classification with 1st, 2nd, and 3rd Level codes, as detailed below (Figure 8).

Ataköy HES EUNIS Habitat Haritası

Ölçek: 1:7,000



- ** Tesis binaları
- * C1.2: Kalıcı mezotrofik göller, göletler ve rezervuarlar
- * C2.2: Mevsimsel olmayan hızlı akan akarsular
- * G1: Yaprak döken ormanlar
- * G4: Karışık ormanlar
- * G5: Antropojenik ormanlar, baltalıklar, ağaç sıraları
- * H3: Sarp yamaçlar, ana kayanın yüzeye çıktığı taşlık alanlar
- * H5: Bitki örtüsü seyrek açık alanlar
- ** J2.3: Kırsaldaki aktif kullanılan endüstriyel yapılar
- ** J4.2: Yol ağları
- ** J4.6: Kaldırımlar, beton yüzeyler, rekreasyon alanları
- ** J5.41: İnsan yapımı tatlı su kanalları



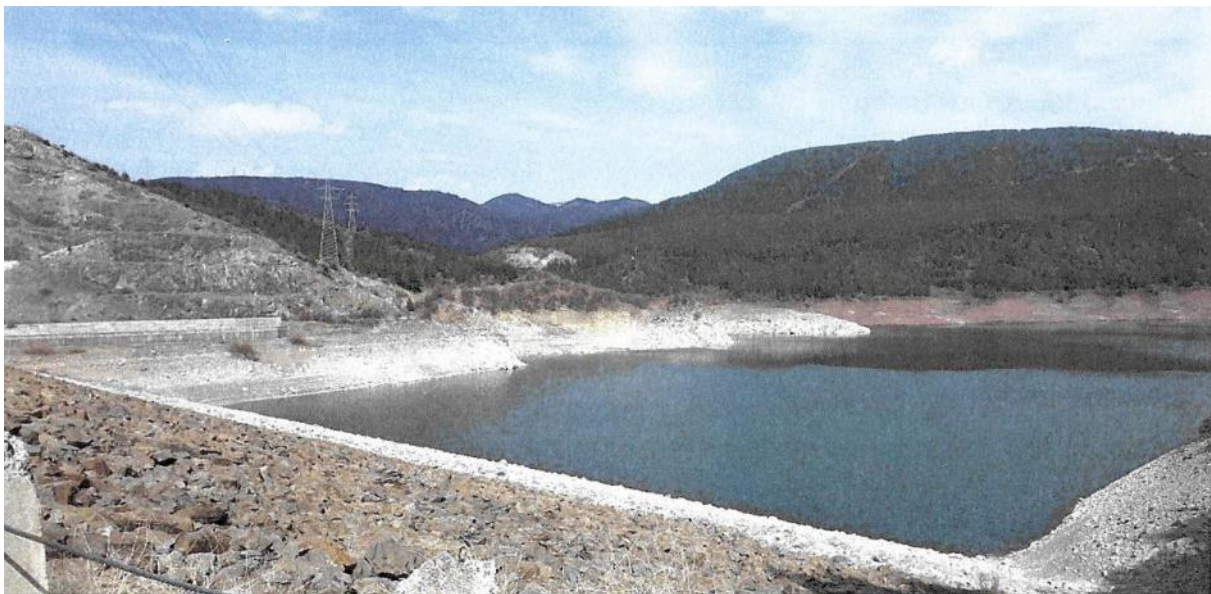
0 125 250
Meters

Figure 8 Ataköy HPP EUNIS Habitat Map 1

➤ Natural habitats

C1.2 Permanent mesotrophic lakes, ponds And Reservoirs

Plant taxa distributed in the area where the water reservoir habitat with a water mirror is located at an altitude of 740 m; *epilobium parviflorum* , *Sideritis taurica* , *Euphorbia microsphaera* , *Carex hordeistichos* , *Ranunculus constantinopolitanus* , *Glycyrrhiza echinata* , *Lathyrus aphacavaryete biflorus* , *Cephalaria aristata* , *Cirsium canum* , *Lathyrus aphaca* var. *biflorus* , *Cephalaria aristata* , *Teucrium scordium* subsp . *scordioides* .



Photos one Permanent mesotrophic lakes, ponds And reservoirs (EUNIS: C1.2)

C2.2 seasonal Non Fast Flowing streams

Plant taxa distributed in the existing habitat at an altitude of 730 m downstream of the facility; *trifolium hybridum* var. *anatolicum* , *Filipendula ulmaria* , *Epilobium parviflorum* , *Onopordum carduchorum* , *Scrophularia umbrosa* , *Teucrium scordium* subsp . *scordioides* , *Mentha longifolia* subsp . *longifolia* , *Mentha spicata* subsp . *spicata* , *Galium rivale* .



Photos 2 seasonal Non Fast Flowing streams (EUNIS: J2.2)

G1 Leaf Deciduous Forests

In this habitat, which spreads around the facility at altitudes of 750 and above; *Acer tataricum* , *Acer campestre subsp . leiocarpum* , *Sorbus torminalis var. torminalis* , *Verbascum pyramidatum* , *Juglans regia* , *fagus orientalis* , *Quercus petraea subsp . iberica* , *Quercus infectoria subsp . infectoria* , *Quercus coccifera* , *Carpinus orientalis* , *Ostrya carpinifolia* , *Corylus* There is *avellana . avellana* , *Alnus glutinosa subsp . glutinosa* , *Alopecurus myosuroides var. myosuroides* herb taxa detection has been made.

G4 Mixed Forests

Plant taxa detected in this habitat, observed at an altitude of 740 m; *Pinus sylvestris* , *Alyssum sibiricum* , *Silene italica* , *Cicer pinnatifidum* , *Dorycnium pentaphyllum subsp . anatolicum* , *Tanacetum poteriifolium* , *Phillyrea latifolia* , *Lithospermum purpureocaeruleum* , *Anchusa* It has a *barrelier . barrelieri* , *Quercus petraea subsp . iberica* , *Quercus coccifera* , *Sorbus torminalis var. torminalis* , *Plantago major subsp . intermedia* , *Euphorbia rigida* , *Carpinus orientalis* .



Photos 3 Mixed Forests (EUNIS: G4)

G5 anthropogenic Forests, coppice Forests

It consists of a mixture of plant taxa that start from 800 m near the facility and spread in G1 and G4 habitats. G5 habitat emerges when the closure of woody taxa distributed in these habitats is broken.

H3 Steep slopes, bedrock to the surface dating Gizzard Fields

Plant taxa that spread in habitats consisting of steep rocks at altitudes of 850 and above; *ephedra major* , *Conringia perfoliata* , *Aethionema armenum* , *Clypeola jonthlaspi* , *Erysimum smyrnaeum* , *Sobolewsia clavata* , *Minuartia montanra* subsp . *wiesneri* , *Hypericum organifolium* , *Pistacia terebinthus* subsp . *palaestina* , *Psoralea acaulis* , *Vicia peregrina* , *Lathyrus saxatilis* , *Anthyllis vulneraria* subsp . *boisseri* , *Cerasus Believe me. incana* , *Falcaria vulgaris* , *Malabaila secacul* , *Morina persica* var. *persica* , *Solidago virgaurea* subsp . *virgaurea* , *Echinops viscous* subsp . *viscosus* , *Convolvulus lineatus* .



Photos 4 Steep slopes, bedrock to the surface dating Gizzard Fields (EUNIS: H3)

H5 Herb Cover Rare Clearance Areas

In the facility, in steppe character habitats consisting of bush clearings at an altitude of 860 m; *malwa sylvestris* , *Papaver rhoeas* , *Astragalus microcephalus* , *Cichorium intybus* , *Euclidium syriacum* , *Alyssum dasycarpum* var. *dasycarpum* , *Silene italica* , *Silene chlorifolia* , *Silene spergulifolia* , *Hypericum organifolium* , *Echinophora tenuifolia* subsp . *sibthorpiana* , *Senecio pseudo-orientalis* , *Onopordum turcicum* , *Onopordum carduchorum* , *Lamium purpureum* var. *purpureum* , *Sideritis montana* subsp . *montana* , *Euphorbia aleppica* , *Galium verticillatum* , *Callipeltis cucullaria* plant taxa were identified.



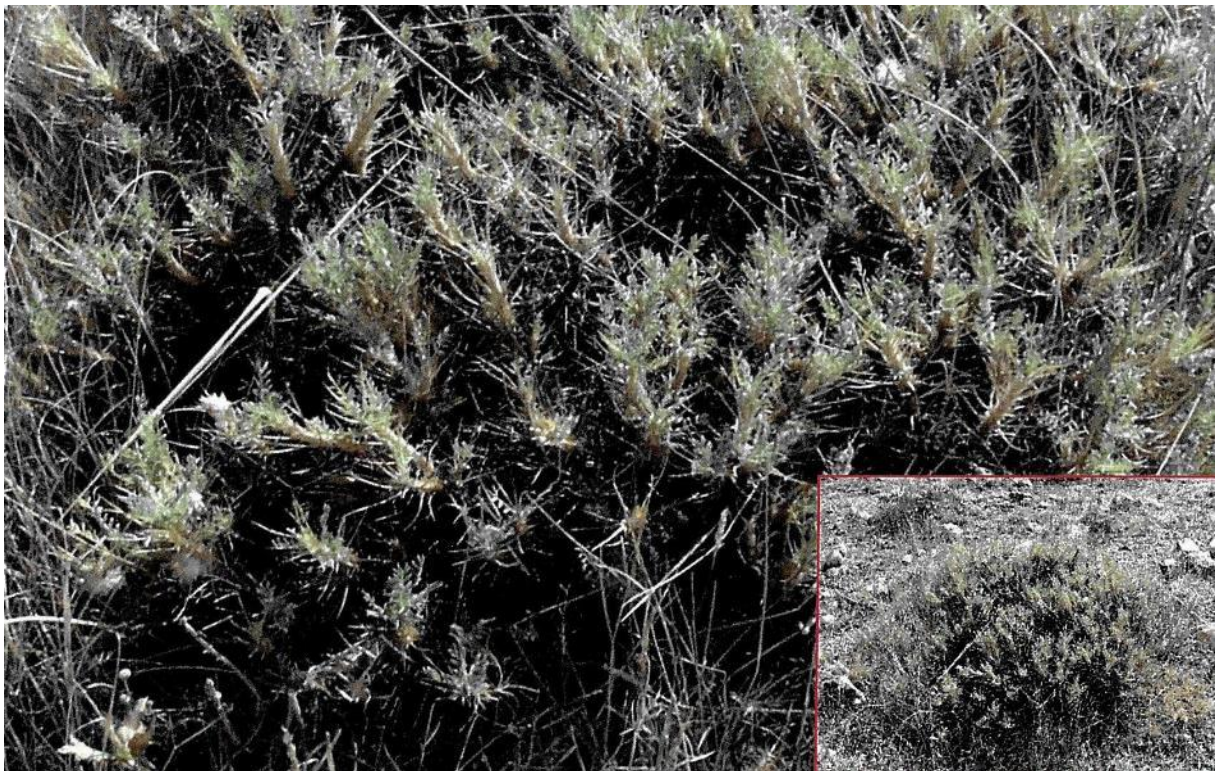
Photos 5 *malva sylvestris*



Photos 6 *Cichorium intybus*



Photos 7 *Papaver rhoeas*



Photos 8 *astragalus microcephalus*



Photos 9 *Quercus cerris*

➤ **Modified Habitats**

Areas with habitat codes J4.2, J5.42, J6.1 are concrete, chemical water and asphalt and do not have floral content. However, the seeds germinating in the cracks occurring in these structures cleaning of the system integrity for It is important. J4.6 And I.1.3 coded in habitat Care should be taken to ensure that the plants used for landscaping and food purposes are not invasive species.



Photos 10 in the countryside Active Used Industrial Buildings (EUNIS: J2.3)



Photos 11th Person making Sweet This channels (EUNIS: J5.41)

When we look at the vegetation of the project site and its surroundings; A large part of it consists of forest areas. These areas are leafy, mixed or have been exposed to human influence and turned into coppice form. Plant with steppe character in forest clearings While taxa are present, rocky plant communities stand out in places where the slope rises rapidly or the bedrock emerges. Since the water surface of the pond varies, there are water-loving plant communities even though there is no stable vegetation structure around it. Streamside plant communities are observed in the upstream and downstream of the pond .

➤ **Aquatic Habitats**

Habitat degradation and decline in aquatic ecosystems is increasing day by day due to anthropogenic and climate change. Interventions in the water regime, deterioration of water quality, poaching, and uncontrolled activities damage aquatic creatures and the habitats around them. It is important to have information about the spatial distribution of habitats and map habitats in order to understand, control and manage human impact on aquatic ecosystems.

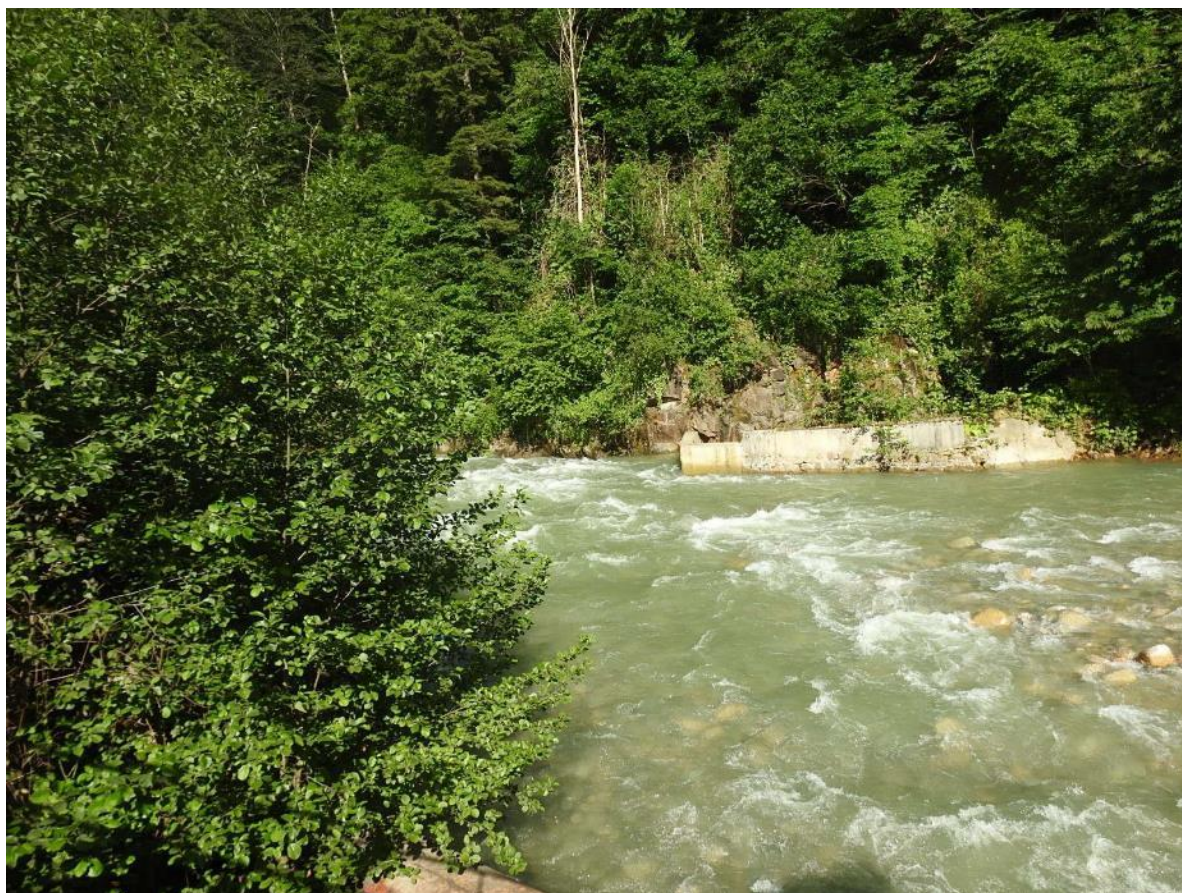
In the classification of aquatic habitats in the area, the most current version of the EUNIS Habitat Classification was taken into consideration and an appropriate classification was made. This method of classification is a method that allows broader analysis of habitats in relation to ecological zones, climate, soil and pressures on the environment, as well as species, as well as being a way of comparing data with other countries, as well as using a standardized terminology. organized in main categories and their subheadings .

No special habitat type was found in the Ataköy HEPP area in the examinations and studies carried out. Semi-natural habitats stand out in the regulator and power plant areas. Other areas are natural habitats along the stream. Fish that feed on algae, zooplankton or benthic creatures living in the area are at the top of the chain in the water. Observation made Atakoy HEPP in the field fish habitats In Table 1 has been given.

Table 1: Atakoy HEPP aquatic habitat And Features

EUNIS CODE	HABITAT NAME	FEATURES	RAID SPECIES
C2	surface streams	in the field Other Continuous Or Seasonal Streams , This Habitat They are representatives of their type in the field	Top Trout generation; <i>salmo macrostigma</i> , Lower Trout generation; Trout And Golyan (Pearl) snapper (<i>Alburnoides bipunctatus</i>) moustachioed Fish Generation: moustachioed fish (<i>Barbus lacerta</i>), woodfish (<i>Acanthobrama marmid</i>) and the hornbill (<i>Chondrostoma regium</i>), fresh water mullet (<i>Squalius cephalus</i>) type diversity more is too much.

The stream bed generally looks like a natural habitat (Photo 13). The deteriorated habitat structures around Ataköy HEPP have adapted to the natural environment since there has been no external influence to date.



Photos 12 Atakoy HEPP in the field Exit juice around Semi-Natural habitat Structure



Photos 13 Atakoy HEPP Natural habitat Structure

1.2 Atakoy regulator And HEPP facility Effect in the field floristic biodiversity

Definition

When we look at the vegetation of the project site and its surroundings; A large part of it consists of forest areas. These areas are leafy, mixed or have been exposed to human influence and turned into coppice form. Plant with steppe character in forest clearings While taxa are present, rocky plant communities stand out in places where the slope rises rapidly or the bedrock emerges. Since the water surface of the pond varies, there are water-loving plant communities even though there is no stable vegetation structure around it. Streamside plant communities are observed in the upstream and downstream of the pond .

Guidance in terms of floristics at the Ataköy Regulator and HEPP facility site Considering the Note 6 criteria, since there are no plant taxa with CR and EN status, critical species and habitat assessments were not made within the scope of IFC.

1.3 Atakoy regulator And HEPP facility Effect in the field faunistic Defining Biodiversity

1.3.1 Amphibian

There is no endangered amphibian species in the project area. However, its distribution in the area Anatolian **Rough Salamander** (*Triturus*) *anatolicus*) is an endemic species and has a wide distribution from the Anatolian part of the Marmara Region to the Trabzon Region. Amphibian species found in the area are common species.

negative effects or precautions to be taken are foreseen for amphibians in the project area .

Criterion 1: Refers to Critically Endangered (CR) and /or Endangered (EN) Species. There are no amphibian species in the CR and/or EN category in the project area.

Criterion 2: Refers to Endemic and/or Narrowly Ranged Species. **Anatolian Rough Salamander** (*Triturus*) , which is endemic to the project site *anatolicus*) is distributed. The distribution area of this endemic species is more than 50,000 square kilometers (km²). is too much. It is not possible to say that the project site is an area that regularly hosts $\geq 10\%$ of the global population size of this species and ≥ 10 of the reproductive units of a species. In this regard, according to available information, the project site **does not meet the threshold value for Criterion 2.**

Criterion 3: Refers to Migratory and/or Community Concentrated Species. There is no amphibian species in the project area that meets this criterion.

Criterion 4: Refers to Highly Threatened and /or Uniquely Rare Ecosystems. Important habitats for amphibian species in the project area are aquatic habitats. The project has been operating in the area for many years. Life water is released into the stream bed. The river environment is largely composed of natural habitats. is formed. In the current situation, it is not possible to say that the river habitat and its immediate surroundings are under high threat.

1.3.2 Reptiles

There are no endemic reptile species in the project area. According to IUCN lists, the only reptile species that is sensitive **is the Tortoise (*Testudo graeca*)** and is listed in the VU category. Tortoise is also included in the BERN Convention ANNEX-II and CITES ANNEX-II lists.

Apart from this, there is no endangered or endemic reptile species in the project area .

are Natrix , which are partially or largely water-dependent reptile species. *tessellata* and *Natrix natrix* . The impact of these species may be due to the decrease in water in the stream bed due to not enough water being released into the stream bed. However, since the amount of lifewater released into the stream bed is at a very good level, no negative impact on these species has been observed in the current situation.

In this context, if we make a critical habitat assessment of the project area in line with faunistic data;

Criterion 1: Refers to Critically Endangered (CR) and /or Endangered (EN) Species. There are no reptile species in the CR and/or EN category in the project area .

Criterion 2: Refers to Endemic and/or Narrowly Ranged Species. **There is no** endemic or narrow-ranging reptile species in the project area .

Criterion 3: Refers to Migratory and/or Community Concentrated Species. **There is no** reptile species in the project area that meets this criterion .

Criterion 4: Refers to Highly Threatened and /or Uniquely Rare Ecosystems. The important habitat types for reptile species in the project area are the natural habitats in the region. The project has been operating in the area for many years. Natural habitats in the project area have not been negatively affected by the project. Since the project has been in operation for many years, the negative effects that occurred during the construction phase seem to have largely returned to normal. Currently, no adverse effects **have been observed on the reptile species widespread in the region** .

1.3.3 Mammals

(*Lynx*) is *one* of the species likely to be distributed in the region. *lynx*) is listed in the EN category according to the IUCN Mediterranean assessment. However, the project area remains outside the IUCN Mediterranean evaluation area, the Mediterranean area is generally It covers the Aegean, Marmara and Mediterranean regions. This species is not listed as endangered in the global assessment. Despite this, in this report, this species is considered to be a Critical species and an evaluation has been made here. Although not endangered, an important mammal species for the project area is **the Otter (*Lutra lutra*)** . IUCN criterion for the species is NT and the Bern Convention criterion is Annex II . In other words, it is a fauna species that must be protected.

Criterion 1: Refers to Critically Endangered (CR) and /or Endangered (EN) Species. **There are no** mammal species in the CR and/or EN category in the project area .

Criterion 2: Refers to Endemic and/or Narrowly Ranged Species. There are no endemic and/or narrow-range mammal species in the project area.

Criterion 3: Refers to Migratory and/or Community Concentrated Species. **There is no** mammal species in the project area that meets this criterion .

Criterion 4: Refers to Highly Threatened and /or Uniquely Rare Ecosystems. The important habitat types for mammal species in the project area are the natural habitats and stream beds in the region. The project has been operating in the area for many years. Natural habitats in the region have not been negatively affected by the project. Since the project has been in operation for many years, the negative effects that occurred during the construction phase seem to have largely returned to normal. Currently, no adverse effects **have been observed on mammal species distributed in the region** .

Criterion 5: Topography, geology, soil, temperature, vegetation, and combinations of these factors One of the region structural features species local to take shape And ecological features It can affect the evolutionary processes that lead to In some cases, distinctive spatial features form populations or subpopulations of genetically unique plant and animal species. associated with their populations. Physical or spatial features have been identified as spatial catalysts for evolutionary and ecological processes, and such features are often associated with species diversity. Species (or subpopulations of species) that emerge due to the maintenance of basic evolutionary processes inherent in an area have become the main focus in recent years, along with the conservation of biodiversity, especially the process of preserving genetic diversity. By maintaining species diversity in an area, the genetic diversity within species as well as the processes that drive speciation ensure evolutionary resilience in a system, which is especially important in rapidly changing climate conditions.

For illustrative purposes, here are some potential examples of areal features associated with evolutionary processes,

Regions with high spatial heterogeneity are a positive force for speciation, as species are naturally selected for their ability to adapt and diversify.

Environmental gradients, also known as ecotones , produce transitional habitat that is associated with the process of speciation and high species and genetic diversity.

edaphic interfaces are areas of soil types (e.g. serpentine outcrops, limestone) that lead to the formation of unique plant communities characterized by both rarity and endemism. and gypsum sediments) are special sequences.

Connection between habitats (e.g. biological corridors), especially fragmented It is important in the maintenance of habitats and metapopulations and ensures species migration and gene flow. This connection also extends across elevation and climate gradients and across crest-to- coast to coast)” also includes biological corridors.

Areas with proven importance for adaptation to climate change for both species and ecosystems are also included in this criterion.

The importance of structural features in an area that can influence evolutionary processes will be determined on a case-by-case basis, and the determination of critical habitat will be largely based on scientific knowledge. In many cases, this criterion will apply to areas that have been previously investigated and are known or suspected to be associated with unique evolutionary processes. Although systematic methods exist to measure and prioritize evolutionary processes in a field, these methods are beyond the reasonable conditions of evaluations typically conducted by the private sector.

Criterion 5 was evaluated together for Amphibians, Reptiles and Mammals. Criterion 5 involves evaluating whether the region generally contains significant evolutionary processes. The area where Ataköy HEPP is located does not show a special evolutionary process. The region does not have a special geological structure or a special history and therefore does not contain a large number of critical and/or endemic species. In this regard, the area **does not meet** Criterion 5 .

1.3.4 Ornithology

As a result of the studies, a total of 28 bird species were identified in the project area and its immediate surroundings. The list of these species, their global Red List status, and the species' status in BERN, CITES and 2022 MAK decisions are given in Table 2 below.

It has been observed that none of the species found around the facility are endangered on a global scale. 9 of the species found around the facility are included in BERN Agreement Annex-2 and 13 of them are included in BERN Agreement Annex-3.

In this context, if we make a critical habitat assessment of the project area in line with faunistic data;

Habitats Important to Critically Endangered (CR) or Endangered (EN) Species

No bird species rated as “CR” or “EN” were detected around the facility. Therefore, depending on the birds around the Ataköy HEPP site, **Criterion 1 is not triggered.**

Criterion 2: endemic And Narrow widespread Species For Important Habitats

Facility around found **these are** the birds **criterion It does not trigger.**

Criterion 3: Habitats Hosting Globally Significant Numbers of Migratory and Foraging Species

It has been determined that there are migratory birds among the listed species in and around the facility area. Considering the topographic location of the facility, the project is not expected to cause a serious problem for migratory bird populations.

Criterion 4: High at level Threatening under And /Or Unique Rare Ecosystems

None of the habitats around the site are listed as high level or unique ecosystems on the IUCN Red List of Ecosystems and therefore this criterion will not be triggered.

Criterion 5: Important Evolutionary Processes With identified habitats

The Ataköy HEPP facility does not differ significantly from the surrounding region in terms of elevation, moisture gradients, or any other geological, ecological, or evolutionary factor that indicates that the region is vital for sustaining unique or distinctive evolutionary processes. Therefore, none of the habitats around the facility **trigger Criterion 5.**

Table 2 Project in the field Found And Finding Likely Bird Types

Type Scientific First Name	English Name	endemism	IUCN (Spherical)	BERN	MAKK	CITES
<i>Anas platyrhynchos</i>	Mallard	Not endemic	LC	Annex 3	Annex 2	KD
<i>Ardea alba</i>	Great Egret	Not endemic	LC	Annex 2	KD	KD
<i>Ardea cinerea</i>	Grey Heron	Not endemic	LC	Annex 3	Annex 1	KD
<i>Aythya fuligula</i>	Tufted Duck	Not endemic	LC	Annex 3	Annex 2	KD
<i>Bucephala clangula</i>	Common Goldeneye	Not endemic	LC	Annex 3	KD	KD
<i>Carduelis carduelis</i>	European Goldfinch	Not endemic	LC	Annex 2	KD	KD
<i>Certhia familiaris</i>	Eurasian Treecreeper	Not endemic	LC	Annex 2	KD	KD
<i>Chroicocephalus ridibundus</i>	Black-headed Gull	Not endemic	LC	Annex 3	Annex 1	KD
<i>Corvus corax</i>	Common Raven	Not endemic	LC	Annex 3	Annex 1	KD
<i>Corvus cornix</i>	Hooded Crow	Not endemic	LC	KD	Annex 2	KD
<i>Egretta garzetta</i>	Little Egret	Not endemic	LC	Annex 2	KD	KD
<i>Fringilla coelebs</i>	Chaffinch	Not endemic	LC	Annex 3	Annex 1	KD
<i>Fulica atra</i>	Common Coot	Not endemic	LC	Annex 3	Annex 2	KD
<i>Garrulus glandarius</i>	Eurasian Jay	Not endemic	LC	KD	Annex 2	KD
<i>Ichthyaetus ichthyaetus</i>	Pallas's Gull	Not endemic	LC	KD	Annex 1	KD
<i>Lanius excubitor</i>	Great Grey Shrike	Not endemic	LC	KD	KD	KD
<i>Linaria cannabina</i>	Common Linnet	Not endemic	LC	Annex 2	KD	KD
<i>Motacilla alba</i>	White Wagtail	Not endemic	LC	Annex 2	KD	KD
<i>Passer montanus</i>	Eurasian Tree Sparrow	Not endemic	LC	Annex 3	Annex 1	KD
<i>Phalacrocorax carbo</i>	Great Cormorant	Not endemic	LC	Annex 3	Annex 1	KD
<i>Pica pica</i>	Eurasian Magpie	Not endemic	LC	KD	Annex 2	KD
<i>Podiceps cristatus</i>	Great Crested Grebe	Not endemic	LC	Annex 3	KD	KD
<i>Podiceps nigricollis</i>	Black-necked Grebe	Not endemic	LC	Annex 2	KD	KD

Type Scientific First Name	English Name	endemism	IUCN (Spherical)	BERN	MAKK	CITES
<i>Pyrrhula pyrrhula</i>	Eurasian Bullfinch	Not endemic	LC	KD	Annex 1	KD
<i>Tachybaptus ruficollis</i>	Little Grebe	Not endemic	LC	Annex 2	KD	KD
<i>Tadorna ferruginea</i>	Ruddy Shelduck	Not endemic	LC	Annex 2	KD	KD
<i>Turdus merula</i>	Common Blackbird	Not endemic	LC	Annex 3	Annex 2	KD
<i>Turdus pilaris</i>	Fieldfare	Not endemic	LC	Annex 3	Annex 1	KD

1.4 Identification of Hydrobiological Biodiversity in the Impact Area of Ataköy Regulator and HEPP Facility

Project area in 4 separate alga to class belonging to total 78 taxon (type And subspecies) diagnosis has been made. Especially the Bacillariophyta (diatom) group of algae has become the richest class in terms of diversity. 52 taxa belonging to this class, 12 belonging to Chlorophyta , 11 belonging to Cyanophyta and 1 taxon belonging to Euglenophyta were found.

Project in the field, sampling stations built in all also raid class Bacillariophyta (Diatom) aspect has been found. of the region type diversity in terms of second raid group Chlorophyta And Cyanophyta is coming. This taxa Turkey's A lot from locality record has been reported as wide One It has distribution. belonging to Chlorophyta species in Spirogyra sp. type comes to the fore. The most dominant species of the Cyanophyta class is Oscillatoria sp. has happened. Species belonging to this genus have a very wide distribution profile. Dinophyta and Euglenophyta classes were found in very few numbers in terms of species number and density. General aspect diagnosis made freshwater alga species all cosmopolitan is to the region There are no specific endemic, rare or endangered species.

During the examinations carried out in the project area, a total of 13 taxa belonging to Rotifera and Copepoda, which are groups that constitute zooplanktonic organisms, were identified. The most dominant group of these is the Rotifera group. Rotifera While there are 12 taxa belonging to the phylum Brachionus calyciflorus and Keratella cochlearis species are dominant. One taxon has been identified from Copepoda , Cyclops sp. was found to be important in this group. The main factors affecting the distribution of zooplankton in freshwater systems can be classified as food, competition, mechanical relations with other living things, predation and parasitism, as well as the physical and chemical properties of the water. Depending on temperature, environmental Changes in factors affect the distribution of zooplanktonic organisms (Wetzel, 1983, Herzig , 1984). Another important factor affecting zooplankton community structure is predation . Many invertebrates and fish feed on Rotifera at least during a certain period of their lives (Herzig , 1980). In addition, current is a disadvantage in the distribution of zooplanktonic organisms.

According to the sampling at 4 different stations in the project area, a total of 17 benthic invertebrate species belonging to four major groups were identified. Of these, 2 belong to Gastropoda , 1 to Crustaceae , 1 to Crustaceae , and 13 to Insecta .

In aquatic ecosystems, benthic organisms have a significant proportion of indicator species. These creatures are also an indicator group of communities that are polluted or under stress, especially as a result of anthropogenic effects. According to the sampling results, no species that could be described as a pollution indicator was found. In addition, in high mountain waters and the Gammarus taxon belonging to Crustacea , which is considered to be a clean water indicator. In particular, this taxon is the dominant group in both stations and are biological indicators that indicate that the area has clean water quality.

Project in the field 6 family belonging to 16 fish taxon has been determined. These in -most more species Cyprinidae It is in the family and 10 species have been identified. These species are common and abundant in Anatolia. Gobiidae species are mostly dominant in the Black Sea basin. Among the designated species, a fish species (*Silurus*) included in the BERN Convention (Annex III) list *glanis*) is available.

Barbus according to the IUCN red list *tauricus* and *Cyprinus carpio* species are classified as VU (vulnerable) while *Salmo macrostigma* DD (data missing) *Oncorhynchus mykiss* NE (not evaluated) and all other species include species protected in LC (low risk) status. The distribution of these species in Turkey is determined by the rivers in the Central and Eastern Black Sea Region . They are basins and are not mountain range endemic species.

Table 3: Project Area and Around belonging Alga Types

BACILLIORIOPHYCEA
Order : pennales
Family: Achnanthacea
<i>Achnanthes flexella</i> there is. <i>flexella</i>
<i>Achnanthes hungarica</i>
<i>Achnanthes lanceolata</i>
<i>Achnanthes minutissima</i>
<i>cocconeis pediculus</i>
<i>cocconeis placenta</i> there is. <i>euglypta</i>
<i>cocconeis placenta</i> there is. <i>lineata</i>
Family: naviculacea
<i>amphora coffeiformis</i>
<i>amphora commutata</i>
<i>amphora normanii</i>
<i>amphora ovalis</i>
<i>amphora veneta</i>
<i>stauroneis smithii</i>
<i>anomoeoneis sphaerophora</i>
<i>anomoeoneis sphaerophora</i> there is. <i>costata</i>
<i>caloneis alpestris</i>
<i>caloneis bacillum</i>
<i>caloneis permagna</i>
<i>caloneis schumanniana</i>
<i>Cymbella affinis</i>
<i>Cymbella caespitosa</i>
<i>Cymbella cistula</i>
<i>Cymbella cymbiformis</i>
<i>Cymbella helvetica</i>
<i>Cymbella lanceolata</i>
<i>Cymbella prostrata</i>
<i>Diploneis ovalis</i>
<i>gomphonema acuminatum</i>
<i>gomphonema angustatum</i>
<i>gomphonema angustum</i>
<i>gomphonema gracile</i>
<i>gomphonema olivaceum</i>
<i>gomphonema parvalum</i>
<i>gomphonema pseudoaugur</i>
<i>gomphonema truncatum</i>
<i>gyrosigma acuminatum</i>
<i>gyrosigma attenuatum</i>
<i>Navicula capitatoradiata</i>
<i>Navicula cincta</i>
<i>Navicula cryptocephala</i>

<i>Navicula cuspidata</i>
<i>Navicula gracilis</i>
<i>Navicula nivalis</i>
<i>Navicula oblonga</i>
<i>Navicula pupula</i>
<i>Navicula pygmaea</i>
<i>Navicula radiosa</i>
<i>Navicula rhyncocephala</i>
<i>Navicula tuscula</i>
<i>Navucila bacillum</i>
<i>neidium affine</i>
<i>neidium dubium</i>
<i>pinnularia borealis</i>
<i>pinnularia microstauron</i>
<i>Rhoicosphenia abbreviata</i>
Family: Epithemiacea
<i>denticula elegance</i>
<i>denticula kuetzingii</i>
<i>Epithemia Argus</i>
<i>Epithemia sorex</i>
<i>Rhopalodia constricta</i>
<i>Rhopalodia gibba</i>
Family: Bacillariacea
<i>Bacillaria paradoxa</i>
<i>hantzschia amphioxys</i>
<i>Nitzschia amphibia</i>
<i>Nitzschia constricta</i>
<i>Nitzschia dissipate</i>
<i>Nitzschia gracilis</i>
<i>Nitzschia hantschiana</i>
<i>Nitzschia hungarica</i>
<i>Nitzschia linearis</i>
<i>Nitzschia obtusa</i>
<i>Nitzschia palea</i>
<i>Nitzschia sigmoidea</i>
<i>Nitzschia tryblionella</i>
Family: surirellacea
<i>Cymatopleura elliptica</i>
<i>Cymatopleura solea</i>
<i>surirella angusta</i>
<i>surirella brebissonii</i>
<i>surirella brightwelli</i>
<i>surirella ovalis</i>
Family: Fragilariacea
<i>diatom hiemala</i>

<i>diatom tenuis</i>
<i>diatom vulgaris</i>
<i>Fragilaria capucina</i>
<i>Fragilaria contruens</i>
<i>Fragilaria crotonensis</i>
<i>Fragilaria dilatata</i>
<i>Fragilaria parasitica</i>
<i>Fragilaria pulchella</i>
<i>Fragilaria ulna</i>
<i>Fragilaria vaucheria</i>
<i>meridion circulare</i>
Ordo : centrales
Family: Melosiraceae
<i>Melosira varians</i>
Family: Thalassiosiraceae
<i>aulacoseira granulate</i>
<i>aulacoseira ambigua</i>
<i>cyclotella comta</i>
<i>cyclotella kützingiana</i>
<i>cyclotella meneghiniana</i>
<i>cyclotella ocellata</i>
<i>stephanodiscus astrea</i>
CYANOPHYCEA
Order : Chroococcales
<i>Chroococcus minutus</i>
<i>Chroococcus turgidus</i>
<i>gomphosphaeria aponina</i>
<i>Merismopedia elegance</i>
<i>Merismopedia glauca</i>
<i>Merismopedia punctate</i>
<i>microcystis aeruginosa</i>
Order : Hormogonales
<i>anabaena komvophoron</i>
<i>anabaena spiroides</i>
<i>calothrix epiphytica</i>
<i>calothrix fusca</i>
<i>Lynbya aestuarii</i>
<i>Lynbya hieronymusii</i>
<i>nostoc commune</i>
<i>Oscillatoria agardhii</i>
<i>Oscillatoria brevis</i>
<i>Oscillatoria formosa</i>
<i>Oscillatoria imnetica</i>
<i>Oscillatoria lamosa</i>
<i>Oscillatoria rubescens</i>

<i>Oscillatoria subbrevis</i>
<i>Oscillatoria tenuis</i>
<i>spirulina laxissima</i>
<i>spirulina major</i>
<i>spirulina</i> sp.
<i>Phormidium mucicola</i>
<i>Schizothrix natans</i>
<i>Gloeotrichia echinulata</i>
Class: CHLOROPHYCEA
Order : Volvocales
<i>Chlamydomonas globosa</i>
<i>Gonium pectoral</i>
Order : Tetrasporales
<i>Gloeocystis</i> sp.
Ordo ; ulothrichales
<i>ulothrix subconstricta</i>
Order : Microsporales
<i>Microspora stagnorum</i>
Ordo ; Cladophorales
<i>Cladophora fracta</i>
<i>Cladophora glomerata</i>
Order : oedogoniales
<i>oedogonium sociale</i>
Order : chlorococcales
<i>Ankistrodesmus falcatus</i>
<i>coelastrum microporum</i>
<i>oocystic borgei</i>
<i>oocystic Crassa</i>
<i>Pediastrum borianum</i>
<i>Pediastrum duplex</i>
<i>Pediastrum simplex</i>
<i>Scenedesmus acuminatus</i>
<i>Scenedesmus ecornis</i>
<i>Scenedesmus in quadricau</i>
<i>tetrahedron minimum</i>
Order : Zygnematales
<i>Mougeotia</i> sp.
<i>Spirogyra circumlineata</i>
<i>Spirogyra dubia</i>
<i>Spirogyra</i> sp. one
<i>Spirogyra</i> sp. 2
<i>Spirogyra</i> sp. 3
<i>Zygnema ericetorum</i>
<i>Zygnema</i> sp.
Order : Desmidiales

<i>Closterium diana</i>
<i>Closterium lunula</i>
<i>cosmarium botrytis</i>
<i>cosmarium garnet</i>
<i>cosmarium margaritatum</i>
<i>staurodesmus sp.</i>
CHRYSTOPHYCEA
Order : Chrysomonadales
<i>Dinobryon sertularia</i>
EUGLENOPHYCEA
Order : Euglenales
<i>Euglena acus</i>
<i>Euglena oxyrus</i>
<i>Euglena polymorpha</i>
<i>Phacus in curvica</i>
<i>Phacus orbicularis</i>
<i>Phacus radialis</i>
<i>trachelomonas sp.</i>
PYRROPHYCEAE
Order : peridinales
<i>ceratium hirundinella</i>
<i>glenodinium sp.</i>
<i>peridinium cinctum</i>
<i>peridinium sp.</i>

Table 4 Project Area And Around belonging zooplanktonic Types

ROTIFERA
<i>brachionus patulus</i>
<i>colurella colurus</i>
<i>colurella uncinata</i>
<i>colurella adriatica</i>
<i>colurella obtusa</i>
<i>cephalodella gibba</i>
<i>cephalodella catellina</i>
<i>cephalodella ventripes</i>
<i>cephalodella Tenuior</i>
<i>cephalodella sp</i>
<i>Dissotrocha sp.</i>
<i>Euchlanis sp.</i>
<i>keratella tecta</i>
<i>Lecane hamata</i>
<i>lepadella patella</i>
<i>lepadella quadricarinata</i>
<i>lepadella sp.</i>
<i>Lindia sp.</i>

<i>polyarthra remata</i>
<i>proales theodora</i>
<i>proales fallaciosa</i>
<i>philodina megalotrocha</i>
Bedelloid rotifer
CLADOCERA
<i>Moina sp.</i>
<i>Alona rectangular</i>
IN COPEPO
<i>cyclops sp.</i>
Nauplius

Table 5 Project Area And Around belonging benthic organisms

Branch: ANNELIDA
Class: CLITELLATA
Set: HIRUDINEA
Family: Erpobdellidae
<i>Erpobdella sp.</i>
Class: OLIGOCHAETA
Set: LUMBRICULIDAE
<i>Lumbriculus variegatus</i> (Müller, 1774)
Set: TUBIFICIDA
Family: tubificidae
<i>tubifex tubifex</i> (Müller, 1774)
<i>limnodrilus udekemianus</i> Claparède , 1862
<i>potamotheix hammoniensis</i> (Michaelsen , 1901)
Family: Naididae
<i>Nais communis</i> Piguët , 1906
<i>Nais variabilis</i> Piguët , 1906
<i>Nais elinguis</i> Müller, 1773
<i>Pristinella jenkinsi</i> (Stephenson , 1931)
Branch: ARTHROPODA
Class: CRUSTACEA
Set: AMPHIPODA
Family: Gammaridae
<i>gammarus pulex</i>
Set: IN DECAPO
Family: Oniscidae
<i>Potamon sp.</i>
Class: INSECTA
Set: HEMIPTERA
Family: Corixidae (nymph)
<i>Micronecta sp.</i>
Family: Hydrometridae
<i>hydrometra sp.</i>

Family:Corixidae
<i>Corixa</i> sp.
Family:Gerridae
<i>Geris</i> sp.
Family:Notonectidae
<i>notonecta</i> sp.

Table 6: Project Area and Around Found Fish Types And Protection Status

				Ekzotik	Doğal	Endemik	Kaynak	BERN	ERL	CITES
Latin Name	Authority	Family	Common Name							
<i>Atherina boyeri</i>	Risso 1810	Atherinidae	Big-scale sand-smelt	-	X	-	*	-	LC	-
<i>Oxynoemachellus angorae</i>	Steindachner, 1897	Balitoridae	Angora loach	-	X	End.	*	-	LC	-
<i>Alburnoides eichwaldii</i>	(Bloch 1782)	Cyprinidae	Schneider	-	X	-	*	-	LC	-
<i>Barbus tauricus</i>	Kessler, 1877	Cyprinidae	Crimean Barbel	-	X	-	*	-	VU	-
<i>Barbus escherichi</i>	Steindachner, 1897	Cyprinidae	Kura Barbel	-	X	-	*	-	LC	-
<i>Capoeta banarescui</i>	Turan, 2006	Cyprinidae	Banarescu's Barbel	-	X	End.	*	-	LC	-
<i>Capoeta sieboldii</i>	Steindachner, 1864	Cyprinidae	Colchic Khrumulya	-	X	-	*	-	LC	-
<i>Alburnus derjugini</i>	(Gueldenstaedt 1772)	Cyprinidae	Danubian Bleak	-	X	-	*	-	LC	-
<i>Chondrostoma regium</i>	(Heckel, 1843)	Cyprinidae	Brond Snout	-	X	-	*	-	LC	-
<i>Cyprinus carpio</i>	(Linnaeus, 1758)	Cyprinidae	Common Carp	-	X	-	*	-	VU	-
<i>Scardinius erythrophthalmus</i>	(Linnaeus, 1758)	Cyprinidae	Rudd	-	X	-	*	-	LC	-
<i>Squalius cephalus</i>	(Linnaeus, 1758)	Cyprinidae	Chub	-	X	-	*	-	LC	-
<i>Knipowitschia caucasica</i>	(Kessler, 1877)	Gobiidae	Caucasian Drarf Goby	-	X	-	*	-	LC	-
<i>Silurus glanis</i>	(Linnaeus, 1758)	Siluridae	Wels	-	X	-	*	App. III	LC	-
<i>Salmo macrostigma</i>	(Duméril, 1858)	Salmonidae	Mountain Trout	-	X	-	*	-	DD	-
<i>Oncorhynchus mykiss</i>	(Walbaum, 1792)	Salmonidae	Rainbow Trout	X	-	-	*	-	NE	-

*	: Literatür'den alınan yayılış bilgileri
*	: Bu çalışmada yakalanan balık türleri
*	: Tarafımızdan önceki yıllarda aynı nehir/çay sistemlerinde yakalanan balık türleri

1.5 Biodiversity Risk Evaluation

1.5.1 Flora

Guidance in terms of floristics at the Ataköy Regulator and HEPP facility site Considering the Note 6 criteria, since there are no plant taxa with CR and EN status, critical species and habitat assessments were not made within the scope of IFC.

➤ Invasive Species

Alien invasive species, either accidentally or intentionally, move beyond their natural geographic range and become problematic. They often arise due to the globalization of the economy through the movement of people and goods, such as ship transportation, shipments of wood products, consignments carrying insects, or transportation of ornamental plants to new regions. The EU developed **Regulation (EU) 1143/2014** to actively deal with alien invasive species .

Alien invasive species (IAS) can cause serious ecological impacts on invaded environments. They may lack natural predators in their new environment, allowing them to increase their abundance and spread rapidly. They can carry diseases, compete with or prey on native species, alter food chains, and even alter ecosystems, for example by altering soil composition or creating habitats that encourage wildfires. These impacts can lead to local or global extinction of native species and ultimately ecological destruction.

IAS can also have significant socio-economic impacts. The European Union (EU) faces losses worth EUR 12 billion annually due to the effects of IAS on human health, infrastructure damage and agricultural damage.

There are more than 12,000 alien species in Europe, 15% of which are invasive. IAS, European threat It is the third most serious threat to the species below. According to a report published in 2015, 354 endangered species (229 animals, 124 plants and 1 fungus) are among all threatened species in Europe. It is clearly affected by IAS, accounting for 19% of the species under it. The newly adopted EU Biodiversity Strategy highlights the importance of tackling this threat by proposing to manage established alien invasive species and reduce the number of Red List species they threaten by 50% by 2030.





In 2013, the European Commission (EC) put forward a proposed law within the framework of an EU Directive on IAS, providing for prevention of their introduction, early warning/rapid response and effective and coordinated management. topics forward It lasted. IUCN, WHITE with made One soap opera service contract And In collaboration with the IUCN Invasive Species Expert Group (ITUG) , it has been providing technical and scientific support to the implementation of the EU IAS Regulation since 2016.

Invasive flora species have been detected in the impact area of the project (*Ailanthus altissima* Table 7). The Biodiversity Action Plan must be followed.

Energy investment areas are areas shaped by human influence. Construction activities arising from the nature of the investment in these areas have been tried to be rehabilitated through landscape planning around the roads and buildings. The ability of some plant species used here to survive and spread in the area causes them to be called invasive species. Apart from rehabilitation studies, species carried by floods or faunistic sources may also have the same nature. For these reasons, in order to preserve the existence of the natural areas within the energy investment area, the individuals and diaspores (reproductive units) of these plants must be cleared from the area.

Timing: Controlling invasive plant species should be done before the plant goes to seed. If the plant is known for its above-ground parts before flowering, the removal is done in the spring; otherwise, it is removed immediately after flowering.

Table 7 Project in the field Found And Finding Likely Invader Species

<p><i>Acer negundo</i> (ash tree leafy maple) Areas open to andropogenic influence</p>	
<p><i>Agropyron repens</i> (Separate herb) Field, open area</p>	
<p><i>Ailanthus altissima</i> (Kokarağaç) andropogenic to the effect open spaces</p>	
<p><i>Amaranthus retroflexus</i> (Fox dry) Field, open area</p>	

Boreava orientalis (Sariat) Field, roadside



chenopodium album (While crying) Flood, flood bearings



Cirsium arvense (Köygöçüren) Flood, flood bearings



conyza canadensis (cypress) andropogenic to the effect open fields



conyza bonariensis (Coyote) andropogenic to the effect open fields



conyza albida (Maplewort) andropogenic to the effect open spaces



Cuscuta campestris (Turkish) meadow-pasture habitats



Lepidium draba (Diġnik) andropogenic to the effect open spaces



nasturtium officinale (Suteresi) streamside



Reseda lutea (Love flower) Path edge, field



rumex acetocella (Sorrel) Path edge, field And barren places



Senecio vernalis (Canary herb) Path edge And person Fields shaped by the influence



Sicyos angulatus (Itdolanbacı) Damp fields



Solanum americanum (Push grape) This edge And damp shady places



portulaca oleracea (Purslane) Field, open area



phytolacca americana (Candymaker's paint) Stream beds and moist habitats



Paspalum distichum (This discrete) This communities inside on channels



Robinia pseudoacacia (White flowering liar acacia) roadsides



Xanthium strumarium (Big Pitarak) Flood, flood bearings



Xanthium spinosum (Yellow Pitarak) Flood, flood bearings



Viscum album (Lime herb) to the trees interference



1.5.2 Fauna

IFC PS-6 and Guidance Considering the Note 6 criteria, the "critical species" evaluation and "critical habitat" evaluation were made in section 5 , and there is no Critical species in terms of fauna (Amphibia, Reptile, Mammal) in the region, and accordingly, there is no critical habitat .

Tortoise (*Testudo graeca*): This species has been seen around the area. Its presence in the region has been assessed sparsely. Since it is not a water-dependent species, it has been evaluated that the facility does not have a negative impact on this species. However, it would be useful to raise awareness about the species and take some precautions to prevent harm to the species, especially in human-tortoise encounters. These issues are detailed in the Biodiversity Action Plan.

Lynx Risk assessment for lynx): *The habitat of the project area and its surroundings seems very suitable for this species.* It is difficult to be seen by humans because it prefers to stay away from humans and is very well camouflaged. Negative feedback from a HEPP facility due to the animal's lifestyle to be affected much possible It is not visible. However type about your awareness It would be useful to increase the number of species and take some precautions to prevent harm to the species, especially in human-lynx encounters. These issues are detailed in the Biodiversity Action Plan.

Risk Assessment for Otter (*Lutra lutra*) : Its presence in the project area is highly likely. There is no direct threat to the species. The species will continue to exist as long as there is sufficient life water in the stream beds .

1.5.3 Ornithology

IFC PS-6 and Guidance Taking into account the Note 6 criteria, the “critical species” evaluation and “critical habitat” evaluation were made in section 5 , and there are no Critical species in terms of birds in the region.

It has been determined that there are many water birds in the Almus Dam Lake from which Ataköy HEPP receives water and along the Yeşilırmak River. However, due to the location of the facility and the good water flow from the facility in all seasons, it has been evaluated that the facility does not pose a serious risk to these birds or other birds.

1.5.4 Hydrobiology

There are no intensive fishing activities in the region. Domestic and industrial pollution sources of residential areas in the upper basin of Ataköy significantly threaten the existence and density of fish species. These species are widespread and abundant in the inland waters of all Anatolia.

Rivers are complex and dynamic ecosystems. By changing these areas, lotic species will be affected and reduced by the loss of breeding grounds along with significant environmental change. River species normally live and spawn in shallow places and look for such habitats after the formation of the dam lake. If they cannot find it, they face losing competition with other lentic species due to the difference in their ecological niches. After the formation of such areas in HEPP-like applications, areas where some species can live should also be protected. Aquatic species; It adapts to the living conditions in a particular river section and creates characteristic biocoenoses shaped by the change of abiotic factors along the stream (Vannote et al. 1980). Algae, zooplankton and benthic organisms living in the stream environment can also create new communities within this biocenosis and create significant changes, especially in the food pyramid. More productive stagnant water environments can constitute important food areas for all aquatic creatures.

1.5.5 Environmental Risk Analysis

The project is not likely to adversely affect human health or the environment, directly or indirectly. Environmental Risk It is called. Estimating the magnitude of risk in all its activities and Deciding whether the risk can be tolerated is called **Risk Assessment** .

Environmental Risk Assessment, Appropriate methods are used to identify environmental hazards in the working environment, reveal risks and control risks through systematic methods. qualitative and/or It is a set of studies conducted using quantitative methods.

In order to determine the environmental impacts that are likely to occur in the periods determined within the scope of the environmental management and monitoring plan and to minimize the impacts of the project by collecting the relevant data and comparing the compliance of the studies carried out with the legislation ;

- of the business management,
- wastes ,
- weather emissions,
- noisy ,
- wastewater ,

like effects will be monitored.

A Waste Management Plan must be prepared for the wastes generated and likely to be generated within the scope of the project, and it is necessary to continue to act in accordance with the issues specified in the waste plan and the applicable legislation at all stages of the project. Waste Management that should be implemented within the scope of the project is given in Table 8 .

Table 8 Implementation Required Waste Management

STAGE	SUBJECT		PRECAUTION
BUILDING AND BUSINESS PHASE	Noisy And Vibration		During the operation phase of the project, noise generation will arise from vehicles. However, still operating owner by activity any One negative of the effect absence for the purpose of All necessary security measures must be taken and any complaints or suggestions from nearby settlements must be taken into consideration and necessary action must be taken by the activity owner.
	Weather emissions	Vehicle Welding	The vehicles used in the project area were published in the Official Gazette dated 11.03.2017 and numbered 30004. into force entering "Exhaust gas emission Control Regulation with Gasoline And Diesel quality "Regulation" to the provisions to be complied with is required.
	Waste Management	domestic Qualified Thick Wastes	Project in the scope of formed domestic qualified thick wastes smell, insect And negative to the effects It must be collected in sealed containers.
		PACKAGING waste	domestic qualified thick of waste management for 02.04.2015 history And 29314 numbered Official Newspaper' It is necessary to comply with the provisions of the "Waste Management Regulation", which was published and entered into force . Back gain possible non- organic origin domestic qualified thick wastes whereas mouth It should be collected in closed domestic waste bins and delivered to the relevant Municipality. Recyclable wastes (glass, paper/cardboard, metal, etc.) must be collected separately from other wastes, deposited in containers, and recycled by companies licensed by the Ministry of Environment, Urbanization and Climate Change. Regarding the issue dated 26.06.2021 and 31523 numbered Official Newspaper' also by publishing into force entering PACKAGING of waste The provisions of the Control Regulation must be complied with. of waste is accumulated containers continually aspect closed by keeping rodent animal And Pest prevention must be ensured.
		domestic Qualified Waste water	Business in the phase formed wastewater in the scope of 31.12.2004 History And 25687 Numbered In the Official Gazette by publishing into force entering "This pollution Control "Regulation" provisions must be complied with. Business during This pollution Control Regulation, Drinking-Use juice The provisions of the Regulation on the Protection of Basins must be complied with. of the project all in stages 23.12.1960 date and 10688 numbered Official Newspaper' also published "Law on Groundwater No. 167" and "On the Protection of Groundwater Against Pollution and Deterioration" published in the Official Gazette No. 28257 dated 07.04.2012 Regulation" to the provisions respect to be is required.

STAGE	SUBJECT		PRECAUTION
		Waste Battery And Accumulators	<p>process in the scope of formed waste battery And accumulators in the scope of, Waste Battery And In accordance with Article 13 of the Accumulator Control Regulation;</p> <p>By collecting waste batteries separately from household waste, businesses that distribute and sell battery products or by municipalities will be created collection to the points waste batteries delivery After becoming waste, the resulting cells, accumulators and/or accumulators used in transformers should not be kept on a sealed surface within the site for more than ninety days until they are delivered to the manufacturer.</p> <p>31.08.2004 history And 25569 numbered Official in the newspaper by publishing into force entering "Waste Battery It is necessary to ensure that waste is disposed of in accordance with the provisions of the "Regulation on the Control of Batteries and Accumulators".</p>
		Medical Wastes	<p>For medical waste generated within the scope of the activity; waste at the source -most member will download system establishment</p> <p>of waste separate collection, moving And temporary storage with One accident instantly Preparing and complying with an in-unit industrial waste management plan that includes the measures to be taken. Collecting medical, hazardous and domestic wastes and packaging waste separately at the source without mixing with each other,</p> <p>Medical wastes with cutting-piercing waste while collecting technical features In the regulation using specified bags and containers, Separate collected medical And domestic qualified waste Only This work for allocation has been Vehicles with separate transported separately waste temporary to store for the purpose of temporary waste warehouse construction will be or It is required to have a container,Legislation to the provisions to be complied with is required.</p>
		Waste Electronic Things	<p>It is possible that electronic waste will be generated during the process. The electronic waste generated is temporary waste storage on the forehead by accumulating licensed disposal/return earnings to the company must be given. Compliance with the provisions of the Regulation on the Control of Waste Electrical and Electronic Equipment, which came into force after being published in the Official Gazette dated 22.05.2012 and numbered 28300.</p> <p>to be is required.</p>
		Waste oils	<p>Within the scope of waste oils generated at all stages of the project, the "Waste Oils Management Regulation", which came into force after being published in the Official Gazette dated 21.12.2019 and numbered 30985, and the "Waste Management Regulation", which came into force after being published in the Official Gazette dated 02.04.2015 and numbered 29314.</p> <p>"Regulation" to the provisions respect to be is required. Formed waste oils Temporary</p>

STAGE	SUBJECT		PRECAUTION
			It is stored in the Waste Storage Area and collected by the Ministry of Environment, Urbanization and Climate Change. licence given by companies back gain and/or disposal ensuring is required
		Waste Vegetable Waste oils	of the project vegetable waste oil formation in case 06.06.2015 history And 29378 numbered Official It is necessary to comply with the relevant provisions of the "Regulation on the Control of Waste Vegetable Oils", which came into force after being published in the Gazette .
		of your life Completed Tires	Any One for this reason promise subject of waste welding in case your life expired tires, dated 25.11.2006 and numbered 26357 "Control of End-of-Life Tires" Regulation”) to the provisions respect to be is required.
		Dangerous Wastes	In case of fluorescent lamps used in lighting, printing toners from printers used in the administrative building, contaminated waste and other hazardous wastes at any stage of the process, they will be stored in the Temporary Waste Storage Area in accordance with waste codes. Environment urbanism And Climate change ministry by licence given by companies back gain and/or disposal ensuring is required
		Oily Mud mud	of the process any One in the phase or equipment care from his work caused Oily sludges must be sent to licensed companies and disposed of.

The relevant applications within the scope of the Regulation on Amendments to the Zero Waste Regulation of the facility have been completed and it has a zero waste certificate. Waste Management Regulation of the Facility in the scope of prepared Industrial Waste Management plan is available is, It has been determined that it has been approved by the Provincial Directorate of Environment, Urbanization and Climate Change. It has been determined that the packaging waste generated in the facility is separated on site in accordance with its codes and is regularly stored in the Temporary Waste Storage Area. The stored waste is recycled through licensed companies.

It has been determined that waste scrap materials are stored on soil ground in some areas of the facility, and care should be taken to store scrap materials on concrete floors.

Domestic wastewater generated within the scope of the project is subjected to package treatment and discharged to the receiving environment. In this context, within the scope of domestic wastewater generated during the operation phase, the provisions of the "Water Pollution Control Regulation", which came into force after being published in the Official Gazette No. 25687 dated 31.12.2004, must be complied with. An analysis must be made by accredited companies by applying to the MELBES system of the Ministry of Environment, Urbanization and Climate Change from the package treatment outlet. In addition, the provisions of the Water Pollution Control Regulation and the Regulation on the Protection of Drinking-Use Water Basins must be complied with during the operation.

Permit within the scope of the Environmental Permit and License Regulation , and it has been determined that no application has been made within this scope. It is necessary to apply for a Wastewater Environmental Permit immediately for the facility in question within the scope of the Environmental Permit and License Regulation.

Atakoy regulator And hes facility biodiversity Action plan							
Action Code	Habitat Class	Action Subject	Action Zone	Action Rationale	Action/Application Details	Action Period	Action Duration
AT1	Business	Fauna Conservation of Species	Project Area And surroundings	Tortoise (<i>Testudo Graeca</i>) Species. Pay Attention to Certain Points of the Project Area Tortoise may come out signs It must be placed.	Biologists who are experts on the subject Training Should Be Provided by	During Operation	April-May 2024 one Times
AT2	All Habitats	Fauna Conservation of Species	Project Area And surroundings	Otter (<i>Lutra Lutra</i>) Species Project Area And Around It Should Be Researched And Training Should Be Provided.	By Expert Biologists Species/ Population Level Monitoring	During Operation	2024 Year September Bear 1 Time
AT3	Business	Fauna Conservation of Species	Project Area And surroundings	Lynx About the Lynx) Species Facility To its employees Education should be given	Biologists who are experts on the subject By Education should be given	During Operation	April-May 2024
AT4	Business	Fauna Conservation of Species	Project Area And surroundings	Anatolia Rough Salamander (<i>Triturus Anatolicus</i>) About the Species Facility Employees Should Be Provided Training	Biologists who are experts on the subject Training Should Be Provided by	During Operation	April-May 2024
AT5	Business	Fauna Conservation of Species	Project Area And surroundings	Caucasian Nosed viperspecies About Facility Employees Should Be Provided Training	subject professional biologists Training Should Be Provided by	During Operation	April-May 2024
AT6	Business	Fauna Conservation of Species	Project Area And surroundings	Pet Cats Should Never Be Keeped in the Facility. Although it is recommended not to have a pet dog, Even Especially Night Free They Should Not Be Allowed To Roam	Company By	During Operation	April-May 2024

Atakoy regulator And hes facility biodiversity Action plan							
Action Code	Habitat Class	Action Subject	Action Zone	Action Rationale	Action/Application Details	Action Period	Action Duration
AT7	Business	Fauna Conservation of Species	Project Area And surroundings	in the region Bear (<i>Ursus Arctos</i>) is available. Human-Bear Encounters Can Sometimes Be Dangerous. bears To the region Garbage containing food should never be left open in the facility to avoid shrinkage. A Garbage Management plan How to Prepare and Store and Remove Garbage That May Attract Bears About APPLICATION It must be reported.	Company By	During Operation	Continually
AT8	Business	Fauna Conservation of Species	Project Area And surroundings	tortoises and other animals from being crushed by vehicles while crossing the roads, vehicle speeds should be limited to 30 km/h within the facility. With Limitation, Transition your priority Each Time to Give to Animals It is necessary.	Company By	During Operation	Continually
AT9	All Habitats	Invader Blocking Species	Project Area And surroundings	Investigation of Invasive Species Found in the Project Area and Surroundings Project Area And Around by watching Dismantling Plan Must Be Prepared	Population by Expert Biologists Level Monitoring	During Operation	one Year Duration in July and August
AT10	Business	Environmental Pollution Prevention	Project Area	Business inside Formed Waste Codes of Hazardous Wastes Suitable in the figure	Company By	During Operation	6 on the moon one

Atakoy regulator And hes facility biodiversity Action plan							
Action Code	Habitat Class	Action Subject	Action Zone	Action Rationale	Action/Application Details	Action Period	Action Duration
				Licensed Companies Recycling /Disposal by to its facilities Must be Delivered .			
AT11	Business	Prevention of Environmental Pollution	Project Area	Licensed in accordance with the Waste Codes for Non-Hazardous Wastes Generated within the Business Companies Delivery to Recycling / Disposal Facilities by It should be done.	Company By	During Operation	per year one
AT11	Business	Prevention of Environmental Pollution	Project Area	Ensuring Control of Domestic Wastewater It is necessary. In this context, from the package purification exit Environment, Ministry of Urbanization and Climate Change, analyzed by accredited companies by applying through the MELBES system. to have it done is required	Company By	During Operation	4 on the moon one
AT11	Business	Regulatory Compliance	Project Area	Obtaining Air-Related Environmental Permit It is necessary.	Company By / Environmental Officer / Environmental Consultancy Firm	During Operation	2022 December

PROJECT TEAM

Name- Surname /Title	In Report/Study Department He is Assigned to	Sign ature
<i>Specialist Biologist Tariq BATUHAN</i>	Project And Report Coordination Ecological Assessment	
<i>Prof. Dr. Mustafa SÖZEN</i>	Fauna Evaluation	
<i>Prof. Dr. Tahir SHOOTER</i>	hydrobiological Evaluation	
<i>Dr. Lecturer Member of Karim SOUTH</i>	Flora And Vegetation Evaluation	
<i>Kaan ÖZGENCİL</i>	Ornithological Evaluation And GIS Studies	
<i>Biologist Mehmet Ali YUKSEL</i>	Ecological Studies And Land Coordination	
<i>Experienced Bird Observer Ayhan BATUHAN</i>	Bird observation	

